VDOT

Virginia Department of Transportation

REQUEST FOR PROPOSALS

A DESIGN-BUILD PROJECT

I-495 Northern Section Shoulder Use

From: South of Old Dominion Overpass
To: George Washington Memorial Parkway

Fairfax County, Virginia

State Project No.: (FO) 0495-029-123, P101, C501

Federal Project No.: STP-495-5(094)

Contract ID Number: C00105130DB72

DATE: February 6, 2014

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PART 1

INSTRUCTIONS FOR OFFERORS

1.0 INTRODUCTION

The Virginia Department of Transportation (VDOT) submits this Request for Proposals (RFP) to solicit design-build Proposals (Proposals) from those entities (Offerors) interested in contracting to serve as the Design-Builder for the I-495 Northern Section Shoulder Use Project in Fairfax County, Virginia (Project). The purpose of this RFP is to determine which Offeror (the "Successful Offeror") will be awarded the Design-Build contract (Design-Build Contract) for the Project.

The Project priorities are:

- Cost - provide the best price for the scope of work identified in this RFP

1.1 Procurement Overview

VDOT will use a single-phase selection process on the Project. In accordance with the requirements of this RFP, interested Offerors will submit a Proposal consisting of a Letter of Submittal, Attachments to the Letter of Submittal, and Price Proposal consistent with Part 1, Section 4.0. Additionally, the Offeror who submitted the lowest Proposal Price will submit the Post Notice of Intent to Award Submittals consistent with Part 1, Section 4.4. Upon completion of the responsiveness review of the Letters of Submittals, Attachments to the Letter of Submittals, Price Proposals, and Post Notice of Intent to Award Submittals, the Offeror who submitted the lowest Proposal Price will be recommended to the Chief Engineer for an award of a fixed price Design-Build Contract by the Commonwealth Transportation Board (CTB).

An Offeror's Proposal must meet all requirements established by this RFP. Requirements of this RFP generally will use the words "shall", "will", or "must" (or equivalent terms) to identify a required item that must be submitted with an Offeror's Proposal. Failure to meet an RFP requirement may render an Offeror's Proposal non-responsive.

The award of a contract to the Offeror who submitted the lowest Proposal Price, whose Proposal is responsive and whose Proposal Price is within VDOT's budget for design and construction services will be made in accordance with Part 1, Section 8.0 of this RFP.

2.0 BACKGROUND INFORMATION

2.1 Project Description

The Project involves the milling and overlay and re-striping of Interstate 495 (I-495) to convert the existing northbound inside shoulder to a lane-controlled travel lane during the AM

and PM peak periods. The shoulder use will begin at the existing terminus of the Express Lanes (approximately 0.2 miles south of Old Dominion Drive) and end in the vicinity of the George Washington Memorial Parkway for a total length of approximately 1.8 miles. In order to accommodate this shoulder use lane, all lanes of I-495 Northbound will be repaved and restriped within this vicinity. The shoulder lane will not be tolled, and all vehicles will be allowed to access the shoulder. It is noted that the description and length are approximate only and are based on the RFP Conceptual Plans included in the RFP Information Package. The final Project length may vary depending on the Design-Builder's final design; however, any change in the project limits requires approval by VDOT.

The Project includes, but is not limited to, the following design and construction items: (a) surveying, (b) asphalt paving, (c) underlying concrete joint repairs, (d) signing and striping, (e) overhead sign structures and associated lighting, (f) dynamic message signs, (g) overhead lane control system, (h) ITS devices/systems (DMS, CCTV, detection, video analytics, lane control), (i) electrical, communications, and fiber optic conduit, wiring, and hook-ups, (j) configuring, integrating, and testing new ATM field devices for proper operation and control, as well as providing field support for system software integration and testing, (k) drainage, erosion and sediment control, and stormwater management, (l) concrete barrier and pier protection, (m) maintenance of traffic, and (n) inspection, testing, quality assurance and control. Refer to Part 2 of the RFP (Technical Requirements) for the scope of work, technical information and requirements.

2.2 Legislative Authority

§33.1-12(2)(b) of the Code of Virginia authorizes VDOT and the Commonwealth Transportation Board (CTB) to develop and award contracts using the Design-Build contracting method. In accordance with the law, VDOT completed the Finding of Public Interest (FOPI) dated January 23, 2014. The FOPI is available for inspection upon request.

2.3 Estimate Contract Value

VDOT's current estimated contract value for this Project is approximately $15,101,000.

2.4 Procurement Schedule and Project Milestones

2.4.1 VDOT currently anticipates conducting the procurement of the Project in accordance with the following list of milestones leading to award of the Design-Build Contract. This schedule is subject to revision and VDOT reserves the right to modify this schedule as it finds necessary, in its sole discretion.

.1	Advertise RFP	02/06/14
.2	Pre-Proposal Meeting w/ Offerors	02/12/14 (10:00 a.m. prevailing local time)
.3	Utility Meeting w/ Offerors	02/12/14 (11:00 a.m. prevailing local time)
.4	RFP Questions Due to VDOT	02/19/14 (4:00 PM prevailing local time)

.5	VDOT responses to Questions or Clarifications	02/26/14
.6	Letter of Submittal & Price Proposal Due	03/12/14 (4:00 PM prevailing local time)
.7	Open Letters of Submittal & Price Proposals	03/14/14 (10:00 AM prevailing local time)
.8	Notice of Intent to Award	03/21/14
.9	CTB Approval/ Notice to Award	04/16/14
.10	Design-Build Contract Execution	05/07/14
.11	Notice to Proceed	05/09/14
.12	Interim Milestone	12/31/14
.13	Final Completion	03/31/15

2.4.2 VDOT has established the following milestones for contract completion dates for the Project, and Offerors shall base their proposals on such milestones.

.1 Interim Milestone and Final Completion shall be no later than the date(s) set forth in Part 1, Section 2.4.1. The Interim Milestone is defined as all paving, striping, dynamic message signs, overhead lane control system, ITS devices and systems, ATM field device and software integration and preliminary Acceptance Testing, signs associated with the shoulder operation, drainage, concrete barrier and pier protection, and other required items completed, accepted, and fully operational; and the shoulder use lane opened to traffic.

.2 If an Offeror proposes Interim Milestone and Final Completion date(s) earlier than those shown in Part 1, Section 2.4.1 above, then such proposed date(s) will be deemed by VDOT as the contractual completion date(s) for the Design-Build Contract for all purposes, including liquidated damages.

2.5 VDOT's Point of Contact and Project Reference

VDOT's sole point of contact (POC) for matters related to the RFP shall be Bryan W. Stevenson, P.E. VDOT's POC is the only individual authorized to discuss this RFP with any interested parties, including Offerors. All communications with VDOT's POC about the Project or this RFP shall be in writing, as required by applicable provisions of this RFP.

Name:	Bryan W. Stevenson, P.E.
Address:	Virginia Department of Transportation 1401 East Broad Street Annex Building, 8th Floor Richmond, VA 23219
Mailing Address:	1401 East Broad Street Richmond, VA 23219

Phone:	(804) 786-6929
Fax:	(804) 786-7221
E-Mail:	Bryan.Stevenson@vdot.virginia.gov

VDOT disclaims the accuracy of information derived from any source other than VDOT's POC, and the use of any such information is at the sole risk of the Offeror.

All written communications to VDOT from Offerors shall specifically reference the correspondence as being associated with "I-495 Northern Section Shoulder Use, Project No. (FO) 0495-029-123, P101, C501".

2.6 The RFP Information Package

An RFP Information Package is available for interested Offerors on CD or DVD ROM for $50.00. Interested Offerors should complete the RFP Information Package Order Form included as Attachment 2.6. The instructions for submittal and payment are included on the form.

The contents of the RFP Information Package are listed in Part 2 of the RFP.

2.7 RFP Documents

2.7.1 The documents included in this RFP (collectively the RFP Documents) consist of the following parts and any addenda, as well as any attachments and exhibits contained or identified in such sections:

PART 1 – REQUEST FOR PROPOSALS, INSTRUCTIONS FOR OFFERORS
PART 2 – PROJECT TECHNICAL INFORMATION AND REQUIREMENTS INCLUDING RFP INFORMATION PACKAGE (CD-ROM)
PART 3 – LUMP SUM DESIGN-BUILD AGREEMENT
EXHIBIT 1 TO PART 3 – PROJECT SPECIFIC TERMS
PART 4 – GENERAL CONDITIONS
PART 5 – DIVISION I AMENDMENTS TO STANDARD SPECIFICATIONS

VDOT has developed standard template Part 3, 4 and 5 (July 2013) documents. These documents have been compiled into a standard package available for download at the following location:

http://www.virginiadot.org/business/design-build.asp

2.7.2 Each Offeror shall review the proposed RFP Documents and provide questions or requests for clarification, including but not limited to terms that it considers to be ambiguous or to which it takes exception. Such questions or requests for clarification will be submitted to

VDOT's POC within the time specified in Part 1, Section 2.4.1 of this RFP. VDOT will review all questions and/ or requests for clarification received and, if it deems appropriate, in its sole discretion, may modify the RFP Documents through an Addendum. Offerors shall base their Proposals on the terms and conditions of the RFP Documents included in the latest issued Addendum.

2.7.3 Addenda to the RFP Documents, if any, will be posted on the VDOT Project website. Hard copies of the RFP Documents and Addenda on file will be available upon request. If there is any conflict between the electronic format and hard copy of any RFP Documents or Addenda, the hard copy on file shall control.

2.8 Deviations from the RFP Documents

No deviations from the requirements of the RFP Documents will be valid unless they are set forth in an Addendum prior to receipt of the Offeror's Letter of Submittal.

2.9 Obligation to Meet All of the Requirements of the RFP Documents

If awarded the Design-Build Contract, the Design-Builder will be obligated to meet all of the requirements of the RFP Documents for the Contract Price and within the Contract Time(s). Offerors are on notice that VDOT's review of Attachments to the Letter of Submittal, as well as its issuance of any Addendum, shall not be construed as relieving the Design-Builder of this obligation. Offerors are on further notice that VDOT will review, comment and/or approve the Design-Builder's final design after the award of the Design-Build Contract, in accordance with Part 4, Article 2.

3.0 GENERAL PROCEDURES AND REQUIREMENTS

Part 1, Section 3.0 provides general information, procedures and requirements related to the pre-submittal period to be followed by all Offerors.

3.1 Offeror's Pre-Submittal Responsibilities and Representations

3.1.1 Each Offeror shall be solely responsible for examining the RFP Documents, including any Addenda issued to such documents, and any and all conditions which may in any way affect its Proposal or the performance of the work on the Project, including but not limited to:

.1 Examining and carefully studying the RFP Documents, including any Addenda and other information or data identified in the RFP Documents;

.2 Visiting the Project Site and becoming familiar with and satisfying itself as to the general, local, and Site conditions that may affect the cost, progress, or performance of its work on the Project;

.3 Addressing all potential impacts with affected utility owners and third parties and ensuring all such impacts have been included in the Offeror's Proposal;

.4 Becoming familiar with and satisfying itself as to all federal, state, and local laws and regulations that may affect the cost, progress, or performance of its work on the Project;

.5 Determining that the RFP Documents are sufficient to indicate and convey understanding of all terms and conditions for the performance of Offeror's work on the Project; and

.6 Notifying VDOT in writing, in accordance with the process set forth in Part 1, Section 7.0, of all conflicts, errors, ambiguities, or discrepancies that the Offeror discovers in the RFP Documents.

Any failure to fulfill these responsibilities is at the Offeror's sole risk, and no relief will be provided by VDOT.

3.2 Pre-Proposal Meeting

VDOT will hold a Pre-Proposal meeting of potential Offerors on the date and time set forth in Part 1, Section 2.4.1 at the VDOT NOVA District Office in the Accotink Conference Room, located at 4975 Alliance Drive, Fairfax, VA 22030.

3.3 Utility Meeting

VDOT will hold a Utility Meeting of potential Offerors on the date and time set for in Part 1, Section 2.4.1 at the VDOT NOVA District Office in the Accotink Conference Room, located at 4975 Alliance Drive, Fairfax, VA 22030.

3.4 Acknowledgment of Receipt of RFP, Revisions and Addenda

Offeror shall provide VDOT the Acknowledgement of Receipt of RFP, Revisions, and/or Addenda (Form C-78-RFP), set forth as Attachment 3.4, signed by the Offeror's Point of Contact or Principal Officer, with submission of the Proposal, which will serve as acknowledgement that Offeror has received this RFP.

4.0 CONTENTS OF PROPOSALS

Part 1, Section 4.0 describes specific information that must be included in the Letter of Submittal, Attachments to the Letter of Submittal, Price Proposal, and Post Notice of Intent to Award Submittal. The format for the presentation of such information is described in Part 1, Section 6.0.

4.0.1 Offerors will submit a two part Proposal:

.1 The Letter of Submittal will consist of all information required under Part 1, Section 4.1 and Section 4.2 and will be submitted in a sealed package by the date and time set forth in Part 1, Section 2.4.1, and separate from that submitted for the Price Proposal. Offerors shall complete the Letter of Submittal Checklist, Attachment 4.0.1.1, and include it with their Letter of Submittal. The purpose of the Letter of Submittal checklist is to aid the Offeror in ensuring all submittal requirements have been included in the Offeror's Letter of Submittal and to provide a page reference indicating the location in the Letter of Submittal of each submittal requirement. It shall also include an original signed copy of Acknowledgement of Receipt of RFP, Revisions and/ or Addenda (Form C-78-RFP), Attachment 3.4.

.2 The Price Proposal will consist of the information required by Part 1, Section 4.3, and will be submitted in a sealed package by the date and time set forth in Part 1, Section 2.4.1, and separate from that submitted for the Letter of Submittal. Offerors shall complete the Price Proposal Checklist, Attachment 4.0.1.2, and include it with their Price Proposal. The purpose of the Price Proposal Checklist is to aid the Offeror in ensuring all submittal requirements have been included in the submittal.

4.0.2 Offerors shall be aware that VDOT reserves the right to conduct an independent investigation of any information, including prior experience, identified in a Proposal by contacting project references, accessing public information, contacting independent parties, or any other means. VDOT also reserves the right to request additional information from an Offeror during the evaluation of that Offeror's Proposal.

4.0.3 If an Offeror has concerns about information included in its Proposal that may be deemed confidential or proprietary, the Offeror shall adhere to the requirements set forth by Part 1, Section 11.1.2.

4.1 Letter of Submittal

4.1.1 The Letter of Submittal shall be on the Offeror's letterhead and identify the full legal name and address of the Offeror. The Offeror is defined as the legal entity who will execute the Contract with VDOT. The Letter of Submittal shall be signed by an authorized representative of Offeror's organization. All signatures shall be original and signed in ink.

4.1.2 Declare Offeror's intent, if selected, to enter into a contract with VDOT for the Project in accordance with the terms of this RFP.

4.1.3 Pursuant to Part 1, Section 8.2, declare that the offer represented by the Price Proposal will remain in full force and effect for one hundred twenty (120) days after the date the Proposal is submitted to VDOT ("Letter of Submittal & Price Proposal Due Date").

4.1.4 Identify the name, title, address, phone and fax numbers, and e-mail address of an individual who will serve as the Point Of Contact for the Offeror.

4.1.5 Identify the name, address and telephone number of the individual who will serve as the Principal Officer for the Offeror. (e.g., President, Treasurer, Chairperson of the Board of Directors, etc.).

4.1.6 Identify whether the Offeror will be structured as a corporation, limited liability company, general partnership, joint venture, limited partnership or other form of organization. Identify the team members who will undertake financial responsibility for the Project and describe any liability limitations. If the Offeror is a limited liability company, partnership or joint venture, describe the bonding approach that will be used and the members of such organizations who will have joint and several liability for the performance of the work required for the Project. A single 100% performance bond and a single 100% payment bond shall be provided regardless of any co-surety relationship.

4.1.7 Identify the full legal name of both the Lead Contractor and the Lead Designer for this Project. The Lead Contractor is defined as the Offeror that will serve as the prime/ general contractor responsible for overall construction of the Project and will serve as the legal entity who will execute the Contract with VDOT. The Lead Designer is defined as the prime design consulting firm responsible for the overall design of this Project.

4.1.8 State the Offeror's VDOT prequalification number and current VDOT prequalification status (active, inactive, etc.) in the Letter of Submittal. An 8.5" x 11" copy of the Offeror's VDOT prequalification certificate or evidence indicating Offeror is currently prequalified will be provided in the Attachments to the Letter of Submittal. The Offeror must be in good standing and prequalified to bid on the Project as outlined in VDOT's Rules Governing Prequalification Privileges at the time of the Letter of Submittal & Price Proposal Due Date.

4.1.9 Provide a written statement within the Letter of Submittal that the Offeror is committed to achieving an eleven percent (11%) DBE participation goal for the entire value of the contract.

4.1.10 Provide Interim Milestone and Final Completion Dates. The proposed dates herein shall be no later than the date(s) set forth in Part 1, Section 2.4.1. Earlier Interim Milestone and Final Completion date(s) will be deemed by VDOT as the contractual completion date(s) for the Design-Build Contract for all purposes, including liquidated damages in accordance with Part 1, Section 2.4.2.

4.2 Attachments to the Letter of Submittal

4.2.1 Provide the full legal name and address of all affiliated and/or subsidiary companies of the Offeror on Attachment 4.2.1. Indicate which companies are affiliates and which companies are subsidiaries. An affiliate shall be considered as any business entity which is closely associated to another business entity so that one entity controls or has power to control the other entity either directly or indirectly; or, when a third party has the power to control or controls both; or where one business entity has been so closely allied with another business entity through an established course of dealings, including but not limited to the lending of financial wherewithal, engaging in joint ventures, etc. as to cause a public perception that the two firms are one entity. Firms which are owned by a holding company or a third party, but otherwise meet the above conditions and do not have interlocking directorships or joint officers serving, are not considered to be affiliates.

If the Offeror does not have any affiliated and/or subsidiary companies, other than the Offeror's legal business entity, indicate this on Attachment 4.2.1.

The Offeror shall not submit more than one Proposal for this Project. If more than one Proposal is submitted by an individual, partnership, Corporation, or any party of a Joint Venture, then all Proposals submitted by that individual, partnership, Corporation or Joint Venture shall be disqualified. If more than one Proposal is submitted by an affiliate or subsidiary company of an individual, partnership, Corporation or any party of a Joint Venture, then all Proposals submitted by that individual, partnership, Corporation or Joint Venture shall be disqualified.

4.2.2 Execute and return the attached Certification Regarding Debarment Form(s) Primary Covered Transactions, set forth as Attachment 4.2.2(a) and Certification Regarding Debarment Form(s) Lower Tier Covered Transactions, set forth as Attachment 4.2.2(b) for the Offeror and any subconsultant, subcontractor, or any other person or entity on the Offeror's proposed team.

If the Offeror and any subconsultant, subcontractor, or any other person or entity are unable to execute the certification, then prospective participant shall attach an explanation to its Certification Regarding Debarment Form. Failure to execute the certification will not necessarily result in denial of award, but will be considered in determining the Offeror's responsibility. Providing false information may result in federal criminal prosecution or administrative sanctions.

4.2.3 Provide an 8.5" x 11" copy of the Offeror's VDOT prequalification certificate or evidence indicating Offeror is currently prequalified as outlined in Section III H in VDOT's Rules Governing Prequalification Privileges shall be satisfied.

4.2.4 Include a letter from a surety or insurance company (with a Best's Financial Strength Rating of A minus and Financial Size Category VIII or better by A.M. Best Co.) stating that the Offeror is capable of obtaining a performance and payment bond based on the current estimated contract value referenced in Part 1, Section 2.3, which bonds will cover the Project and any warranty periods. The letter of surety shall clearly state the rating categorization noted above

and reference the estimated contract value as identified in Part 1, Section 2.3, in a manner similar to the notation provided below:

"*As surety for [the above named Contractor], [XYZ Company] with A.M. Best Financial Strength Rating [rating] and Financial Size Category [Size Category] is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project*."

4.2.5 All business entities on the Offeror's proposed team must comply with the law with regard to their organizational structure, any required registration with governmental agencies and/or entities, and any required governmental licensure, whether business, commercial, individual, or professional in nature, and nothing herein is intended to contradict, nor to supersede, State and Federal laws and regulations regarding the same. All business entities on the Offeror's proposed team shall be eligible at the time of their Proposal, under the law and relevant regulations, to offer and to provide any services proposed or related to the Project. All business entities on the Offeror's proposed team shall satisfy all commercial and professional registration requirements, including, but not limited to those requirements of the Virginia State Corporation Commission (SCC) and the Virginia Department of Professional and Occupational Regulations (DPOR). Full size copies of DPOR licenses and SCC registrations, or evidence indicating the same, should be included in the appendix of the Letter of Submittal. Additionally, the following information should be provided on Attachment 4.2.5:

.1 The SCC registration information for each business entity on the Offeror's proposed team. Provide the name, registration number, type of corporation and status.

.2 For this Project, the DPOR registration information for each office practicing or offering to practice any professional services in Virginia. Provide the business name, address, registration type, registration number and expiration date.

Failure to comply with the law with regard to those legal requirements in Virginia (whether federal or state) regarding your organizational structure, any required registration with governmental agencies and/or entities, and any required governmental licensure, whether business, individual, or professional in nature may render your Proposal, in the sole and reasonable discretion of the Department, non-responsive and in that event your Proposal may be returned without any consideration or evaluation.

4.2.6 Complete the Work History Forms for both the Lead Contractor and Lead Designer.

Identify on the Lead Contractor Work History Form (Attachment 4.2.6(a)) three (3) projects that have completed construction in the last fifteen (15) years and were constructed by the Lead

Contractor for this Project as identified in Part 1, Section 4.1.6. Relevant experience to be identified on the Lead Contractor Work History Form shall include:

1. At least one (1) Interstate or major arterial paving project with a minimum contract value of $10,000,000.

2. At least one (1) Interstate or major arterial projects located in urban areas with a minimum contract value of $15,000,000.

If work identified on the Lead Contractor Work History Form was performed by an affiliated or subsidiary company of the Lead Contractor, explain the justification for utilizing an affiliated or subsidiary company to satisfy the relevant project experience on this Project and the control the Lead Contractor will exercise over the affiliated or subsidiary company on this Project. Additionally, identify the full legal name of the affiliated or subsidiary company, describe their role on this Project and discuss how the Lead Contractor will be responsible for the work performed by the affiliated or subsidiary company on this Project. For all projects on the Lead Contractor Work History Form, identify the prime design consultant responsible for the overall project design of the projects listed on the Lead Contractor Work History Form.

Identify on the Lead Designer Work History Form (Attachment 4.2.6(b)) three (3) projects that have completed construction within the last fifteen (15) years and were designed by the Lead Designer for this Project identified in Part 1, Section 4.1.6. Relevant experience to be identified on the Lead Designer Work History Form shall include:

1. At least one (1) Interstate or major arterial project located in urban areas with a minimum construction value of $15,000,000.

2. At least one (1) ITS highway project with a minimum construction value of $2,000,000.

For all projects on the Lead Designer Work History Form, identify the prime/ general contractor responsible for overall construction of the projects listed on the Lead Designer Work History Form.

4.2.7 Provide Conceptual Roadway Plans showing the general Project layout. Include 11” x 17” copies of (a) plan view, and (b) typical sections of the proposed improvements to I-495. Minimally, the Conceptual Roadway Plans shall meet the requirements of the Design Criteria Table (Attachment 2.2 of Part 2), indicate that the limits of construction are within the existing/proposed right-of-way limits shown in the RFP Conceptual Plans, and, as applicable, identify:

.1 Lane widths
.2 Shoulder widths
.3 Minimum pavement sections

.4 Locations of full depth pavement and milling and overlay
.5 Locations of joint repair
.5 Cross slopes
.6 Plan location of all signs
.7 Conceptual layout for ITS devices

4.2.8 Provide a written statement that the Offeror's Technical Proposal is fully compliant with the Design Criteria Table included in the RFP Technical Requirements (Part 2) as Attachment 2.2 and all other requirements of this RFP. Also, certify that the Offeror's proposed limits of construction to include all stormwater management facilities are located within the right-of-way limits shown on the RFP Conceptual Plans with the exception of permanent and temporary easements and that the Offerors design concept does not require Design Exceptions and/or Design Waivers unless they are identified or included in the RFP or Addendum.

4.3 Price Proposal

The information and attachments provided in Part 1, Section 4.3 shall be submitted on the due date and time set forth in Part 1, Section 2.4.1. If the sealed Price Proposal is not submitted on the above specified date and time, then the Offeror shall be deemed non-responsive and will be disqualified from participating in the design-build procurement for this Project. Offerors shall complete the Price Proposal Checklist, Attachment 4.0.1.2, and include it with their Price Proposal. The purpose of the Price Proposal Checklist is to aid the Offeror in ensuring all submittal requirements have been included in the submittal. Additionally, the Offeror shall:

4.3.1 Specify, on the form set forth in Attachment 4.3.1, a Cost Breakdown Summary in whole numbers and the Proposal Price, in both numbers and words. Offerors are advised that the prices set forth above shall be considered full compensation to Offeror for all design and construction of this Project, to include: labor, material, equipment, permits, taxes, overhead, profit and any other expenses of any kind applicable to the work to be undertaken by Offeror associated with such work, including but not limited to any escalation, extended site overhead, acceleration of schedule, and/or shift of construction sequencing.

4.3.2 Provide the required information set forth in Part 3, Section 6.3, Adjustments to Asphalt, Fuel and Steel Prices.

4.3.3 Provide the Proposal Guaranty required by Section 102.07 of Division I Amendments of the VDOT Road and Bridge Specifications. A copy of the Proposal Guaranty Form C-24 may be found at http://vdotforms.vdot.virginia.gov/ . **If the Price Proposal Guaranty is not submitted with the Price Proposal, then the Offeror shall be deemed non-responsive and will be disqualified from participating in the Design-Build procurement for this Project.**

4.3.4 Provide the Sworn Statement Forms (C-104, C-105), as set forth in Attachments 4.3.4(a) and 4.3.4(b) respectively.

4.3.5 For those DBE's whom Offeror intends to use as a subcontractor, provide the Minimum DBE Requirements Form (C-111; Attachment 4.3.5(a)), and/or DBE Good Faith Effort Documentation Form (C-49; Attachment 4.3.5(b)), if applicable (including Good Faith Effort supporting documentation), and Certification of Binding Agreement Form (C-112; Attachment 4.3.5(c)). The documentation provided on the DBE forms listed above will be subject to review and approval by VDOT's Civil Rights Division. Price Proposals that contain DBE documentation that is not approved by VDOT's Civil Rights Division may be deemed non-responsive.

4.4 Post Notice of Intent to Award Submittals

Within three (3) calendar days of Notice of Intent to Award, the Successful Offeror shall deliver to VDOT documents required by this Section for its review and approval. VDOT may seek clarifications on any such documents. If VDOT disapproves any such submittal, VDOT may, in its sole discretion, disqualify the Successful Offeror.

4.4.1 Furnish an organizational chart showing the "chain of command" of all companies, including individuals responsible for pertinent disciplines, proposed on the Offeror's team. Identify major functions to be performed and their reporting relationships in managing, designing and constructing the Project. The organizational chart should show a clear separation and independence of a contractual relationship of any kind with the Quality Control (QC) and Quality Assurance (QA) programs for construction activities. This includes separation between QA and QC inspection and field/ laboratory testing in accordance with the Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects, January 2012.

4.4.2 Provide the identity of and information about the following Key Personnel listed below. This information is to be provided on the Key Personnel Resume Form attached hereto as Attachment 4.4.2.

.1 **Design-Build Project Manager** – This individual should be responsible for the overall Project design, right-of-way acquisition, construction, quality management and contract administration for the Project.

.2 **Quality Assurance Manager (QAM)** – This individual shall be from an independent firm that has no contractual relationship of any kind with the Quality Control (QC) firm unless the Design-Builder's firm is to self perform the QC and no involvement in construction operations (to include QC inspection and testing) for the Project. The QAM shall be responsible for the quality assurance (QA) inspection and testing of all materials used and work performed on the Project, to include monitoring of the contractor's quality control (QC) program. The QAM

will ensure that all work and materials, testing, and sampling are performed in conformance with the contract requirements and the "approved for construction" plans and specifications. This individual shall be a registered, licensed, Professional Engineer in the Commonwealth of Virginia.

.3 **Design Manager** – This individual shall be responsible for coordinating the individual design disciplines and ensuring the overall Project design is in conformance with the Contract Documents. The Design Manager shall be responsible for establishing and overseeing a QA/QC program for all pertinent disciplines involved in the design of the Project, including, review of design, working plans, shop drawings, specifications, and constructability of the Project. This individual shall be a registered, licensed, Professional Engineer in the Commonwealth of Virginia.

.4 **Construction Manager** – This individual, who will be required to be on the Project site for the duration of construction operations, shall be responsible for managing the construction process to include all Quality Control (QC) activities to ensure the materials used and work performed meet contract requirements and the “approved for construction” plans and specifications. This individual shall hold a Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) or a statement shall be included indicating this individual will hold these certifications prior to the commencement of construction. Note that effective July 1, 2013 the administration of the Virginia Erosion and Sediment Control and Stormwater Management regulatory programs was transferred from the Virginia Department of Conservation and Recreation (DCR) to the Virginia Department of Environmental Quality (DEQ). Current active RLD Certifications are still valid.

.5 **Electrical/ITS Supervising Technician:** This individual should serve as the lead electrical and ITS supervisor during construction and shall be responsible for wiring, splicing, ITS device installation, inspection and testing. The Electrical/ITS Supervisor shall be certified as a Master Electrician, Licensed by the Virginia Department of Professional and Occupational Regulation Board for Contractors Tradesman and shall successfully complete OSHA training in electrical safety for Arc Flash Protection and Lockout/Tagout, or a statement shall be included indicating this individual will have obtained these certifications and training prior to the commencement of construction. This individual shall report directly to the Construction Manager.

4.4.3 In accordance with the requirements set forth in Part 1, Section 4.2.5, the following information should be provided on Attachment 4.4.3:

.1 For this Project, the DPOR license information for each Key Personnel practicing or offering to practice professional services in Virginia. Provide the name, the address, type, the registration number, expiration date and the office location where each Key Personnel member is offering to practice professional services in Virginia.

.2 For this Project, the DPOR license information for those services not regulated by the Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects (i.e. real estate appraisal). Provide the name, address, type, the registration number, and the expiration date of the individual offering services in Virginia.

4.4.4 Identify and submit a DBE subcontracting narrative indicating how the DBE participation goal of eleven percent (11%) will be met for the entire value of the contract.

4.4.5 Provide a Proposal Schedule for the entire Project outlining the Offeror's proposed plan to accomplish the Work. The Proposal Schedule submission should include:

.1 **Proposal Schedule:** The Proposal Schedule should depict the Offeror's proposed overall sequence of work, and times during each work task and deliverable required to complete the Project will be accomplished. The Proposal Schedule should be organized using a hierarchical Work Breakdown Structure (WBS), broken down into major phases of the Project (i.e. project milestones, project management, Scope Validation Period, design, public involvement, environmental, right-of-way, utility, and construction, etc.) The Proposal Schedule should depict the anticipated project critical path (based on the longest path), reviews by Department, FHWA, other regulatory agencies; and work by suppliers, subcontractors, and other involved parties, as applicable.

.2 **Proposal Schedule Narrative:** A Proposal Schedule Narrative describing the Offeror's proposed overall plan to accomplish the Work including, but not limited to the overall sequencing, a description and explanation of the Critical Path, proposed means and methods, and other key assumptions on which the Proposal Schedule is based.

In addition to hard copy, the Offeror shall provide "PDF" copies of the Proposal Schedule and narrative; as well as a back-up copy of the Proposal Schedule's source document in any of the following electronic file formats: "XER", "PRX","MPP", or "MPX", on a CD-ROM. Offerors are to note that in addition to the Proposal Schedule, the Design-Builder will develop and submit a Preliminary Schedule and a Baseline Schedule in accordance with Part 3, Section 11.1.

4.4.6 Provide a Schedule of Items for the Price Proposal utilizing the Schedule of Items Form attached hereto as Attachment 4.4.6. This Schedule of Items shall identify the material quantities

and costs of each proposed pay item that make up the total Contract Price. The material quantities and costs listed for each proposed pay item shall, to the extent possible, correspond to VDOT's list of standard and non-standard pay items. Any items considered for price adjustments shall be identified. The value associated with each pay item shall be inclusive of all direct and indirect costs, overhead, profit and any other expenses of any kind. The values and quantities shall be clearly supported by the escrowed pricing documents.

4.4.7 Submit, for the Price Proposal, a proposed monthly payment schedule showing the anticipated monthly earnings schedule on which funds will be required.

4.4.8 Provide the Escrow Proposal Documents in accordance with Part 1, Section 11.7

5.0 PROPOSAL EVALUATION AND RESPONSIVENESS REVIEW

5.0.1 VDOT will open and read the Price Proposals publicly on the date and time set forth in Part 1, Section 2.4.1.

5.0.2 After opening the Price Proposals, VDOT will determine if the Proposal of the Offeror with the lowest Proposal Price for the Project is responsive.

5.0.3 If VDOT considers the Proposal of the Offeror with the lowest Proposal Price to be non-responsive, then VDOT will determine if the Proposal of the Offeror with the next lowest Proposal Price is responsive.

6.0 PROPOSAL SUBMITTAL REQUIREMENTS

Part 1, Section 6.0 describes the requirements that all Offerors must satisfy in submitting Proposals. Failure of any Offeror to submit its Proposal in accordance with this RFP may result in rejection of its Proposal.

6.1 Due Date, Time and Location

6.1.1 All Proposals must be received by the Due Date and time set forth in Part 1, Section 2.4.1. All submissions, including hand-delivered packages, US Postal Service regular mail, US Postal Service express mail, or private delivery service (FEDEX, UPS, courier etc.) must be delivered to the following individual at the following address:

Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219
Attention: Brenda L. Williams

Neither fax nor email submissions will be accepted. Offerors are responsible for effecting delivery by the deadline above, and late submissions will be rejected without opening, consideration, or evaluation, and will be returned unopened to the sender. VDOT accepts no responsibility for misdirected or lost Proposals.

6.2 Format

The Proposal format is prescribed below. If VDOT determines that a Proposal does not comply with or satisfy requirements of this Section, VDOT may find such Proposal to be non-responsive and may be disqualified from participating in the design-build procurement for this Project.

6.2.1 Two (2) separate sealed parcels, one (1) containing the Letter of Submittal and Attachments to the Letter of Submittal and one (1) containing the Price Proposal shall be submitted by the due date and time set forth in Part 1, Section 2.4.1. Parcels shall be clearly marked to identify the Project and the Offeror, and to identify the contents as the "Letter of Submittal and Attachments" or "Price Proposal" as applicable.

6.2.2 Each Offeror shall deliver one (1) copy of the Letter of Submittal and Attachments to the Letter of Submittal, which must bear original signatures, and one (1) CD-ROM or DVD-ROM containing the entire Letter of Submittal and Attachments to the Letter of Submittal in a single cohesive Adobe PDF file.

The Letter of Submittal and Attachments to the Letter of Submittal shall be securely bound and contained in a single volume with an identity on its front cover. **Three ring binders are not permissible.**

The Letter of Submittal and Attachments to the Letter of Submittal shall be:

- Typed on one (1) side only.
- Separated by numbered tabs with sections corresponding to the order set forth in Part 1, Section 4.0, except for that required by Part 1, Section 4.3 and 4.4.
- The Letter of Submittal Checklist and Form C-78-RFP shall be provided in the front of the Letter of Submittal

Except for charts, schedules, Work History Forms, exhibits, and other illustrative and graphical information, all information shall be prepared on 8.5" x 11" white paper. Charts, schedules, exhibits, and other illustrative and graphical information may be on 11" x 17" paper, but must be folded to 8.5" x 11".

All printing, except for the front cover of the Letter of Submittal and any appendices, should be Times New Roman, with a font of 12-point. (Times New Roman 10 point font may be used for filling out information on charts, tables and/ or exhibits).

The format and appearance of the Key Personnel Resume Form and the Work History Forms should not be modified. The Key Personnel Resume Forms shall not exceed two (2) pages for each Key Personnel. The Work History Forms shall not exceed one (1) page per project for each the Lead Contractor and the Lead Designer.

6.2.3 Each Offeror shall deliver one (1) paper copy of the Price Proposal, which must bear original signatures on the Price Proposal Form, and one (1) CD-ROM containing the entire Price Proposal in a single cohesive Adobe PDF file.

The Price Proposal shall be securely bound and contained in a single volume. **Three ring binders are not permissible.** Additionally, the Price Proposal shall be typed on one (1) side only and separated by numbered tabs with sections corresponding to the order set forth in Part 1, Section 4.3. The Price Proposal Checklist shall be provided in the front of the Price Proposal

6.2.4 Within three (3) calendar days of Notice of Intent to Award, the Successful Offeror shall deliver a sealed parcel containing one (1) paper copy of the Post Notice of Intent to Award Submittals, excluding the Escrow Proposal Documents, and one (1) CD-ROM containing the entire Post Notice of Intent to Award Submittals, excluding the Escrow Proposal Documents in a single cohesive Adobe PDF file.

The Post Notice of Intent to Award Submittals shall be securely bound and contained in a single volume. **Three ring binders are not permissible.** Additionally, **t**he Post Notice of Intent to Award Submittals shall be typed on one (1) side only and separated by numbered tabs with sections corresponding to the order set forth in Part 1, Section 4.4.

Except for charts, schedules, exhibits, and other illustrative and graphical information, all information shall be prepared on 8.5” x 11” white paper. Charts, schedules, exhibits, and other illustrative and graphical information may be on 11” x 17” paper, but must be folded to 8.5” x 11”.

All printing, except for the front cover of the Post Notice of Intent to Award Submittals and any appendices, should be Times New Roman, with a font of 12-point. (Times New Roman 10 point font may be used for filling out information on charts, tables and/ or exhibits).

7.0 QUESTIONS AND CLARIFICATIONS

7.0.1 All questions and requests for clarification regarding this RFP shall be submitted to VDOT’s POC in writing in electronic format (submission by email is acceptable). All questions and requests for clarification shall be submitted in Microsoft Office Word format. No requests for additional information, clarification or any other communication should be directed to any other individual. **NO ORAL REQUESTS FOR INFORMATION WILL BE ACCEPTED.**

7.0.2 All questions or requests for clarification must be submitted by the due date and time set forth in Part 1, Section 2.4.1. Questions or clarifications requested after such time will not be answered, unless VDOT elects, in its sole discretion, to do so.

7.0.3 VDOT's responses to questions or requests for clarification shall be in writing and may be accomplished by an Addendum to this RFP. VDOT will not be bound by any oral communications, or written interpretations or clarifications that are not set forth in an Addendum.

7.0.4 VDOT, in its sole discretion, shall have the right to seek clarifications from any Offeror to fully understand information contained in the Proposal.

8.0 AWARD OF CONTRACT, PROPOSAL VALIDITY AND CONTRACT EXECUTION

VDOT has determined that the Negotiation and Award of Contract will be made in the following manner:

8.1 Negotiations and Award of Contract

8.1.1 VDOT will review the Proposal submitted by the Offeror with the lowest Proposal Price. If the Proposal is responsive and the Proposal Price is within VDOT's budget for design and construction services, then VDOT will issue a Notice of Intent to Award to the Successful Offeror.

8.1.2 Pursuant to 23 CFR 636.513, VDOT may conduct limited negotiations with the Successful Offeror to clarify any remaining issues regarding scope, schedule, financing or any other information provided by the Successful Offeror.

8.1.3 Pursuant to 23 CFR 636.404, if the Proposal Price submitted by the Offeror with the lowest Proposal Price is not within VDOT's budget for design and construction services, VDOT may establish a competitive range among the Offerors who have submitted a responsive Proposal.

8.1.4 Pursuant to 23 CFR 636.402, 636.404, and 636.406, prior to VDOT establishing a competitive range, VDOT may hold communications with only those Offerors whose exclusion from or inclusion in, the competitive range is uncertain. Communications will (a) enhance VDOT's understanding of Proposals; or (b) allow reasonable interpretation of the Proposal.

8.1.5 Pursuant to 23 CFR 636.404, after VDOT establishes the competitive range, VDOT will notify any Offeror whose Proposal is no longer considered to be included in the competitive range.

8.1.6 Pursuant to 23 CFR 636.506, 636.507, and 636.508, VDOT will hold discussions with all Offerors in the competitive range. Offerors are advised that VDOT may, in its reasonable discretion, determine that only one Offeror is in the competitive range.

8.1.7 Pursuant to 23 CFR 636.510, VDOT may determine to further narrow the competitive range once discussions have begun. At which point, VDOT will notify any Offeror whose Proposal is no longer considered in the competitive range.

8.1.8 Pursuant to 23 CFR 636.509, at the conclusion of discussions, VDOT, will request all Offeror(s) in the competitive range to submit a final Proposal revision, also called Best and Final Offer (BAFO). Thus, regardless of the length or number of discussions, there will be only one request for a revised Proposal (*i.e.*, only one BAFO).

8.1.9 Pursuant to 23 CFR 636.512, VDOT will review the final Proposals in accordance with the review and selection criteria and complete a final ranking of the Offerors in the competitive range, and then VDOT will issue a Notice of Intent to Award to the Successful Offeror.

8.1.10 Pursuant to 23 CFR 636.513, VDOT may conduct limited negotiations with the Successful Offeror to clarify any remaining issues regarding scope, schedule, financing or any other information provided by the Successful Offeror.

8.2 Proposal Validity

8.2.1 The offer represented by the Proposal will remain in full force and effect for one hundred twenty (120) days after the Letter of Submittal/Price Proposal Due Date set forth in Part 1, Section 2.4.1. If Award of Contract has not been made by the CTB within one hundred twenty (120) days after the Letter of Submittal/Price Proposal Due Date, each Offeror that has not previously agreed to an extension of such deadline shall have the right to withdraw its Proposal.

8.3 Submittals after Notice of Intent to Award

8.3.1 Within three (3) calendar days of Notice of Intent to Award, the Successful Offeror shall deliver to VDOT all of the information required by Part 1, Section 4.4.

8.3.2 Within fifteen (15) days of Notice of Intent to Award, the Successful Offeror shall deliver to VDOT all pertinent documents in accordance with Section 103 of the Division I Amendments to the Standard Specifications.

8.3.3 Failure to comply with submittal requirements provided in Part 1, Sections 8.3.1 and 8.3.2 above may result in disqualification of the Offeror by VDOT in its sole and reasonable discretion.

8.4 Contract Execution and Notice to Proceed

8.4.1 Upon Award of Contract, VDOT will deliver an executed copy of the Design-Build Contract to the Successful Offeror, who shall execute and deliver such copy to VDOT within seven (7) days of receipt.

8.4.2 VDOT reserves the right to issue Notice to Proceed within fifteen (15) days after execution of the Design-Build Contract.

9.0 RIGHTS AND OBLIGATIONS OF VDOT

9.1 Reservation of Rights

9.1.1 In connection with this procurement, VDOT reserves to itself all rights (which rights shall be exercisable by VDOT in its sole discretion) available to it under applicable law, including without limitation, the following, with or without cause and with or without notice:

.1 The right to cancel, withdraw, postpone or extend this RFP in whole or in part at any time prior to the execution by VDOT of the Design-Build Contract, without incurring any obligations or liabilities.

.2 The right to issue a new RFP.

.3 The right to reject any and all submittals, responses and Proposals received at any time.

.4 The right to modify all dates set or projected in this RFP.

.5 The right to suspend and terminate the procurement process for the Project, at any time.

.6 The right to waive or permit corrections to data submitted with any response to this RFP until such time as VDOT declares in writing that a particular stage or phase of its review of the responses to this RFP has been completed and closed.

.7 The right to issue addenda, supplements, and modifications to this RFP.

.8 The right to permit submittal of Addenda and supplements to data previously provided with any response to this RFP until such time as VDOT declares in writing that a particular stage or phase of its review of the responses to this RFP has been completed and closed.

.9 The right to hold meetings and conduct discussions and correspondence with one or more of the Offerors responding to this RFP to seek an improved understanding of the responses to this RFP.

.10 The right to seek or obtain data from any source that has the potential to improve the understanding and evaluation of the responses to the RFP, including the right to seek clarifications from Offerors.

.11 The right to permit Offerors to add or delete firms and/or key personnel until such time as VDOT declares in writing that a particular stage or phase of its review has been completed and closed.

.12 The right to add or delete Offeror responsibilities from the information contained in this RFP.

.13 The right to waive deficiencies, informalities and irregularities in a Proposal, accept and review a non-conforming Proposal or seek clarifications or supplements to a Proposal.

.14 The right to disqualify any Offeror that changes its submittal without VDOT approval.

.15 The right to change the method of award at any time prior to submission of the Proposals.

.16 The right to respond to all, some, or none of the inquiries, questions and/or request for clarifications received relative to the RFP.

.17 The right to negotiate the allocation of prices identified for specific portions of the work depicted within a Price Proposal.

.18 The right to disqualify and/or cease negotiations with an Offeror if VDOT, in its sole discretion, determines that the Offeror's Post Notice of Intent to Award Submittals are not acceptable or its Price Proposal contains unbalanced pricing among the specific portions of work identified therein.

9.2 No Assumption of Liability

9.2.1 VDOT assumes no obligations, responsibilities, and liabilities, fiscal or otherwise, to reimburse all or part of the costs incurred or alleged to have been incurred by parties considering a response to and/or responding to this RFP. All of such costs shall be borne solely by each Offeror and its team members.

9.2.2 In no event shall VDOT be bound by, or liable for, any obligations with respect to the Project until such time (if at all) a contract, in form and substance satisfactory to VDOT, has been executed and authorized by VDOT and, then, only to the extent set forth therein.

10.0 PROTESTS

This Section simply summarizes protest remedies available with respect to the provisions of the Code of Virginia that are relevant to protests of awards or decisions to award Design-Build Contracts by VDOT. This section does not purport to be a complete statement of those provisions and is qualified in its entirety by reference to the actual provisions themselves.

In accordance with §2.2-4360, of the *Code of Virginia*, if an unsuccessful Offeror wishes to protest the award or decision to award a contract, such Offeror must submit a protest in writing to VDOT's POC no later than ten (10) calendar days after the award or the announcement posting the decision to award, whichever occurs first. The written protest shall include the basis for the protest and the relief sought. No protest shall lie for a claim that the selected Offeror is not a responsible bidder.

Public notice of the award or the announcement of the decision to award shall be given by the public body in the manner prescribed in the terms or conditions of the Invitation to Bid or Request for Proposal. However, if the protest of any Offeror depends in whole or in part upon information contained in public records pertaining to the procurement transaction that are subject to inspection under § 2.2-4342, of the *Code of Virginia*, then the time within which the protest must be submitted shall expire ten (10) calendar days after those records are available for inspection by such Offeror under § 2.2-4342, of the *Code of Virginia*.

VDOT shall issue a decision in writing within ten (10) calendar days of the receipt of any protest stating the reasons for the action taken. This decision shall be final unless the Offeror appeals within ten (10) calendar days of receipt of the written decision, by instituting legal action in accordance with § 2.2-4364, of the *Code of Virginia.*

Pursuant to § 2.2-4362, of the *Code of Virginia*, an award need not be delayed for the period allowed a bidder or Offeror to protest, but in the event of a timely protest, no further action to award the Contract will be taken unless there is a written determination by the Commissioner, or his designee, that proceeding without delay is necessary to protect the public interest or unless the Design-Build Proposal would expire. Further, pursuant to §2,2-4361, of the *Code of Virginia*, pending a final determination of a protest or appeal, the validity of the contract awarded and accepted in good faith shall not be affected by the fact that a protest or appeal has been filed.

11.0 MISCELLANEOUS

11.1 Virginia Freedom of Information Act

11.1.1 All Proposals submitted to VDOT become the property of VDOT and are subject to the disclosure requirements of Section 2.2-4342 of the Virginia Public Procurement Act and the Virginia Freedom of Information Act (FOIA) (Section 2.2—3700 et seq.). Offerors are advised to familiarize themselves with the provisions of each Act referenced herein to ensure that

documents identified as confidential will not be subject to disclosure under FOIA. In no event shall the Commonwealth, the Commissioner of Highways, or VDOT be liable to an Offeror for the disclosure of all or a portion of a Proposal submitted pursuant to this request.

11.1.2 If a responding Offeror has special concerns about information which it desires to make available to VDOT but which it believes constitutes a trade secret, proprietary information, or other confidential information exempted from disclosure, such responding Offeror should specifically and conspicuously designate that information as such in its Proposal and state in writing why protection of that information is needed. The Offeror should make a written request to the Alternate Project Delivery Office. The written request shall:

.1 Invoke such exemption upon the submission of the materials for which protection is sought.

.2 Identify the specific data or other materials for which the protection is sought.

.3 State the reasons why the protection is necessary.

.4 Indicate that a similar process with the appropriate officials of the affected local jurisdictions is or will be conducted. Failure to take such precautions prior to submission of a Proposal may subject confidential information to disclosure under the Virginia FOIA.

11.1.3 Blanket designations that do not identify the specific information shall not be acceptable and may be cause for VDOT to treat the entire Proposal as public information. Nothing contained in this provision shall modify or amend requirements and obligations imposed on VDOT by applicable law, and the applicable law(s) shall control in the event of a conflict between the procedures described above and any applicable law(s).

11.1.4 In the event VDOT receives a request for public disclosure of all or any portion of a Proposal identified as confidential, VDOT will attempt to notify the Offeror of the request, providing an opportunity for such Offeror to assert, in writing, claimed exemptions under the FOIA or other Commonwealth law. VDOT will come to its own determination whether or not the requested materials are exempt from disclosure. In the event VDOT elects to disclose the requested materials, it will provide the Offeror advance notice of its intent to disclose.

11.1.5 Because of the confidential nature of the negotiation process associated with this Project, and to preserve the propriety of each Offeror's Proposal, it is VDOT's intention, subject to applicable law, not to consider a request for disclosure until after VDOT's issuance of a Notice of Intent to Award. Offerors are on notice that once a Design-Build Contract is executed, some or all of the information submitted in the Proposal may lose its protection under the applicable laws of the Commonwealth.

11.2 Conflict of Interest

11.2.1 Each Offeror shall require its proposed team members to identify potential conflicts of interest of a real or perceived competitive advantage relative to this procurement. Offerors are notified that prior or existing contractual obligations between a company and a federal or state agency relative to the Project or VDOT's design build program may present a conflict of interest or a competitive advantage. If a potential conflict of interest or competitive advantage is identified, the Offeror shall submit in writing the pertinent information to VDOT's POC.

VDOT, in its sole discretion, will make a determination relative to potential organizational conflicts of interest or a real or perceived competitive advantage, and its ability to mitigate such a conflict. An organization determined to have a conflict of interest or competitive advantage relative to this procurement that cannot be mitigated, shall not be allowed to participate as a Design-Build team member for the Project. Failure to abide by VDOT's determination in this matter may result in a Proposal being declared non-responsive.

11.2.2 Conflicts of interest and a real or perceived competitive advantage are described in state and federal law, and, for example, may include, but are not limited to the following situations:

1. An organization or individual hired by VDOT to provide assistance in development of instructions to Offerors or evaluation criteria for the Project.

2. An organization or individual hired by VDOT to provide assistance in development of instructions to Offerors or evaluation criteria as part of the programmatic guidance or procurement documents for VDOT's Design-Build program, and as a result has a unique competitive advantage relative to the Project.

3. An organization or individual with a present or former contract with VDOT to prepare planning, environmental, engineering, or technical work product for the Project, and has a potential competitive advantage because such work product is not available to all potential Offerors in a timely manner prior to the procurement process.

4. An organization or individual with a present contract with VDOT to provide assistance in Design-Build contract administration for the Project.

11.2.3 VDOT reserves the right, in its sole discretion, to make determinations relative to potential conflicts of interest on a Project specific basis.

11.2.4 VDOT may, in its sole discretion, determine that a conflict of interest or a real or perceived competitive advantage may be mitigated by disclosing all or a portion of the work product produced by the organization or individual subject to review under this section. If documents have been designated as proprietary by Virginia law, the Offeror will be given the

opportunity to waive this protection from disclosure. If Offeror elects not to disclose, Offeror may be declared non-responsive.

11.2.5 The firms listed below will not be allowed to participate as a Design-Build team member due to a conflict of interest:

- Whitman, Requardt & Associates, LLP
- CH2M Hill
- ATCS, PLC
- Serco Inc.

11.3 Ethics in Public Contracting Act

VDOT may, in its sole discretion, disqualify the Offeror from further consideration for the award of the Design-Build Contract if it is found after due notice and examination by VDOT that there is a violation of the Ethics in Public Contracting Act, § 2.2-4367 of the *Code of Virginia*, or any similar statute involving the Offeror in the procurement of the contract.

11.4 Requirement to Keep Team Intact

The team proposed by Offeror, including but not limited to the Offeror's organizational structure, the lead contractor, the lead designer, Key Personnel, and other individuals identified pursuant to Part 1, Section 4.4.2, shall remain on Offeror's team for the duration of the procurement process and, if the Offeror is awarded the Design-Build Contract, the duration of the Design-Build Contract. If extraordinary circumstances require a proposed change, it must be submitted in writing to VDOT's POC, who, at his sole discretion, will determine whether to authorize a change. Unauthorized changes to the Offeror's team at any time during the procurement process may result in the elimination of the Offeror from further consideration.

11.5 Disadvantaged Business Enterprises

11.5.1 It is the policy of VDOT that Disadvantaged Business Enterprises (DBEs), as defined in 49 CFR Part 26, shall have every opportunity to participate in the performance of construction/consultant contracts. The DBE contract goal for this procurement is identified in Part 1, Section 4.1.9. Offerors are encouraged to take all necessary and reasonable steps to ensure that DBEs have every opportunity to compete for and perform services on contracts, including participation in any subsequent supplemental contracts. If a portion of the work on the Project is to be subcontracted out, Offerors must seek out and consider DBEs as potential subcontractors. DBEs must be contacted to solicit their interest, capability and qualifications. Any agreement between an Offeror and a DBE whereby the DBE promises not to provide services to any other Offeror or other contractors/consultants is prohibited.

11.5.2 If a DBE is not certified, the DBE must become certified with the Virginia Department of Minority Business Enterprises (VDMBE) prior to the Proposal Due Date. If the DBE is a prime, the firm will receive full credit for the planned involvement of their own workforce, as well as the work they commit to be performed by DBE subcontractors. DBE primes are encouraged to make the same outreach. DBE credit will be awarded only for work actually performed by DBEs themselves. When a DBE prime or subcontractor subcontracts work to another firm, the work counts toward the DBE goals only if the other firm itself is a DBE. A DBE must perform or exercise responsibility for at least 30% of the total cost of its contract with its own workforce.

11.5.3 DBE certification entitles a firm to participate in VDOT's DBE Program. However, it does not guarantee that the firm will obtain VDOT work nor does it attest to the firm's abilities to perform any particular type of work.

11.5.4 This Project has federal funding. In accordance with the Governor's Executive Order No. 33, VDOT requires utilization of Small, Women and Minority (SWaM) Businesses to participate in the performance of state funded projects. VDOT also encourages the utilization of SWaM Firms to participate in the performance of federally funded projects. A list of the DMBE certified SWaM firms is maintained on the DMBE web site (http://www.dmbe.state.va.us/) under the SWaM Vendor Directory link. Offerors are encouraged to take all necessary and reasonable steps to ensure that SWaM firms have the maximum opportunity to compete for and perform services in the Design-Build contract. If the Offeror intends to subcontract a portion of the services on the Project, the Offeror is encouraged to seek out and consider SWaM firms as potential subconsultants. The Offeror is encouraged to contact SWaM firms to solicit their interest, capability and qualifications. Any agreement between an Offeror and a SWaM firm whereby the SWaM firm promises not to provide services to other Offerors is prohibited.

11.5.5 When preparing bids for projects with DBE goals, VDOT encourages prospective bidders to seek the assistance of the following offices:

Virginia Department of Minority Business Enterprises
1111 East Main Street, Suite 300
Richmond, VA 23219
Phone: (804) 786-6585
http://www.dmbe.virginia.gov/

Metropolitan Washington Airports Authority
Equal Opportunity Programs Department
1 Aviation Circle
Washington, DC 20001
Phone: (703) 417-8625
www.metwashairports.com

Contractors are also encouraged to seek help from the VDOT Districts Equal Employment Opportunity (EEO) Offices, Central Office Civil Rights Office and the VDOT Business Opportunity and Workforce Development (BOWD) Center as listed below:

VDOT Central Office
1221 East Broad Street
Richmond, VA 23219
(804) 786-2085

Lynchburg District
4219 Campbell Avenue
Lynchburg, VA 24506
(434) 856-8168

Bristol District
870 Bonham Drive
Bristol, VA 24203
(276) 669-9907

Northern Virginia District
4975 Alliance Drive
Fairfax, VA 22030
(703) 259-1775

Culpeper District
1601 Orange Road
Culpeper, VA 22701
(540) 829-7523

Richmond District
2430 Pineforest Drive
Colonial Heights, VA 23834
(804) 524-6091

Fredericksburg District
87 Deacon Road
Fredericksburg, VA 22405
(540) 899-4562

Salem District
731 Harrison Avenue
Salem, VA 24153
(540) 387-5453

Hampton Roads District
1700 N. Main Street
Suffolk, VA 23434
(757) 925-2519

Staunton District
811 Commerce Road
Staunton, VA 24401
(540) 332-7888

BOWD
1602 Rolling Hills Drive
Suite 110
Richmond, VA 23229
Phone: (804) 662-9555

The following informational websites may also be of assistance:

www.virginiadot.org/business/bu_bizDev.asp

www.virginiadot.org/business/bu-civil-rights-home.asp

11.6 Trainee and Apprenticeship Participation

11.6.1 VDOT will not require trainee and apprenticeship participation for this Project.

11.7 Escrow Proposal Documents

11.7.1 Scope

Pursuant to Part 1, Section 11.7.5.1 below, the Successful Offeror shall submit to the individual set forth in Part 1, Section 6.1.1 within three (3) calendar days of Notice of Intent to Award, one copy of all documentary information generated in preparation of its Proposal. This material is hereinafter referred to as Escrow Proposal Documents (EPDs). The EPDs will be held in a secure location at the VDOT Central Office until immediately prior to award of the Project. The EPDs of the Successful Offeror will be transferred to and then held in escrow at the banking institution specified in this Part 1, Section 11.7.6.

An Escrow Proposal Documents Checklist has been provided for reference in Attachment 11.7.1

11.7.2 Ownership

.1 The EPDs are, and shall always remain, the property of the Successful Offeror, subject to joint review by VDOT and the Successful Offeror, as provided herein.

.2 VDOT stipulates and expressly acknowledges that the EPDs constitute trade secrets. This acknowledgement is based on VDOT's express understanding that the information contained in the EPDs is not known outside Successful Offeror's business, is known only to a limited extent and only by a limited number of employees of the Successful Offeror, is safeguarded while in Successful Offeror's possession, is extremely valuable to Successful Offeror and could be extremely valuable to Successful Offeror's competitors by virtue of its reflecting Successful Offeror's contemplated techniques of design and construction. VDOT further acknowledges that Successful Offeror expended substantial sums of money in developing the information included in the EPDs and further acknowledges that it would be difficult for a competitor to replicate the information contained therein. VDOT further acknowledges that the EPDs and the information contained therein are made available to VDOT only because such action is an express prerequisite to Award of Contract. VDOT further acknowledges that the EPDs include a compilation of the information used in Successful Offeror's business, intended to give Successful Offeror an opportunity to obtain an advantage over competitors who do not know of or use the contents of the documentation.

11.7.3 Purpose

EPDs may be used to assist in the negotiation of price adjustments and change orders and in the settlement of disputes and claims.

11.7.4 Format and Contents

.1 Successful Offerors may submit EPDs in their usual cost estimating format provided that all information is clearly presented and ascertainable. It is not the intention of this Part 1, Section 11.7 to cause the Successful Offeror extra work during the preparation of the Proposal, but to ensure that the EPDs will be adequate to enable complete understanding and proper interpretation for their intended use. The EPDs shall be submitted in the language (i.e., English) of the Specifications.

.2 It is required that the EPDs clearly itemize the estimated costs of performing the work of each item contained in Successful Offeror's schedule of values. Cost items shall be separated into sub-items as required to present a detailed cost estimate and allow a detailed cost review. The EPDs shall include: estimates for costs of the design professionals and consultants itemized by discipline both for development of the design, all quantity take-offs, crew size and shifts, equipment, calculations of rates of production and progress, copies of quotes from subcontractors and suppliers, and memoranda, narratives, drawings and sketches showing site or work area layouts and equipment, add/deduct sheets, geotechnical reviews and consultant reports, and all other information used by the Successful Offeror to arrive at the prices contained in the Proposal. Estimated costs shall be broken down into estimate categories for each bid items such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials and subcontract costs as appropriate. Plant and equipment, indirect costs, bond rates and calculations, insurance costs and financing should be detailed. The Successful Offeror's allocation of indirect costs, contingencies, and mark-up shall be identified.

.3 All costs shall be identified. For bid items amounting to less than $10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials and subcontracts, as applicable, are included, and provided that indirect costs, contingencies, and mark-up, as applicable, are allocated.

.4 RFP Documents provided by VDOT should not be included in the EPDs unless needed to comply with these requirements.

11.7.5 Submittal

.1 The EPDs shall be submitted in a sealed container to the individual set forth in Part 1, Section 6.1.1 above, which container shall be clearly marked on the outside with the Offeror's name, date of submittal, Project name, and the words "Escrow Proposal Documents."

.2 Prior to Award of Contract, EPDs of the Successful Offeror will be transferred to the banking institution referenced in Part 1, Section 11.7.6 and will be examined,

organized, and inventoried by representatives of VDOT, together with members of the Successful Offeror's staff who are knowledgeable in how the Proposal was prepared. This examination is to ensure that the EPDs are legible and complete. It will not include review of, and will not constitute approval of proposed construction methods, estimating assumptions, or interpretations of any RFP Documents or the Design-Build Contract. Examination will not alter any condition or term of the Design-Build Contract.

.3 If all the documents required by this section, Part 1, Section 11.7, have not been included in the original submittal, additional documentation may be submitted, at VDOT's discretion, prior to Award of Contract.

.4 If the Design-Build Contract is not awarded to the Successful Offeror, the EPDs of the next Offeror to be considered for award shall be processed as described above.

.5 Timely submission of complete EPDs is an essential element of the Successful Offeror's responsibility and a prerequisite to Award of Contract.

.6 If Successful Offeror's Proposal is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds ten percent (10%) of the Total Proposal Price proposed by the Successful Offeror, shall provide separate Escrow Documents to be included with those of the Successful Offeror. Such documents shall be opened and examined in the same manner and at the same time as the examination described above for the Successful Offeror.

.7 If the Design-Builder wishes to subcontract any portion of the work after Award of Contract, VDOT retains the right to require the Design-Builder to submit Escrow Documents from the subcontractor before the subcontract is approved.

11.7.6 Storage

The Successful Offeror’s EPDs shall be stored at SunTrust Bank at the following address:

SunTrust Bank
ATTN: Charles Henderson
919 East Main Street, 7th Floor
Richmond, Virginia 23219
(804) 782-7087

The cost for storing the EPDs will be paid by the Successful Offeror.

11.7.7 Examination

.1 The EPDs shall be examined by VDOT and the Design-Builder, at any time deemed necessary by VDOT.

.2 VDOT may delegate review of EPDs to members of VDOT's staff or consultants. The foregoing notwithstanding, the EPDs and information contained therein may be used in the resolution of any claim or dispute before any entity selected to resolve disputes and in any litigation or arbitration commenced hereunder. No other person shall have access to the EPDs.

.3 Access to the documents will take place in the presence of duly designated representatives of both VDOT and the Design-Builder, except that, if the Design-Builder refuses to be present or to cooperate in any other way in the review of the documents, VDOT may upon notice to the Design-Builder, review such documents without the Design-Builder being present.

11.7.8 Final Disposition and Return of EPDs

The EPDs of the Successful Offeror will be returned to the Design-Builder at such time as the Design-Build Contract has been completed, final payment has been made, and all claims or disputes arising under or related to the Design-Build Contract have been fully and finally resolved and/or adjudicated.

11.7.9 Execution of Escrow Agreement

The Successful Offeror, as a condition of Award of Contract, agrees to execute the Escrow Agreement in the form set forth in Attachment 11.7.9.

11.8 Administrative Requirements

In addition to the specific submittal requirements set forth in Part 1, Sections 3.0 and 4.0 above, all Offerors shall comply with the following:

11.8.1 All business entities, except for sole proprietorships, are required to be registered with the Virginia State Corporation Commission (a Business Registration Guide is available on the Internet at http://www.state.va.us/scc/division/clk/brg.htm). Foreign Professional Corporations and Foreign Professional Limited Liability Companies must possess a Commonwealth of Virginia Certificate of Authority from the State Corporation Commission to render professional services. Any business entity other than a professional corporation, professional limited liability company or sole proprietorship must be registered in the Commonwealth of Virginia with the Department of Professional & Occupational Regulation, Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Decorators and Landscape Architects (http://www.dpor.virginia.gov/dporweb/ape_reg.pdf). Board regulations require that all professional corporations and business entities that have branch offices located in Virginia which offer or render any professional services relating to the professions regulated by the Board be

registered with the Board. Registration involves completing the required application and submitting the required registration fee for each and every branch office location in the Commonwealth. All branch offices that offer or render any professional service must have at least one full-time resident professional in responsible charge that is licensed in the profession offered or rendered at each branch. All firms involved that are to provide professional services must meet this criteria prior to a contract being executed by VDOT.

11.8.2 VDOT will not consider for award any Proposals submitted by any Offerors and will not consent to subcontracting any portions of the proposed Design-Build Contract to any subconsultants in violation of the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

11.8.3 All Offerors must have internal control systems in place that meet federal requirements for accounting. These systems must comply with requirements of 48 CFR 31, "Federal Acquisition Regulations, Contract Cost Principles and Procedures," and 23 CFR 172, "Administration of Engineering and Design Related Service Contracts."

11.8.4 VDOT assures compliance with Title VI of the Civil Rights Act of 1964, as amended. The consultant and all subconsultants selected for this Project will be required to submit a Title VI Evaluation Report (EEO-D2) when requested by VDOT to respond to the RFP. This requirement applies to all consulting firms with fifteen (15) or more employees.

11.8.5 VDOT does not discriminate against an Offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment.

11.8.6 Offerors shall note and comply with the requirements relative to the eVA Business-to-Government Vendor system. The eVA Internet electronic procurement solution, web site portal (http://www.eva.state.va.us), streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution through either eVA Basic Vendor Registration Service or eVA Premium Vendor Registration Service. For more detailed information regarding eVA, registrations, fee schedule, and transaction fee, use the website link: http://www.eva.state.va.us. All Offerors must register in eVA; failure to register will result in a Proposal being rejected.

11.8.7 The required services may involve the handling of Critical Infrastructure Information/ Sensitive Security Information (CII/SSI) material. Personnel handling CII/SSI material, visiting Critical Infrastructure (CI) facilities or performing bridge/tunnel inspections are required to sign CII/SSI Non-Disclosure Agreements and pass a fingerprint-based Criminal History Background Check (CHBC). An individual employee's failure to successfully pass the fingerprint-based CHBC will not negate the selection and Offerors will be allowed to replace those individuals. VDOT reserves the right to conduct fingerprint-based CHBC on all employees of the Design-

Builder's team members, or on any proposed replacements during the term of the contract who will be involved in this Project. All costs associated with the fingerprint-based CHBC are the responsibility of the Offeror or Design-Builder. A VDOT issued photo-identification badge is required for each employee of the Offeror's or Design-Builder's team who will need access to VDOT CI facilities or who will be performing bridge/tunnel inspections. Based upon the results of the fingerprint-based CHBC, VDOT reserves the right to deny access to CII/SSI material and issuance of a VDOT security clearance or a VDOT issued photo-identification badge.

CII/SSI material includes bridge inspection reports and bridge plans. Bridge inspection reports and bridge plans are not included in the Information Package and CII/SSI Non-Disclosure Agreements are not required to respond to the RFP. Firms desiring to obtain a copy of the bridge inspection report and bridge plans must complete a CII/SSI Non-Disclosure Agreement Form (Attachment 11.8.7).

11.9 Compliance with the Law in Virginia

Failure to comply with the law with regard to those legal requirements in Virginia (whether federal or state) regarding your ability to lawfully offer and perform any services proposed or related to the Project may render your RFP submittal, in the sole and reasonable discretion of VDOT, non-responsive and/or non-responsible, and in that event your RFP submittal may be returned without any consideration for selection of contract award.

11.10 Attachments

The following attachments are specifically made a part of, and incorporated by reference into, these Instructions for Offerors:

EXHIBIT 1 TO PART 3	--	PROJECT SPECIFIC TERMS
ATTACHMENT 2.6	--	RFP INFORMATION PACKAGE ORDER FORM
ATTACHMENT 3.4	--	FORM C-78-RFP (ACKNOWLEDGEMENT OF RECEIPT OF RFP, REVISIONS, AND/OR ADDENDA)
ATTACHMENT 4.0.1.1	--	LETTER OF SUBMITTAL CHECKLIST
ATTACHMENT 4.0.1.2	--	PRICE PROPOSAL SUBMITTAL CHECKLIST
ATTACHMENT 4.2.1	--	AFFILIATED/ SUBSIDIARY COMPANIES LIST
ATTACHMENT 4.2.2(a)	--	CERTIFICATION REGARDING DEBARMENT (PRIMARY COVERED TRANSACTIONS)
ATTACHMENT 4.2.2(b)	--	CERTIFICATION REGARDING DEBARMENT (LOWER TIER COVERED TRANSACTIONS)
ATTACHMENT 4.2.5	--	LICENSE AND REGISTRATION INFORMATION - BUSINESSES
ATTACHMENT 4.2.6(a)	--	LEAD CONTRACTOR WORK HISTORY FORM
ATTACHMENT 4.2.6(b)	--	LEAD DESIGNER WORK HISTORY FORM
ATTACHMENT 4.3.1	--	PRICE PROPOSAL FORM
ATTACHMENT 4.3.4(a)	--	FORM C-104 (BIDDER'S STATEMENT)
ATTACHMENT 4.3.4(b)	--	FORM C-105 (BIDDER'S CERTIFICATION)
ATTACHMENT 4.3.5(a)	--	FORM C-111 (MINIMUM DBE REQUIREMENTS)
ATTACHMENT 4.3.5(b)	--	FORM C-49 (DBE GOOD FAITH EFFORTS DOCUMENTATION)
ATTACHMENT 4.3.5(c)	--	FORM C-112 (CERTIFICATION OF BINDING AGREEMENT FORM)
ATTACHMENT 4.4.2	--	KEY PERSONNEL RESUME FORM
ATTACHMENT 4.4.3	--	LICENSE AND REGISTRATION INFORMATION - INDIVIDUALS
ATTACHMENT 4.4.6	--	SCHEDULE OF ITEMS FORM
ATTACHMENT 11.7.1	--	ESCROW PROPOSAL DOCUMENTS CHECKLIST
ATTACHMENT 11.7.9	--	ESCROW AGREEMENT FORM
ATTACHMENT 11.8.7	--	CII/SSI NON-DISCLOSURE AGREEMENT FORM

END OF PART 1
INSTRUCTIONS FOR OFFERORS

ATTACHMENT 2.6

DESIGN–BUILD

ORDER FORM
I -495 NORTHERN SECTION SHOULDER USE
IN FAIRFAX COUNTY, VIRGINIA
REQUEST FOR PROPOSALS (RFP) INFORMATION PACKAGE

FIRM NAME _____

COMPLETE MAILING
ADDRESS_____

_____
(PLEASE GIVE BOTH STREET ADDRESS AND POSTAL DELIVERY ADDRESS)

FIRM TELEPHONE NUMBER_____ FIRM FAX NUMBER_____

E-MAIL ADDRESS _____

SIGNED:_____

FOR QUESTIONS REGARDING THE RFP INFORMATION PACKAGE CONTACT:

BRYAN W. STEVENSON, P.E.
VIRGINIA DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219
(804) 786-6929

TO ORDER THE RFP INFORMATION PACKAGE BY TELEPHONE/MAIL/FAX CONTACT:

THE SCHEDULING AND CONTRACT DIVISION PLAN ROOM
VIRGINIA DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219
(804) 786-1898, 786-5161 OR 371-9868
FAX TELEPHONE NO. (804) 786-2788 (Ordering by fax using a Master or Visa credit card is the preferred method)

MASTERCARD/VISA NO._____

EXPIRATION DATE:_____

THE RFP INFORMATION PACKAGE WILL NOT BE ISSUED PRIOR TO RECEIPT OF PAYMENT

Dear Sir/Madam:

Please send the RFP Information Package designated below. Enclosed is check No._____in the amount of $_____ made payable to the Treasurer of Virginia.

RFP NO.	PROJECT	PACKAGES REQUESTED	TOTAL **($50.00 per package, price includes 5%Virginia Sales Tax)**
		#	$
C00103318DB71	0620-029-017		

FOR DEPARTMENTAL USE ONLY

RFP PACKAGE MAILED_____ MAILED BY_____
TO BE MAILED_____ CHECKED BY_____

ATTACHMENT 3.4

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. **C00105130DB72**

PROJECT NO.: **(FO) 0495-029-123, P101, C501**

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Proposals (RFP) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Letter of Submittal submission date shown herein. Failure to include this acknowledgement in the Letter of Submittal may result in the rejection of your proposal.

By signing this Attachment 3.4, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of February 6, 2014– RFP
   (Date)
2. Cover letter of _____
   (Date)
3. Cover letter of _____
   (Date)

_____ SIGNATURE

_____ DATE

ATTACHMENT 4.0.1.1

I-495 Northern Section Shoulder Use in Fairfax County, Virginia

LETTER OF SUBMITTAL CHECKLIST AND CONTENTS

Offerors shall furnish a copy of this Letter of Submittal Checklist, with the page references added, with the Letter of Submittal.

Letter of Submittal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Letter of Submittal Checklist and Contents	Attachment 4.0.1.1	Section 4.0.1.1	
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.4 (Form C-78-RFP)	Sections 3.4; 4.0.1.1	
Letter of Submittal	NA	Sections 4.1	
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	
Offeror's full legal name and address	NA	Section 4.1.1	
Authorized representative's original signature	NA	Section 4.1.1	
Declaration of intent	NA	Section 4.1.2	
120 day declaration	NA	Section 4.1.3	
Point of Contact information	NA	Section 4.1.4	
Principal Officer information	NA	Section 4.1.5	
Offeror's Corporate Structure	NA	Section 4.1.6	
Full Legal Name of Lead Contractor and Lead Designer	NA	Section 4.1.7	
Offeror's VDOT prequalification information	NA	Section 4.1.8	
DBE statement confirming Offeror is committed to achieving the required DBE goal	NA	Section 4.1.9	
Interim and Final Completion Date(s)	NA	Section 4.1.10	

ATTACHMENT 4.0.1.1

I-495 Northern Section Shoulder Use in Fairfax County, Virginia

LETTER OF SUBMITTAL CHECKLIST AND CONTENTS

Letter of Submittal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Attachments to the Letter of Submittal	NA	Section 4.2	
Affiliated and/ or Subsidiary Companies	Attachment 4.2.1	Section 4.2.1	
Certification Regarding Debarment Forms	Attachment 4.2.2(a) Attachment 4.2.2(b)	Section 4.2.2	
Offeror's VDOT prequalification information	NA	Section 4.2.3	
Evidence of obtaining bonding	NA	Section 4.2.4	
Full size copies of DPOR licenses and SCC registrations	NA	Section 4.2.5	
SCC registration information - businesses	Attachment 4.2.5	Section 4.2.5.1	
DPOR registration information - businesses	Attachment 4.2.5	Section 4.2.5.2	
Lead Contractor Work History Form	Attachment 4.2.6(a)	Section 4.2.6	
Lead Designer Work History Form	Attachment 4.2.6(b)	Section 4.2.6	
Conceptual Roadway Plans	NA	Section 4.2.7	

ATTACHMENT 4.0.1.2

DESIGN-BUILD PRICE PROPOSAL CHECKLIST

Project Name: I-495 Northern Section Shoulder Use in Fairfax County, Virginia
Contract ID Number: C00105130DB72

- Contents of Price Proposal:

☐ **Proposal Price, in both numbers and words (Attachment 4.3.1)**

☐ **Schedule of Items itemized in accordance with Part 1, Section 4.4.6, including material quantities and costs of each proposed work package**

☐ **Proposed Monthly Payment Schedule showing the anticipated schedule on which funds will be required and associated value of work in accordance with Part 1, Section 4.4.7**

☐ **Price Adjustment Information and Forms for Fuel, Asphalt and Steel, including identification of pay items and associated quantities eligible for adjustment (Part 3, Section 6.3, Attachments 6.3)**

☐ **Proposal Guaranty (C-24) required by Section 102.07 of Part 5, Division I Amendments to the Standard Specifications**

☐ **Sworn Statement Forms (C-104, C-105, Attachments 4.3.4(a) and 4.3.4(b))**

☐ **DBE Requirements Forms (C-111, C-49 and C-112) as applicable (Attachments 4.3.5(a), 4.3.5(b) and 4.3.5(c))**

☐ **CD-ROM containing the entire Price Proposal in a single cohesive Adobe PDF file**

ATTACHMENT 4.2.1

State Project No. (FO) 0495-029-123, P101, C501

Affiliated and Subsidiary Companies of the Offeror

Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

☐ **The Offeror does not have any affiliated or subsidiary companies.**
☐ **Affiliated and/ or subsidiary companies of the Offeror are listed below.**

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address

ATTACHMENT 4.2.2(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

_____ _____
Signature Date Title

_____
Name of Firm

ATTACHMENT 4.2.2(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

_____ _____

Signature Date Title

_____

Name of Firm

ATTACHMENT 4.2.5

State Project No. (FO)0495-029-123, P101, C501

SCC and DPOR Information

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 4.2.5 and that all businesses listed are active and in good standing.

SCC & DPOR INFORMATION FOR BUSINESSES (RFP Sections 4.2.5.1 and 4.2.5.2)							
Business Name	SCC Information (4.2.5.1)			DPOR Information (4.2.5.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date

ATTACHMENT 4.2.6(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: Location:	Name:	Name of Client./ Owner: Phone: Project Manager: Phone: Email:					
h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.							

ATTACHMENT 4.2.6(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Location:	Name:	Name of Client.: Phone: Project Manager: Phone: Email:					
h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.							

ATTACHMENT 4.3.1
PRICE PROPOSAL FORM

4.3.1 Offeror shall specify the pricing information for the items below, the dollars amount shall be in whole numbers:

Price Proposal Cost Breakdown Summary;

Design Services, LS	$_____
Mobilization (Construction), LS	$_____
Quality Assurance (QA) (Construction), LS	$_____
Quality Control (QC) (Construction), LS	$_____
Earthwork, LS	$_____
Roadway Incidentals, LS	$_____
Drainage (Structures), LS	$_____
Utilities, LS	$_____
Pavement, LS	$_____
Full Depth Transverse Joint Repair, LS	$_____
Permanent Traffic Control/Signage, LS	$_____
Maintenance of Traffic, LS	$_____
ITS Components, LS	$_____
Barrier Modification, LS	$_____
Bridge Mounted signs Removal and Replacement, LS	$_____
All Others Costs, LS	$_____

Proposal Price; (Specify the Total Lump Sum price in both numbers and words, this price shall **equal** to the total sum of the items listed above)

Lump Sum (LS): _____

_____ ($_____)

Signature: _____ Date: _____

Design-Builder: _____

Vendor No.: _____

Form C-104
Rev. 7-13-05

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROJECT: (FO) 0495-029-123, P101, C501

FHWA: STP-495-5(094)

This form must be completed, signed and returned with bid; and failure to do so may result in the rejection of your bid. **THE CONTRACTOR SHALL AFFIRM THE FOLLOWING STATEMENT EITHER BY SIGNING THE AFFIDAVIT AND HAVING IT NOTARIZED OR BY SIGNING THE UNSWORN DECLARATION UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES.** A SEPARATE FORM MUST BE SUBMITTED BY EACH PRINCIPAL OF A JOINT VENTURE BID.

STATEMENT, In preparation and submission of this bid, I, the firm, corporation or officers, agents or employees thereof did not, either directly or indirectly, enter into any combination or arrangement with any persons, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Article 1.1 or Chapter 12 of Title 18.2 (Virginia Governmental Frauds Act), Sections 59.1-9.1 through 59.1-9.17 or Sections 59.1-68.6 through 59.1-68.8 of the Code of Virginia.

AFFIDAVIT

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____ , this ____ day of _____ , 20 ____
County (City), STATE

_____ By: _____ _____
(Name of Firm) (Signature) Title (print)

STATE of _____ COUNTY (CITY) of _____
To-wit:

I _____ , a Notary Public in and for the State and County(City) aforesaid, hereby certify that this day _____ personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this _____ day of _____ , 20 _____

_____ My Commission expires _____
Notary Public

OR
UNSWORN DECLARATION

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____ , this ____ day of _____ , 20 ____
County (City), STATE

_____ By: _____ _____
(Name of Firm) (Signature) Title (print)

Form C-105
Rev. 7-13-05

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
AFFIDAVIT

PROJECT:

FHWA:

This form must be completed, signed, notarized and returned with bid; and failure to do so, may result in the rejection of your bid. A separate form must be submitted by each principal of a joint venture bid.

1. I, the firm, corporation or officers, agents or employees thereof have neither directly nor indirectly entered into any combination or arrangement with any person, firm or corporation or entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract, the effect of which is to prevent competition or increase the cost of construction or maintenance of roads or bridges.

   During the preceding twelve months, I (we) have been a member of the following Highway Contractor's Associations, as defined in Section 33.1-336 of the Code of Virginia (1970). (If none, so state).

NAME	Location of Principal Office
(FO) 0495-029-123, P101, C501	STP-495-5(094)

2. I (we) have _____, have not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that I/We have _____, have not _____, filed with the joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

   Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 CFR 60-1.7(b)(1)], and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contract or subcontracts of $10,000 or under are exempt.)

   Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contract and subcontract unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Continued)

ORDER NO.:
CONTRACT ID. NO.:

3. The bidder certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offence in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated above; and

(d) Where the bidders is unable to certify to any of the statements in this certification, the bidder shall show an explanation below.

Explanations will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any explanation noted, indicate below to whom it applies, initiating agency, and dates of action. Providing false information may result in federal criminal prosecution or administration sanctions. The bidder shall provide immediate written notice to the Department if at any time the bidder learns that its certification was erroneous when submitted or has become erroneous by reason of change circumstances.

The undersigned is duly authorized by the bidder to make the foregoing statements to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____ , this ____ day of _____ , 20 ____
County (City), STATE

_____ By: _____ _____
(Name of Firm) (Signature) Title (print)

STATE of _____ COUNTY (CITY) of _____
To-wit:

I _____ , a Notary Public in and for the State and County(City) aforesaid, hereby certify that this day _____ personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this _____ day of _____ , 20 _____

_____ My Commission expires _____
Notary Public

Form C-111
Rev. 2-15-11

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
MINIMUM DBE REQUIREMENTS

PROJECT NO. (FO) 0495-029-123, P101, C501

FHWA NO. STP-495-5(094)

*** * * INSTRUCTIONS * * ***

THIS FORM CAN BE USED BY THE CONTRACTOR TO SUBMIT THE NAMES OF DBE FIRMS TO BE UTILIZED ON THE PROJECT. THE CONTRACTOR SHALL INDICATE THE DESCRIPTION OF THE CATEGORY (S, M, SP or H) AND THE TYPE OF WORK THAT EACH DBE WILL PERFORM AND THE ALLOWABLE CREDIT PER ITEM(S). ADDITIONAL SHEETS TO SHOW THE ALLOWABLE CREDIT PER ITEM MAY BE ATTACHED IF NECESSARY. **PLEASE NOTE:** THE AMOUNT OF ALLOWABLE CREDIT FOR A DBE SUPPLIER IS 60% OF THE TOTAL COST OF THE MATERIALS OR SUPPLIES OBTAINED AND 100% FOR A DBE MANUFACTURER OF THE MATERIALS AND SUPPLIES OBTAINED. A CONTRACTOR MAY COUNT 100% OF THE FEES PAID TO A DBE HAULER FOR THE DELIVERY OF MATERIALS AND SUPPLIES TO THE PROJECT SITE, BUT NOT FOR THE COST OF THE MATERIALS AND SUPPLIES THEMSELVES.

DBE REQUIREMENT 11 **%**

PERCENT ATTAINED BY BIDDER _____ **%**

NAMES(S) AND CERTIFICATION NO. OF DBE(S) TO BE USED	USED AS SUBCONTR. (S) MFG. (M) SUPPLIER (SP) HAULER (H)	TYPE OF WORK AND ITEM NO(S)	$ AMOUNT OF ALLOWABLE CREDIT PER ITEM
		TOTAL	**$**

TOTAL CONTRACT VALUE $ (FO) 0495-029-123, P101, C501 x REQUIRED DBE _____ % = $ STP-495-5(094)

I/WE CERTIFY THAT THE PROPOSED DBE(S) SUBMITTED WILL BE USED ON THIS CONTRACT AS STATED HEREON AND ASSURE THAT DURING THE LIFE OF THE CONTRACT. I/WE WILL MEET OR EXCEED THE PARTICIPATION ESTABLISHED HEREON BY THE DEPARTMENT.

_____ BY _____
BIDDER SIGNATURE

_____ BY _____
TITLE DATE

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

--DO NOT DETACH--

THIS INFORMATION MUST BE SUBMITTED WITH YOUR BID PROPOSAL IF YOUR BID DOES NOT MEET THE PROJECT DBE REQUIREMENTS, OR WHEN REQUESTED BY VDOT

CONTRACT I.D. NUMBER C00105130DB72

PROJECT NUMBER (FO)0495-029-123, P101, C501

FHWA NUMBER STP-495-5(094)

DISTRICT Northern Virginia

DATE BID SUBMITTED _____

BIDDER'S NAME _____

SIGNATURE _____

TITLE _____

VENDOR NUMBER _____

DBE GOAL FROM BID PROPOSAL 11%

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

NAMES OF CERTIFIED DBEs AND THE DATES ON WHICH THEY WERE SOLICITED TO BID ON THIS PROJECT

INCLUDE THE ITEMS OF WORK OFFERED AND THE DATES AND METHODS USED FOR FOLLOWING UP INITIAL SOLICITATIONS TO DETERMINE WHETHER OR NOT DBEs WERE INTERESTED.

NAMES AND VENDOR NUMBERS OF DBEs SOLICITED	DATE OF INITIAL SOLICITATION	ITEM(S) OF WORK	FOLLOW-UP METHODS AND DATES

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

ATTACH COPIES OF SOLICITATIONS, TELEPHONE RECORDS, FAX CONFIRMATIONS, ELECTRONIC INFORMATION, ETC.

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00103318DB71 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

TELEPHONE LOG

DBE(s) CALLED	TELEPHONE NUMBER	DATE CALLED	TIME CALLED	CONTACT PERSON OR VOICE MAIL STATUS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS

IDENTIFY THOSE ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS OR THOSE ITEM(S) THE BIDDER IDENTIFIED AND DETERMINED TO SUBDIVIDE INTO ECONOMICALLY FEASIBLE UNITS TO FACILITATE DBE PARTICIPATION. FOR EACH ITEM LISTED, SHOW THE DOLLAR VALUE AND PERCENTAGE OF THE TOTAL CONTRACT AMOUNT. IT IS THE BIDDER'S RESPONSIBILITY TO DEMONSTRATE THAT SUFFICIENT WORK TO MEET THE GOAL WAS MADE AVAILABLE TO DBE FIRMS.

ITEM(S) OF WORK MADE AVAILABLE	BIDDER NORMALLY PERFORMS ITEM(S) (Y/N)	ITEM(S) BROKEN DOWN TO FACILITATE PARTICIPATION (Y/N)	AMOUNT IN DOLLARS	PERCENTAGE OF CONTRACT

NOTE: INFORMATION REQUIRED FOR THIS SECTION CONTINUED ON SHEET 5
ATTACH ADDITIONAL PAGES IF NECESSARY

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

ADDITIONAL INFORMATION REGARDING ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS (Continued From Sheet 4)

ITEM(S) OF WORK MADE AVAILABLE, NAMES OF SELECTED FIRMS AND DBE STATUS, DBEs THAT PROVIDED QUOTES, PRICE QUOTE FOR EACH FIRM, AND THE PRICE DIFFERENCE FOR EACH DBE IF THE SELECTED FIRM IS NOT A DBE.

ITEM(S) OF WORK MADE AVAILABLE(CONT.)	NAME OF SELECTED FIRM AND VENDOR NUMBER	DBE OR NON-DBE	NAME OF REJECTED FIRM(S)	QUOTE IN DOLLARS	PRICE DIFFERENCE IN DOLLARS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

IF THE FIRM SELECTED FOR THE ITEM IS NOT A DBE, PROVIDE THE REASON(S) FOR THE SELECTION ON A SEPARATE PAGE AND ATTACH.

PROVIDE NAMES, ADDRESSES, AND TELEPHONE NUMBERS FOR THE FIRMS LISTED ABOVE.

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____ **SIGNATURE**_____

TITLE (FO) 0495-029-123, P101, C501

ADVERTISEMENTS OR PROOFS OF PUBLICATION.

NAMES AND DATES OF EACH PUBLICATION IN WHCH A REQUEST FOR DBE PARTICIPATION FOR THE PROJECT WAS PLACED BY THE BIDDER. ATTACH COPIES OF PUBLISHED ADVERTISEMENTS OR PROOFS OF PUBLICATION.

PUBLICATIONS	DATES OF ADVERTISEMENT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____ **SIGNATURE**_____

TITLE STP-495-5(094)

NAMES OF AGENCIES CONTACTED TO PROVIDE ASSISTANCE

NAMES OF AGENCIES (SEE SPECIAL PROVISION FOR 107.15) AND THE DATES THESE AGENCIES WERE CONTACTED TO PROVIDE ASSISTANCE IN CONTACTING, RECRUITING, AND USING DBE FIRMS. IF THE AGENCIES WERE CONTACTED IN WRITING, ATTACH COPIES OF SUPPORTING DOCUMENTS.

NAME OF AGENCY	METHOD AND DATE OF CONTACT	RESULTS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

TECHNICAL ASSISTANCE AND INFORMATION PROVIDED TO DBEs

EFFORTS MADE TO PROVIDE INTERESTED DBEs WITH ADEQUATE INFORMATION ABOUT THE PLANS, SPECIFICATIONS, AND REQUIREMENTS OF THE BID DOCUMENTS TO ASSIST THE DBEs IN RESPONDING TO A SOLICITATION.

IDENTIFY THE DBEs ASSISTED, THE INFORMATION PROVIDED, AND THE DATE OF CONTACT. ATTACH COPIES OF SUPPORTING DOCUMENTS.

DBEs ASSISTED	INFORMATION PROVIDED	DATE OF CONTACT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

EFFORTS MADE TO ASSIST DBEs OBTAIN BONDING, LINES OF CREDIT, INSURANCE, ETC.

EFFORTS MADE TO PROVIDE INTERESTED DBEs IN OBTAINING BONDING, LINES OF CREDIT, INSURANCE, NECESSARY EQUIPMENT, SUPPLIES, MATERIALS, OR RELATED ASSISTANCE OR SERVICES, EXCLUDING SUPPLIES AND EQUIPMENT THE SUBCONTRACTOR PURCHASES OR LEASES FROM THE PRIME CONTRACTOR OR ITS AFFILIATES.

IDENTIFY THE DBEs ASSISTED, THE ASSISTANCE OFFERED, AND THE DATES OF SERVICES OFFERED AND PROVIDED. ATTACH COPIES OF SUPPORTING DOCUMENTS.

DBEs ASSISTED	ASSISTANCE OFFERED	DATES SERVICES OFFERED AND/OR PROVIDED

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMM0NWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. C00105130DB72 **DATE SUBMITTED**_____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER_____**SIGNATURE**_____

TITLE_____

ADDITIONAL DATA TO SUPPORT DEMONSTRATION OF GOOD FAITH EFFORTS

ADDITIONAL DATA TO SUPPORT DEMONSTRATION OF GOOD FAITH EFFORTS

NOTE: ATTACH ADDITIONAL PAGES, IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CERTIFICATION OF BINDING AGREEMENT
WITH
DISADVANTAGED BUSINESS ENTERPRISE FIRMS

Project No.:

Federal Project No.:

This form is to be submitted in accordance with the Department's Special Provision for Section 107.15.

It is hereby certified by the below signed Contractors that there exists a written quote, acceptable to the parties involved preliminary to a binding subcontract agreement stating the details concerning the work to be performed and the price which will be paid for the aforementioned work. This document is not intended to, nor should it be construed to, contain the entire text of the agreement between the contracting parties. This document does not take the place of, nor may it be substituted for, an official subcontracting agreement in those situations that may require such an agreement. A copy of the fully executed *subcontract agreement* shall be submitted to the Engineer within fourteen (14) business days after contract execution.

It is further certified that the aforementioned mutually acceptable quote and fully executed subcontract agreement represent the entire agreement between the parties involved and that no conversations, verbal agreements, or other forms of non-written representations shall serve to add to, delete, or modify the terms as stated.

The prime Contractor further represents that the aforementioned mutually acceptable quote and fully executed subcontract agreement shall remain on file for a period of not less than one year following completion of the prime's contract with the Department or for such longer period as provisions of governing Federal or State law or regulations may require. For purposes of this form, the term Prime Contractor shall refer to any Contractor utilizing a DBE subcontractor, regardless of tier, in which they are claiming DBE credit toward the contract goal.

Contractors further jointly and severally represent that said binding agreement is for the performance of a "commercially useful function" as that term is employed in 49 C.F.R. Part 26.55 (c), (d).

TO BE SIGNED BY THE SUBCONTRACTOR TO THE PRIME CONTRACTOR, AND ANY LOWER TIER SUBCONTRACTORS HAVING A CONTRACT WITH THE BELOW NAMED DBE FIRM

Prime Contractor _____

By: _____ _____
Signature Title

Date: _____

First Tier Subcontractor if Applicable _____

By: _____ _____
Signature Title

Date: _____

Second Tier Subcontractor if Applicable _____

By: _____ _____
Signature Title

Date: _____

Third Tier Subcontractor if Applicable _____

By: _____ _____
Signature Title

Date: _____

DBE Contractor _____

By: _____ _____
Signature Title

Date: _____

ATTACHMENT 4.4.2

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title:
b. Project Assignment:
c. Name of Firm with which you are now associated:
d. Years experience: With this Firm ____Years With Other Firms ____Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years:
e. Education: Degree(s)/Year/Specialization:
f. Active Registration: Year First Registered/ Discipline/VA Registration #:
g. Document the extent and depth of experience and qualifications relevant to the Project. 1. *Note your specific responsibilities and authorities for each assignment, not those of the firm.* 2. *Note whether experience is with current firm or with other firm.* 3. *Provide beginning and end dates for each assignment.* **(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)**

ATTACHMENT 4.4.3

State Project No. (FO)0495-029-123, P101, C501

SCC and DPOR Information - Individuals

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 4.2.5 and that all individuals listed are active and in good standing.

DPOR INFORMATION FOR INDIVIDUALS (RFP Sections 4.4.3.1 and 4.4.3.2)						
Business Name	**Individual's Name**	**Office Location Where Professional Services will be Provided (City/State)**	**Individual's DPOR Address**	**DPOR Type**	**DPOR Registration Number**	**DPOR Expiration Date**

Attachment 4.4.6

State Project (FO) 0495-029-123, P101, C501

SCHEDULE OF ITEMS

This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measure that are consistent with VDOT's list of standard and non-standard item codes. Any pay items considered for price adjustments shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.

Date:

VDOT Item Code [1]	Item Description	Fuel (F) or Price (P) Adjustment	App Quantity	Unit[1]	Budgeted Cost ($)

[1] Use five-digit item codes and units of measure that are consistent with VDOT's list of standard and non-standard item codes (i.e. 00100-Mobilization; 00120-Regular Excavation, etc...).

ATTACHMENT 11.7.1

ESCROW PROPOSAL DOCUMENTS CHECKLIST

Project Name: I-495 Northern Section Shoulder Use in Fairfax County, Virginia
Contract ID Number: C00105130DB72

- Format:

  - ☐ Usual cost estimating format as long as information is clearly presented and ascertainable

  - ☐ Submitted in the language (i.e., English) of the Specifications

- Subcontractors

  - ☐ If Offeror's Proposal is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds ten percent (10%) of the Total Proposal Price proposed by the Offeror, shall provide separate Escrow Documents to be included with those of the Offeror. Such documents shall be opened and examined in the same manner and at the same time as the examination described above for the highest-scored Offeror.

- Cost Items (All costs shall be identified)

  - ☐ Clearly itemizes the estimated costs of performing the work of each item contained in Offeror's schedule of values.

  - ☐ Cost items shall be separated into sub-items as required to present a detailed cost estimate and allow a detailed cost review.

☐ Includes estimates for:

- design professionals and consultants itemized by discipline both for development of the design
- all quantity take-offs
- crew size and shifts
- equipment
- calculations of rates of production and progress
- copies of quotes from subcontractors and suppliers
- memoranda, narratives, drawings and sketches showing site or work area layouts and equipment
- add/deduct sheets
- geotechnical reviews and consultant reports
- all other information used by the Offeror to arrive at the prices contained in the Proposal.

☐ Broken down into estimate categories for each bid items such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials and subcontract costs as appropriate. Plant and equipment, indirect costs, bond rates and calculations, insurance costs and financing should be detailed.

☐ Allocation of indirect costs, contingencies, and mark-up shall be identified.

☐ For cost items amounting to less than $10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials and subcontracts, as applicable, are included, and provided that indirect costs, contingencies, and mark-up, as applicable, are allocated.

ATTACHMENT 11.7.9
ESCROW AGREEMENT

THIS ESCROW AGREEMENT ("Agreement") is made and entered into as of _____, 20__, by and among the Virginia Department of Transportation ("Department"), _____("Offeror") and **Sun Trust Bank** ("Escrow Agent") with reference to the following facts:

WHEREAS, Department has issued a Request for Proposals dated **January 29, 2014** ("RFP") for the completion of the **I-495 Express Lane Shoulder Use- Northern Section**, in Fairfax County, Virginia ("Project); and

WHEREAS, Offeror has submitted to Department a proposal ("Proposal") in response to the RFP; and

WHEREAS, as part of the Proposal, Offeror is submitting one copy of all information regarding the assumptions made in developing the Proposal, as required under Part 1, Section 11.7 of the RFP, in one (1) separately sealed and labeled boxes ("EPDs"); and

WHEREAS, Department and Offeror wish to employ the services of Escrow Agent to act as the escrow holder with regard to the EPDs for the limited purposes set forth below, and Escrow Agent has agreed to serve as such escrow holder under the terms and conditions provided in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree as follows:

1. Deposit. Offeror hereby deposits with Escrow Agent the EPDs. Escrow Agent hereby acknowledges receipt of such EPDs, and such EPDs shall be held in escrow under the terms and conditions of this Agreement.

2. Holding of EPDs. Escrow Agent shall hold the EPDs in escrow in a designated are on the premises of Escrow Agent located at **919 East Main St., 7th Floor, Richmond, VA 23219** on a confidential basis. The EPDs shall be stored in an area which is locked at all times. No third party, including the employees of Escrow Agent, shall be allowed access to any of the EPDs except as provided in Section 3 hereof, although this shall not preclude employees of Escrow Agent from having access to the locked area for other purposes.

3. Review of EPDs. Escrow Agent shall provide facilities for joint review of the EPDs by representatives of Department and Offeror in accordance with the terms of the RFP, upon at least one business days' advance notice.

4. **Release of EPDs**. Escrow Agent shall release the EPDs as follows:

(a) Escrow Agent shall release the EPDs to Offeror, and Offeror shall pick up the EPDs at Offeror's expense, upon deliver by Department of a certificate certifying the Department has entered into a Design-Build Contract with another Offeror (the "Contractor") and that all EPDs of other Offerors are to be released.

(b) Escrow Agent shall release the EPDs to the Design-Builder and Department for delivery and retention to the Department as set forth in the Design-Build Contract at such time as it is notified by Department and the Design-Builder.

5. **Representation and Warranty**. Offeror represents and warrants to Department that, prior to delivery of the EPDs to Escrow Agent, the EPDs were personally examined by an authorized representative of Offeror and that they constitute all the documentation and information used in the preparation of the Proposal.

6. **Rights of Escrow Agent**. If conflicting demands are made or notices served upon Escrow Agent with respect to this escrow, the parties hereto expressly agree that Escrow Agent shall have the absolute right at its election to do any of the following:

(a) withhold and stop all further proceedings in, and performance of, this escrow;

(b) file a suit in interpleader and obtain an order from the court requiring the parties to interplead and litigate in such court their several claims and rights amongst themselves, or

(c) deliver all EPDs with seals intact to another location to be selected by Department within thirty (30) days after Escrow Agent delivers notice thereof to Department.

7. **Fees**. Offeror shall be responsible for any escrow fees. If Offeror fails to pick up the EPDs under Section 4(a), Offeror shall pay any fees accruing thereafter.

8. **Notices**. All notices which may be or are required to be given or made by either party hereto to the other shall be in writing. Such notices shall be either personally delivered or sent by registered mail, postage prepaid, to:

If to the Offeror:

_____
_____
_____
Attention: _____

If to Department:

Virginia Department of Transportation
1401 East Broad St.
Richmond, VA 23219
Attention: Bryan W. Stevenson, P.E.

If to Escrow Agent:

Sun Trust Bank
919 East Main St., 7th Floor
Richmond, VA 23219
Attention: Charles Henderson

or to such other addressees and such other places as any party hereto may from time to time designate by written notice to the others.

9. **Counterparts**. This Agreement may be executed in one or more counterparts, all of which together shall be deemed an original.

10. **Headings**. The title headings of the respective paragraphs of this Agreement are inserted for convenience only, and shall not be deemed to be part of this Agreement or considered in construing this Agreement.

11. **Governing Law**. The laws of the Commonwealth of Virginia, excluding its conflict of laws, shall govern this Agreement.

12. **Attorneys' Fees**. If either Department or Offeror commences or engages in any action by or against the other party directly or indirectly arising out of or in connection with this Agreement, the prevailing party shall be entitled to have and recover from the losing party reasonable attorneys' fees and other costs incurred in the action and in preparation for said action and any subsequent appeal. All parties agree to indemnify and hold Escrow Agent harmless from and against all costs, expenses, and reasonable attorneys' fees in connection with any such action.

IN WITNESS WHEREOF, the parties hereto, each intending to be legally bound by this writing, have caused this Agreement to be executed the date first above written.

VIRGINIA DEPARTMENT OF TRANSPORTION

By: _____

Name: Jeffrey A. Roby
Title: Design-Build Program Manager

OFFEROR

By: _____

Name: _____
Title: _____

The escrow provided for this Agreement is hereby accepted by Escrow Agent.

Sun Trust Bank:

By: _____
Name: _____
Title: _____

Critical Infrastructure Information (CII)
Sensitive Security Information (SSI)
Individual Non-Disclosure Agreement

Code of Virginia §36-105.3 and §44-146.22 and 49 CFR Part 1520 stipulates instituting procedures to ensure the safe storage and secure handling of information that should be protected and not disclosed. VDOT CII/SSI includes such information and is not subject to disclosure under FOIA (reference Code of Virginia §2.2-3705.2).

Disclosure of CII/SSI in any manner that permits interception by unauthorized persons is prohibited. CII/SSI may not be released to persons without a need-to-know except with written permission from VDOT (see *Handling CII/SSI* on page 3). CII/SSI includes information marked as such or other information relating to VDOT security or protected systems (see *Guide to Identifying Possible CII* on page 4).

All documents and materials provided are the sole and exclusive property of VDOT. They may not be modified, reproduced, republished, redistributed or presented for sale, completely or in part, and doing so may result in severe civil and criminal penalties. All documents and materials provided are only to be used in conjunction with contract or project # _____.

As an employee of (or contractor to) _____ I understand that:

1. Certain information which I will receive from Virginia Department of Transportation (VDOT) may contain CII/SSI.
2. I may learn of or have access to some or all of this information through a computer system or through my employment activities.
3. CII/SSI is valuable and sensitive and is protected by law and by strict VDOT policies. The intent of these laws and policies is to assure that CII/SSI will remain confidential - that is, it will be used only as necessary to accomplish VDOT's mission.
4. I have no right or ownership interest in any CII/SSI referred to in this Agreement.
5. Willful violation of this agreement may subject me to discipline which might include, but is not limited to, termination of employment or further VDOT related work and to legal liability.
6. I am obligated to protect this information from unauthorized disclosure in accordance with the terms of this agreement.
7. Unauthorized disclosure of CII/SSI could compromise safety and security of persons and is prohibited.
8. My execution of this agreement shall not nullify or affect in any manner any other agreement, non-disclosure or otherwise, which I have executed or may execute with VDOT or the Commonwealth of Virginia.
9. My obligations with respect to the confidentiality and security of all CII/SSI disclosed to me shall survive the termination of any agreement or relationship with VDOT.
10. I am required to conduct myself in a strict conformance to applicable laws and VDOT policies governing CII/SSI (see *Handling CII/SSI* on page 3).
11. VDOT may at any time revoke my authorization allowing access to CII/SSI.

Accordingly, as a condition of and in consideration of my access to CII/SSI, I agree that:

1. I will only access CII/SSI for which I have a need-to-know
2. I will use any CII/SSI that I obtain only as needed by me to perform my legitimate VDOT related duties.
3. I will not in any way divulge, copy, release, sell, loan, review, alter or destroy any CII/SSI except as properly authorized within the scope of my professional VDOT activities

Last Name, First name: _____

4. I will safeguard the confidentiality of all CII/SSI at all times.
5. I will safeguard and will not disclose my access code or any other authorization I have that allows me to access CII/SSI and I accept responsibility for all activities undertaken using my access code and other authorization.
6. I will be responsible for my misuse or my wrongful disclosure of CII/SSI and for my failure to safeguard my access code or other authorization access to CII/SSI.

Each provision of this agreement is severable. If any administrative or judicial tribunal should find any provision of this agreement to be unenforceable, all other provisions shall remain in full force and effect.

I make this agreement in good faith, without mental reservation or purpose of evasion.

Printed name of Individual Staff Member	Date
Company Name	Phone Number
Company Address	Fax Number
Company City, State, Zip	E-mail Address
Signature of Individual Staff Member	

Authorized Agent for Company (person who signed the Company Agreement):

Printed Name of Authorized Agent	Title
Signature of Authorized Agent	Phone Number
VDOT Contact Name	

Return copy of signed agreement to _____.

(Retain this page and the next for reference)

Handling CII/SSI

You are responsible for safeguarding Critical Infrastructure Information/Sensitive Security Information (CII/SSI) in your custody or under your control.

The extent of protection afforded CII/SSI shall be sufficient to reasonably foreclose the possibility of its loss or compromise.

The terms of this clause (*Handling CII/SSI*), including this paragraph, must be included in any dissemination of any document, in whole or in part, that contains CII/SSI.

Protection - CII/SSI shall be protected at all times, either by appropriate storage or having it under the personal observation and control of a person authorized to receive it. Each person who works with protected CII/SSI is personally responsible for taking proper precautions to ensure that unauthorized persons do not gain access to it.

Use and Storage - During working hours, reasonable steps shall be taken to minimize the risks of access to CII/SSI by unauthorized personnel. After working hours, CII/SSI shall be secured in a secure container, such as a locked desk, file cabinet or facility where contract security is provided.

Reproduction - Documents or material containing CII/SSI may be reproduced to the minimum extent necessary consistent with the need to carry out official duties provided that the reproduced material is marked and protected in the same manner as the original material.

Disposal - Material containing CII/SSI shall be disposed of by any method that prevents unauthorized retrieval (e.g. shredding, burning, returning to original source, etc.).

Transmission - CII/SSI shall be transmitted only by VDOT courier, US first class, express, certified or registered mail, or through secure electronic means.

Critical Infrastructure Information (CII)
Sensitive Security Information (SSI)
Individual Non-Disclosure Agreement

Things to consider regarding the need to protect CII/SSI…

- What impact could the information have if it was inadvertently transferred to an unintended audience?
- Does the information provide details concerning security procedures and capabilities?
- Could someone use the information to target personnel, facilities or operations?
- How could someone intent on causing harm misuse the information?
- Could the use of this information be dangerous if combined with other publicly available information?

Before looking at the Guide, answer the following:

Is the information customarily public knowledge? (Information that is accessible to the general public if there has been no deliberate attempt to keep it hidden or secret.)	
Does the general public have a need-to-know? (Access to, or knowledge or possession of, specific information required to carry out official duties) (Note: Contractors should be considered employees, not general public.)	
If **"yes"** to either, then it is **not** CII/SSI otherwise, continue to the guide.	X

Guide to Identifying Possible CII/SSI		
If the item under consideration shows, describes or is listed below, it might be CII/SSI.		**Y/N**
1	Information, the disclosure of which would jeopardize the safety or security of any person or structure, including engineering and construction drawings and plans that reveal: • Critical structural components • Ventilation systems • Elevators • Mandatory building emergency equipment or systems • Security equipment and systems • Fire protection equipment • Telecommunications equipment and systems • Electrical systems • Other utility equipment and systems *(COV § 2.2-3705.2 (2))*	
2	Documentation or other information that describes the design, function, operation or access control features of any security system, manual or automated, used to control access to or use of any automated data processing or telecommunications system. *(COV § 2.2-3705.2 (3))*	
3	Plans and information to prevent or respond to terrorist activity, the disclosure of which would jeopardize the safety of any person, including: • Critical infrastructure sector or structural components • Vulnerability assessments • Operational, procedural, transportation, and tactical planning or training manuals • Staff meeting minutes or other records Engineering or architectural records or portions of, that reveals the location or operation of: • Security equipment and systems • Ventilation equipment and systems • Emergency equipment and systems • Utility equipment and systems • Elevator equipment and systems • Fire protection equipment and systems • Electrical equipment and systems • Telecommunications equipment and systems The same categories of records submitted to us for the purpose of antiterrorism response planning if accompanied, in writing, a statement that: • Invokes the protection of §2.2-3705.2 • Specifically identifies the records or portions thereof which are to be protected • States why the protection of such records from public disclosure is necessary *(COV § 2.2-3705.2 (4))*	
4	Information including (drawings, manuals, or other records) which reveals: • Surveillance techniques • Personnel deployments • Alarm or security systems or technologies • Operational and transportation plans or protocols *(COV § 2.2-3705.2 (6))*	
5	Information concerning threats against transportation. *(USC 49 CFR 1520 (5))*	

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PART 2

TECHNICAL INFORMATION & REQUIREMENTS

1.0 DESIGN-BUILDER'S SCOPE OF WORK

1.1 Project Description

The Project is located in Fairfax County, Virginia, and involves the milling and overlay and re-striping of Interstate 495 (I-495) to convert the existing northbound inside shoulder to a lane-controlled travel lane during the AM and PM peak periods. The shoulder use will begin at the existing terminus of the Express Lanes (approximately 0.2 miles south of Old Dominion Drive) and end in the vicinity of the George Washington Memorial Parkway, for a total length of approximately 1.8 miles. In order to accommodate this shoulder use lane, all lanes of I-495 Northbound will be repaved and restriped within the Project limits. The shoulder lane will not be tolled, and all vehicles will be allowed to access the shoulder during prescribed hours. It is noted that the description and length are approximate only and are based on the RFP Conceptual Plans included in the RFP Information Package. The final Project length may vary depending on the Design-Builder's final design; however, any change in the project limits requires approval by VDOT.

A conceptual design has been developed and made available for public review via a Citizen's Information Meeting held on November 19, 2013. The major design features of the Project were approved by the Chief Engineer on January 23, 2014. The RFP Conceptual Plans included in the RFP Information Package reflects a basic horizontal alignment, preliminary median barrier modifications, pavement joint repair locations, typical sections, minimum pavement structures, Intelligent Transportation System (ITS) devices, signing and pavement markings. These elements are considered to be the basic Project configuration. The Design-Builder is responsible for final design in accordance with the Contract Documents.

1.2 Anticipated Scope of Work

The anticipated scope of work to be undertaken by the Design-Builder under the Design-Build contract for this Project will include, but is not limited to:

- Survey
- Developing and completing the design
- Acquiring the necessary environmental permits
- Coordinating and performing, or causing to be performed, required utility relocations, additions, and adjustments
- Roadway construction
- Full depth patches/joint repairs of existing pavement
- Milling and overlaying and/or building up of existing pavement
- Guardrail/barrier modifications and/or replacement
- Signs, sign structures, and foundations

- Overhead signs structures and other traffic control measures
- Removal of existing bridge mounted signs
- Intelligent Transportation System (ITS) components including Closed Circuit Television (CCTV) Cameras, Dynamic Message Signs (DMS), Detectors, and Fiber Optic Communications (COMM) Infrastructure
- System integration, testing, maintenance until final acceptance, and documentation
- Lighting for sign structures
- Traffic maintenance and management during all phases of construction
- Pavement markers and markings
- Storm drainage
- Storm water management
- Quality Assurance and Quality Control for design and construction
- Stakeholder coordination and public outreach
- Overall Project management
- Movable barrier installation

Descriptions and technical requirements of the anticipated work are set forth in Part 2, Section 2.

1.3 Anticipated Design Services

Design services shall address all items necessary for construction and operation of the completed facility. Design services are anticipated to include, but are not limited, those services necessary to produce roadway construction plans relative to the technical disciplines listed in Part 2, Section 1.2 above. Other data collection and technical studies anticipated include, but are not necessarily limited to: geotechnical investigation, borings and analysis, materials analysis, pavement design, sign structure foundation design, traffic counts and analyses, additional environmental studies and noise analyses (if warranted as described in Part 2, Section 2.4.8), and hydraulic and hydrologic analysis. Offerors should note that all work performed on this Project shall be completed using English Units.

1.4 Anticipated Environmental Services

The Design-Builder shall carry out environmental commitments during design and construction, as applicable, as identified in the Categorical Exclusion (CE) dated December 18, 2013; the Plans, the Specifications, and Estimates (PS&E) Re-evaluation Authorization (EQ-200); and the Environmental Certification/Commitments Checklist (EQ-103). All commitment compliance shall be supported by the appropriate documentation, to be provided by the Design-Builder to the VDOT Project Manager. Further details are provided in Part 2, Section 2.4.

The Design-Builder shall provide the necessary environmental services to obtain remaining necessary environmental clearances, permits, and approvals required to accomplish the work as noted in Part 4 (General Conditions of Contract), Article 2.6. The Design Builder shall acquire all water quality permits for the Project in the Design-Builder's name (i.e. the

Design-Builder will be the "Permitee") and shall provide for any necessary stream and/or wetland compensation required by permits to accomplish the work.

The Design-Builder shall be responsible for compliance with pre-construction and construction-related environmental commitments and will be responsible for compliance with pre-construction, construction-related permit conditions, as well as post-construction monitoring if required by regulatory agencies. The Design-Builder will assume all obligations and costs incurred by complying with the terms and conditions of the permits and environmental certifications. Any fines associated with environmental permit or regulatory violations will be the responsibility of the Design-Builder.

Any changes in scope or project footprint from that contained in the Contract Documents proposed by the Design-Builder, which are acceptable to VDOT, may require additional environmental technical studies and analysis to be performed by the Design-Builder at their cost. VDOT will be responsible for the coordination of any NEPA document re-evaluations with FHWA. The Design-Builder shall then carry out any additional environmental commitments that result from such coordination at its sole expense and at no additional cost and/or time delays to the Project.

1.5 Anticipated Right of Way and Utilities

The Offeror's conceptual design included in its Proposal shall be wholly contained within the existing right of way limits shown on the RFP Conceptual Plans. It is anticipated that no right-of-way and/or easements acquisition is necessary for this project. Deviations from the right of way limits shown on the RFP Conceptual Plans will be subject to VDOT approval in accordance with Part 1, Sections 2.8 and 2.9.

The Design-Builder shall be responsible for assuming all risks associated with the acquisition of additional right-of-way or easements (to accommodate its unique solution), including any public hearings that may be required, and no modifications to the Contract Price or Contract Time will be granted or considered. Any additional easements for the convenience of construction access shall be the responsibility of the Design-Builder. Any additional right-of-way acquisition costs (compensation paid to landowners for right-of-way or easements and administrative expenses) will be paid by the Design-Builder and should be included in the design-build price proposal. These costs are specifically payments to the landowner for land, damages, relocation of displaced people and businesses and do include administrative expenses incurred by the Design-Builder. Access shall be maintained at all times to properties during construction. Design-Builder's Right-of-Way team shall be a member of the VDOT prequalified contracting consultant list, and include a VDOT prequalified Fee Appraiser.

The Design-Builder's final design shall also be contained within the right of way limits shown on the RFP Conceptual Plans. If the Design-Builder proposes a change to the right of way limits shown on the RFP Conceptual Plans, then this shall be consider a deviation of the Contract Documents and shall be addressed as described in Part 2, Section 2.0.

All costs for utility relocations, excluding betterments, shall be included in the Offeror's Price Proposal. Utility betterments shall not be included in the Offeror's Price Proposal but shall be reimbursed to the Design-Builder through agreement with the requesting utility owner. Betterments must be requested by and/or approved by the affected utility owner and must meet Buy America requirements as described in Part 5, Exhibit 102.05(g.1) Use of Domestic Material.

1.6 Anticipated Construction Services

The construction services to be undertaken by the Design-Builder for this Project are anticipated to include, but are not limited to: earthwork, roadway, structures (including all necessary excavation, foundation work), the demolition and removal of portions of the existing pavements, full depth patches/joint repairs, milling and overlaying or building up of existing pavement, demolition and removal of existing structures, drainage improvements/upgrades, utility relocations/adjustments and coordination, transportation management plan, traffic control and ITS devices, erosion and sediment control, and compliance with all environmental requirements, commitments and permit conditions, as described in Part 2, Section 2 of this RFP. The Design-Builder shall provide construction engineering inspection and management, quality assurance and quality control, including plant quality assurance inspection and testing, but excluding items listed under Part 2, Section 2.19.2.

1.7 Coordination with I-495 Express Lanes

The Design-Builder shall coordinate all work activities that may affect the operations of the I-495 Express Lanes with the concessionaire (Transurban), including but not limited to, signing, striping, ATM/ITS devices, utilities, and traffic management. Authorization to Work forms shall be submitted and approved by Transurban a minimum of 72 hours prior to any work activities potentially affecting the Express Lanes operations. In addition, a Safe Work Method Statement will need to be completed and approved prior to any work within the concessionaire's jurisdiction.

VDOT has coordinated the lane closure permitted hours with Transurban. Single-lane closures only (no multiple lane closures) will be allowed in the Express Lanes during the same time frames as indicated in Section 2.15.2 for the I-495 roadway. The lane user fees shown are also applicable to any work within the Express Lanes jurisdiction as well as within the general project limits.

The concessionaire contacts for work authorizations and the Safe Work Method Statement forms are as follows:

Mr. Rami Chehade, Road Maintenance Supervisor (Primary Contact)
571-419-6117 (o)
571-239-3412 (c)
rchehade@transurban.com

Mr. Rob Kerns, Road Operations Manager (Alternate)
571-419-6028 (o)

703-209-9654 (c)
rkerns@transurban.com

2.0 PROJECT TECHNICAL INFORMATION & REQUIREMENTS

The Offeror's proposed conceptual design shall meet all requirements of the RFP. Any proposed deviations from the requirements of the RFP Documents by the Offerors shall be in accordance with Part 1, Sections 2.8 and 2.9.

The Design-Builder's final design shall meet or exceed all requirements included in the Contract Documents, except under the following conditions. If the Design-Builder proposes any deviation that results in a modification to the Contract Documents then the Design-Builder shall follow the Value Engineering Proposals (VEP) process as described in Section 104.02 of Division I Amendments to the Standard Specifications (Part 5) (even though the proposed deviations may not qualify as a VEP), unless otherwise directed by VDOT. Ultimately, any modification to the Contract Documents requires VDOT approval.

2.1 References and Information

The design and construction work for the Project shall be performed in accordance with the applicable federal and state laws and VDOT Standards, Specifications and Reference Documents to include, but not limited to the documents listed herein. The Design-Builder must verify and use the latest version of the documents listed herein as of the date of the RFP or latest Addenda. The Design-Builder must meet or exceed the minimum roadway design standards and criteria.

2.1.1 Standards and Reference Documents

If during the course of the design, the Design-Builder determines that a specific Standard, Specification or Reference Document is required but is not listed herein, it is the responsibility of the Design-Builder to identify the pertinent Standard, Specification, or Reference Document and submit to VDOT for review and approval prior to inclusion in the Contract Documents.

The VDOT 2007 Road and Bridge Specifications, and its associated Special Provision Copied Notes, contain pricing language under sections entitled "Measurement and Payment" that is not applicable in the Design-Build context of this RFP. Thus, in accordance with the hierarchy of documents, the Design-Builder will refer to Part 3, Articles 6 and 7, Part 4, Article 6, and applicable portions of the Division I Amendments (Part 5) to the Standard Specifications for more information regarding the pricing and payment to the Design-Builder. Similarly, other references below which contain pricing methodologies for the "Contractor" shall likewise not be used. The requirements as described in the text of Part 2 herein take precedence over the referenced documents listed below, unless otherwise indicated.

The standards and references for the Project are listed below in the following order: (a) Standards and Specifications; (b) Reference Manuals; (c) Special Provisions List including

Special Provisions, Special Provision Copied Notes and Supplemental Specifications. Items (a) and (b) are published references that are available publicly, for which copies are not provided to the Offerors in the RFP Information Package, but these items are to be used as manuals for design and construction. Items listed in (c) are included in the RFP Information Package.

(a) Standards and Specifications

- 2011 Virginia Supplement to 2009 MUTCD
- 23CFR625 – Design Standards for Highways
- 23CFR650 Subpart C - National Bridge Inspection Standards ("NBIS"), Subsection 650.301 or the latest revision(s)
- 49CFR Part 24 – The Uniform Relocation Assistance and Real Properties Acquisitions Act of 1970
- AASHTO A Policy on Design Standards Interstate System, 5th Edition, January 2005
- AASHTO A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011
- AASHTO Construction Handbook for Bridge Temporary Works, 1st Edition, 1995, 2008 Interim
- AASHTO Guide Design Specifications for Bridge Temporary Works, 1st Edition, 1995, 2008 Interim
- AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement), 1993 Edition
- AASHTO Guide for Protective Screening of Overpass Structures, 1990
- AASHTO Guide for Roadway Lighting Design, 6th Edition, 2005
- AASHTO Guide for the Development of Bicycle Facilities, 2012
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004
- AASHTO Guide Specifications for Seismic Isolation Design, 2nd Edition, with 2000 Interim Revisions
- AASHTO Guide Specifications for Structural Design of Sound Barriers
- AASHTO LRFD Bridge Construction Specifications, 3rd Edition, 2010 Interim Revisions, Single User Digital Publication
- AASHTO LRFD Bridge Design Specifications, 6th Edition, and 2010 Interim Specifications; and VDOT Modifications
- AASHTO Manual for Assessing Safety Hardware, First Edition, 2009
- AASHTO Roadside Design Guide, 4th Edition, 2011
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, 2009 Edition, with 2010 and 2011 Interim Review
- AASHTO's Manual of Bridge Evaluation, 2nd Edition, 2010, 2011 and 2013 Interim Revisions
- Americans with Disabilities Act Accessibility Guidelines for State and Local Government Facilities
- Corps of Engineers EM-1110-2-1906, Laboratory Soils Testing, 1986
- DCR Virginia Erosion and Sediment Control Handbook, Third Edition, 1992
- DCR Virginia Stormwater Management Handbook, Vol. 1 and Vol. 2, First Edition, 1999

- DEQ (Formerly DCR) Virginia Stormwater Management Program Technical Bulletin 1 (See http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/TechBulletin1.pdf)
- Engineering Properties of Clay Shales, Report 1 by W. Heley and B. N. McIver
- FHWA's Mitigation Strategies for Design Exceptions, July 2007
- FHWA's Standard Highway Signs including Pavement Markings and Standard Alphabets, 2004 Edition and 2012 Supplement (For use with the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways), or most current Edition
- Guideline for Context Sensitive Solutions/Design, February 25, 2004
- Highway Traffic Noise Impact Analysis Guidance Manual, dated September 16, 2011
- IEEE National Electric Safety Code (NESC) Standards
- IES RP-08-00, American National Standard for Roadway Lighting
- IES RP-19-01, Roadway Sign Lighting
- Manual of Uniform Traffic Control Devices (MUTCD), 2009 Edition and latest updates as of date of release of RFP or applicable addenda
- NCHRP Report 350 Recommended Procedures for the Safety Performance Evaluation of Highway Features
- Transportation Research Board Highway Capacity Manual, 2010 Edition
- VDOT Appraisal Guidelines
- VDOT CADD Manual, 2012 (including all revisions)
- VDOT Construction Inspection Manual, April 2008
- VDOT Construction Manual, 2005 (including July 2008 revisions)
- VDOT Drainage Manual, Revised July 2013 (including current Errata Sheet)
- VDOT Guardrail Installation Training Manual (GRIT), Revised November 2013
- VDOT Guide Manual for Causes and Repair of Cracks in Bridge Decks, dated September 25, 2009
- VDOT Guidelines for 1993 AASHTO Pavement Design, Revised May 2003
- VDOT State Noise Abatement Policy
- VDOT Highway Traffic Noise Impact Analysis Guidance Manual, Version 4, Updated August 6, 2013
- FHWA, Highway Traffic Noise Analysis and Abatement Guidance, Revised January 2011
- VDOT Noise Report Development and Guidance Document, Updated August 16, 2013
- VDOT Hydraulic Design Advisories (all current)
- VDOT Instructional & Information Memorandums (I&IM), All Divisions
- VDOT Land Use Permit Regulations, 24 VAC 30-151, March 17, 2010
- VDOT Manual of Instruction for Material Division, including revisions through May 2012
- VDOT Manual of Structure and Bridge Division, Vol. V
- VDOT Materials Division Approved List, November 2013
- VDOT Materials Division Memorandum Number MD299-07 for Materials Acceptance, October 4, 2007

- VDOT Policy Manual for Public Participation in Transportation Projects, updated August 2011
- VDOT Post Construction Manual, May 2011 Edition
- VDOT Right of Way Manual of Instruction (January 2011, including July 2011 revisions)
- VDOT Road and Bridge Specifications, 2007 (all except Section 100), including all revisions
- VDOT Road and Bridge Standards, Vol. 1 and Vol. 2, 2008, including all revisions through July 2011
- VDOT Road Design Manual, Vol. I, including all revisions
- VDOT Survey Manual, 2013 Edition, including all revisions
- VDOT Traffic Engineering Design Manual, 2011
- VDOT Traffic Engineering Division Numbered Memoranda (Traffic Engineering (TE) and Mobility Management (MM))
- VDOT Traffic Operations Analysis Tool Guidebook
- VDOT Utilities Manual of Instruction (January 2011, including February 2011 revisions)
- VDOT Virginia Work Area Protection Manual, June 2011
- VDOT's Minimum Requirements for Quality Assurance & Quality Control on Design Build and Public-Private Transportation Act Projects, January 2012
- VDOT's Project Management Policy PMO-Policy-2011-1, July 1, 2011
- VDOT's Stormwater Program Advisory 12-01, dated April 5, 2012
- VDOT's Stormwater Program Advisory 12-02, dated April 26, 2012

(b) Reference Manuals

- AASHTO's Highway Safety Manual, 1st Edition, Vol. 1-3, 2010
- American National Standards Institute (ANSI)/Insulated Cable Engineers Association (ICEA) S-87-640-2006 requirements
- American Water Works Associations Standards
- American Welding Society Standards
- Bellcore/Telcordia Standards
- Bridge Welding Code: AASHTO/AWS-D1.5M/D1.5: 6th Edition, with 2011 AASHTO Interim
- Duncan, J.M. (April 2000) Factors of Safety and Reliability in Geotechnical Engineering, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Discussions and Closure, August 2001
- Field Partnering Guide for VDOT Projects, November 2005
- FHWA publications HDS-6, HEC-11, HEC-14, HEC-15, HEC-18, HEC-20, HEC-22, and HEC-23
- FHWA publication HEC No. 5, Hydraulic Design of Highway Culverts, 3rd Edition dated April 2012
- gINT© Manual
- Institute of Electrical and Electronics Engineer (IEEE) Standards

- International Mechanical Code
- International Telecommunication Union (ITU) Requirements
- ISEE Blasters Handbook (Current Edition)
- National Electric Code (NEC)
- National Electric Safety Code (NESC) Standards
- National Electrical Manufacturers Association (NEMA) Standards
- National Transportation Communications for ITS Protocol (NTCIP)
- Society for Protective Coatings (SSPC) Standards
- Telecommunications Industry Association (TIA) and Electronic Industries Alliance (EIA) Standards and Specifications
- U.S. Department of Agriculture Rural Utilities Service (RUS) 7 CFR 1755.900
- Underwriters Laboratories (UL) Standards
- VA Statewide Fire Prevention Code (referenced in Special Provision for Section 107.11 - Use of Explosives)
- VDOT Land Use Permit Regulations Guidance Manual, Revised November 8, 2011
- Virginia Calibration Methods, June 2011
- Virginia State Noise Abatement Policy, July 13, 2011
- Virginia Test Methods Manual, May 2012
- Virginia Uniform Statewide Building Code

(c) Special Provisions List, Special Provision Copied Notes and Supplemental Specifications

Division 1: General Provisions

- Special Provision for Section 105.02 – Plans and Working Drawings (Contract Management Software®), June 13, 2007
- Special Provision for Work Zone Traffic Control Management for Design-Build, revised November, 2009
- SS52200 Supplemental Section 522—Partnering Design-Build Projects, June 1, 2012
- Special Provision for Personnel Requirements for Work Zone Traffic Control, June 11, 2009

Division 2: Materials

- S302B00-0708 Restoring Existing Pavement, January 14, 2008c
- SPCN Polymer Modified (PG 76-22 and PG 70-28) Asphalt Cement Adjustment Design-Build Projects, August 9, 2013
- SPCN c211gg0-0609 Warm Mix Asphalt Pavement, December 7, 2009
- SPCN c248fg0-0708 Surface and Intermediate Mixes using Rap, January 14, 2008
- SPCN c315gg0-0609 Warm Mix Asphalt Pavement, December 7, 2009
- Special Provision for Design-Build Tracking (DBT) Numbers, December 8, 2009
- SS40402-211 Supplemental Section 404 - Hydraulic Cement Concrete Operations, December 17, 2010
- Special Provision for Jack and Bore for DB Projects, October 13, 2009

- Special Provision for Lime Modification of Soils for DB Projects, revised November 23, 2009
- Special Provision for Low Permeability Concretes For Design-Build Projects, September 6, 2009
- Special Provision for Micro Tunneling for DB Projects, September 14, 2009
- Special Provision for Rideability, November 19, 2013
- Special Provision for High Friction Epoxy Aggregate Roadway Surface Treatment, January 24, 2012
- Special Provision for BM-25.0D with Increased Asphalt Content, November 25, 2013
- Special Provision for Sealing Cracks in Asphalt Concrete or Hydraulic Cement Concrete Pavement, November 25, 2013
- Supplemental Section 248 – Stone Matrix Asphalt Concrete, September 28, 2012
- Supplemental Section 315 – Asphalt Concrete Placement, October 22, 2012
- Supplemental Section 317 – Stone Matrix Asphalt Concrete Placement, September 28, 2012
- Supplemental Section 515 – Planing or Milling Pavement, September 27, 2011

Division 3: Roadway Construction

- SPCN c302h00-0708 Precast Drainage Structures, January 14, 2008
- S302602-0610 Special Provision for Flowable Backfill, March 11, 2010
- Special Provision for Pipe Rehabilitation, dated December 11, 2013.
- Special Provision for Pipe Replacement, dated February 28, 2013.
- Special Provision for Right of Way Monumentation and Final Boundary Stakeout, December 2, 2009a
- SS30204-0613 Supplemental Section 302 – Drainage Structures, March 14, 2013

Division 4: Bridges and Structures

Division 5: Incidental Construction

- Special Provision for Movable Barrier, January 30, 2014

Division 6: Roadside Development

- Special Provision for Section 244 – Roadside Development Materials, August 29, 2008

Division 7: Traffic Control Devices

- S704E02-1211 Special Provision for Type B, Class VI Pavement Line Marking, October 21, 2011
- S704F01-1209 Special Provision for Transitory Pavement Markers (“TPM”), December 14, 2009
- SPCN c510am1-1010 Locating, Removing and Disposing of Recessed Pavement Markers and Raised Snow-Plowable Markers, October 17, 2010

- Special Provision for Preformed Thermoplastic Pavement Markings, November 29, 2011b
- Special Provision for Replacement of Pavement Line Markings, Pavement Markers and Loop Detectors, September 27, 2011
- Special Provision for Square Tube Steel Sign Post, March 3, 2008
- Special Provision for Glare Screens, October 25, 2013
- S704M02-1211 Special Provision for Temporary Construction and Permanent Pavement Markings, November 8, 2011

Intelligent Transportation Systems:

- Special Provision for CCTV Video Equipment and CCTV General Requirements, August 26, 2013
- Special Provision for Intelligent Transportation System - Dynamic Message Sign, September 6, 2013
- Special Provision for Field Equipment Cabinet, October 9, 2012
- Special Provision for Intelligent Transportation System - Fiber Optic Cable and Interconnect, August 26, 2013
- Special Provision for Intelligent Transportation Systems - Field Video Encoders, December 10, 2012
- Special Provision for Intelligent Transportation Systems - Inspection, Testing and Integration, December 10, 2012
- Special Provision for Intelligent Transportation Systems - ITS Support Structures, December 10, 2012
- Special Provision for Intelligent Transportation System - Record (As-Built) Plans, March 23, 2012
- Special Provision for Uninterruptible Power Supply for ITS Applications, August 26, 2013
- Special Provision for Intelligent Transportation Systems - Vehicle Detection and Data Collection, August 26, 2013
- Special Provision for Shoulder Lane Monitoring System, March 23, 2012
- Special Provision for Intelligent Transportation Systems- Training, March 23, 2012

Other Special Provisions

Federal:

- c100ai03 General Project Requirements, Supplemental Specifications (SSs), Special Provisions (SPs) and Special Provision Copied Notes (SPCNs), 12-1-2011 (SPCN)
- S100B00 Project Communication and Decision Making for Design-Build Projects, January 3, 2005c, Reissued August 2009
- SS51202 Supplemental Section 512—Maintaining Traffic Design-Build Projects, December 2, 2009

Environmental:

- S107E02-0910 Volatile Organic Compounds (VOC) Emissions Control Areas, August 12, 2010

- S107G01-0309 Storm Water Pollution Prevention Plan (SWPPP) General Permit for the Discharge of Stormwater from Construction Activities Contractor and Subcontractor Certification Statement, February 19, 2009
- Special Provision for Storm Water Pollution Prevention Plan (SWPPP), February 19, 2009
- Special Provision for Sound Barrier Walls, revised March 29, 2013

The above list of Special Provisions is not intended to be an all-inclusive list. The Design-Builder is responsible for achieving the Work in accordance with all current VDOT standards as of the date of the RFP issuance, including any revisions and/or addenda thereof. If a construction element is not adequately addressed within VDOT Standard Specifications or the Special Provisions listed for the purpose of the Design-Builders design, it is the responsibility of the Design-Builder to develop an alternative specification that is acceptable to VDOT for that element of work.

In the event of a discrepancy between VDOT and non-VDOT Standards and References listed herein, the VDOT Road and Bridge Specifications, design standards, and manuals shall take precedence, with the following exception. If AASHTO or the MUTCD require that a higher or better standard be applied, then AASHTO and/or the MUTCD shall take precedence. In accordance with Part 2, Section 2.1.3 below, all deviations from AASHTO minimum specified design values shall be documented, justified, and approved by VDOT and FHWA.

Special Provisions included in this contract document or other Special Provisions approved by VDOT shall govern over the VDOT specifications, design standards and manuals. Special Provision Copied Notes approved by VDOT and requirements specified within the text of this RFP shall govern over both the Special Provisions and VDOT specifications, design standards and manuals.

2.1.2 RFP Information Package

An RFP Information Package is available for interested Offerors on CD for $50. Interested Offerors should complete the RFP Information Package Order From included as Attachment 2.6 of Part 1. An RFP Information Package will be provided to the point of contact for each short listed firm. The RFP Information Package includes the following:

- Special Provisions and Special Provision Copied Notes listed in Part 2, Section 2.1.1(c) above
- RFP Conceptual Roadway Plans, including electronic reference files
- RFP Conceptual Traffic Plans, including electronic reference files
- Survey Information as listed in Part 2, Section 2.5
- Design Waivers listed in Part 2, Section 2.1.3
- Drainage, SWM and Outfall Analysis (RFP Concept), dated January 2014
- Geotechnical Engineering Data Report for “I-495 Northern Section Shoulder Use Lane”, dated December 3, 2013

- Supplemental Specifications, Sec. 2.1.1 (c) – Soil Design Parameters for Sound Barrier Walls, Retaining Walls and Non-Critical Slopes, April 14, 2011
- Categorical Exclusion (CE), dated December 18, 2013.
- Preliminary Environmental Document Re-evaluation for Plans, Specifications and Estimates (PS&E) Authorization, dated January 16, 2014.
- Preliminary Environmental Certification/Commitments Checklist, dated January 16, 2014
- Preliminary VDOT Permit Determination, dated October 28, 2013.
- Preliminary Fish, Plant and Wildlife Resources Clearance dated August 7, 2013
- Cultural Resources Summary Report dated September 25, 2013
- Hazardous Materials Summary Report dated September 24, 2013
- Air Quality Analysis Report, dated December 13, 2013
- Final Design Noise Analysis and Appendices dated December 2013.
- Asset identification Table for ITS Devices (required for adding new equipment to NRO inventory database)
- I-495 Northern Section Shoulder Use Project Concept of Operations, dated February 2014
- Architecture 940 Conformance Checklist
- Letter of Approval for Public Interest Finding (PIF) for use of MOXA Model EDS 510A 3SFP-T, dated January 7, 2014
- Traffic Forecasting and Analysis Report, dated February 2014
- Route I-495 Telecommunications Upgrade (UPC 98896), dated September 29, 2011

Requirements described in the Technical Information and Requirements (Part 2 of the RFP) shall supersede the information contained in the RFP Information Package, including the information depicted in the RFP Conceptual Plans. In the event that there is a discrepancy between the RFP Conceptual Plans (or other information contained in the RFP Information Package) and the Technical Information and Requirements (Part 2 of the RFP) herein, the Technical Information and Requirements (Part 2) shall take precedence.

2.1.3 Design Exceptions and Design Waivers

VDOT has identified the following design exceptions, with respect to the RFP Conceptual Plans, for which VDOT shall be responsible for obtaining approval:

(1) Design Exception No. 1 Reduced NB Lane and Shoulder Widths
(2) Design Exception No. 2 SB Inside Shoulder Width at Sign Structures
(3) Design Exception No. 3 Horizontal Sight Distance NB For The Inside Shoulder, Outside and Auxiliary Lanes

VDOT has identified the following design waivers, with respect to the RFP Conceptual Plans, for which VDOT has executed:

(1) Design Waiver No. 1 Vertical Clearance at Georgetown Pike
(2) Design Waiver No. 2 Vertical Clearance at Old Dominion Drive

The Design Waivers for the Project are included in the RFP Information Package. The Design-Builder shall design the Project in accordance with all requirements and mitigation items contained in the Design Waivers, unless other mitigation measures or designs are presented to and approved by VDOT.

The Design-Builder shall design the Project in accordance with all requirements and mitigation items noted in Attachment 2.1A Design Exception and Mitigation Table, unless other mitigation measures or designs are presented to and approved by VDOT and FHWA. The approved Design Exceptions will be provided prior to Contract Execution.

The Design-Builder shall be responsible for documenting and submitting any Design Exceptions and/or Waivers with respect to its final design above and beyond those listed above. Where the Design/Builder alters the design elements that are subject of previously approved exceptions and/or waivers, then the Design/Builder shall update/revise and resubmit the applicable exception(s)/waiver(s) for review and approval. Additionally, in certain instances, the approved Design Exception and Design Waiver reports contain mitigation measures that must be implemented by the Design-Builder. Note, in accordance with Part 1, Section 4.2.8, the Offeror's RFP Conceptual Plans submitted with their Letter of Submittal shall not require Design Exceptions and/ or Design Waivers that are not identified in the RFP or Addendum.

2.2 Mainline and Other Roadway Improvements

The roadway inventory information and major design criteria are summarized in Attachment 2.2. The information contained in the Attachment 2.2 shall serve as a basis for the Design-Builder to determine the appropriate criteria to apply to the design of the Project. Offerors are on notice that the entirety of the information contained in the Design Criteria Table and Part 2, Section 2.2 of this document including but not limited to the design criteria, and other notes and data, contain the minimum roadway geometric design requirements that the Design-Builder shall meet in its performance of the Work. By submitting its Proposal, Offeror certifies that the Project Concept presented in its proposal is fully compliant with such minimum requirements. Unless otherwise approved by VDOT, no changes to or deviation from the listed criteria shall be allowed.

The Design-Builder shall match the lane configuration, including the 12' lane locations, as shown in the RFP Conceptual Plans. The shoulder widths shall be maximized where possible. The left shoulder shall be no less than 2.5' as shown on the RFP Conceptual Plans.

The lane configuration and shoulder widths shall be in accordance with all requirements and mitigation items described in Part 2, Section 2.1.3.

Any schedule delays as a result of changes or deviations are the responsibility of the Design-Builder.

2.3 Structures

2.3.1 Bridge Pier Protection

This scope of work shall consist of upgrading the existing median barrier along NBL I-495, at the overpasses (bridges) listed below, to meet the standard BPPS-1 Bridge Pier Protection requirements as outlined in Volume V – Parts 2 and 3 of the Manual of the Structure and Bridge Division.

Bridge on Old Dominion Drive over I-495 (VA Str. No. 6216)
Bridge on Georgetown Pike over I-495 (VA Str. No. 1107), (*)
Bridge on Live Oak Drive over I-495 (VA Str. No. 2056)

(*) At Bridge on Georgetown Pike over I-495, pier protection barrier will also be required along the outside (right) shoulder of NBL I-495.

The minimum vertical clearance of the Georgetown Pike and Old Dominion Drive bridges shall not be less than 16’-0”.

Bridge inspection reports and structure condition assessments are designated Critical Infrastructure Information/ Sensitive Security Information (CII/SSI) materials and are not included in the RFP Information Package. Offerors desiring to obtain copies of the bridge inspection reports and structure condition assessments must complete a CII/SSI Non-Disclosure Agreement Form (Attachment 11.8.8) as prescribed in Part 1, Section 11.8.8 of the RFP. CII/SSI Non-Disclosure Agreements are not required to respond to the RFP.

2.3.1A Structure Load Rating

Modifications to the Bridge on NBL I-495 over Scotts Run (for example, an increase in the thickness of the asphalt concrete overlay on the bridge deck to correct the Shoulder Lane cross slope) will require the submission of a new load rating for the bridge in accordance with the requirements of IIM-S&B-86 Load Rating and Posting of Structures (Bridges and Culverts).

2.3.1B Scotts Run Bridge Joints

Modifications to the existing Type F-2 expansion dams at the bridge over Scotts Run shall not be permitted. If it is necessary to raise top of joint header to accommodate an increase in the thickness of asphalt deck overlay, complete joint reconstruction of impacted sections of the joint will be required. Joint reconstruction, when required, shall be performed in accordance with details shown for joint reconstruction, plan no. 138-25E. When joint reconstruction is performed in phases, welding of extruded metal joint sections may be permitted provided that furnished length of extruded sections is not less than 10 feet.

2.3.2 Structures for Traffic Control Devices, Including Signs and ITS Components

.1 Standard Sign Installations

The scope of work shall consist of installation of sign supports for standard signs, as specified in Part 2, Section 2.8.1. The Design-Builder shall use standard VDOT sign supports as specified in the VDOT Road and Bridge Standards for all standard sign installations. Non-standard supports for signs required due to mounting restrictions along the Project corridor shall be designed in accordance with Section 700 of the VDOT Road and Bridge Specifications, 2007, including all revisions.

.2 Overhead Structures for Static Sign Installations

The scope of work shall consist of installation of sign supports for overhead static signs on butterfly, cantilever, and half span overhead sign structures, as depicted in the RFP Conceptual Traffic Plans and as required by Part 2, Section 2.8.1. Half span structures shall be constructed with an appropriate width to span ratio across all travel lanes and shoulders of a single direction of travel. The Design-Builder shall use standard VDOT truss structures, as specified in the VDOT Road and Bridge Standards, for all overhead sign structures.

.3 Structures for Dynamic Message Signs

The scope of work shall consist of installation of supporting structures for Dynamic Message Sign (DMS) as identified in Part 2, Section 2.10 and depicted in the RFP Conceptual Traffic Plans. The Design-Builder shall use standard VDOT truss structures, as specified in the VDOT Road and Bridge Standards for all butterfly, half span, and full span overhead sign structures. Post mounted DMS signs structures shall be designed in accordance with Section 700 of the VDOT Road and Bridge Specifications, 2007, including all revisions. The RFP Conceptual Traffic Plans propose the following support types by DMS type:

- Type 1 DMS shall be mounted on half span or full span overhead sign structures. Type 1 DMS sign structures shall be designed to include catwalks with toe stops, handrails, harness clip-ons, and other design features to provide OSHA compliant access to the entry of the walk-in sign cabinet from the edge of pavement.
- Type 2 DMS shall be mounted on butterfly, half span, or full span overhead sign structures
- Type 3 DMS shall be mounted to the face of overhead static signs, see Part 2, Section 2.8.

.4 CCTV Camera and MVD Poles

The camera poles are intended to support ITS components consisting of one or more of the following: Closed Circuit Television (CCTV cameras), Microwave Vehicle Detectors (MVD) detectors, and/or ITS controller cabinets. The camera poles shall be round tapered

galvanized steel poles. The Design-Builder shall design, furnish, and install two standard camera pole sizes. One shall be 50 feet in height with a mounting bracket; and one shall be 80 feet in height with a CCTV camera lowering device.

The Design-Builder shall furnish and install a CCTV lowering device on all 80-foot camera poles. The Design-Builder shall provide a lowering device that maintains an uninterrupted electrical and communication connection between the control cabinet and the equipment without reducing the function or effectiveness of the equipment or degrading the overall system in any way.

The Design-Builder shall furnish and install a lowering device as detailed herein. The lowering device and camera pole shall be two interdependent components of a single unit, and function together such that the pole and lowering device are fully compatible and interoperable.

All CCTV installations on 50-foot poles shall use a typical mounting bracket to attach the CCTV camera to the pole. Lowering devices shall not be used on 50-foot poles.

The detector poles are intended to support ITS components consisting of one or more of the following: Microwave Vehicle Detectors (MVD), and/or ITS controller cabinets. The MVD poles shall be round tapered galvanized steel poles. The Design-Builder shall design, furnish, and install MVD poles with a minimum height of 25 feet.

Structural design of steel poles and associated foundations shall be performed on a case-by-case basis and shall account for the individual or combined loads of ITS components at each discreet pole location. All designs for camera and/or detector poles shall be designed in accordance with Section 700 of the VDOT Road and Bridge Specifications, 2007, including all revisions

.5 Shoulder Lane Monitoring System

The CCTV units for the Shoulder Lane Monitoring System (SLMS) may be mounted on structures installed for other ITS devices (MVD, CCTV) or overhead span, cantilever or butterfly structures for DMS and static signs furnished and installed under the Project with approval from VDOT depending on mounting method, structure capacity, access, clearance and other related factors. The CCTV units for the SLMS may utilize the existing ITS mounting structures or sign structures by installing new extension arms with approval from VDOT on a case by case basis with certification sealed by a Professional Engineer in the Commonwealth of Virginia.

In all installations, the CCTV units for the SLMS shall be mounted with a minimum height of the camera from the roadway being 30 feet.

In cases where a new pole is required for the mounting of a CCTV unit for the SLMS unit, the design shall conform to Part 2, Section 2.3.4.

.6 Lane Control Signal Support Installations

The scope of work shall consist of installation of supports for Lane Control Signals (LCS) standard signs, as identified in Part 2, Section 2.10 and depicted in the RFP Conceptual Traffic Plans. The lane control supports shall consist of signal mast arms and poles, as specified in the VDOT Road and Bridge Standards, and shall be designed in accordance with Section 700 of the VDOT Road and Bridge Specifications, 2007, including all revisions.

.7 Reuse of Existing Sign/ITS Structures

The Design-Builder may reuse an existing sign/ITS structure for proposed signs/ITS devices after inspection, repair of any defects, and certification that the structure meets all current sign structure design criteria and is fully compliant with the Technical Information and Requirements and Special Provisions listed in Part 2, Section 2.1 for this Project. Any existing structure that the Design-Builder proposes to reuse must be certified for the identified loads, including a statement sealed by a Professional Engineer in the Commonwealth of Virginia that the reused structure is fully compliant with the Technical Information and Requirements and Special Provisions listed in Part 2, Section 2.1 for this Project. In addition, base plates on poles/uprights of all existing overhead sign structures proposed to be re-used on this Project—including butterfly—shall have a minimum of six (6), 1 ½ inch diameter anchor bolts. All sign structures shall maintain a minimum vertical clearance of 19 feet over all roadways and shoulders at all times during and after construction, or not less than the existing clearance. The VDOT ID for any sign / ITS structure to be modified for reuse shall be clearly shown on the plans. The VDOT ID for any existing sign may be obtained by contacting the VDOT Northern Virginia District Structure and Bridge Section. Existing structures not meeting these criteria shall not be re-used or shall be replaced. Existing structures within project limits not meeting these criteria that are not impacted, modified and/or re-used may remain.

.8 Foundations for Sign and ITS Installations

The scope of work shall consist of installation of sign structure foundations for all signs and ITS structures as specified in Part 2, Section 2.3. The Design-Builder shall use standard foundation details where appropriate as specified in the VDOT Road and Bridge Standards. All cantilever signs shall be supported on spread footings or twin shafts / grade beam combination. Non-standard foundations required due to structure type and/or mounting restrictions along the project corridor shall be designed in accordance with Section 700 of the VDOT Road and Bridge Specifications, 2007, including all revisions. Design Exceptions and Waivers were prepared for the reduced inside shoulder width due to insufficient offset to obstructions, including bridge piers, existing and proposed sign structures. The Design-Builder shall minimize the width of median foundations for sign/ITS structures to the maximum extent possible, but in no case shall the shoulder be reduced more than specified in the approved Project Design Exceptions and Waivers.

.9 Acceptance for New or Modified Sign / ITS Structures

Acceptance of New or Modified Sign / ITS Structures will require a safety initial inspection. The purpose of an initial inspection is to verify compliance with the requirements of IIM-S&B-73 High Mast Light Poles: Inspection and Maintenance, and IIM-S&B-82 Traffic Structures and to identify deficiencies, including incomplete work, and variances from approved plans and specifications and which must be rectified before the structure can be accepted.

The initial inspections shall be performed by VDOT. The Design-Builder shall provide the VDOT Project Manager with Approved for Construction drawings including all revisions at least two weeks prior to scheduling the inspections.

During initial inspection, data about location, date completed, description, horizontal / vertical clearances, structure element description and condition, and traffic safety features will be gathered.

The Design-Builder shall ensure that all structural elements are accessible for inspection of all structures. This requirement may dictate that the Design-Builder provide:

Man-lifts, barges, remote operated vehicles, bucket trucks, or other equipment necessary to inspect the structure and Plans, personnel, and equipment to implement traffic control measures.

Upon completion of the initial inspection, VDOT shall submit an inspection report to the Design-Builder within ten (10) days of the inspection either recommending acceptance of the structure or identifying deficiencies, including incomplete work, which must be rectified before the structure can be accepted. If a structure is not accepted, the Design-Builder shall rectify the deficiencies and notify VDOT in writing, certifying that the deficiencies have been corrected. Within five (5) Days of receipt of such certification, VDOT may require that a follow-up inspection be performed to verify that the deficiencies have been corrected or recommend in writing to the Design-Builder that the structure is acceptable without a further inspection.

The final acceptance of Sign / ITS Structures will occur when the initial inspection is completed and any necessary follow-up (verification) inspections are performed. The initial inspection may be scheduled as more than one inspection as long as it is coordinated with VDOT.

.10 Removal and Disposal of Existing Bridge-Mounted Sign Structures

The bridge-mounted signs shown on the RFP Conceptual Plans to be removed (Old Dominion Drive, Georgetown Pike, and Live Oak Drive overpasses) shall be completely removed, including frames, sign panels, hardware, and incidentals. Removed materials shall become the property of the Design-Builder and shall be properly disposed of off-site. Connection bolts anchored into concrete parapets shall be mechanically cut flush with the surface of the parapet, and then removed by mechanical drilling to a depth of one-half inch below the surface of the parapet. The holes shall be patched to match the color and texture of the

existing parapet surface with hydraulic cement mortar or grout conforming to Section 410.02 of the Road and Bridge Specifications. Connection bolts to steel beams shall be removed, and the affected areas of steel beams cleaned, primed, and painted in accordance with the requirements of Section 411 of the Road and Bridge Specifications to match the existing structure. Electrical service shall be disengaged at the nearest junction box, and all conductors shall be capped and sealed in place unless existing service is to be reused for lighting of replacement structures.

2.4 Environmental

2.4.1 Environmental Document

FHWA has approved NEPA for this Project. A copy of the Categorical Exclusion (CE) dated December 18, 2013 is included in the RFP Information Package. VDOT has completed a preliminary document re-evaluation for Plans, Specifications and Estimates (PS&E) Authorization (EQ-200) dated January 16, 2014, and a preliminary Environmental Certification/Commitments Checklist (EQ-103) dated January 16, 2014, which are included in the RFP Information Package. VDOT shall complete a final document re-evaluation for PS&E Authorization (EQ-200) and final Environmental Certification/Commitments Checklist (EQ-103) prior to the VDOT Project Manager releasing the Project for construction.

The Design-Builder shall carry out environmental commitments during design, right-of-way acquisition, and construction, as applicable, as identified in the CE, the PS&E Re-evaluation, and the Environmental Certification forms. All commitment compliance shall be supported by appropriate documentation, to be provided by the Design-Builder to the VDOT Project Manager.

Any changes in the scope or footprint of the established basic Project concept, proposed by the Design-Builder and acceptable to VDOT, may require additional environmental technical studies and analysis to be performed by the Design-Builder at their cost. The Design-Builder will be responsible for notifying VDOT of plan revisions, scope changes, and providing any necessary studies and other necessary information to support VDOT's completion and re-evaluation of the NEPA document. VDOT will be responsible for the coordination of any environmental documentation re-evaluation with FHWA. If acquisition of right of way and/or easements is necessary, the Design-Builder shall furnish final right-of-way (RW) plans for VDOT to complete an environmental document reevaluation for RW Authorization (EQ-201). The Design-Builder shall then carry out any additional environmental commitments that result from such coordination at its sole expense and no additional cost and/or time delays to the Project.

The Design-Builder is solely responsible for any costs or schedule delays related to the permit acquisition, permit modifications, and NEPA document re-evaluations associated with Design-Builder's design changes and no time extensions will be granted. All costs associated with complying with these requirements shall be included in the Offeror's Price Proposal.

2.4.2 Cultural Resources

VDOT, in accordance with the efficiencies of quarterly reporting provided by Stipulation 2 of the 1999 Programmatic Agreement between VDOT and Virginia Department of Historic Resources (VDHR) has determined that there are no historic properties present or affected by the Project as proposed in the RFP Conceptual Plans.

Please note that any changes to the design, alignment, right-of-way limits, or easements shown on the RFP Conceptual Plans may require review by VDOT and could require additional cultural resources studies and/or coordination with the Virginia State Historic Preservation Officer (VA SHPO). The Design-Builder is responsible for conducting all cultural resources studies necessitated by the proposed changes, while the VDOT is responsible for coordinating both the studies and the proposed changes with the VA SHPO. The Design-Builder shall then carry out any additional cultural resources commitments that result from such coordination at its sole expense and at no additional cost to the Project.

2.4.3 Section 4(f) Resources

Three Section 4(f) resources are located adjacent to the Project: George Washington Memorial Parkway, Scotts Run Nature Preserve and Scotts Run Stream Valley Park. VDOT has determined that the Project will not use land from any of these resources.

The Design-Builder should consider 4(f) resources to be design constraints and avoid any impacts to them. In addition, the Design-Builder shall avoid any other project-related activities on these resources, including but not limited to staging, borrow/disposal, and temporary or permanent easements.

Any changes to the right-of-way or easements as shown on the RFP Conceptual Plans, proposed by the Design-Builder and acceptable to VDOT, may require additional technical studies and analysis to be performed by the Design-Builder. The Design-Builder will be responsible for notifying the VDOT Project Manager of plan revisions, right-of-way/easement changes, and providing any necessary studies and other necessary information to support VDOT's completion and re-evaluation of the 4(f) evaluation document. VDOT will be responsible for the coordination of any 4(f) documentation with FHWA. The Design-Builder shall then carry out any additional commitments that result from such coordination at its sole expense and no additional cost and/or time delays to the Project.

2.4.4 Water Quality Permits and Compensatory Mitigation

The Design-Builder is responsible for obtaining all water quality permits required to construct the Project (including utility relocations by the Design-Builder). The Design-Builder will be the Permitee. Should the Design-Builder propose design changes acceptable to VDOT, permitting requirements may also change; the Design-Builder remains responsible for obtaining

any and all necessary water quality permits and permit modifications required by the regulatory agencies.

VDOT's preliminary Permit Determination dated October 28, 2013 is included in the RFP Information Package. The Offeror should note that VDOT's preliminary Permit Determination and wetland delineations are provided for informational purposes only. The Design-Builder will be responsible for verifying permit requirements prior to construction. Regulatory agencies will make the final determination which state/federal water quality permits will be required during coordination with the Design-Builder.

2.4.5 Threatened and Endangered Species

VDOT has performed preliminary database reviews to determine the Project's potential effects on threatened and endangered (T&E) species, indicating that Project will have no adverse effect on T&E species. A copy of VDOT's preliminary Fish, Plant, and Wildlife Resources Form dated, August 7, 2013, is included in the RFP Information Package.

New and updated T&E information is continually added to agency databases. The Design-Builder will be responsible for any subsequent coordination to obtain updated information, requirements, and clearances from environmental regulatory agencies that provide threatened and endangered species oversight. This additional T&E species coordination is also a standard component of the water quality permit acquisition process and may result in permit conditions for which the Design-Builder will be responsible. The Design-Builder is responsible for ensuring that all T&E species are correctly identified and impacts assessed, noting that more or less resources may be present than initially identified. Avoidance and minimization shall be implemented to the greatest extent possible. The Design-Builder shall provide to the VDOT Project Manager copies of all documentation and correspondence with regulatory agencies.

2.4.6 Hazardous Materials

VDOT has reviewed the Project area and to determine that there is no potential for hazardous materials and/or contamination within the Project area. Information pertaining to this determination is included in the RFP Information Package and constitutes Known Pre-existing Hazardous Materials as defined in Part 4, Article 1.

The Design-Builder shall manage solid waste, hazardous waste, and hazardous materials in accordance with all applicable federal, state, and local environmental regulations and shall implement good housekeeping, waste minimization and pollution prevention practices.

For any non-hazardous waste, the Design-Builder shall have the signatory responsibility for the waste shipping manifest(s) and/or bill(s) of lading. For hazardous waste the Design-Builder shall be considered the co-generator and shall be responsible for preparing the hazardous waste shipping manifest(s) for the VDOT representative's signature and as otherwise consistent with the signatory requirement under Section 411 of the VDOT Road and Bridge Specifications.

The Design-Builder shall be responsible for the development of a Spill Prevention, Control, and Countermeasure Plan as required by regulation and for submission of any required plan to the VDOT Project Manager prior to start of construction. In the event of spills or releases of petroleum products and other hazardous liquids or solid materials, the Design-Builder shall take immediate action to contain and eliminate the spill release, including the deployment of environmental protection measures to prevent the migration of the spill into the waters of the United States and of worker exposure protection measures. The Design-Builder shall notify the VDOT Project Manager immediately of all instances involving the spill, discharge, dumping or any other releases or discovery of hazardous materials into the environment and shall provide all required notifications and response actions.

2.4.7 Air Quality

The Project has been assessed for potential air quality impacts and conformity with all applicable Federal and state air quality regulations and requirements. The Air Quality Analysis Report, dated December 13, 2013, is provided in the RFP Information Package. The Report identifies federal and state regulatory requirements that must be adhered to during construction of the project.

This Project is located within an 8-Hour Ozone Nonattainment area, a Fine Particulate Matter ($PM_{2.5}$) Nonattainment area, and a volatile organic compounds (VOC) and nitrogen oxides (NO_x) emission control area. As such, all reasonable precautions should be taken to limit the emissions of VOC, NO_x, and particulate matter during construction of the project. In addition, the following VDEQ air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-130-10 et seq., Open Burning restrictions; 9 VAC 5-45 Article 7, Cutback Asphalt restrictions; and 9 VAC 5-50 Article 1, Fugitive Dust precautions. The Design-Builder will be required to adhere to the limitations outlined in the Special Provision for Volatile Organic Compound Emissions Control Areas.

Construction activities will be performed in accordance with VDOT's current "Road and Bridge Specifications." The specifications conform to the State Implementation Plan and require compliance with all applicable local, state, and federal regulations.

2.4.8 Noise Mitigation

A Final Design Noise Analysis was performed by VDOT. It was determined from the Final Design Noise Analysis that no mitigation measures are required for the Project. A copy of the report Final Design Noise Analysis Report date December 2013 is included in the RFP Information Package.

Any changes in the scope or footprint of the established basic Project concept, proposed by the Design-Builder and acceptable to VDOT, may require a reevaluation if the Final Design Noise Analysis consisting of but not limited to additional traffic noise modeling to be performed by the Design-Builder at their cost.

The reevaluated Final Design Noise Analysis shall be submitted to VDOT for review and. approval. The reevaluation, consisting of a re-analysis of all noise sensitive receptors identified in the project area, will be required to confirm that there are no noise impacts and that no further analysis of noise abatement is required.

If the results of the Final Design Noise Analysis Reevaluation dictate; the Design-Builder will provide permanent noise mitigation in compliance with the Virginia State Noise Abatement Policy, the Highway Traffic Noise Impact Analysis Guidance Manual (August 2013), FHWA, Highway Traffic Noise Analysis and Abatement Guidance (January 2011), the VDOT Noise Report Development and Guidance Document Version 1, Special Provision for Sound Barrier Walls, and the Soil Design Parameters for Sound Barrier Walls, Retaining Walls and Non-Critical Slopes.

The Design-Builder is prohibited from deviating on VDOT's sound wall policy, guidance, or special provisions without allowance granted in this document or prior written approval from VDOT.

The final barrier location(s) and dimension(s) will be determined during the reevaluation of the Final Design Noise Analysis. A draft Noise Abatement Design Report (NADR) shall be submitted for review and approved prior to the submittal of a final Noise Abatement Design Report (NADR). The NADR shall be conducted by an individual qualified in the field of highway traffic noise impact analysis as noted in Section 3.0 of the Highway Traffic Noise Analysis Guidance Manual. The Noise Abatement Design Report (NADR) shall be furnished by the Design-Builder at its sole cost and expense. The final noise mitigation design will utilize the design year traffic volumes defined in the Final Design Noise Analysis unless otherwise directed due to traffic updates. A copy of this report is included in the RFP Information Package.

Final design of noise abatement measures shall be based on the preliminary noise abatement design developed in the preliminary noise analysis as noted in Section 10.5 of the Highway Traffic Noise Analysis Guidance Manual.

Upon approval of the NADR the Department shall prepare a concurrence letter outlining the results of the analysis for the Department's Chief Engineer and FHWA. Once concurrence is achieved the Design-Builder shall prepare and mail letters "certified return receipt" to benefitted receptors to ascertain the desire to have noise barriers constructed as part of the project. Upon completion of the citizen survey the Department shall prepare a second concurrence letter documenting the results, if necessary. All sound walls should be named as presented within the NADR.

All noise barriers recommended for construction and concurred with by the Chief Engineer and FHWA are included in the scope of the Construction Project and shall be funded by the Design-Builder at its sole cost and expense. This includes barriers with conditions, as long as those conditions have been met.

Prior to submitting a sound wall plan for the Department's review, the Design-Builder will have the noise consultant that completed the NADR review the plan set and certify that the

proposed design meets the noise abatement requirements. This certification will be included in the plan set when it is submitted to the Department for review.

If deviations in the horizontal or vertical alignment of a noise barrier (or the roadway alignment) are proposed following concurrence from the Chief Engineer or FHWA, then additional noise analysis will be provided to the Department for review and approval prior to construction. This will include a plan and profile view of the roadway with the alignments recommended barrier and the proposed design. A justification of the deviation will be included with the plan set. The revised NADR chapter for the noise barrier for which modification is requested will be submitted with this additional information.

A key plan will be clearly labeled to show the location of the ground-mounted combo wall (sound wall on retaining wall) and bridge-mounted noise barriers.

Plan view will provide the alignment of the noise barrier with the roadway plan view.

Profiles of the wall alignment will include the noise attenuation line and the existing and proposed elevation. If combo walls or bridge-mounted barriers are present along the alignment, the pattern of the line will be different so that all lines can be distinguished.

Stations of the roadway and noise barrier will be included on both the plan and profile views.

Access shall be provided by access doors for VDOT maintenance personnel. Sound barrier wall design shall also be coordinated with first responders to ensure access to fire hydrants and other emergency equipment. In lieu of access doors, gaps may be provided in the walls with a minimum 3:1 ratio of barrier overlap.

2.4.9 Environmental Compliance

The Design-Builder is responsible for compliance with all applicable state and federal environmental laws, regulations, and permits. If, at any time, the Design-Builder is not in compliance with all applicable environmental laws, regulations, Executive Orders, commitments, etc., the VDOT Project Manager has the authority to suspend work, in whole or in part, until such time as the deficiencies or non-compliant items have been corrected. Should any non-compliant item(s) be identified during construction, immediate and continuous corrective action shall be taken by the Design-Builder to bring the item(s) back into compliance.

The Design-Builder shall be responsible for any schedule delays and associated costs as a result of any delays and/or shut downs associated with non-compliance. Any monetary fines associated with violations and/or any environmental restoration activities required to resolve violations shall be the responsibility of the Design-Builder.

The Design-Builder shall carry out environmental commitments during design and construction, as applicable, as identified in the CE, the Document Re-evaluations for RW Authorization (EQ-201) [if applicable] and PS&E Authorization (EQ-200), and the

Environmental Certification/Commitments Checklist (EQ-103). All commitment compliance shall be supported by appropriate documentation, to be provided by the Design-Builder to the VDOT Project Manager.

The Design-Builder shall be responsible for compliance with pre-construction and construction-related environmental commitments and permit conditions. The Design-Builder shall assume all obligations and costs incurred by complying with the terms and conditions of the permits and certifications. Any fines associated with environmental permit or regulatory violations shall be the responsibility of the Design-Builder.

2.5 Survey

VDOT has completed a field survey according to VDOT Survey Manual, conforming to VDOT Standards, between Survey Station 100+00 and Station 221+02.47. The field survey was conducted using conventional and mobile LiDar survey methods and data was collected within the tolerances defined in the VDOT Survey Manual. Preliminary field survey and utility data have been obtained, including, but not limited to the following:

- Horizontal control
- Vertical control
- Notification of property owners*
- Field data
- Topography
- Existing Right of Way
- Utilities
- Levels
- Digital Terrain Model

*The Virginia Code 33.1-94 requires that Notice of Intent letter (RUMS Forms I1, I2, I3, and I4) "shall be sent to the owner at the address recorded in the tax records, or delivered by guaranteed overnight courier or otherwise delivered to the owner in person with proof of delivery **not less than 15 days prior to** the first date of the proposed entry. Notice of intent to enter shall be deemed made on the earlier of the date of mailing, if mailed, or on the date delivered." The notice shall include the anticipated date/dates such entry is proposed to be made and the purpose of such entry. Advance notification of property owners is required for all data collection efforts related to the development of highway plans. Copies of the letters and address labels shall be provided to the VDOT Project Manager for forwarding to the District Survey Manager as soon as they become available.

The Design-Builder is advised that such survey is not represented to be complete for purposes of designing the Project, and that Design-Builder's scope of work shall include performing all additional surveying and utility designation that is necessary to supplement the above-referenced survey as required for design purposes.

The Design-Builder shall be responsible for obtaining any survey data, including all right-of-entry and land use permits, locating and/or designating underground utilities (including VDOT traffic management utilities), digital terrain model (DTM), utility test holes and obtaining other related data necessary for the design, right of way acquisition, limited access revisions, and construction of the Project. Additionally, the Design-Builder will be responsible for any update (property owner changes, subdivisions, etc.) that may occur; updates need to be reflected on the plans in order to acquire right of way and complete the final design. Any additional survey changes will be verified and certified, and submitted in final documentation.

The Design-Builder will be responsible to reset or relocate and survey control damaged, destroyed or located within the footprint of the final design construction limits. The control will be established by a land surveyor licensed n the Commonwealth of Virginia with LD-200 information and supporting computations submitted to the VDOT Project Manager.

Prior to Project completion, the Design-Builder shall provide and set final VDOT RW-2 right of way monuments within the Project Limits. The Design-Builder shall depict the monuments on the Right of Way Plans in accordance with the VDOT's Survey Manual.

2.6 Geotechnical Work

VDOT has completed a preliminary geotechnical subsurface investigation for this Project. The results of the investigation are presented in the Geotechnical Data Report dated December 3, 2013, which is included in the RFP Information Package.

The data included in this RFP is being provided for Offeror's information in accordance with Section 102.04 of Division I Amendments (Part 5). The Design-Builder shall perform a design-level geotechnical investigation to validate and augment the geotechnical information included in this RFP. The geotechnical engineering investigation performed by the Design-Builder shall meet or exceed both Chapter 3 of the VDOT Material Division's Manual of Instructions (MOI); the current AASHTO LRFD *Bridge Design Specifications*, 6th Edition, 2012 and VDOT Modifications; and Section 700.04 (c) of the Road and Bridge Specifications.

The Design-Builder shall collect appropriate data for geotechnical evaluation of pavements, culverts, sign structures, storm water management facilities, signal pole, high mast, or overhead signs, minor structures including drainage pipes, and any other earth-supported or earth-retaining structures or elements of highway design and construction required for this Project. The Design-Builder will be responsible for obtaining all necessary permits and utility clearances as required by VDOT, the Commonwealth of Virginia, or any other jurisdictional body or owner prior to accessing public or private property for the purpose of conducting geotechnical field work and shall provide the necessary traffic control in accordance with the Work Area Protection Manual. The Design-Builder shall complete laboratory tests in accordance with pertinent ASTM or AASHTO standards and analyze the data to provide design and construction requirements. Soils, rock, aggregate, asphalt, concrete and other materials tests shall be performed by a laboratory accredited through the AASHTO Accreditation Program (AMRL and CCRL) for each test it conducts for the Project, unless otherwise approved by VDOT.

The Design-Builder shall provide VDOT with all records of subsurface explorations and describe the soils encountered and their depth limits in accordance with the requirements outlined in Chapter 3 of the VDOT Materials Division MOI. The Design-Builder shall provide to VDOT electronic copies of all subsurface explorations in accordance with the boring log template available on the website included in Chapter 3 of the VDOT Materials Division MOI. The electronic files shall be provided by a certified professional geologist or a suitably qualified registered professional engineer in the Commonwealth of Virginia, in gINT© software. The gINT© file for the borings contained in Geotechnical Engineering Data Report, dated December 3, 2013, are provided in the RFP Information Package.

Unless otherwise addressed by AASHTO LRFD, the Design-Builder shall incorporate reliability assessments in conjunction with standard analysis methods in accordance with Chapter 3 of the Materials MOI. An acceptable method for evaluation of reliability is given by Duncan, J.M. (April 2000) *Factors Of Safety and Reliability in Geotechnical Engineering*, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Discussions and Closure August 2001. The Design-Builder may propose to identify specific, non-critical features, and alternative methods for evaluating variability of subsurface conditions, reliability and minimum factors of safety, prior to submission of its design calculations and drawings. VDOT may, in its sole discretion, accept or reject such proposed methods.

The Design-Builder shall submit to the VDOT for its review all geotechnical design and construction memoranda and/or reports that summarize pertinent subsurface investigations, tests, and geotechnical engineering evaluations and recommendations utilized in support of their design/construction documents. This submittal shall be made at least 30 days in advance of the submittal of any final design/construction documents that are dependent upon the geotechnical evaluations and recommendations. Technical specifications for construction methods that are not adequately addressed in the Standard Specifications shall be provided by the Design-Builder as part of the final design/construction documentation. Prior to submittal of any final design/construction documentation, the Design-Builder shall review the final design/construction documents to assure that it appropriately incorporated the geotechnical components and shall submit evidence of this review to accompany the final design/construction documentation. The Design-Builder shall reference the drawings that incorporate the pertinent results. The Design-Builder's Quality Assurance and Quality Control (QA/QC) Plan shall document how each specific geotechnical recommendation or requirement will be addressed in the final design/construction documentation. The results of the geotechnical investigation and laboratory results shall support design and construction efforts to meet the requirements outlined in this Section.

2.6.1 Minimum Pavement Sections

Minimum pavement sections and locations for these sections shall be utilized for Proposal preparation purposes only. The locations for full depth patches/joint repairs, mill and overlay, demolition and replacement of the existing pavement and new pavement construction are provided on the RFP Conceptual Plans included in the RFP Information Package. The Design-Builder shall be required to validate the adequacy of the minimum pavement sections

and to notify the Department of its findings. If the Design-Builder confirms that the minimum pavement sections and locations of these sections are inadequate for actual design/construction conditions, it shall notify VDOT during the Scope Validation Period of the necessary changes and proposed price adjustments, if any. Acceptable changes to the minimum pavement sections are limited to increasing the thickness of the base or subbase layers specified below. Any changes to the minimum pavement sections provided in this Part 2, Section 2.6.1 and/or location for the pavement sections shown on the RFP Conceptual Plans shall be approved by VDOT. The final pavement surface will be tested by VDOT for smoothness in accordance with the *"Special Provision for Rideability"*, dated November 19, 2103 included in the RFP Information Package. The Design-Builder shall be responsible for the final design and construction of the pavements for this Project in accordance with the Contract Documents.

The Design-Builder shall photographically document the existing condition of all pavements within and adjacent to the Project limits prior to the Design-Builder's submission of final construction plans for VDOT approval and provide all photos to the VDOT Project Manager. Photos shall be color digital images in .jpg format with 4 megapixels (approximately 2400 pixels wide x 1600 pixels high) or greater resolution. The Design-Builder shall be responsible for full-depth replacement of all pavement damaged resulting from Project construction activities, regardless of the method or location of the pavement damage.

The Design-Builder shall prepare and incorporate into the plans, typical sections, profiles and cross-sections the validated pavement sections in accordance with the applicable manuals noted in Part 2, Section 2.1. This includes drainage and subdrainage requirements to ensure positive drainage both within the pavement structure and on the pavement surface. Underdrains are identified in the Geotechnical Engineering Data Report, which governs over the location of underdrains shown in the RFP Conceptual Plans. The minimum pavement sections are as follows:

I-495 Widening (*Low* Side of Existing Pavement Cross-Slope)

Surface – 1.5" Asphalt Concrete, Type SMA-9.5 (PG 76-22)
Base – 14" Asphalt Concrete, Type BM-25.0D+0.4 (high modulus, high binder) (PG 70-22)
Subbase – 8" Aggregate Base Material, Type I, Size No. 21B extended to a standard UD-4 edgedrain beneath the outside edge of paved shoulder.

I-495 Widening (*High* Side of Existing Pavement Cross-Slope)

Surface – 1.5" Asphalt Concrete, Type SMA-9.5 (PG 76-22)
Base – 12" Asphalt Concrete, Type BM-25.0D+0.4 (high modulus, high binder) (PG 70-22)
Subbase – 6" Aggregate Base Material, Type I, Size No. 21A pugmill mixed with 4% hydraulic cement by weight.

For **paved shoulders** use full depth pavement as specified above.

All pavement widening shall be completed in accordance with VDOT standard WP-2 with the pavement section identified above and in accordance with the RFP Conceptual Plans. Where widening existing pavement, the existing pavement shall be cut full depth to expose the existing edge of full depth concrete pavement as identified by 9" (+/- 1") of Portland cement concrete overlaid with variable depths of asphalt concrete. The existing outside shoulder shall be demolished to within 2 feet of the existing outside jersey barrier (adjacent to existing sound barrier or retaining walls) and reconstructed with the pavement sections above and as identified on the RFP Conceptual Plans. All existing underdrains that are impacted by the proposed construction shall be removed and replaced to the nearest available outlet. The widened base layer shall be constructed to 1.5" below the surface of the existing adjacent pavement. All pavement widening shall be completed up to the base layer prior to building up and/or placing the surface course over both the existing pavement and the widened pavement. The existing pavement shall be milled to a minimum depth of 4" and replaced with a minimum 2.5" of asphalt concrete BM-25.0D+0.4 (high modulus, high binder, PG 70-22) prior to building up and/or placing the new surface course. After milling, all cracks shall be cleaned of all debris and sealed with a Type B crack sealant in accordance with the Special Provision Sealing Cracks in Asphalt Concrete or Hydraulic Cement Concrete Pavements, dated November 25, 2013.

The final design shall provide a minimum of 16'-0" vertical clearance at the Georgetown Pike overpass. The existing surface of the pavement may be reduced by up to a maximum of 4" below its existing grade only as necessary to provide the 16'-0" of vertical clearance beneath the Georgetown Pike overpass.

The final surface asphalt shall be placed uniformly over the entire pavement (mainline and paved shoulders). The final pavement surface will be tested by the Department for rideability in accordance with the Special Provision for Rideability, dated November 19, 2013.

High Friction Surface Coating

The Design-Builder shall place a high friction surface coating in a light gray color throughout the length and width of the I-495 Northbound shoulder use lane, in order to provide a contrasting color to the general purpose lanes. Proposed materials and methods, along with color samples shall be submitted to VDOT and FHWA for approval prior to installation. All installation shall be in accordance with the Special Provision for High Friction Epoxy Aggregate Roadway Surface Treatment.

Full Depth Patches/Joint Repairs

Full depth transverse patches/joint repairs shall be performed in accordance with the details and at the locations identified on the RFP Conceptual Plans. The Design-Builder shall notify the VDOT Northern Virginia District Materials Engineer (DME) at least 48 hours in advance of each joint repair so that the DME can verify the correct repair locations on the pavement.

Temporary Pavement (Maintenance of Traffic)

The Design-Builder shall be responsible for any temporary pavement design. Temporary pavements shall be designed in accordance with the AASHTO Guide for the Design of Pavement Structures (1993 edition) and the VDOT Materials Division's Manual of Instructions. All temporary pavement designs shall be submitted to VDOT for review. All temporary pavement shall be completely removed once it is no longer in service. All temporary pavement designs for mainline or ramp pavements shall have a minimum 6 inches of asphalt concrete and a minimum 6 inches of plain aggregate (21B) and shall meet the following minimum design criteria.

- Design Life – 6 months minimum
- Reliability – 85% minimum
- Initial Serviceability – 4.2 minimum
- Terminal Serviceability – 2.8 minimum
- Standard Deviation – 0.49 minimum
- CBR value for subgrade soils determined by laboratory tests

The minimum pavement sections require that proper grading be maintained to direct surface water away from paved areas and to provide for efficient runoff from surrounding areas.

Any utility excavations or excavations for storm drains within pavement areas shall be backfilled with compacted structural fill in accordance with applicable sections of the Road and Bridge Specifications and applicable Special Provisions.

VDOT guidelines specify that edgedrains/underdrains be provided for all pavements with daily traffic volumes in excess of 1,000 vehicles per day. Therefore, standard UD-4 edgedrains will be required for all pavements on this project. Modified UD-1 underdrain shall be provided in lieu of standard UD-4 edgedrain for pavement sub-drainage in areas of high ground water, springs or cuts in excess of 15 feet; the modification consists of wrapping the aggregate with geotextile drainage fabric. Standard Combination Underdrain (CD-1) shall be provided at the lower end of cuts. Standard Combination Underdrain (CD-2) shall be provided at grade sags, bridge approaches, and at the lower end of undercut areas.

2.6.2 Geotechnical Requirements

Embankments and certain aspects of retaining wall design are not addressed by LRFD. Embankments and cut slopes shall be designed in accordance with Section 305 of the VDOT Materials MOI. The maximum slope ratio to be used for cut and/or roadway embankment fill slopes shall not be steeper than 2H:1V. The Design-Builder is responsible for verifying the stability of all slopes, including those retained by structures.

All retaining walls shall be designed in accordance with applicable VDOT and AASHTO requirements, including Soil Design Parameters for Sound Barrier Walls, Retaining Walls and Non-Critical Slopes included in the RFP Information Package. If the Design-Builder elects to use mechanically stabilized earth (MSE) walls, the fill material used in the reinforced zone shall be a crushed aggregate with properties in accordance with VDOT's Special Provisions for approved proprietary MSE walls located in Chapter 10: Earth Retaining Structures, in Volume V, Part 11 of the Manual of the Structure and Bridge Division. The Design-Builder shall provide

both global and external stability analysis utilizing a computer program acceptable to VDOT and submit the results of the analysis, including boring logs, laboratory data, and any other applicable data, to VDOT geotechnical engineers for review. The wall supplier shall provide to the Design-Builder, for submittal to VDOT, an internal stability analysis that validates the design of the wall. Retaining walls shall be designed to control settlements within tolerances identified in VDOT Guidelines for Preparation of Alternate Retaining Wall Plans located in Chapter 10: Earth Retaining Structures, in Volume V, Part 11 of the Manual of the Structure and Bridge Division.

Material and Construction requirements shall follow VDOT *Manual of the Structure and Bridge Division*, Volume V – Part 11 "Geotechnical Manual for Structures" and applicable special provisions list in Part 2, Section 2.1.1(c). Where undercutting and material replacement is required to reduce settlement or improve bearing capacity/global stability, areas requiring repair shall be clearly identified on the plans with notes provided to aid plan review, construction, and inspection.

2.6.3 Unsuitable Materials

Unsuitable Material is defined as material used as embankment fill, and in cut areas to a depth of at least 3 feet below subgrade directly beneath pavements and at least 2 feet beneath the bedding of minor structures and laterally at least 2 feet beyond the outside edge of the pavement shoulders and bedding limits of the minor structures that meets one or more of the following criteria: classifies as CH, MH, OH and OL in accordance with the Unified Soil Classification System (USCS); contains more than 5 percent by weight organic matter; exhibits a swell greater than 5 percent as determined from the California Bearing Ratio (CBR) test using VTM-8; exhibits strength, consolidation, durability of rock or any other characteristics that are deemed unsuitable by the Design-Builders' geotechnical engineer or as denoted in the Contract Documents for use in the Work. All materials within the uppermost 3 feet of a pavement subgrade that exhibits a CBR value less then that stipulated in the pavement design shall also be considered unsuitable. The locations and methods of treatment for unsuitable materials identified by the design-builder's qualified geotechnical engineer shall be shown on the design plans and cross sections. Saturated or very dry and/or loose or very soft coarse- and fine-grained soils that exhibit excessive pumping, weaving or rutting under the weight of construction equipment are also considered unsuitable unless they can be moisture conditioned through either mechanical or chemical means to an acceptable moisture content that allows adequate compaction to meet project specifications, and classification testing indicates they are not otherwise unsuitable. Topsoil, peat, coal and carbonaceous shale shall also be considered unsuitable material. All unsuitable material shall be disposed of and/or treated as discussed in Section 106.04 at no additional cost to the Department. Topsoil or other organic soils are also considered unsuitable for use in embankment fill other than as a cover for slopes for the purpose of establishing vegetative cover. When used as cover for slopes, the thickness of topsoil shall not exceed 12 inches.

2.6.4 Pipe Installation Methods

Culverts or utility pipes shall be installed by either conventional methods in accordance with Section 302.03 of VDOT's Road and Bridge Specifications, or Jack and Bore and/or by

Micro-tunneling in accordance with the applicable Special Provisions contained in the RFP Information Package. Trenchless technology other than these methods of installation is not permitted unless otherwise approved by VDOT. The Design-Builder shall determine which of the methods of installation is best suited for the ground and site conditions where the work is to be performed and that will meet the design requirements of the proposed culverts or utility pipes. The Design-Builder shall be responsible to establish both the vertical and horizontal tolerances in support of the design. Such tolerances shall be noted on the construction plans. The design tolerance may be more stringent than what is called for in the both the Jack and Bore and Micro-Tunneling Special Provisions; however, under no circumstances shall the design tolerances used in design of either culverts or utility pipes exceed those specified in the VDOT Road and Bridge Specifications and the applicable Special Provisions. Performance requirements and tolerances stipulated in the Special Provisions shall also apply to conventional tunneling methods. If trenchless technology is used to complete roadway crossings, surface settlement monitoring must be performed to verify that there is no adverse impact on the stability and performance of the embankment and pavement structure above the pipe alignments in accordance with Section 302.03 of the VDOT Road and Bridge Specifications and the Special Provisions for Jack and Bore and/or Micro-Tunneling, as applicable.

2.7 Hydraulics

The Design-Builder shall provide and/or perform all investigations, evaluations, analysis, coordination, documentation, and design required to meet all Hydrologic and Hydraulic, Drainage, Stormwater Management, Erosion and Sedimentation Control, Stormwater Pollution Prevention, and Virginia Storm Water Management Program permitting requirements of the standards and reference documents listed in Part 2, Section 2.1.

2.7.1 Drainage

The drainage work shall include the analysis of the existing storm sewer systems and the design and construction of culverts, open channels, storm sewer systems, underdrains, adequate outfall analysis, stormwater management facilities, and erosion and sediment control measures in compliance with the standards and reference documents listed in Part 2, Section 2.1 and the VDOT Erosion and Sediment Control & Stormwater Management Programs. The Design-Builder shall be responsible for modifying existing drainage structures to accommodate the modified median barrier, the new grades of the overlaid pavement, and for ensuring that gutter flow spread does not exceed allowable criteria when the project is complete. The Design-Builder is also responsible analyzing the existing downstream storm sewer system to verify the adequacy of the outfall to accommodate the changes to the flow from the increased impervious area and cross slope changes. If necessary, the Design Builder shall upgrade storm sewer pipes and other drainage structures to provide adequate outfall.

The Design-Builder shall provide VDOT two (2) paper and two (2) electronic copies on compact disc (CD) of a final drainage report incorporating all drainage calculations including pre and post development discharges, capacities, and supporting data such as drainage areas (with maps), ground cover calculations, etc. in accordance with the documentation requirements as outlined in the VDOT Drainage Manual.

Preliminary spread computations are included in the Drainage, SWM and Outfall Analysis (RFP Concept) report which is included in the RFP Information Package. Inside shoulder widths based on the conceptual design are also available. The Design-Builder shall complete revised spread computations based on the final design in accordance with the VDOT Drainage Manual. For the shoulder-use lane, the Maximum Design Spread Width shall be the shoulder width plus three (3) feet throughout.

For the purpose of developing the Price Proposal, the Offeror shall assume that the drainage pipes and culverts within the Project limits which are a functional element of the proposed final drainage design, are in a serviceable condition. Offerors should note that none of the existing pipes and culverts within the project limits has been surveyed for structural and functional deficiencies. If after award the Design-Builder determines that the serviceability and functionality of the existing pipes and culverts requires rehabilitation or replacement of some or all of the structures, then it shall be done only with VDOT's approval under work order. The Design-Builder shall assess the serviceability of the structure by performing a visual/video inspection of the existing pipes and culverts utilizing the assessment criteria for Post Installation Inspections presented in VDOT Supplemental Specification 30204. The Design-Builder will provide VDOT with an inspection report documenting the assessment as prescribed in the supplemental specification. Drainage pipes and box culverts deemed repairable shall be rehabilitated in accordance with VDOT's guidelines including, but not limited to those methods outlined in the latest version of IIM-LD-244 and Special Provisions for Pipe Replacement and Pipe Rehabilitation.

Underdrain outfall locations are not shown on the RFP Conceptual Plans included and it shall be the responsibility of the Design-Builder to develop the underdrain design including adequate outfall locations. The Design-Builder may, at its discretion, utilize access structures (i.e. manholes, cleanouts, etc.) in lieu of EW-12's in order to outfall an underdrain according to the guidelines set forth in the 2008 VDOT Road and Bridge Standards and the VDOT Drainage Manual while maintaining the ability for the underdrain to be accessed in the future for maintenance purposes.

2.7.2 Post-Construction SWM, SWPPP and ESC Plans

An Erosion and Sediment Control (ESC) Plan and Narrative, Stormwater Pollution Prevention Plan (SWPPP), and a post construction Stormwater Management (SWM) Plan shall be prepared and implemented by the Design-Builder in compliance with applicable requirements of the standards and reference documents listed in Part 2, Section 2.1 including the Virginia Erosion and Sediment Control Law and Regulations and the Virginia Stormwater Management Program (VSMP) Law and Regulations.

It shall be the responsibility of the Design-Builder to have a qualified person within their team structure, other than the ESC and post construction SWM Plan designer, who is authorized by the Department of Environmental Quality (DEQ) (previously Department of Conservation and Recreation) to perform plan reviews, independently review and certify that the ESC Plans and Narrative and post construction SWM Plan for the Project are in accordance with VDOT's Approved ESC and SWM Standards and Specifications. Before implementing any ESC or post

construction SWM measures not included in VDOT's approved ESC and SWM Standards and Specifications, a variance or exception respectively must be requested through the District Drainage Engineer in accordance with the latest versions of IIM-LD-11 and IIM-LD-195.

The Design-Builder shall complete and submit the ESC and SWM Plan Certification form (LD-445C) to the VDOT Project Manager. The Design-Builder shall provide VDOT two (2) paper and two (2) electronic copies each on CD of the final ESC Plan and Narrative, SWPPP and post construction SWM Plan incorporating all calculations, analysis, documentation and evaluations required. The ESC Narrative shall specifically include calculations (with supporting data) documenting that the design meets the adequate outfall requirements of the VSMP Regulations for each location where stormwater is discharged from the Project.

The land-disturbing activity for the Project is greater than 2,500 square feet and coverage under the VSMP General Construction Permit For The Discharges From Construction Activities (VSMP Construction Permit) is required. The Design-Builder shall coordinate and submit the required permit coverage application information to the VDOT Project Manager. The Design-Builder shall complete the applicable sections of the VSMP Construction Permit Registration form (LD-445), VSMP Construction Permit Contact Information (LD-445A), VSMP Construction Permit Fee Registration form (LD-445B). These forms along with the completed ESC and SWM Plan Certification form (LD-445C) shall be submitted to the VDOT Project Manager. The VDOT Project Manager will review the submitted information and, if complete and acceptable, process a request for coverage under the VSMP Construction Permit in accordance with VDOT's guidelines as outlined in the latest version of IIM-LD-242.3. If any information submitted by the Design-Builder is found to be incomplete and/or unacceptable, the assembly will be returned to the Design-Builder for corrective action and resubmission. The Design-Builder will be the Permitee and shall be responsible for all permitting fees.

A working conceptual ESC and post construction SWM Plan and SWPPP for the entire Project must be submitted for review and approval with the initial application for permit coverage. This initial conceptual Plan submittal shall include the proposed total expected Land Disturbance Area and Land Development Area, including any off-site facilities, for the entire Project. Where the Project will be constructed in segments, the Design-Builder shall submit a finalized ESC Plan, a post construction SWM Plan and a SWPPP, including the expected Land Disturbance Area, for the proposed initial work segment in addition to the conceptual plan for the entire project. It is expected that the individual work segment submittals will be self-sustaining and not incur a deficit in post construction SWM design requirements requiring mitigation on future work segments. Subsequent work segment submittals shall include required modifications to the Land Disturbance Area value. However, these modifications, in total, shall not exceed the initially submitted Land Development Area value. The Design-Builder shall not proceed with work to be covered by the permit until permit coverage is secured and the VDOT Project Manager releases the work in writing. It is noted that permit coverage, and subsequent release of work, can take up to 90 days from the time that the Design-Builder submits a request for coverage that includes all required information. This represents a hold point in the Design-Builder's CPM Schedule. Design-Builder shall provide a completed SWPPP Certification form (LD-455E) before commencement of any land disturbing activity and shall complete and include the SWPPP General Information Sheets in the plan assembly per the latest version of IIM-LD-

246. The SWPPP Certification form (LD-455E) and SWPPP General Information Sheets shall be updated with each work segment submittal as necessary. The Design-Builder shall be responsible for compliance with construction-related permit conditions and shall assume all obligations and costs incurred by complying with the terms and conditions of the permit. Any fines associated with permit or regulatory violations shall be the responsibility of the Design-Builder. Upon completion of the entire regulated land disturbing activity (including final stabilization of all disturbed areas), the Design-Builder shall provide as built Permanent Best Management Practice (BMP) information in Section VI of the SWPPP General Information Sheets for each post construction BMP placed into service on the project, complete and sign the VSMP Construction Permit Termination Notice form (LD-445D) and submit both documents to the VDOT Project Manager for processing. The Design-Builder shall also have on-site during any land disturbing operations an individual or individuals holding a DCR Inspector Certification, a DCR Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) to ensure compliance with all DCR and VDOT erosion and sediment control plan implementation requirements.

Effective July 1, 2013 the administration of the Virginia Erosion and Sediment Control and Stormwater Management regulatory programs was transferred from the Virginia Department of Conservation and Recreation (DCR) to the Virginia Department of Environmental Quality (DEQ). References and links to DCR manuals and documents contained herein may no longer be correct as these programs are being transferred between the State agencies. The erosion and sediment control certification requirements shall still apply, but with the DEQ having oversight over the certification program beginning July 1, 2013.

2.7.3 Post-Construction Stormwater Management Facilities

The Design-Builder shall be responsible for the design and construction of stormwater management facilities as required for the Project in accordance with the latest version of IIM-LD-195, and the other standards and reference documents listed in Part 2, Section 2.1 including the Virginia Stormwater Management Program Law and Regulations, and shall comply with the minimum geotechnical requirements contained therein. VDOT has identified potential locations for post construction stormwater management facilities as part of the RFP Conceptual Plans. These locations are suitable for underground manufactured BMP devices. Also, these locations are preliminary and have not been fully evaluated to determine if these locations are suitable, feasible or sufficient to address all of the stormwater management requirements of the Project. The Design-Builder, as part of their final design, shall evaluate these locations, and if found acceptable, develop a final post construction stormwater management plan. VDOT approval will be required during the final design for the type and location of the BMP facilities.

If any of the locations are found to be unacceptable, the Design-Builder must identify other acceptable location(s) to meet the post construction stormwater management requirements of the Project. The Design-Builder is to insure proper ingress and egress to any stormwater management facility and that any specific proprietary facilities have proper maintenance details included in the project plans. When a stormwater management basin is located outside limited access fencing, maintenance access should be provided from a separate public road where

economically feasible. When maintenance access can only be provided from a limited access roadway, a locked gate shall be provided.

2.7.4 Other Drainage Requirements

All drainage facilities (existing and newly constructed) within the Project area that are disturbed or extended as a part of the Project and are functional elements of the final design shall be rendered in a serviceable condition. Accumulated debris resulting from construction activities shall be removed by the Design-Builder, as such maintaining the original line and grade, hydraulic capacity or construction of the facility prior to the final acceptance of the Project.

2.8 Traffic Control Devices

The Project shall include all Traffic Control Devices (TCD), including temporary and permanent installation of the following: signage, guardrail, pavement markings/markers and delineation. All TCD designed and installed under the Project shall be in accordance with standards and references in Part 2, Section 2.1. The Signing and Pavement Marking Plans, Transportation Management Plan (TMP), including Temporary Traffic Control/ Public Information and Traffic Operations Plans are required from the Design-Builder for final approval by VDOT and shall be included as a planned work package. The Design-Builder shall comply with the Special Provision for Personnel Requirements for Work Zone Traffic Control and the Special Provision for Work Zone Traffic Control Management, Design-Build Projects.

All existing TCD impacted by the Project shall be modified, upgraded, or replaced by the Design-Builder to meet current VDOT standards.

2.8.1 Signs

The Design-Builder shall be responsible for modifications to existing signs and sign structures, and furnishing and installing all required new temporary and permanent signs and structures and removal of existing bridge mounted signs as noted in Part 2, Section 2.3.2.10. The final lines of sight and sight distances must be considered in the placement of all Project signage.

An existing sign inventory shall be completed prior to site demolition in accordance with the VDOT Traffic Engineering Design Manual. This existing information shall be submitted at the same time as the first plan submittal for proposed signing.

All signs and sign structures to be removed during the construction of the Project shall be disposed of by the Design-Builder. All sign structures and non-salvageable signs removed during construction should be disposed of by the Design-Builder. Temporary relocation of signs may be necessary as part of this Project and it is the responsibility of the Design-Builder to perform all the required sign relocations.

All proposed overhead signs shall be illuminated in accordance with Part 2, Section 2.8.4 – Lighting.

.1 Limits of Project Signing

The Design-Builder shall replace all existing ground mounted and overhead mounted signage impacted by the Project and install new signing within the Project limits. Any signing on adjacent roadways beyond the project limits that require relocation, replacement, or modification due to the proposed design shall be the responsibility of the Design-Builder.

.2 Signing Plan Requirements

The signing plans shall be prepared at a one (1) inch = fifty (50) feet scale when plotted full size at thirty-five (35) inches by twenty-three (23) inches. The signing plans shall show the proposed sign message, MUTCD or Virginia Supplement sign designation (if applicable), size and location of all signs. The structure type used for mounting sign shall be noted on the signing plans. These signing plans shall show the location and messages of all existing signs. All existing sign removals and relocations shall be shown on the signing plans. The signing plans also shall include the location and type of delineation devices (including recessed pavement markings, pavement markings and markers, post- and barrier-mounted delineators).

.3 Design of Sign Panels and Locations

Proposed and replaced sign panels shall be in accordance with the VDOT 2007 Road & Bridge Specifications and other references in Part 2, Section 2.1. Overhead sign structures shall be located, designed, fabricated, and constructed in accordance with applicable standards and specifications. The Design-Builder shall coordinate all sign locations with all proposed and existing signing, landscaping, fencing, signals, utility, drainage, and all other roadside features to assure proper clearances and adequate sight distances. Sign sizes shall adhere to the latest edition of the FHWA Standard Highways Signs Book, the current edition of the MUTCD, the 2011 Virginia Supplement to the 2009 MUTCD, and all applicable Traffic Engineering Division Numbered memoranda. All Advance Guide Signs shall be mounted on overhead sign structures; Supplemental Guide Signs may be ground mounted. No guide signs shall be mounted on bridges.

The Design-Builder shall use Standard VDOT sign structures for new and relocated VDOT owned signs. Ground-mounted VDOT sign structures on Interstate 495 shall use Standard SSP-VIA or SSP-VA structures, unless otherwise approved by VDOT. For all non-standard signs, the Design-Builder shall use GUIDSIGN software to design the sign panels. The Design-Builder shall utilize the current edition of the MUTCD, 2011 Virginia Supplement to the 2009 MUTCD, the FHWA's Standard Highway Signs including Pavement Markings and Standard Alphabets to design all non-standard signs that do not have a MUTCD or VDOT standard sign designation. The Clearview font shall only be utilized for all positive contrast guide signs in accordance with the 2011 Virginia Supplement to the 2009 MUTCD and applicable Traffic Engineering Division Numbered Memoranda. Overhead signage shall be illuminated using luminaire retrieval system in accordance with VDOT Road and Bridge Standards. Use of a LED illumination system will not be permitted.

2.8.2 Guardrail/Barrier

The Design-Builder shall ensure that the clear zone within the Project limits is free from hazards and fixed objects. In the event that removal or relocation of hazard and fixed objects from the clear zone is not feasible, the Design-Builder shall design and install an approved guardrail barrier system and end treatments, where appropriate, for protection in accordance with NCHRP 350 or AASHTO Manual for Assessing Safety Hardware, First Edition. The same clear zone requirement applies to existing conditions affected by this Project where guardrail upgrade will be required. Existing sub-standard guardrail within the Project Limits must be upgraded by the Design-Builder to meet current standards per I&IM 220. This may require the upgrade of guardrail to the nearest logical termination point beyond the current Project limits.

Fourteen (14) days prior to installation of guardrail the Design-Builder shall request VDOT field verification of the proposed layout. Accompanied by the Design-Builder, VDOT representative will inspect the locations and advise on any necessary adjustments. Additionally, the Design-Builder shall provide a copy of the manufacturer's recommendations for installation of all guardrail terminals to the VDOT Project Manager before the installation of any guardrail end treatment of terminating device.

2.8.3 Concrete Median Barriers

<u>Median Barrier Reconstruction</u>

This scope of work shall consist of reconstructing the existing median barrier to provide for the construction of new foundations for sign structures at the locations shown on the RFP Conceptual Plans. Reflective marking tape shall be placed on the barrier at the locations where the median widens to accommodate for structural foundations.

<u>Median Barrier Modification</u>

The existing median barrier shall be modified to meet current standards for shape. The median barrier shall be modified based on the details provided in the RFP Conceptual Plans and as described for the following locations:

Double Faced Barriers shall be modified on both the northbound and southbound sides
Single Faced Barriers shall be modified on the northbound side
Bifurcated Barriers shall be modified on the northbound side

For barriers to be modified, the Design-Builder shall verify whether or not all junction boxes and appurtenances in the median barrier are live and operational. If found to be operational, the barrier modifications shall incorporate the junction boxes/appurtenances into the new shape. If found to be not in operation, the Design-Builder shall replace the junction boxes/appurtenances with a crash worthy barrier section.

Existing median barrier concrete surfaces shall be thoroughly cleaned by shot-blasting or power washing. All spalled or delaminated areas on the existing median barriers shall be repaired prior to the barrier modifications.

All hardware including expansion bolts, dowels, anchors, and welded wire fabric shall either be galvanized or stainless steel. Dowels or anchors shall be used to provide a positive connection between the existing median barrier and new concrete. Spacing and size of dowels/anchors shall be approved by the Engineer.

The median barrier modifications shall be designed, detailed, constructed, and cured in a manner that will minimize cracking. The Design-Builder shall be responsible for repairing all cracks with a size-range of 0.008 inches to 0.012 inches with injection of crack repair material. If the number of cracks ranging in size between 0.008 inches to 0.012 inches is greater than four cracks per ten-foot section, then the entire 10-foot section of barrier modification shall be removed and replaced. Furthermore, sections of barrier modifications exhibiting cracks larger in size than 0.012 inches shall be removed and replaced (minimum length of barrier modification to be removed and replaced shall be 5 feet).

The Design-Builder shall install new glare screens to meet current height and spacing requirements on the Northbound and Southbound median barriers within the project limits. Existing glare screens that do not meet current requirements shall be removed and replaced. Glare screens shall be in conformance with the Special Provision for Glare Screens. The Design Builder shall conduct and provide an analysis justifying the size of the glare screens and shall highlight any sight distance issues (if any) that glare screens may cause. The analysis shall be approved by the department before installation of glare screens.

Movable Median Barrier

The Design-Builder shall furnish and install a movable median barrier system in accordance with the Special Provision for Movable Barrier. The Design-Builder shall provide the VDOT Project Manager a copy of the manufacturer's recommendations for installation of the movable median barrier and the proposed location, which shall be reviewed and approved by VDOT, prior to its installation.

2.8.4 Pavement Markings/Markers

The Design-Builder shall include all required pavement markings, markers, and delineators. Pavement markings, markers, and delineators shall conform to the requirements of the MUTCD, the 2011 Virginia Supplement to the 2009 MUTCD, and applicable special provisions. All pavement marking plans shall be in accordance with VDOT Traffic Engineering Design Manual, dated 2011. All edge lines and skip lines along I-495 and ramps serving I-495 shall be 6" in width unless otherwise specified in the VA Supplement to the 2009 MUTCD. All edge lines, centerlines, and skip lines shall be Type B, Class VI on I-495 and ramps serving I-495. Pavement markers shall be installed on I-495 and interchange ramp(s) in accordance with VDOT's Road and Bridge Standards and the Traffic Engineering Manual. Proposed pavement markings, markers, and delineators shall be shown on the Signing and Pavement Marking Plans.

All new lane markings, edge lines, and center lines (with the exception of the of the limits of the Scotts Run Bridge) shall be supplemented with snow-plowable raised pavement markers. Slow-plowable markers shall not be installed on Scotts Run Bridge. All permanent snow-plowable raised pavement markers shall be installed in accordance with VDOT Standard PM-8 and/or PM-9. Damaged existing snow-plowable raised pavement markers within the Project limits shall be replaced in accordance with VDOT Standard PM-8 and/or PM-9.

2.8.5 Lighting

The Design-Builder shall be responsible for the design and construction of sign lighting for all signs mounted on overhead span, cantilever or butterfly sign structures. All static signs or signs which are primarily static that may have dynamic components shall be lighted. Signs which are entirely dynamic shall not be lighted. Any necessary coordination with local utility companies shall be performed by the Design-Builder.

The lighting systems shall be designed in accordance with VDOT's Traffic Engineering Design Manual, AASHTO Roadway Lighting Design Guide dated October 2005, the American National Standard Practice for Roadway Lighting publication (RP-8-00) prepared by the American National Standards Institute (ANSI) and the Illuminating Engineering Society of North America (IESNA) and in accordance with state and local requirements.

The lighting design shall meet the Illuminance criteria in RP-8-00. The lighting systems shall be constructed in accordance with the current edition of VDOT's Road and Bridge Standards, Road and Bridge Specifications and the requirements of the National Electric Code.

Luminaire retrieval systems and high pressure sodium luminaires shall be provided for all sign lighting installations in accordance with VDOT standards.

The Design-Builder may utilize new or existing electrical service feeds for sign lighting. Electrical service feeds and electrical systems for sign lighting shall be independent of electrical service feeds and electrical systems for other components of the project, such as ITS. Existing electrical feeds and branch circuits may be used with VDOT approval and the Design Builder shall demonstrate that all existing electrical equipment has the capacity to handle the new electrical load. Voltage drop calculations not exceeding 3% shall be provided for branch and feeder circuits for new or existing lighting system(s). New electrical service feeds and lighting systems may use single or multiple electric service feeds. Base mounted or pole mounted control centers will be permitted depending on the total load being served, at the discretion of VDOT.

All electrical conductor cables for the lighting system(s) shall be installed in conduit and junction boxes; no direct burial cable allowed. Power cables and communication cables shall be in separate conduit systems. The lighting systems will require Equipment Grounding Conductors, sized to match the largest feeder conductor cable, in non-metallic conduits in accordance with Article 250 of the National Electric Code. The smallest wire size allowed in any feeder or branch circuit is # 8 AWG.

The Design-Builder shall submit to VDOT for review and approval point-to-point lighting analysis and photometric calculations of the illuminated signs, using AGI-32 software. VDOT sign lighting tables may be used instead of point-to-point lighting analysis and photometric calculations.

Signs requiring sign lighting which are mounted on structures located in the median of I-495 will require a conduit crossing from the outside right shoulder to the median. These conduit crossings shall follow the requirements of Part 2, Section 2.9.4 - Conduit Systems for Fiber Optic and ITS Infrastructure. ITS and lighting conduits and cables shall be kept separate.

2.9 Intelligent Transportation System Infrastructure Components

The Design-Builder shall be responsible for providing design, installation, relocation, maintenance until final acceptance, integration, testing, documentation, and final submission of As-Built plans for the ITS infrastructure components.

The Design-Builder shall design, install, coordinate with utility providers, pay for new service, test, energize, document, submit As-Built Plans, maintain and compensate the utility company for power consumption until final acceptance for electric system for this Project. The Design-Builder has the option of proposing centralized SE-9, individual SE-5 or a combination design using public utility providers. Use of a solar solution as a permanent power source will not be permitted for this Project.

The Design-Builder shall be responsible for all infrastructure components, including dedicated fiber, installed and/or modified by the Project until final acceptance by VDOT. Prompt response is required to any damage caused by the Design-Builder and in the event the repair isn't completed 2 hours prior to the next traffic peak, VDOT will use its maintenance Contractor to restore critical systems and charge the Design-Builder. The cost of repair work performed, plus twenty-five percent (25%) for supervisory and administrative personnel, will be deducted from monies due to the Design-Builder for the Project in accordance with Part 4, Section 2.11.

Where existing ITS infrastructure components could otherwise be reused, the Design-Builder shall investigate, verify, and accept the working condition of the devices prior to commencing work and accepting responsibility for the devices. The Design-Builder shall be responsible for bringing existing infrastructure that may be reused into full compliance with the Technical Information and Requirements, and Special Provisions listed in Part 2, Section 2.1 for this Project. For existing ITS devices that cannot be reused, the Design-Builder shall salvage the devices intact and deliver to VDOT Northern Region Operations (NRO) Maintenance at 8010 Mason King Court, Manassas, VA 20109 after making arrangements 48 hours in advance by calling Mr. Mark Hagan at (703) 334-0203.

The Design-Builder shall avoid and minimize disruption to existing ITS systems, devices and network. The additions to the fiber ITS communications network and interface shall seamlessly reside and be fully interoperable with the legacy network.

2.9.1 Fiber Optic Cable System

The work shall consist of furnishing and installing new fiber optic drop cables to support ITS components. All fiber optic drop cables will have a minimum of 12 fibers. The Design-Builder shall be responsible for the design, installation, testing, and maintenance of the new fiber extensions to be active for the duration of construction, with final acceptance by VDOT upon Project completion. Multiple Fiber Optic crossings of I-495 will not be permitted. The Design-Builder shall link to VDOT legacy ITS communications network.

VDOT will set aside existing fiber optic dedicated exclusively for use by the Project, which shall be the responsibility of the Design-Builder to test, accept, and maintain for use for the duration of construction. The dedicated fiber consists of several segments between existing cabinets and splicing will be required if a continuous fiber line is desired.

All underground fiber optic cable shall be installed in new or existing conduit in accordance with the details provided in the RFP and VDOT standards; no aerial or direct buried fiber will be permitted. Use of the backbone fiber optic conduit will not be permitted; however, other conduits may be used if spare capacity exists based on NEC criteria with no warranty of any kind by VDOT. Fiber optic cable shall be installed separately and must never be intermingled with power conductors in pull boxes, manholes, junction boxes, vaults, or conduit. Fiber optic cable shall only be terminated at cabinet termination/patch panels and devices with no splicing permitted in either pull boxes or vaults.

The fiber optic cable shall be all-dielectric, dry-filled, loose-tube, dispersion-unshifted, single-mode fiber (SMF) with low water peak, gel free, and suitable for underground (i.e., in conduit) and aerial outside plant installation. All fiber optic cable shall be splice-compatible with VDOT's existing dispersion-unshifted SMF and require no electronic equipment for dispersion compensation between new and existing fiber. All components that comprise a single length of cable shall be continuous and shall be of the same material. Commercial off-the-shelf materials, equipment, and components shall only be furnished.

The Design-Builder shall install and splice the Fiber Optic system in accordance with the Special Provisions listed in Part 2, Section 2.1.

2.9.2 Cabinets

The work shall consist of furnishing and installing the power and field equipment cabinet components in accordance with the Technical Information and Requirements and Special Provisions listed in Part 2, Section 2.1. Power and field equipment cabinet consists of cabinet enclosure and associated ancillary items. All cabinet installations shall be ground-mounted on concrete foundations in accordance with VDOT Road and Bridge Standards CF-3.

Equipment cabinets are used for housing power distribution and disconnect, ITS equipment, and network devices including, but not limited to, Ethernet switches, device/terminal servers, digital video encoders, CCTV interface panels, DMS controllers, vehicle detector

interface assemblies, transient voltage surge suppressors, uninterruptible power supplies, shoulder lane monitoring system components and fiber optic cable termination/patch panels.

Where existing cabinets have equipment that may be abandoned, the Design-Builder shall investigate, verify, and accept the working condition of the devices prior to commencing work and accepting responsibility for the cabinet. The Design-Builder shall be responsible to bring existing cabinets and infrastructure that may be reused to be fully compliant with the Technical Information and Requirements and Special Provisions listed in Part 2, Section 2.1 for this Project. The Design-Builder shall be responsible for ensuring and demonstrating that any active components remaining in reused cabinets remain in operation without interruption or deviation.

The Design-Builder shall furnish and install primary transient voltage surge suppression (TVSS) in each equipment cabinet for all ITS devices connected directly or remotely to protect the equipment from lightning, transient voltage surges, and induced current. This also includes connecting the primary surge protection at the service entrance or main disconnect.

ITS equipment cabinets shall be installed with proper access for maintenance, and shall not be installed in the median. Equipment cabinets for dynamic message signs and lane control signals shall be ground mounted and placed approximately 100 feet in advance of the device so that the displayed messages can be clearly observed from the cabinet.

The Design-Builder shall establish and maintain a work history log for each cabinet for the duration of the Project. These logs will be used to document access, progress, and work history at each cabinet.

2.9.3 Uninterruptible Power System

This work shall consist of furnishing and installing Uninterruptible Power Systems (UPS) for ITS devices at locations in accordance with the Technical Information and Requirements, Special Provision listed in Part 2, Section 2.1, and the RFP Conceptual Plans.

UPS assembly shall provide complete non-interruptible power protection, voltage regulation, and surge and spike protection for all ITS devices and communications equipment powered by it. The UPS shall instantly transfer the cabinet to the battery back-up mode in the event the main AC power source goes offline. The UPS shall be a commercially available package containing all wiring connectors, software, mounting brackets, and cables. The UPS assembly shall consist of a UPS with sealed batteries, surge suppression, LED status indicators for “On-line,” “Battery On,” “Replace Battery,” and “Overload,” customizable output relays and input contacts, and network management cards (IP addressable).

The UPS shall include remote monitoring and control functions with a software/firmware package that is Microsoft web-based and, at a minimum, provides the ability to determine in real time the status of the commercial power (on-off), backup power (on-off), the duration of available UPS backup battery time at the rated UPS load (hours/minutes), and any errors.

The UPS shall be of sufficient design to fully operate all ITS devices and communications equipment it powers for a minimum of four (4) but no greater than eight (8) hours. Longer battery runtimes shall be utilized based on the life safety roles served by devices. The Design-Builder shall be responsible for determining the appropriate size/capacity of the UPS, but in no case shall the UPS be smaller than 2.3KVA. The Design-Builder shall be responsible for providing a portable generator hookup where power demand and cabinet constraints outweigh minimum battery runtime capacity.

The Design-Builder shall install and integrate UPS components in the respective designated ITS Controller Cabinets, in accordance with the electrical requirements for the respective Cabinet Specifications.

2.9.4 Conduit Systems for Fiber Optic and ITS Infrastructure

Conduit systems for fiber optic infrastructure shall follow the IIM-LD-230.1 Fiber Optic Instructional and Informational Memorandum. ITS devices that are mounted in the median, such as Lane Control Signals, will require a conduit pathway from the device cabinet on the outside right shoulder to the median where the device is located. Junction boxes, splice boxes or manholes shall not be located in the shoulder travel lane. Junction boxes, splice boxes or manholes may be located in any available shoulder adjacent to the shoulder travel lane. Any junction boxes, splice boxes or manholes located in available shoulder shall be entirely in the shoulder and shall be rated for deliberate traffic use. An alternative installation is for the conduit pathway to terminate in the concrete median barrier separating northbound and southbound I-495. The Design Builder shall reconstruct the median barrier as required to accommodate the conduit pathway, at the approval and direction of VDOT. Barrier mounted junction boxes shall be consistent with industry standards. ITS and lighting conduits and cables shall be kept separate.

2.9.5 ITS Communication and Power Upgrades

Existing ITS devices within the project limits which do not use fiber optic communications and/or hardwired electrical service shall be upgraded by the Design-Builder. The existing communications and electrical service may be phone, cellular or solar based, or other. The upgrades shall consist of installing all necessary infrastructure and network components for the complete communication, operation and integration of the existing device into VDOT's control system using fiber optic communications and hardwired electric service. All upgrades shall be design and constructed in accordance with the Technical Information and Requirements and Special Provisions listed in Part 2 for the Project. If any existing device, supporting equipment, infrastructure or network component is not compatible with the proposed upgrades, or is not in full compliance with the Technical Information and Requirements and Special Provisions listed in Part 2 for the Project, then the Design-Builder shall replace the component as required to meet compliance. Disruptions to existing ITS devices and systems shall be minimized to the fullest extent possible while completing upgrades.

2.10 Device Components of Intelligent Transportation System

The Design-Builder shall be responsible for providing design, installation, and maintenance until final acceptance, integration, testing, documentations, and final submission of As-Built plans for the device components.

The final placement of all ITS devices shall be located such as to be directly accessible from I-495 and such that maintenance activities can be performed on the device with limited temporary closure of travel lanes.

The Design-Builder shall provide VDOT with a sample unit or unit intended for spare parts of all ITS devices related to this Project (Video Encoder, Vehicle Detection, CCTV Camera, Lane Control Signal and Shoulder Lane Monitoring (SLMS Video Encoder and Fixed Mount Camera)) being installed for VDOT to use for software integration. The Design-Builder shall furnish such equipment to VDOT no later than twenty-one (21) days after award of Contract Execution.

All new ITS devices shall be recorded in the Asset Identification Table, included in the RFP Information Package. The information in the Asset Identification Table will be used to populate the NRO inventory database.

The Design-Builder shall be responsible for all ITS devices installed and/or modified by the Project until final acceptance by VDOT. Prompt response is required to any damage caused by the Design-Builder and in the event the repair isn't completed 2 hours prior to the next traffic peak, VDOT will use its maintenance Contractor to restore critical systems and charge the Design-Builder. The cost of repair work performed, plus twenty-five percent (25%) for supervisory and administrative personnel, will be deducted from monies due to the Design-Builder for the Project in accordance with Part 4, Section 2.11.

2.10.1 Closed-Circuit Television (CCTV) Cameras

The Design-Builder shall furnish and install closed circuit television (CCTV) color cameras in pressurized housings. The installed equipment shall provide unobstructed video images of the roadway, traffic, and other current conditions to the location of the adjacent CCTV camera at a minimum, respond to camera control commands from the operator, and transmit video images to remote locations.

The CCTV cameras shall produce clear, detailed, and usable video images of the areas, objects, and other subjects visible from a roadside CCTV field site. The CCTV cameras shall provide 100% visual coverage of the traffic conditions, LCS, and DMS within the project limits during all seasonal conditions. The video produced by the cameras shall be true, accurate, distortion free, and free from transfer smear, over-saturation, and any other image defect that negatively impacts image quality under all lighting and weather conditions in both color and monochrome modes. The camera enclosures shall minimize glare and provide overexposure protection for the cameras when pointed directly at the sun.

The cameras shall provide tilting and masking features including, but not limited to, programmable camera title, programmable preset titles for each preset position, and programmable privacy zones. The programmable titles shall be a minimum of 18 characters per line, and shall be capable of generating and superimposing lines of English language text on the video image/stream. The text messages shall be stored in non-volatile memory.

The CCTV cameras shall include an integrated pan/tilt mechanism capable of providing 360 degree continuous pan with a minimum 90 degree tilt range (i.e. 0 to -90 degrees); provide variable speed control; have a preset position return accuracy of ± 0.36 degree, or less than 0.10% or better; support a minimum of 64 presets; shall be capable of programmable tours; and include a minimum of eight programmable blackout privacy zones.

The CCTV cameras shall have a minimum 35X (Day/Night) motorized optical zoom lens with automatic iris and Electronic Image Stabilization (EIS). The lens shall be capable of automatic and manual focus and iris control. The lens depth-of-field shall provide a clear image of roadside areas under all lighting conditions and have a maximum aperture of f/1.6.

CCTV cameras used for Shoulder Monitoring shall be fixed and will not require a motorized pan/tilt or zoom mechanism; however, the lens shall be capable of automatic and manual focus and iris control and be fitted, as needed, with a filter to shield the camera from direct sun light. The Shoulder Monitoring fixed cameras shall be sufficient to allow for shoulder lane incident detection method selected by VDOT NRO.

2.10.2 Dynamic Message Sign (DMS)

DMS shall consist of either walk-in or front-access sign assemblies as defined below. Walk-in DMS units shall only be installed on span structures and front-access DMS units shall be installed on either span or butterfly structures. Two types of DMS units shall be utilized in this Project as defined below. Each sign shall be capable of displaying a message in color composed of any combination, upper/lower case letters A through Z, decimal digits 0 through 9, blank or space, punctuation marks, special characters, special graphics shapes editable by the user.

- Type 1 DMS shall be full color, full matrix with evenly spaced pixels, both vertically and horizontally nominally providing a maximum 35mm pixel pitch for an 18 inch high character on three lines of eighteen characters per line. Type 1 DMS shall be walk-in type.
- Type 2 DMS shall be full color, full matrix with evenly spaced pixels, both vertically and horizontally nominally providing a maximum 35mm pixel pitch for a 12 inch high character on three lines of thirteen characters per line. Type 2 DMS shall be front access type.

The DMS controller and circuit breaker shall be installed on the ground in the equipment cabinet, not overhead within the DMS assembly. The DMS controller software shall support

NTCIP V2.35 and shall be backward compatible with VDOT's current version 1 of the NTCIP communication protocol and the functions and features contained within VDOT's existing TOC central control software.

2.10.3 Lane Control Signals

Lane Control Signals (LCS) shall be installed on new or existing overhead span or cantilever sign structures or signal pole and mast arm structures for shoulder lane control at locations shown on the RFP Conceptual Traffic Plans. The LCS shall be centered over the shoulder lane and shall be installed so that two LCS are visible to a vehicle traveling in the shoulder lane at all times with a minimum of 500-foot spacing. LCS shall be subject to the DMS Special Provision in addition to the requirements provided herein and in the RFP Conceptual Plans. Each LCS shall be a minimum 4 feet square front-access assembly.

The LCS Displays shall be full color, full matrix with evenly spaced pixels, both vertically and horizontally nominally providing a maximum 35mm pixel pitch for width of five characters of 9 inches in height. Each LCS shall be capable of displaying a message composed of any combination, upper/lower case letters A through Z, decimal digits 0 through 9, blank or space, punctuation marks, special characters, special graphics shapes editable by the user as well as replicating MUTCD compliant Speed Limit signs, HOV symbols and lane control designations, including green down arrow, red "X", and yellow arrow angled downward.

LCS shall be composed of a single panel for quick removal and replacement for repair. The cabling shall have a minimum six (6) feet of slack and mounting hardware shall be adjustable, such that moving the unit along the structure for future lane shifts is possible. Slack cable should be attached and stored on the structure next to the LCS. LCS shall be accessible and mounted in such a manner that a single unit can be removed and replaced in under 20 minutes by a qualified technician.

Each LCS shall have an individual controller and circuit breaker that shall be installed on the ground in the equipment cabinet and not overhead within the LCS assembly. The LCS controller software shall support NTCIP V2.35 and shall be backward compatible with VDOT's current version 1 of the NTCIP communication protocol and the functions and features contained within VDOT's existing TOC central control software.

Each LCS shall be equipped with a field control unit to continuously monitor communication to the central system. In the event of loss of communication, based on a user-defined time interval, the control unit shall blank out the LCS units to eliminate any conflicts in system display. Each LCS support shall have a unique number displayed on a static sign strapped to the upright post; the font height used for the gantry number shall be 10 inch minimum.

The LCS ITS equipment selection, shop drawings, and sample ITS equipment shall be provided to the Department for software integration no later than 21 days after Contract Execution.

2.10.4 One Line DMS

One line DMS units shall be mounted on existing static signs or new static signs being installed as part of this Project. One line DMS shall be subject to the DMS Special Provision in addition to the requirements provided herein and in the RFP Conceptual Plans. Each one line DMS shall be front-access surface mounted. A single type of one line DMS shall be utilized in this project as defined below.

- Type 3 One Line DMS units shall be amber in color, full matrix with evenly spaced pixels, both vertically and horizontally nominally providing a maximum 46mm pixel pitch for a single line display width of 5 (5) characters 12 inches high. The unit shall have a maximum weight of 30 pounds and dimensions of approximately 2 inches thick, 4 feet wide by 1’-5” feet high. Multiple One Line DMS are permitted on a single sign panel.

One Line DMSs shall meet all of the specifications described in the Dynamic Message Sign Section of Part 2, Section 2.10.2, Special Provisions listed in Part 2, Section 2.1, and the RFP Conceptual Plans.

New One Line DMS units shall be uniform and visually consistent with existing One Line DMS units installed by VDOT Northern Region and be fully interoperable with the existing control software currently in use.

2.10.5 Vehicle Detection

The Design-Builder shall relocate existing vehicle detectors as shown on the RFP Conceptual Plans. Relocation shall include constructing new foundation(s) and relocating the existing device, cabinet, pole and other supporting equipment to the proposed location. New hardwired fiber optic communications and power shall be brought to the new location. Solar power and wireless communications will not be permitted. The Design Builder shall verify that all of the existing equipment is compatible with VDOT's central system software (ATMS) and meets all requirements of the RFP. If any or all equipment is not compatible with VDOT’s central system software (ATMS), does not meet the requirements of the RFP or becomes damaged during the relocation, then the Design Builder shall furnish and install a new microwave vehicle detector meeting the requirements below and included special provisions.

The Design-Builder shall furnish and install microwave vehicle detection (MVD) system using nonintrusive high definition (HD) microwave radar vehicle detector capable of vehicle presence detection and traffic data collection in accordance with Part 2 and Special Provisions listed in Part 2, Section 2.1 and the RFP Conceptual Plans. The materials, equipment, and components shall be new, commercial off-the shelf products. Reconditioned equipment or system components shall not be used.

The MVD shall, at a minimum, produce vehicle presence, volume, speed, and occupancy data for each detected lane. Defining, configuring, adjusting, and programming detections parameters, zones, size, placement, and sensitivity shall be achievable by laptop computer both in the field and remotely. Once programmed the MVD shall not require periodic adjustments to the detection zones unless physical roadway conditions change, such as lane shifts or closures.

The Design-Builder shall furnish software that is compatible with NRO central system software (ATMS) and shared hardware platform. The software application shall provide PC desktop display of the detection zones and control of any vehicle detector connected to the network to conduct system setup, calibration, diagnosis, and data retrieval operations. All components of the vehicle detection system shall be fully compatible and operational with NRO's central system software (ATMS) and offer an open API and software development kit available to VDOT at no cost for integration with third party software and systems.

2.10.6 Shoulder Lane Monitoring System

The Design-Builder shall furnish and install a Shoulder Lane Monitoring System (SLMS). The SLMS shall be capable of monitoring and alarming stationary objects or unusual conditions such as stopped vehicles, lost cargo, dead animals, wrong way driver, pedestrian in freeway, dense lane occupancy, low speed flow, high traffic volume, speed drop, and under speed. The SLMS shall be capable of detection along the length of the shoulder use lane, from the theoretical gore at the south end of the project to the end of the shoulder lane taper at the north end of the Project.

The SLMS system shall be based on advanced analytics that incorporate field of view pixel comparison technologies. Each field of view monitor by each unit shall be able to be divided into zones. Each alarm shall be capable of being uniquely identified and labeled based upon the alarm condition type, time and location.

The Design-Builder shall provide a Digital Video Encoder (DVE) that is imbedded with the analytics and processing required to detect the conditions listed above. The Design-Builder shall not provide a system that transmits video to a central location, as all processing and analytics shall be performed at the local level. The Design-Builder shall integrate the DVE with field-deployed fixed-position CCTV units.

The Design-Builder shall furnish and install a system to monitor the shoulder lane for anomalous conditions and to provide alarms that may be integrated into third party software including the NRO's central system software (ATMS).

The shoulder lane monitoring ITS equipment selection, shop drawings, and sample ITS equipment shall be provided to the Department for software integration no later than 21 days after contract award.

2.11 Network Components of Intelligent Transportation System

The Design-Builder shall be responsible for providing design, system engineering, installation, configuration and maintenance until final acceptance, integration, testing, documentations, and submission of As-Built plans for the devices in the project. Integration of the IP based fiber optic network with the NRO ITS network is the responsibility of the Deign-Builder. Use of a wireless solution as a permanent network or devised link will not be permitted for this Project.

The Design-Builder shall avoid and minimize disruption to existing ITS systems, devices, and network. The addition to the fiber ITS communication network and interface shall seamlessly reside and be fully interoperable with legacy network.

2.11.1 Field Ethernet Switches

The Design-Builder shall furnish and install edge Ethernet communication switch manufactured by MOXA Model EDS 510A 3SFP-T or similar units from this model family that uses the MOXA Turbo Ring and Turbo Chain, self-healing Ethernet technology.

VDOT has applied for concurrence from FHWA though Public Interest Finding (PIF) to use the MOXA switch to match existing communication network equipment currently in use in NRO in order to minimize potential conflict. The PIF application is included in the RFP Information Package. The Design-Builder shall design in accordance with acceptance of this PIF. The approved PIF will be provided to the Design-Builder at Notice of Intent to Award.

Furnish and install an environmentally hardened, device-level managed field Ethernet switch (MFES). The MFES shall provide wire-speed fast Ethernet connectivity at transmission rates of 100 megabits per second or 1 gigabit per second from the remote ITS device installation location to the ITS network trunk interconnection point. The MFES shall support a minimum combination of 10 fiber optic and copper Ethernet ports as indicated in the Special Provision listed in Part 2, Section 2.1. At least three of the fiber optic ports shall be Gigabit-enabled allowing ring configuration as well as simultaneously connecting isolated/spur routes.

The ITS network administrator shall be able to manage each MFES individually or as a group/cluster for switch configuration, performance monitoring, and troubleshooting. These specifications require additional minimum management intelligence (i.e., Layer 2+) typical of most current industrial Ethernet deployments. The MFES shall include Layer 2+ capability providing architecture standardization, open connectivity (i.e., interoperability), bandwidth management, rate limiting, security filtering, and general integration management of an advanced Ethernet switching architecture.

The furnished MFES shall be fully compatible and interoperable with the ITS trunk Ethernet network interface, and the MFES shall support half and full duplex Ethernet communications. The MFES shall feature non-blocking on all ports, and the full-duplex operation shall have no collisions. The MFES shall have non-blocking, store, and forward

switching. The MFES shall provide a selectable feature that redirects the fiber connectivity in cases where the fiber link from the head end is severed and the data to /from the MFES has an alternate fiber route path to maintain communications as a self-healing function.

2.11.2 Field Video Encoders

The Design-Builder shall furnish and install Digital Video Encoder (DVE) hardware to create a video-over-IP network system that will be integrated with central software decoding platforms. The Design-Builder shall provide digital video encoders that are fully compatible with NRO's central system software (ATMS) and existing software decoders. The Design-Builder shall furnish DVE units that utilize open source and commercially available software decoders including VLC and Apple QuickTime Media Player.

2.11.3 Network Configuration

The Design-Builder shall contact the VDOT Project Manager and coordinate network configuration control meetings with VDOT's networking staff prior to the installation of networking equipment and throughout the duration of installation and configuration efforts. The Design-Builder shall be responsible for configuring the equipment as approved by VDOT's Project Manager. This shall include any and all configuration settings required (including simple network management protocol (SNMP) management settings, port activation alarms, etc.). Monthly meetings shall begin at least one (1) month prior to the start of installation of this equipment and shall continue through at least one (1) month past the conclusion of testing and acceptance of installed equipment. Prior to commencing work, the Design-Builder shall develop a Requirements Definition Document (RDD) that will form the basis for the overall network architecture and design. It is expected that the Design-Builder will work closely with VDOT's networking staff to configure the network. The document will contain:

- Complete description of the proposed implementation of the access, distribution, and core layers for the Ethernet network as described in the RFP Conceptual Plans and Special Provisions listed in Part 2, Section 2.1;
- Development of an IP Design Scheme with ranges assigned to each node to be integrated by the Design-Builder;
- Proposed IP subnet definition and addressing including any and all masks;
- Proposed IP multicast configuration including multicast routing (i.e., protocol independent multicast (PIM) sparse or dense) and Rendezvous Point (RP) designation as necessary;
- Proposed Recommendations for failover and redundancy including network device power, supervisor cards, and network ports;
- Proposed configuration and guidelines for Virtual LAN assignments including management VLANs, device VLANs, and routing VLANs;
- Proposed configuration and guidelines for specific port assignments on each of the Layer 2 and 3 devices; and
- Proposed interface/integration points with the existing ITS network.

VDOT will provide the Design-Builder with an IP address range or ranges to use for developing the IP address scheme. The RDD shall be prepared by a qualified networking professional and approved by VDOT. The qualified networking professional shall be present during the installation and testing of the local area network as well as during system testing.

The Design-Builder shall install and secure the networking equipment in the field equipment cabinets and the MPSTOC as defined on the RFP Conceptual Plans, Part 2, and Special Provisions listed in Part 2, Section 2.1. Standards CAT 5E and optical fiber cables shall be used for each connection, as required in the Special Provisions listed in Part 2, Section 2.1.

Patch cables shall be defined as cables connecting a device to a patch panel, wall outlet, or another device. The patch panel provides a connection to permanently installed cabling generally.

The current VDOT Ethernet network consists of Field Hubs located throughout the region connected via a fiber optic trunk. Field devices are connected to the Hub site via distribution fiber in a ring topology. When the Design-Build Team installs a new Layer 2 hardened switch at a Hub facility, the new Layer 2 switch will act as the Ring Master for a new fiber ring that will provide a connection to Layer 2 hardened switches located at the field equipment cabinet for the new equipment to be installed under the Project.

VDOT will allocate four (4) fibers on the current distribution fiber for use to connect the new ring. The Design-Builder shall test, accept, and maintain the dedicated fiber for the duration of construction. Unused fiber shall be subject to testing and VDOT acceptance prior to the end of the Project.

At the MPSTOC, the Design-Builder shall furnish and install a minimum 24 port, Layer 2 switch that shall serve as a central terminus of the network of switches and devices installed under the Project. This switch shall meet or exceed the requirements of the Layer 2 network switch called for in Part 2 and Special Provisions listed in Part 2, Section 2.1. This switch shall serve as a demarcation point to permit the connection of servers and test work station to permit component and subsystem testing of field components via vendor supplied and open source central client-server software. This switch shall also be utilized to perform testing such as NTCIP and packet throughput test, and other testing as called for in Part 2, Section 2.12 and VDOT Special Provisions listed in Part 2, Section 2.1.1.

2.12 Inspection, Integration, and Testing of Intelligent Transportation System

Inspection, integration, and testing involve a three-tier sequential process that consists of Stand Alone functionality, System Operation, and Acceptance Testing as defined herein. Stand Alone Testing requires field acceptance at device, cabinet, communication hub and Traffic Management Center (TMC) levels in order to proceed to System Operational Testing. This Stand Alone Testing shall successfully demonstrate that users at the TMC can fully control all aspects of the ATM system before the Design-Builder can commence Acceptance Testing. The Design-Builder shall make arrangements for the witnessing of tests by VDOT staff or representatives by sending notification seven (7) days prior to scheduled test.

The Design-Builder shall furnish and install a test workstation running vendor-supplied software at MPSTOC. The Design-Builder shall be responsible for installing, configuring, testing and integrating all field equipment to the test workstation. The Design-Builder must demonstrate that all devices function as specified in the RFP Conceptual Plans and Special Provisions using the vendor software at the MPSTOC.

The Design-Builder shall be responsible for establishing and executing a plan for inspecting, integrating, and testing of all infrastructure and device components furnished and installed by the Project. The Quality Assurance Manager (QAM) shall be responsible for ensuring that the inspection, integration, and testing plan established by the Design-Builder and approved by VDOT is properly executed, variances are reported and corrective actions are made.

The Design-Builder shall supply written test procedures for VDOT approval a minimum of thirty (30) days before testing can be started. The Design-Builder shall submit reports for all testing levels to verify procedures followed, results recorded, timetable, and action required. The testing report shall include relevant information such as calibration data of all test equipment, charts, graphs, evidence, photographs, failure analysis, corrective action, traceability and audit trail, with certification signature of both Design-Build Project Manager and QAM.

The Design-Builder shall perform preliminary Acceptance Testing over a fifteen (15) consecutive day period under real-world operation conditions prior to the Interim Milestone Completion date as set forth in Exhibit 1 to Part 3. This preliminary testing period shall ensure that the ATM system is capable of providing a beneficial use to the users of the roadway as determined by VDOT. The Design-Builder shall then perform the official Acceptance Testing after the Interim Milestone Completion date, over a sixty (60) consecutive day period. The system shall not lockup, fail, or crash due to use, operator entry of data, or equipment malfunction during the 60 days. Operators will record any deficiency as it occurs and VDOT may employ a third-party to inspect the system and record any deficiencies. Any system failure of Design-Builder supplied equipment or discovery of deficiency that causes a system failure shall be cause to halt and repeat Acceptance Testing in its entirety for another full 60-day period after correction of problem. The Design-Builder shall take this into consideration in the development of the Baseline Schedule, so as to ensure testing is complete and system accepted by Final Completion date set forth in Exhibit 1 to Part 3.

During Acceptance Testing, the Design-Builder shall respond to any issues within four (4) hours of notification from VDOT. All repairs shall be completed within 48 hours, with the exception of communication failures that shall be completed within 24 hours.

The Design-Builder shall provide manufacturer’s warranties on all furnished equipment for material and workmanship that are customarily issued by the equipment manufacturer. The warranty period shall commence from successful completion of the official Acceptance Testing.

The Design-Builder shall provide communication protocols for all devices/equipment being constructed by this Project to the VDOT software provider. Additional software services and integration into the ATMS software will be done by the VDOT software provider. The

Design-Builder shall cooperate with the VDOT central software provider, enabling them to test their software (ATMS) against the field equipment installed as part of this Project during the stand alone testing period. The Design-Builder will not be responsible for this testing and it will be done at times mutually agreed upon by all parties: Design-Builder, VDOT, and VDOT software provider. All Stand Alone, System Operation and Acceptance Testing will be conducted with Design-Builder supplied software.

2.13 System Support Equipment for Intelligent Transportation System

The Design-Builder shall "furnish only" and not install system support materials under this Project. All system support materials shall include all necessary hardware.

Furnish new and unused system support equipment that is identical to the materials installed and accepted under this Project. Furnish the following materials and quantities:

Item	Quantity
CCTV Camera Assembly	1
Fixed Mount Camera	2
Video Encoder	1
SLMS Video Encoder	2
MVD Assembly	1
Lane Control Signal	1

2.14 Training

The Design-Builder shall provide documentation and training for the installation, operation, and maintenance of the ITS equipment constructed by the Project in accordance with the Special Provision for ITS Training included in the RFP Information Package. Training shall include the following:

- Infrastructure Components:
  - Fiber-optic communications cable
    - Fiber-optic interconnect centers
    - Splice trays and other related fiber-optic equipment in accordance with the RFP Conceptual Plans and the Technical Information and Requirements
  - Uninterrupted Power Supply (UPS) equipment

- Device Components:
  - CCTV camera
  - Dynamic message sign (DMS)
  - Lane control signal (LCS)
  - Microwave vehicle detection (MVD)
  - Shoulder lane monitoring system (SLMS)

- Network Components:
  - Ethernet edge switch
    - Ethernet test switch

- Video encoders
- Network configuration
- Servers

2.15 Transportation Management Plan

The Design-Builder shall prepare a Transportation Management Plan (TMP) in accordance with I&IM-241/TE-351 for Type C, Category V projects, for all proposed work associated with the Project. The TMP shall document how traffic shall be managed during the construction of the Project. The phases in the Design-Builder's sequence of construction shall be followed unless the Design-Builder submits and secures VDOT approval for a sequence that will both expedite construction while lessening the effect of such construction upon the traveling public. The TMP shall incorporate and address the elements provided in this Part 2, Section 2.15.

2.15.1 Maintenance of Traffic

The Design-Builder's TMP shall include a Maintenance of Traffic (MOT) Plan detailing all phases of work, proposed lane closures, maintenance of traffic through the work area, and all construction accesses for approval by VDOT's Project Manager, This plan shall also address safe and efficient operation of adjacent public transportation facilities and State Highways. The plan shall also include coordination with local agencies and other contractors performing work in the vicinity of I-495. This plan shall reflect the anticipated Scope of Work and all applicable VDOT Standards and Specifications regarding time of work. All users must be addressed and accommodated in the TMP, including transit vehicles and other motorists. The TMP shall also accommodate safe and efficient snow removal operations and ensure proper drainage during all phases of construction. The phases in the Design-Builder's suggested sequence of construction that accompany an approved work package shall be followed unless the Design-Builder submits and secures VDOT approval for a sequence which will both expedite construction while lessening the effect of such construction upon the traveling public.

If additional traffic counts are required, it will be the responsibility of the Design-Builder to collect such data.

The Design-Builder shall develop and deliver a Transportation Management Plan, detailing the temporary traffic control plan, the public communications plan, traffic operations analyses, and incident management strategies, for all phases of work, with proposed lane/road closures, rolling lane closures, and all construction accesses for approval by VDOT at least thirty (30) days prior to the start of construction. The Design-Builder's TMP shall demonstrate that queues will not exceed two (2) miles in length as measured from the start of restriction or that the travel time (from end of queue to just beyond point of restriction) will not exceed 20 minutes. The Design-Builder shall be responsible for monitoring the queue lengths and/or travel times during construction and notifying the VDOT Construction Manager when the queues or travel times is exceeded for a continuous duration of more than one (1) hour. The Design-Builder shall identify and take corrective action prior to re-setting the temporary Work Zone; or if a permanent MOT phase, within two (2) days of notification. If not resolved within two (2) days, the Design-Builder shall work directly with VDOT staff to develop the appropriate corrective action within

two (2) working days. The corrective action proposed may require a reduction in allowable closure times specified in Part 2, Section 2.15.2. No time extension or additional compensation will be granted for corrective actions required to meet the condition specified above.

The minimum allowable travel lane widths are 11 feet on I-495, including ramps through the Project area.

At locations on I-495 and interchange ramps where Traffic Barrier Service, Concrete, or Group II Channelizing Devices are used, a minimum width of two (2) feet shall be maintained between the edge of the travel lane and these devices.

Construction signs and pavement markings (temporary) shall be installed, maintained, adjusted, and removed by the Design-Builder throughout the duration of the Project.

All entrances, intersections or pedestrian access points/routes that will be affected by the work zone or by the traffic control devices will be maintained or an acceptable alternate must be provided by the Design-Builder.

2.15.2 Lane and Road Closure Restrictions

Lane, shoulder, or road closures shall be detailed in the Design-Builder's Transportation Management Plan and shall be in accordance with the lane closure restriction table below. Anticipated and proposed lane and/or shoulder closures shall be reviewed and approved by VDOT. The Design-Builder shall restore all lanes of traffic per the times specified below. Restoration of traffic shall mean the completion of all construction work, the removal of all traffic control devices, signs, workers, materials, and equipment from the roadway.

Roadway Lane and Shoulder Closure Restrictions Permitted Hours			
Roadway	Single-Lane Closures	Double-Lane Closures	Complete Road Closure*
I-495 including interchanges and associated ramps	M, Tu, W, Th 9:30 a.m. to 3:00 p.m. 9:30 p.m. to 5:00 a.m. Friday 9:30 a.m. to Noon 10:00 p.m. to 9:00 a.m. Saturday 9:30 p.m. to 9:00 a.m. Sunday 9:30 p.m. to 5:00 a.m.	M, Tu, W, Th 11:00 p.m. to 5:00 a.m. Friday 10:30 p.m. to 7:00 a.m. Saturday 10:00 p.m. to 9:00 a.m. Sunday 10:00 p.m. to 5:00 a.m.	M, Tu, W, Th 11:00 p.m. to 5:00 a.m. Friday 11:00 p.m. to 7:00 a.m. Saturday 11:00 p.m. to 9:00 a.m. Sunday 10:00 p.m. to 5:00 a.m.
Other Roadways	M, Tu, W, Th 9:00 a.m. to 3:00 p.m. 9:00 p.m. to 5:00 a.m. Friday		M, Tu, W, Th 11:00 p.m. to 5:00 a.m. Friday 11:00 p.m. to 7:00 a.m.

Roadway Lane and Shoulder Closure Restrictions Permitted Hours			
	9:00 a.m. to Noon 9:30 p.m. to 9:00 a.m. Saturday 9:30 p.m. to 9:00 a.m. Sunday 9:30 p.m. to 5:00 a.m.		Saturday 11:00 p.m. to 9:00 a.m. Sunday 10:00 p.m. to 5:00 a.m.

*Complete Road Closures: 20 minutes maximum or a time frame to be mutually determined by the VDOT and the Design-Builder to facilitate the erection or removal of overhead sign panels and structures.

Detour plans will be required for any proposed total road closures exceeding 20 minutes, and are subject to VDOT review and approval as part of the Design-Builder's TMP. In addition to addressing the traffic analysis requirements in I&IM 241, the Design-Builder shall demonstrate in its detour plan(s) efforts to minimize impacts to the community (including noise, access, additional travel time, etc.), and address geometry, safety (including accident analysis along the detour route), capacity, and existing roadway conditions.

Total closures of I-495 and associated Interchange Ramps, and multiple lane closures, will require coordination with VDOT and the appropriate stakeholders at least fourteen (14) days in advance of the actual closure, in order to allow VDOT to issue public notices at least seven (7) days prior to the actual closure.

The Design-Builder shall submit all lane and shoulder closure requests to the VDOT TOC and VDOT Project Manager for coordination purposes (for determination of conflicts with other projects, for instance) at least seven (7) days in advance of the proposed lane and/or shoulder closure and no later than close of business Wednesday the week prior to closure, stating the location, purpose, date, time, and duration of the closure. The Design-Builder shall confirm at least twenty-four (24) hours before any scheduled lane and/or shoulder closure and shall include a written reiteration of the proposed tasks and a listing of materials, labor, and equipment to be utilized, in order for TOC to post the information on the VDOT website and VA511 system.

The Design-Builder is responsible for providing advance notification via Portable Changeable Message Boards and required static signing for lane, shoulder and complete road closures in accordance with the 2011 *Virginia Work Area Protection Manual.* Once a closing is in place, work shall commence immediately and shall progress on a continuous basis to completion or to a designated time.

Lane closures or work that restricts traffic flow will not be permitted on Saturdays, Sundays, and holidays from noon the day before a holiday until noon the day after a holiday, unless otherwise approved by VDOT. When a holiday falls on a Friday, lane closures are not permitted from noon on Thursday to noon on Monday. When a holiday falls on a Monday, lane closures are not permitted from noon on Friday to noon on Tuesday. Further, as the Thanksgiving Day holiday occurs on a Thursday, work will not be permitted from noon on Wednesday until 9:30 a.m. on the following Monday.

For the purposes herein, the term "holiday" shall apply to New Year's Day, Martin Luther King Jr. Day, President's Day, Easter, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day. The Department may adjust lane closure times to accommodate shopping seasons associated with the aforementioned holidays.

Extension of a lane closure time, except as approved by the Department, is not acceptable and bears user fee charges. Lane user fees for failure to restore all lanes to traffic by the designated times are indicated in the table below, and will be assessed starting from the end of the approved time. In cases in which special dispensation has been given to restrict lanes beyond the specified times, the lane user fees will apply from the end of the Department approved time.

Fees will be assessed on the following basis:

--The specific 15-minute interval violation amount in which the lane closure is completely removed. The 15-minute interval fee will be assessed for any portion thereof (for example, one minute into the 15 minute increment will be assessed at the full 15 minute rate).

--Additionally, if the lane closure(s) exceed any one full hour into the restricted time frames, additional hourly fees will be assessed based on the succeeding 15 minute interval rate (for example, if a lane closure is not completely removed until 6:02, the rate shown for 6:01 to 6:15 will be assessed as the hourly fee).

--Additional specific 15-minute interval violation fees and additional full hour fees will continue to be applied until the lane closure is completely removed.

Table of User Fees (For Lane Closures) I-495						
Monday through Friday			Saturday		Sunday	
Hours	Failure to Remove Single Lane Closure	Failure to Remove Double Lane Closure	Failure to Remove Single Lane Closure	Failure to Remove Double Lane Closure	Failure to Remove Single Lane Closure	Failure to Remove Double Lane Closure
5:01 a.m. to 5:15 a.m.	$1,000	$2,000	$0	$0	$0	$0
5:16 a.m. to 5:30 a.m.	$2,000	$15,000	$0	$0	$0	$0
5:31 a.m. to 5:45 a.m.	$5,000	$15,000	$0	$0	$0	$0
5:46 a.m. to 6:00 a.m.	$7,500	$15,000	$0	$0	$0	$0
6:01 a.m. to 6:15 a.m.	$10,000	$15,000	$0	$0	$0	$0
6:16 a.m. to 6:30 a.m.	$10,000	$15,000	$0	$0	$0	$0
6:31 a.m. to 6:45 a.m.	$10,000	$15,000	$0	$0	$0	$0
6:46 a.m. to 7:00 a.m.	$10,000	$15,000	$0	$0	$0	$0
7:01 a.m. to 7:15 a.m.	$10,000	$15,000	$0	$2,000	$0	$0
7:16 a.m. to 7:30 a.m.	$10,000	$15,000	$0	$4,000	$0	$0
7:31 a.m. to 7:45 a.m.	$10,000	$15,000	$0	$6,000	$0	$0

7:46 a.m. to 8:00 a.m.	$10,000	$15,000	$0	$8,000	$0	$0
8:01 a.m. to 8:15 a.m.	$8,000	$15,000	$0	$10,000	$0	$0
8:16 a.m. to 8:30 a.m.	$7,500	$15,000	$0	$14,000	$0	$0
8:31 a.m. to 8:45 a.m.	$7,000	$15,000	$0	$15,000	$0	$0
8:46 a.m. to 9:00 a.m.	$6,500	$15,000	$0	$15,000	$0	$0
9:01 a.m. to 9:15 a.m.	$6,000	$15,000	$3,000	$15,000	$1,000	$6,500
9:16 a.m. to 9:30 a.m.	$6,000	$15,000	$3,000	$15,000	$1,000	$10,000
9:31 a.m. to 9:45 a.m.	$0	$15,000	$3,500	$15,000	$2,000	$12,000
9:46 a.m. to 10:00 a.m.	$0	$15,000	$3,500	$15,000	$2,000	$15,000
10:01 a.m. to 10:15 a.m.	$0	$15,000	$3,500	$15,000	$2,500	$15,000
10:16 a.m. to 10:30 a.m.	$0	$15,000	$3,500	$15,000	$3,000	$15,000
10:31 a.m. to 10:45 a.m.	$0	$15,000	$3,500	$15,000	$3,000	$15,000
10:46 a.m. to 11:00 a.m.	$0	$15,000	$3,500	$15,000	$3,500	$15,000
11:01 a.m. to 11:15 a.m.	$0	$15,000	$3,500	$15,000	$3,500	$15,000
11:16 a.m. to 11:30 a.m.	$0	$15,000	$4,000	$15,000	$4,000	$15,000
11:31 a.m. to 11:45 a.m.	$0	$15,000	$4,000	$15,000	$4,500	$15,000
11:46 a.m. to 12:00 N	$0	$15,000	$4,000	$15,000	$5,000	$15,000
12:01 p.m. to 12:15 p.m.	$2,000 (F)	$15,000	$4,000	$15,000	$5,500	$15,000
12:16 p.m. to 12:30 p.m.	$2,000 (F)	$15,000	$4,500	$15,000	$6,000	$15,000
12:31 p.m. to 12:45 p.m.	$2,000 (F)	$15,000	$4,500	$15,000	$6,000	$15,000
12:46 p.m. to 1:00 p.m.	$3,000 (F)	$15,000	$4,500	$15,000	$6,500	$15,000
1:01 p.m. to 1:15 p.m.	$3,000 (F)	$15,000	$4,500	$15,000	$6,500	$15,000
1:16 p.m. to 1:30 p.m.	$3,500 (F)	$15,000	$4,500	$15,000	$6,500	$15,000
1:31 p.m. to 1:45 p.m.	$4,500 (F)	$15,000	$4,500	$15,000	$6,500	$15,000
1:46 p.m. to 2:00 p.m.	$6,000 (F)	$15,000	$4,000	$15,000	$6,500	$15,000
2:01 p.m. to 2:15 p.m.	$7,000 (F)	$15,000	$4,000	$15,000	$6,500	$15,000
2:16 p.m. to 2:30 p.m.	$6,000 (F)	$15,000	$4,500	$15,000	$6,500	$15,000
2:31 p.m. to 2:45 p.m.	$5,500 (F)	$15,000	$5,000	$15,000	$6,500	$15,000
2:46 p.m. to 3:00 p.m.	$4,500 (F)	$15,000	$5,500	$15,000	$6,500	$15,000
3:01 p.m. to 3:15 p.m.	$3,500	$15,000	$6,000	$15,000	$7,000	$15,000
3:16 p.m. to 3:30 p.m.	$3,000	$15,000	$6,000	$15,000	$7,000	$15,000
3:31 p.m. to 3:45 p.m.	$2,500	$15,000	$6,000	$15,000	$7,000	$15,000
3:46 p.m. to 4:00 p.m.	$2,000	$15,000	$6,000	$15,000	$6,500	$15,000
4:01 p.m. to 4:15 p.m.	$1,000	$9,000	$6,000	$15,000	$6,500	$15,000
4:16 p.m. to 4:30 p.m.	$1,000	$8,000	$6,000	$15,000	$6,500	$15,000
4:31 p.m. to 4:45 p.m.	$1,000	$7,000	$5,500	$15,000	$6,500	$15,000
4:46 p.m. to 5:00 p.m.	$1,000	$7,000	$5,500	$15,000	$6,000	$15,000
5:01 p.m. to 5:15 p.m.	$1,000	$6,000	$5,000	$15,000	$6,000	$15,000
5:16 p.m. to 5:30 p.m.	$1,000	$7,000	$4,500	$15,000	$5,000	$15,000
5:31 p.m. to 5:45 p.m.	$1,000	$9,000	$4,000	$15,000	$4,000	$15,000
5:46 p.m. to 6:00 p.m.	$1,500	$10,000	$4,000	$15,000	$3,500	$15,000
6:01 p.m. to 6:15 p.m.	$1,500	$10,000	$3,500	$15,000	$3,000	$15,000
6:16 p.m. to 6:30 p.m.	$1,500	$10,000	$3,000	$15,000	$2,500	$15,000
6:31 p.m. to 6:45 p.m.	$2,000	$10,000	$2,500	$15,000	$2,000	$15,000
6:46 p.m. to 7:00 p.m.	$2,000	$10,000	$2,000	$15,000	$2,000	$15,000
7:01 p.m. to 7:15 p.m.	$2,500	$10,000	$1,500	$14,000	$1,500	$14,000
And continues until all lanes are restored to traffic	@ the rate of $2,500 per 15 minute period	@ the rate of $10,000 per 15 minute period	@ the rate of $1,000 per 15 minute period	@ the rate of $4,500 per 15 minute period	@ the rate of $1,000 per 15 minute period	@ the rate of $4,500 per 15 minute period

VDOT may, in its sole discretion, waive User Fees for failure to open traffic lanes if such cause is not related to or caused by the Design-Builder's operations. The Design-Builder shall catalog user cost assessments on a daily basis and submit a tabulation along with certification from the QAM that such tabulation is correct to the VDOT Project Manager for concurrence. The Department will make a deduction in the assessed amount from Progress Payment funds otherwise due the Design-Builder.

If the Design-Builder invokes the assessment of user fees for failure to restore traffic lanes, the Design-Builder will not be allowed further lane closures until the reasons for the failure are evaluated and the Design-Builder can provide assurance that the causes have been corrected. A formal submission as to the reasons for the failure to restore traffic lanes within the contract lane closure restrictions and the proposed corrective measures shall be provided to the Department within two (2) days of the occurrence. The Department will respond to the adequacy of the submission within two (2) days of receipt. No modifications to the Contract Price or Contract Time(s) will be granted or considered for these days.

VDOT reserves the right to monitor traffic conditions impacted by the work and to make additional restrictions as may be necessary or as emergency situations dictate. Additional restrictions for other holidays or special local events may be necessary, however, in these situations VDOT will endeavor to inform the Design-Builder at the earliest and in no case less than 48 hours prior to the event.

2.15.3 Use of Virginia State Police

The Design-Builder shall be responsible for coordinating through VDOT for Virginia State Police (VSP) service during Temporary Traffic Control operations involving lane closures and/or rolling lane closures, and any other operation as covered in Appendix C of the Virginia Work Area Protection Manual. VDOT will be responsible for all costs incurred by VSP specific to the Project.

All lane and rolling lane closures shall be identified in the TMP and in accordance with Traffic Engineering Memorandum TE-352.

2.15.4 Portable Changeable Message Signs

Portable Changeable Message Signs (PCMS's) shall be used in advance of the work zone when closing or shifting lanes within the Project limits. The Design-Builder shall provide at least 4 PCMS's along northbound Interstate 495, which are to be placed in advance of the Project PCMS's shall have the capability to be remotely controlled from the Transportation Operations Center (TOC) to facilitate emergency access during an incident only. PCMS's shall also be used to provide en-route travel information about planned construction, delays or other sudden changes in travel conditions throughout the Project's duration. The PCMS shall be placed in a semi-permanent location, protected from traffic but highly visible to the public. The Design-

Builder shall coordinate the implementation of PCMS's with VDOT. The use of PCMS's shall not replace any traffic control device otherwise required per the MUTCD or the Virginia Work Area Protection Manual.

2.15.5 Night Work

In areas where work is to be performed during the hours of dusk or darkness, the Design-Builder shall furnish, place, and maintain lighting facilities capable of providing light of sufficient intensity (five foot-candles minimum) to facilitate good workmanship and proper inspection at all times. The lights shall be arranged so as not to interfere with or impede traffic approaching the work site(s) from either direction or produce undue glare to property owners.

Lighting of the work site(s) may be accomplished by the use of any combination of portable floodlights, standard equipment lights, existing street lights, and/or temporary street lights in order to provide the proper illumination.

The Design-Builder shall provide sufficient fuel, spare lamps, generator, and other supplies in order to maintain the proper lighting at the work site(s). The Design-Builder shall utilize padding, shielding, or locate mechanical and electrical equipment in order to minimize noise generated by lighting operations. Noise generated by portable generators shall comply with all applicable Federal, State, and local environmental regulations.

2.16 Public Involvement / Public Relations

The Design-Builder shall be responsible for providing a point of contact and phone number for the public to use in calling to request information or express concerns during the Project development and delivery. All information to be released to the public shall be approved by VDOT.

During the design and construction phases, the Design-Builder shall:

- Hold informal meetings with affected stakeholders as necessary and as directed by VDOT. A list of affected stakeholders (including, but not limited to, community associations, churches, business owners, police, fire & rescue, school bus transportation, transit operators) shall be developed by the Design-Builder and submitted to VDOT for acceptance prior to holding any meetings. All stakeholders shall be informed of meetings.

Concurrent with the first plan submittal and at intervals deemed necessary by the VDOT, provide to VDOT's Project Manager written information about the Project suitable for posting by VDOT on its Website, including any significant changes that affect the public. Such information will include a Project overview, plan of work, overall Project schedule and progress, potential impacts to traffic on all roadways within the project limits (i.e., temporary lane closures, shoulder closures, ramp reconstruction, milling operations, etc.), up–to-date Project photos, and contact information.

During the Construction Phase, the Design-Builder shall:

- Operate as a liaison between VDOT, Fairfax County, and the Design-Builder's Construction Manager to ensure compliance with applicable local ordinances and provide appropriate notification to affected property owners.

- Provide to the VDOT Project Manager information for Traffic Alerts whenever there are new impacts to motorists. All information for Traffic Alerts must be submitted at least one week in advance of the traffic impact. If the impact is major (changes or additional lane closures that are anticipated to cause traffic delays that exceed existing conditions), VDOT must be notified one month in advance.

- Provide to VDOT's Project Manager an emergency contact list of Project personnel and response plan to respond to any onsite emergency, including any work zone incidents in accordance with I&IM-241.

- Maintain a log or database of questions, complaints, and/or comments received from stakeholders and the public either via public outreach efforts or direct contact, along with dates received, responses generated, and how the issues or concerns are addressed. If appropriate, this list of questions and responses will be posted on VDOT's website.

A Citizen's Information Meeting was held for this Project on November 19, 2013. Any meetings held will be conducted in accordance with the VDOT Policy Manual for Public Participation in Transportation Projects, revised August 2011.

2.17 Right of Way

The Offeror's conceptual design included in its Proposal shall be wholly contained within the right of way limits shown on the RFP Conceptual Plans. Stormwater management facilities shall be wholly contained within the right of way limits shown on the RFP Conceptual Plans. Deviations from the proposed right of way limits shown on the RFP Conceptual Plans will be subject to VDOT approval in accordance with Part 1, Section 2.8 and 2.9.

The Design-Builder's final design shall also be contained with the right of way limits shown on the RFP Conceptual Plans. If the Design-Builder proposes changes to the right of way limits shown on the RFP Conceptual Plans, then this shall be consider a deviation of the Contract Documents and shall be addressed as described in Part 2, Section 2.0. As discussed herein, the Design-Builder shall be responsible for any time and/or cost impacts and any NEPA document re-evaluation associated with Design-Builder's design changes that extends beyond the right of way limits reflected in the RFP Conceptual Plans and approved by VDOT.

Should additional right of way (whether fee or easements) be required to accommodate Design-Builder's unique solution and/or Contractor's means, methods and resources used during construction above and beyond the right of way limits depicted on the RFP Conceptual Plans included in the RFP Information Package, then all right of way acquisition costs for such additional fee or easements shall be paid by the Design-Builder. These costs would include (but not be limited to) the costs of any public hearings that may be required, actual payments to property owners and all expenses related to the additional acquisitions and associated legal costs as well as any additional monies paid the landowners to reach a settlement or to pay for a court award. In the event additional right of way is needed as a result of an approved scope change request by the Design-Builder, the Design-Builder shall follow the procedures indicated in the "Right of Way Acquisition Guidelines" (Chapter 5 of VDOT's Right of Way Manual of Instructions; http://www.virginiadot.org/business/row-default.asp). Additionally, the Design-Builder is solely responsible for any schedule delays due to additional right of way acquisition associated with the Design-Builder's design changes and no time extensions shall be granted.

The following responsibilities shall be carried out by either the Design-Builder or VDOT as specified in each bulleted item below:

- The Design-Builder shall acquire property in accordance with all Federal and State laws and regulations, including but not limited to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the "Uniform Act") and Titles 25.1 and 33.1 of the 1950 Code of Virginia, as amended. The acquisition of property shall follow the guidelines as established by VDOT and other State and Federal guidelines that are required and the VDOT Right of Way Manual of Instructions and the VDOT Utility Manual of Instructions, as well as IIM-LD-243 and Chapter 12 of the VDOT Survey Manual. All conveyance documents for the acquisition of any property interest shall be accompanied by properly marked plan sheets and profile sheets.

- The Design-Builder may not employ the use of Rights of Entries until the property owner has been made a bona fide offer to acquire the property.

- If the Design-Builder and/or the Right of Way sub-consultant does not follow 49 CFR Part 24 Uniform Relocation and Real Property Acquisition Act of 1970 (The Uniform Act) in the performance of the acquisition and/or relocation processes, or fails to obtain or create any mandatory written documentation in their right of way parcel file, the Design-Builder shall be responsible for any and all expenses determined to be ineligible for reimbursement of federal funding.
- VDOT shall designate a hearing officer to hear any Relocation Assistance appeals. VDOT agrees to assist with any out of state relocation by persons displaced within the rights of way by arranging with such other state(s) for verification of the relocation assistance claim.

- VDOT will entertain the use of relocation incentive plans on projects with significant numbers or critical relocations. Such incentive plans shall be presented to VDOT for

approval. If VDOT approves the incentive plan, it will seek Federal Highway Administration approval. Any relocation incentive plan shall be uniformly administered so that all landowners and displaces of a similar occupancy receive fair and equitable treatment. Under no circumstances is a relocation incentive to be used without VDOT's prior approvals.

- VDOT will entertain the use of protective leasing to ensure the availability of housing or apartments for relocation purposes. Such protective leasing plans must be presented to VDOT for approval prior to their implementation.

- Section 33.1-134 of the Code of Virginia, 1950, as amended, provides that the Commissioner of Highways may acquire lands on which graves are located through either voluntary conveyance or condemnation. In the course of relocating such graves, the Commissioner of Highways, through the Office of the Attorney General, will appoint an attorney to prepare the Order and Petition for the exhumation and re-interment of the graves. The Design-Builder shall be responsible for verifying the number of graves, locating next of kin if possible, acquiring new grave sites and managing the grave relocations as outlined in Chapter 3.4.7 of the Right of Way Manual of Instructions dated January 1, 2011.

- The Design-Builder shall submit a Project specific Acquisition and Relocation Plan to VDOT for VDOT Right of Way approval prior to commencing right of way activities. No offers to acquire property shall be made prior to the Acquisition and Relocation Plan approval and a Notice to Commence Acquisition. This represents a hold point in the Offeror's CPM Schedule. The Acquisition and Relocation Plan shall describe the Offeror's methods, including the appropriate steps and workflow required for title examinations, appraisals, review of appraisals, negotiations, acquisition, and relocation, and shall contain the proposed schedule of right of way activities including the specific parcels to be acquired and all relocations. The schedule shall include activities and time associated with VDOT's review and approval of just compensation, relocation benefits and administrative settlements. The plan shall allow for the orderly relocation of displaced persons based on time frames not less than those provided by the "Uniform Act." This plan shall be updated as necessary during the life of the Project and all updates must be submitted to VDOT for approval. The plan approval is based on the Plan providing a reasonable and orderly workflow and the plan being provided to the VDOT Representative as completed.

- A VDOT Representative will be available to make timely decisions concerning the review and approval of just compensation, approval of relocation benefits, approval of administrative settlements and approval of closing or condemnation packages on behalf of VDOT. The VDOT Representative is committed to issuing decisions on approval requests within twenty-one (21) days. This commitment is based on the plan providing a reasonable and orderly workflow and the work being provided to the VDOT representative as complete. Submission of documents requiring VDOT approval shall

contain the necessary language and certifications as shown on the examples provided in the Appendix to Chapter 10, "Special Projects", of the Right of Way Manual.

- The Design-Builder shall obtain access to and use VDOT's Right of Way and Utilities Management System ("RUMS") to manage and track the acquisition process. RUMS will be used for Project status reporting; therefore, entries in RUMS shall be made at least weekly to accurately reflect current Project status. VDOT standard forms and documents, as found in RUMS, will be used to the extent possible. Training in the use of RUMS and technical assistance will be provided by VDOT.

- The Design-Builder shall provide a current title examination (no older than sixty (60) days) for each parcel at the time of the initial offer to the landowner. Each title examination report shall be prepared by a VDOT approved attorney or Title Company. If any title examination report has an effective date that is older than sixty (60) days, an update is required prior to making an initial offer to the landowner. A Title Insurance Policy in favor of the Commonwealth of Virginia in form and substance satisfactory to the VDOT shall be provided by the Design-Builder, for every parcel acquired by voluntary conveyance.

- The Design-Builder shall submit a scope of work detailing the type of appraisal to be prepared for each parcel and the name of the proposed appraiser for VDOT review and approval in writing prior to commencing the individual parcel appraisal. The proposed appraiser shall be of an appropriate qualification level to match the complexity of the appraisal scope. The Design-Builder shall prepare appraisals in accordance with VDOT's Appraisal Guidelines. The review appraiser shall be on VDOT's approved fee review appraiser list. Alternatively, the Design-Builder may submit an exception request to use a review appraiser who is not on VDOT's approved review appraisal list for VDOT's approval. VDOT shall issue a final approval of all appraisals.

- Payment documentation is to be prepared and submitted to VDOT with the Acquisition Report (RW-24). VDOT will process vouchers and issue State Warrants\checks for all payments and send to the Design-Builder, who will be responsible for disbursement and providing indefeasible title to VDOT. The Design-Builder shall make payments of benefits to property owners for negotiated settlements, relocation benefits, and payments to be deposited with the court.

- The Design-Builder shall prepare, obtain execution of, and record documents conveying title to such properties to the Commonwealth of Virginia and deliver all executed and recorded general warranty deeds to VDOT. Prior to the recordation of any instrument, VDOT shall review and approve the document. For all property purchased in conjunction with the Project, title will be acquired in fee simple (except that VDOT may, in its sole discretion, direct the acquisition of a right of way easement with respect to any portion of the right of way) and shall be conveyed to the "Commonwealth of Virginia, Grantee" by a VDOT-approved general warranty deed, free and clear of all liens and encumbrances, except encumbrances expressly permitted by VDOT in writing in

advance of deed recordation. All easements, except for private utility company easements shall be acquired in the name of "Commonwealth of Virginia, Grantee". Private utility company easements will be acquired in the name of each utility company when the private utility company has prior recorded easements.

- Because these acquisitions are being made on behalf of the Commonwealth, VDOT shall make the ultimate determination in each case as to whether settlement is appropriate or whether the filing of an eminent domain action is necessary, taking into consideration the recommendations of the Design-Builder. When VDOT authorizes the filing of a certificate, the Design-Builder shall prepare a Notice of Filing of Certificate and the certificate assembly. All required documents necessary to file a certificate shall be forwarded along with a prepared certificate to the VDOT Project Manager. Once reviewed, the certificate will be forwarded to Central Office for review and approval. VDOT will execute the certificate, provide the money as appropriate and will return the assembly to the Design-Builder. The Design-Builder shall update the title examination and shall file the certificate.

- When VDOT determines that it is appropriate, the Design-Builder shall be responsible for continuing further negotiations for a maximum of sixty (60) days, in order to reach settlement after the filing of certificate. After that time the case will be assigned to an outside attorney appointed by VDOT and the Office of the Attorney General. When requested, the Design-Builder shall provide the necessary staff and resources to work with VDOT and its attorney throughout the entire condemnation process until the property is acquired by entry of a final non-appealable order, by deed, or by an Agreement After Certificate executed and approved by VDOT and the appropriate court. The Design-Builder will provide updated appraisals (*i.e.*, appraisal reports effective as of the date of taking) and expert testimony supporting condemnation proceedings upon request by VDOT. Services performed by the Design-Builder or its consultants after an eminent domain action is assigned to an outside attorney will be paid, if and when necessary, under a Work Order in accordance with Article 9 of Part 4 (General Conditions of Contract).

- The Design-Builder will be responsible for all contacts with landowners for rights of way or construction items.

- The Design-Builder shall maintain access at all times to properties during construction.

- The Design-Builder shall use reasonable care in determining whether there is reason to believe that property to be acquired for rights of way may contain concealed or hidden wastes or other materials or hazards requiring remedial action or treatment. When there is reason to believe that such materials may be present, the Design-Builder shall notify VDOT within three (3) calendar days. The Design-Builder shall not proceed with acquiring such property until they receive written notification from VDOT.

- During the acquisition process and for a period of three years from either (1) the date each owner of a property and each person displaced from the property receives the final payment or (2) from the date the State receives Federal reimbursement of the final payment made to each owner of a property and to each person displaced from a property, whichever is later, and until the Commonwealth of Virginia has indefeasible title to the property, all Project documents and records not previously delivered to VDOT, including but not limited to design and engineering costs, construction costs, costs of acquisition of rights of way, and all documents and records necessary to determine compliance with the laws relating to the acquisition of rights of way and the costs of relocation of utilities, shall be maintained and made available to VDOT for inspection and/or audit. This also would apply to the Federal Highway Administration on projects with federal funding. Throughout the design, acquisition and construction phases of the Project, copies of all documents/correspondence shall be submitted to both the Central Office and respective Regional Right of Way Office.

- Prior to Project completion, the Design-Builder shall provide and set VDOT RW-2 right of way monuments within the Project limits.

- Any existing VDOT fencing impacted by the Design-Builder's design and construction activities shall be restored or replaced in the same configuration relative to the improvements as the existing fencing. Any new VDOT fencing shall be Std. FE-CL.

- The Design-Builder shall notify VDOT of any and all encroachments (temporary or permanent) within the right-of-way prior to final acceptance.

2.18 Utilities

The Design-Builder shall be responsible for coordination of the Project construction with all utilities that may be affected. The Design-Builder shall be responsible for coordinating the work of the Design-Builder, its subcontractors and the various utilities. The resolution of any conflicts between utilities and the construction of the Project shall be the responsibility of the Design-Builder. No additional compensation or time will be granted for any delays, inconveniences, or damage sustained by the Design-Builder or its subcontractors due to interference from utility owners or the operation of relocating utilities or betterments. All cost for utility relocations shall be included in the Offeror's Price Proposal. Any utility betterments shall not be included in the Offeror's Price Proposal but shall be reimbursed to the Design-Builder through agreement with the requesting utility owner. The Offeror shall contact each utility owner prior to submitting bids to determine the scope of each utility owner's relocation. Utility betterments must also meet Buy America requirements as described in Part 5, Exhibit 102.05(g.1) Use of Domestic Material.

The Design-Builder shall be responsible for all utility designations, utility locates (test holes), conflict evaluations, cost responsibility determinations, utility relocation designs, utility relocations and adjustments, utility reimbursement, replacement land rights acquisition, utility

coordination, and coordination of utility betterments required for the Project. The Design-Builder is responsible for all necessary utility relocations, adjustments, and betterments to occur in accordance with the accepted Baseline Schedule. All efforts and cost necessary for all utility designations, utility locates (test holes), conflict evaluations, cost responsibility determination, utility relocation designs, utility relocations and adjustments, utility reimbursements, replacement land rights acquisition and utility coordination shall be included in the Offeror's Price Proposal; provided, however, that the compensation paid to landowners for replacement land rights will be paid by VDOT as a part of the right of way acquisition costs and shall **NOT** be included in the Offeror's Price Proposal.

The Design-Builder shall make all reasonable efforts to design the Project to avoid conflicts with utilities, and minimize impacts where conflicts cannot be avoided.

The Design-Builder shall initiate early coordination with all utilities located within the Project limits. The Design-Builder shall identify and acquire any replacement utility easements or required right-of-way needs of all utilities necessary for relocation due to conflicts with the Project.

It is the Design-Builder's responsibility to verify whether other utility owners exist within the Project limits and coordinate with them. Known utility owners and their respective contact numbers are identified below for reference only and may not be limited to the following:

- Water
  Fairfax water
  Jeannie Swim – (703) -289-6361

- Sewer
  Fairfax County Public Works
  Natasha Schmidt – (703) - 324-5080

- Telephone
  Verizon
  Todd Lawson – (703) - 480-7812

- Electricity
  Dominion Virginia Power
  Cameron Mason – (703) - 375-5958

- Cable
  Cox
  Jeff Acierto – (703) - 480-7812

- Transurban Fiber
  Transurban

Christine Aczel – (571) - 239 0713
Tim Ratcliffe – (571) - 419-6109

The Design-Builder shall provide all utility companies with roadway design plans as soon as the plans have reached a level of completeness adequate to allow them to fully understand the Project impacts. The utility companies will use the Design-Builder's design plan for preparing relocation plans and estimates. If a party other than the utility prepares relocation plans, there shall be a concurrence box on the plans where the utility signs and accepts the relocation plans as shown.

The Design-Builder shall coordinate and conduct a preliminary utility review meeting with all affected utility companies to assess and explain the impact of the Project. VDOT's Project Manager and Regional Utilities Manager (or designee) shall be included in this meeting.

The Design-Builder shall verify the prior rights of each utility's facilities if claimed by a Utility owner. If there is a dispute over prior rights with a utility, the Design-Builder shall be responsible for resolving the dispute. The Design-Builder shall prepare and submit to VDOT a Preliminary Utility Status Report within 30 days of the Date of Commencement that includes a listing of all utilities located within the Project limits and a conflict evaluation and cost responsibility determination for each Utility. This report shall include copies of existing easements, as-built plans or other supporting documentation that substantiates any compensable rights of the utilities.

The Design-Builder shall obtain the following from each utility that is located within the Project limits: relocation plans including letter of "no cost" where the utility does not have a compensable right; utility agreements including cost estimate and relocation plans where the utility has a compensable right; or letters of "no conflict" where the utility's facilities will not be impacted by the Project.

The Design-Builder shall review all relocation plans to ensure that relocations comply with the VDOT Utilities Manual of Instruction, Utility Relocation Policies and Procedures and VDOT's Land Use Permit Manual. The Design-Builder shall also ensure that there are no conflicts with the proposed roadway improvements, and ensure that there are no conflicts between each of the utility's relocation plans. The Design-Builder shall prepare and submit to VDOT all relocation plans. The Design-Builder is expected to assemble the information included in the relocation plans in a final and complete form and in such a manner that VDOT may approve the submittals with minimal review. The Design-Builder is expected to meet with VDOT's Regional Utilities Office within 15 days of the Date of Commencement to gain a full understanding of what is required with each submittal. The Design-Builder shall receive written approvals from VDOT prior to authorizing utilities to commence relocation construction. The utilities shall not begin their relocation work until authorized by the Design-Builder. Each relocation plan submitted must be accompanied by a certification from the Design-Builder stating that the proposed relocation will not conflict with the proposed roadway improvement and will not conflict with another utility's relocation plan.

At the time that the Design-Builder notifies VDOT that the Design-Builder deems the Project to have reached Final Completion, the Design-Builder shall certify to VDOT that all utilities have been identified and conflicts have been resolved and that those utilities with compensable rights or other claims related to relocation or coordination with the Project have been relocated and their claims and compensable rights satisfied or will be satisfied by the Design-Builder.

The Design-Builder shall accurately show the final location of all utilities on the as-built drawings for the Project. The Design-Builder will ensure the utility companies submit as-built drawings upon completion of their relocation and/or adjustments. VDOT shall issue an as-built permit to the utility companies after receipt of permit application and as-built drawings.

2.18.1 Utility Coordination with ITS and Traffic Control Device Plan

.1 Design

The Design-Builder shall develop Intelligent Transportation System (ITS) and Traffic Control Device (TCD) designs that are not in conflict with existing and proposed utilities (both overhead and underground). Poles, mast arms, cantilevers, overheads, butterflies, and gantries shall be a minimum of ten (10) feet both horizontal and vertical from all overhead electrical lines. If any areas are located near electrical high voltage power, water, gas and petroleum transmission lines, the Design-Builder shall coordinate with appropriate utility company for specific clearances that must be maintained during and post construction.

.2 Designation

The Design-Builder shall be responsible for locating and marking all underground utilities prior to any ITS and TCD installation work. At least seventy-two (72) hours prior to beginning ITS and TCD installation work, the Design-Builder shall contact:

1. Miss Utility of Virginia at 1-800-552-7001 or 811 in order to determine the extent and location of underground utilities within the Project limits, and
2. NRO Maintenance (Mark Hagan at 703-334-0203) to determine the extent and location of all VDOT-owned underground communication and electric equipment.

.3 Electrical Service Requirements

The Design-Builder shall be responsible for all work, materials, and costs associated with obtaining power and maintaining power throughout construction for all ITS and TCDs (including lighting for overhead signing). It is the Design-Builder's responsibility to coordinate with the appropriate maintaining agency to schedule all utility connections so as not to adversely impact the Project schedule.

.4 Testing of Electrical Service Grounding System

The Design-Builder shall test the electrical service grounding system for each electrical service in accordance with Section 700.04 of the VDOT 2007 Road and Bridge Specifications

2.19 Quality Assurance / Quality Control (QA/QC)

The Design-Builder shall submit its Quality Assurance/Quality Control (QA/QC) for both design and construction to VDOT at the meeting held after the Date of Commencement as set forth in Part 4 General Conditions under Section 2.1.2. Along with the QA/QC Plan submittal, the Design Manager and Quality Assurance Manager (QAM) shall provide a presentation of the QA/QC Plan for both design and construction utilizing Project related scenarios. Project scenarios shall include, but not be limited to:

1. Preparatory Inspection Meeting requirements, including incorporation of at least one each, Witness and Hold Point, as set forth in Sections 5.3 and 5.14 of the Department's guidance document for Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects, January 2012 (January 2012 QA/QC Guide);
2. At least one (1) material which VDOT retains responsibility for testing as identified in Table 5-2, January 2012 QA/QC Guide;
3. Situation arising requiring the issuance of a Non-Conformance Report and subsequent review of the report, including completion of corrective measures and the issuance of a Notice of Correction of non-conformance work with proper log entries and proper interface with auditing and recovery requirements as set forth in Sections 5.10 and 5.11 of the January 2012 QA/QC Guide for non-conforming work resulting from:
    a. defective equipment
    b. construction activities/materials which fail to conform as specified;
4. Inspection documentation capturing requirements as set forth in Section 5.20 and 5.21 of the January 2012 QA/QC Guide; as well as inspection of foundation and pavement subgrades that are to be performed and certified by the Design-Builder's licensed geotechnical engineer in accordance with the Contract requirements;
5. Application for payment for Work Package which includes work element, including review and approval by Quality Assurance Manager; and
6. Measures that will be implemented to ensure compliance with Buy America requirements on the Project.
7. Detail two (2) sample entries in Materials Notebook showing completion of Form C-25, including subsequent submission and review by Department Project Manager as set forth in Section 5.21. Refer to Section 803.73 of VDOT's Manual of Instruction for Materials Division, Form TL-142S, for an example of a completed Materials Notebook and VDOT Materials Division Memorandum Number MD299-07 for Materials Acceptance – October 4, 2007.

2.19.1 Design Management

The Design-Builder is responsible for design quality in accordance with VDOT's Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects, January 2012 (January 2012 QA/QC Guide). The Design-

Builder's Design Manager shall be responsible for establishing and overseeing a QA/QC program for all pertinent disciplines involved in the design of the Project, including review of design, working plans, shop drawings, specifications, and constructability of the Project. This individual shall report directly to the Design-Builder's Project Manager, and is responsible for all of the design, inclusive of QA and QC activities. Members of the Design QA and QC team are responsible for review of all design elements to ensure the development of the plans and specifications are in accordance with the requirements of the Contract Documents. Design QA should be performed by one or more member(s) of the lead design team that are independent of the Design QC. The Project design control plan will provide VDOT assurance that the design plans and submittals will meet all contract requirements.

Appendix 2 of the January 2012 QA/QC Guide provides minimum requirements that shall be met for development of the Design QA/QC Plan.

2.19.2 Construction Management

The Design-Builder shall develop, operate, and maintain a Construction QA/QC Plan in accordance with VDOT's January 2012 QA/QC Guide. The Design-Builder shall have the overall responsibility for both the QA and QC activities and shall be responsible for all QA activities and QA sampling and testing for all materials used and work performed on the Project. These QA functions shall be performed by an independent firm that has no involvement in the construction QC program/activities. There shall be a clear separation between QA and construction, including separation between QA inspection and testing operations and construction QC inspection and testing operations, including testing laboratories. Two independent, AMRL certified testing laboratories will be required, one for QA testing and one for QC testing.

The Quality Assurance Manager (QAM) shall have the authority to enforce the Contract requirements when deficient materials or unsatisfactory finished products fail to conform to Contract requirements. The QAM, in accordance with his/her assignment, shall be responsible to observe the construction in progress and to ensure the QA and QC testing and inspection is being performed in accordance with the Contract requirements. The Design-Builder shall establish and maintain a Quality Assurance Auditing and Nonconformance Recovery Plan (AR Plan) for uniform reporting, controlling, correction and disposition and resolution of nonconformance (including disputed nonconforming items) issues that may arise on the Project. The Design-Builder's AR Plan shall establish a process for review and disposition of nonconforming workmanship, material, equipment or other construction and design elements of the Work including the submittal of the design review process for field changes. All deficiencies (hereinafter referred to as a Non-Conformance), including those pertaining to rules, regulations, and permit requirements, shall be documented by the QAM. A Non-Conformance Report (NCR) referenced by a unique number, shall be forwarded to the Contractor and VDOT within 24 hours of discovery of the Non-Conformance. Non-conformance procedures are provided in Section 5.10.5 of the January 2012 QA/QC Guide.

The Design-Builder also shall be responsible for providing QA and QC testing for all materials manufactured off-site, excluding the items listed below:

- Prestressed Concrete Structural Elements (beams, girders (VDOT adopted Bulb-T sections), and piles)
- Structural Steel Elements (beams, girders, and sign structures)
- Pipe (concrete, steel, aluminum, and high density polyethylene) for culverts, storm drains, and underdrains
- Precast Concrete Structures
- Asphalt Concrete Mixtures
- Aggregate (dense and open graded mixes)
- Metal Traffic Signal and Light Poles and Arms

VDOT will provide plant QA and plant QC inspection and/or testing of these items. In the event that VDOT determines that materials fail to meet the tolerances in the Road and Bridge specifications, a NCR will be issued by the VDOT Project Manager and addressed to the Design-Builder's QAM for resolution. The Design-Builder is required to submit documentation of the source of materials, including the source of each material to be incorporated into the Project and the acceptance method that will be used for the material. A VDOT Form C-25 may be used to meet this requirement; however, the Design-Builder is required to submit a VDOT Form C-25, for all materials that VDOT retains responsibility for testing. The source of materials, C-25 is for informational purposes only and will not be approved or rejected by VDOT since it is the Design-Builder's responsibility to obtain materials that meet the contractual requirements. The Design-Builder will be responsible for providing QA and QC testing of all off-site materials that are not identified above, including materials obtained from off-site soil borrow pits.

The Design-Builder's QAM shall report directly to the Design-Builder's Project Manager and be independent of the Design-Builder's physical construction operations. The QAM shall establish quantities prior to commencing construction, and provide VDOT a total number of QC, QA (Independent Assurance (IA) and Independent Verification Sampling and Testing (IVST)), Owner's (the Department) Independent Assurance (OIA), and Owner's Independent Verification Sampling and Testing (OVST) required as a result of the quantities and the sampling and testing requirements as set forth in Table A-3 and A-4 of the January 2012 QA/QC Guide. VDOT will provide all OIA and OVST tests and, therefore, final determination of the actual number of OIA and OVST tests to be performed will be made by VDOT based on these quantities.

The QAM shall be responsible for the QA inspection and testing of all materials used and work performed on the Project to include observing the Contractor's QC activities, maintaining the Materials Notebook (including adherence to the Special Provision for Design-Build Tracking (DBT) numbers included in the RFP Information Package), documentation of all materials, sources of materials and method of verification used to demonstrate compliance with the Contract requirements. This includes all materials where QA testing is to be performed by VDOT. The QAM shall be vested with the authority and responsibility to stop any work not being performed according to the Contract requirements. The construction QA and QC inspection personnel shall perform all of the construction inspection and sampling and testing work in accordance with the Contract requirements. This includes the documentation of construction activities and acceptance of manufactured materials. The QAM shall assign a Lead QA Inspector to the Project prior to the start of construction. This individual, who must be on the

site full-time for the duration of construction of the Project, shall be responsible to observe construction as it is being performed, to include all QC activities to ensure inspection and testing, and correction of any non-conformities of the Work are being performed in accordance with the Contract requirements. If needed, the Lead QA Inspector shall be supported by other QA inspectors under his/her direction to ensure all construction work and QC activities are being observed. The Lead QA Inspector shall report directly to the QAM.

All sampling and testing shall be performed by a laboratory that is accredited in the applicable AASHTO procedures by the AASHTO Accreditation Program (AAP). For test methods not accredited by AAP, the laboratory must comply with AASHTO R18 (most current Edition) and must be approved by the Department at its sole discretion. Two independent testing laboratories will be required, one for QA testing and one for QC testing. The entity(ies) performing QA operations, inspections, sampling, and laboratory testing and the entity(ies) performing QC operations, inspections, sampling, and laboratory testing shall be unique and independent from one another.

All construction QA and QC personnel shall hold current VDOT materials certifications for the types of materials testing that they are assigned to perform in accordance with Section 3.6 of the January 2012 QA/QC Guide, and for the safety and use of nuclear testing equipment as required by the Road and Bridge Specifications. The QA programs shall be performed under the direction of the QAM. The QC programs shall be performed under the direction of the Construction Manager. Substitution of Construction Manager and the QAM shall require VDOT approval. In addition, VDOT shall have the right to order the removal of any construction QA and QC personnel, including the QAM and the Construction Manager for poor performance at the sole discretion of the VDOT Project Manager. The QA/QC plan shall include rapid reporting of non-compliance to the VDOT Project Manager, and shall include the remedial actions to be taken as discussed in Sections 5.10 and 5.11 of the January 2012 QA/QC Guide.

The Design-Builder shall provide, prior to Final Application for Payment, a complete set of Project records that include, but are not limited to the following:

- Project correspondence
- Project diaries
- Test reports
- Invoices
- Materials books
- Certified survey records
- DBE/EEO records
- Warranties
- As-Built drawings
- Special tools

2.20 Field Office

A Field Office will not be required for this Project.

2.21 Plan Preparation

2.21.1 GEOPAK and MicroStation

When the Design-Builder is given the Date of Commencement, they will be furnished with the following software and files which run in WindowsXP or Windows7 only: GEOPAK (current version used by VDOT), MicroStation (current version used by VDOT) and VDOT Standard Resources Files, and all the design files used to develop the RFP Conceptual Roadway and Bridge Plans including aerial images, if available, and survey files.

2.21.2 Software License Requirements

VDOT shall furnish a License Access Key for all the software products VDOT makes available to the Design-Builder. The License Access Key will be supplied upon request by the Design-Builder, based on the data provided on a completed Software License Form, LD-893, and subsequently reviewed and approved by the VDOT Project Manager.

The License Access Key are provided for use on the Project detailed on the request only for the duration specified for that Project. Any adjustment made to the Project schedule will be taken into consideration in adjusting the time the License Access Key is available. Justification for the number of license(s) requested **MUST** include the estimated number of total computer hours for the task of design, detailing, relating Project management and other computer based engineering functions requiring the software requested.

The appropriate use of the License Access Key provided to the Design-Builder will become the responsibility of the Design-Builder regardless of who on the team uses the License Access Key. The Design-Builder will be responsible for keeping track of the License Access Key provided to them or a team member and, upon completion of the Project, the prompt notification to the VDOT CADD Support Section of Project Completion and removal of the software from any system used solely for the Project for which it was obtained.

2.21.3 Drafting Standards

All plans shall be prepared in U.S. customary units and in accordance with the most recent version of the VDOT's Road Design Manual, Vol. I, VDOT's CADD Manual and VDOT's I&IMs and VDOT's Manual of Structure and Bridge Division, Vol. V, Part 2, Design Aids and Typical Details.

2.21.4 Electronic Files

The Design-Builder shall submit all plans in accordance with the Department's policies and procedures (Right of Way and/or Construction submittals, Released for Construction, and As-Builts) in electronic format using the provided CADD software. Files shall be submitted in both Microstation DGN and Adobe PDF formats, by way of VDOT's Falcon Consultant environment or FTP Server. The Design-Builder will complete form LD-443, the Falcon System

Access and Security Agreement and form LD-894, the Falcon Access Request Form, for access to the Falcon Consultant environment. VDOT will furnish electronic files of all applicable standard detail sheets upon request by Design-Builder. The files will use standard VDOT cell libraries, level structures, line types, text fonts, and naming conventions as described in the most recent version of the VDOT CADD Manual and VDOT's Manual of the Structure and Bridge Division, Vol. V - Part 2, Design Aids and Typical Details. Files furnished to Design-Builder in electronic format shall be returned to VDOT and removed from Design-Builder and its designer's computer equipment upon completion of this Project.

2.21.5 Plan Submittals

In addition to electronic files as described in Part 2, Section 2.21.4 above, the Design-Builder shall prepare and distribute hard copy paper plans in the quantities as specified below, for each of the following deliverables (at a minimum, as other submittals and/or work packages may be necessary or desired):

- Released for Construction Plans
- Right of Way and/or Construction Revisions
- Record Plans (As-Built)
- Approved Shop Drawings
- Design Calculations

The Design-Builder will, at a minimum, make two bridge plan submissions for review and approval; 1) Preliminary Plan (Stage I) Submission and 2) Final Plan (Stage II) Submission.

1. Preliminary Plan (Stage I) Submission

a. The Design-Builder will submit a preliminary plan for each permanent structure (new bridge, bridge replacement, bridge widening and / or modification to the roadway geometry below an existing bridge) documenting how the structure geometrics were determined. Where no modifications are being made to an existing bridge and modifications are limited only to under-bridge roadway geometry, bridge plans may be limited to providing a plan and elevation view of the existing bridge showing existing and proposed under-bridge roadway geometry and clearances (both vertical and horizontal).

b. The preliminary plan submittal will include:

i. a plan view, developed section along bridge centerline/construction baseline and a transverse section. Refer to the Department's office practices for more complete information;

ii. completed Stage I Bridge Report Summary Form; The preliminary geotechnical recommendation report is required with the Stage I submission; and

iii. copies of design exceptions and waivers that influence the design of the structure or roadway approaches both over and under and will include a write up on how the design exceptions and design waivers affect the bridge.

c. Preliminary plans must be submitted to and approved by the Department prior to any final bridge design submittal. The Department will not review any final design submittals until the preliminary plan has been submitted to the Department. The commencement of the final design prior to the review of the preliminary plan submittal by the Department will be done solely at the risk of the Design-Builder.

d. The Stage I bridge submittal will be subject to modifications based upon requirements identified in the detailed hydrologic and hydraulic study and scour analysis of the waterway crossing.

2. Final Plan (Stage II) Submission

a. The Design-Builder will submit final plans for each permanent structure. The final plans will be assembled according to the procedures and guidelines presented in the Department's office practices.

b. Final bridge plans may be submitted as completed bridge plan set(s) or in plan submission packages (i.e., foundation plan package, substructure plan package, superstructure plan package, etc.). The Geotechnical Recommendation Report is required with the Stage II submission. The final plans are to be submitted for review and approval by the Chief Engineer prior to construction of that element and should be submitted according to the submission schedule provided by the Concessionaire.

c. For each bridge, the Design-Builder shall submit estimated quantities as outlined in the Manual of Structure and Bridge Division Vol. V Part 2 Chapter 3.

The bridge plans must use the standard sheets in Volume V (all parts) of the VDOT Manual of Structure and Bridge Division. Structural elements that have a corresponding standard sheet in Volume V must be detailed using the appropriate standard sheet. The sequence of concrete deck placement operations for beams or girder construction shall be given for continuous structures, and all erection stresses shall be computed where necessary for design. A summary table of moments, shears, reactions and stresses for primary load carrying members shall be included in the plans.

The Right of Way and/or Construction plans may be submitted for approval in logical subsections (such as from bridge to bridge) or consisting of work packages such as: 1) clearing and grubbing along with erosion and siltation control, 2) grading and drainage, 3) final roadway, and 4) traffic control. A submittal schedule and planned breakdown of work packages shall be submitted to VDOT for review and approval as part of the planned Project Baseline schedule.

Right of Way and/or Construction Plans shall be accompanied by 1) a VDOT LD-436 checklist filled out as appropriate for the specific submittal, and 2) a written notice signed by the Design-Build Design Manager that includes the following:

- The logical subsections or work packages for which review and approval is being requested
- Confirmation that the submittal has been checked and reviewed in accordance with the Design-Builder's approved QA/QC plan.
- Confirmation that the submittal either meets all requirements of the Contract Documents and Reference Documents or that any deviations from the Contract Documents and Reference Documents have been identified and previously approved by VDOT.

The Design-Builder shall submit all Right of Way and/or Construction plans to VDOT and FHWA simultaneously, for review and approval. VDOT shall receive two (2) full-size sets and ten (10) half-size sets of each submission, with the exception of the Released for Construction Plans (see Part 2, Section 2.15.9 below). FHWA shall receive two (2) half-size sets of final design plans only. The plan submissions shall be delivered to the following addresses:

Virginia Department of Transportation
Attention – Paul Nishimoto
4975 Alliance Drive
Fairfax, VA 22030

Federal Highway Administration
Attention – Timothy Lewis, P.E.
400 N. 8th Street, Suite 750
Richmond, VA 23219-4825

VDOT and FHWA shall have the right to review all Right of Way and/or Construction Plans and provide comments regarding compliance with the requirements of the Contract Documents and Reference Documents. The Design-Builder shall be responsible for addressing all such comments to the satisfaction of the reviewer. Formal responses to VDOT and FHWA comments shall be provided in subsequent submittals.

VDOT and FHWA have the right to disapprove any design approach that is not in compliance with the requirements of the Contract Documents and Referenced Documents.

VDOT's written approval of any deviations from requirements of the Contract Documents and Reference Documents shall be attached to the plans submitted for review.

2.21.6 Construction Plans

Construction Plans, and any associated Design Calculations, shall be submitted to VDOT and FHWA simultaneously for review. The time frame for plan review and approval shall be in

accordance the requirements of the Contract Documents. All VDOT and FHWA comments must be addressed to the satisfaction of the reviewer before Construction Plans are recommended for approval to the Chief Engineer. This plan milestone includes plans that may be submitted as soon as sufficient information is available to develop Construction Plans for certain portions or elements of the Project (or work packages). The Design-Builder shall meet commitments for review and approval by other entities/agencies as specified in other portions of the RFP and its attachments. The Design-Builder shall be responsible for the design details and ensuring that the design and construction work are properly coordinated.

2.21.7 Released for Construction Plans

Released for Construction Plans are those that are issued for construction after approval by VDOT's Chief Engineer. Notice to Commence Construction will only be issued by the VDOT Project Manager upon approval of the Construction Plans (or Work Packages) by the Chief Engineer.

The Released for Construction Plans shall be distributed simultaneously to VDOT and FHWA**.** VDOT shall receive one (1) full-size set and five (5) half-size sets of Released for Construction Plans, along with all electronic files. FHWA shall receive two (2) half-size hard copy sets, along with all electronic files, of the Released for Construction Plans. The plans shall be delivered to the following addresses:

Virginia Department of Transportation
Attention – Paul Nishimoto
4975 Alliance Drive
Fairfax, VA 22030

Federal Highway Administration
Attention – Timothy Lewis, P.E.
400 N. 8th Street, Suite 750
Richmond, VA 23219-4825

2.21.8 Record (As-Built) Plans

The final plan milestone is Record (As-Built) Plans. As-Built Plans shall be prepared, signed and sealed by a Professional Engineer licensed in Virginia, and submitted to VDOT with the final application for payment. These plans will show all adjustments and revisions to the Construction Plans made during construction and serve as a permanent record of the actual location of all constructed elements.

2.22 Virginia Occupational Safety and Health Standards

The Project shall comply with Virginia Occupational Safety and Health Standards in accordance with Section 107.17 of the Division I Amendments to the Standard Specifications.

At a minimum, all Contractor personnel shall comply with the following, unless otherwise determined unsafe or inappropriate in accordance with OSHA regulations:

- Hard hats shall be worn while participating in or observing all types of field work when outside of a building or outside of the cab of a vehicle, and exposed to, participating in or supervising construction.

- Respiratory protective equipment shall be worn whenever an individual is exposed to any item listed in the OSHA Standards as needing such protection unless it is shown the employee is protected by engineering controls.

- Adequate eye protection shall be worn in the proximity of grinding, breaking of rock and/or concrete, while using brush chippers, striking metal against metal or when working in situations where the eyesight may be in jeopardy.

- Approved high visibility Safety apparel shall be worn by all exposed to vehicular traffic and construction equipment.

- Standards and guidelines of the current Virginia Work Area Protection Manual shall be used when setting, reviewing, maintaining, and removing traffic controls.

- Flaggers shall be certified in accordance with the Virginia Flagger Certification Program.

- No person shall be permitted to position themselves under any raised load or between hinge points of equipment without first taking steps to support the load by the placing of a safety bar or blocking.

- Explosives shall be purchased, transported, stored, used and disposed of by a Virginia State Certified Blaster in possession of a current criminal history record check and a commercial driver’s license with hazardous materials endorsement and a valid medical examiner's certificate. All Federal, State and local regulations pertaining to explosives shall be strictly followed.

- All electrical tools shall be adequately grounded or double insulated. Ground Fault Circuit Interrupter (GFCI) protection must be installed in accordance with the National Electrical Code (NEC) and current Virginia Occupational Safety and Health agency (VOSH). If extension cords are used, they shall be free of defects and designed for their environment and intended use.

- No person shall enter a confined space without training, permits and authorization.

- Fall protection is required whenever an employee is exposed to a fall six feet or greater.

3.0 ATTACHMENTS

The following attachments are specifically made a part of, and incorporated by reference into, these Technical Information & Requirements:

ATTACHMENT 2.1A --	DESIGN EXCEPTION AND MITIGATION TABLE
ATTACHMENT 2.1B --	DESIGN EXCEPTION AND DESIGN WAIVER MITIGATION MEASURES
ATTACHMENT 2.2 --	ROADWAY INVENTORY AND MAJOR DESIGN CRITERIA

All additional information is included in the RFP Information Package – referred to in Part 1, Section 2.8.4 of this RFP.

END OF PART 2 - TECHNICAL INFORMATION & REQUIREMENTS

I-495 Shoulder Use Project
Date: February 3, 2014

DESIGN EXCEPTION TABLE			
DE Number	**Required Exception**	**Reason for Exception**	**Mitigation of Exception**
1	Reduced NB Lane and Shoulder Widths	• The existing inside shoulder is not wide enough to provide a full shoulder use lane. • The AASHTO Green Book requires a minimum lane width of 12 ft and a minimum shoulder width 12 ft. • During peak AM and PM hours, when traffic is using the inside shoulder as a travel lane, the remaining inside shoulder along NB I-495 does not meet AASHTO minimum standards. Only a 0.5 ft to 6 ft (plus a 2 ft lateral offset) inside shoulder width is provided. • By shifting traffic onto the outside shoulder on NB I-495, the minimum AASHTO requirement for shoulder width is not met. The proposed outside shoulder width varies from 1 ft to 12 ft (plus a 2 ft lateral offset). • To provide the required inside shoulder lane width, the lanes on I-495 NB are being shifted to the outside and with the outer thru lanes reduced to 11 feet and the interior lanes at 12 ft. • The following items would be affected by the widening of I-495 to meet standards: - additional pavement widening - reconstruction of existing concrete median barriers - reconstruction of existing noise barriers and retaining walls - additional SWM facilities - reconstruction of bridges along the project limits - ROW acquisition • Additional cost to meet minimum AASHTO standard: $47,500,000	• Dynamic Message Signs (DMS) are being added to warn drivers of backups and stopped traffic. • Wide pavement markings (6" wide) and raised pavement markings will be added to enhance visibility of the edge of travel lanes. • Joint repairs along the project will allow for easier driver control. • Existing cross slopes will be brought up to current standards. • Additional camera coverage is being added along the length of the project for faster identification and response times. • During non-peak travel times, when traffic is moving at higher speeds, the inside shoulder width is increased and brought up to current standards due to the additional inside shoulder width. • The shoulder use lane will include High Friction Skid Resistant surface with grey coloring to improve driver control and provide a distinction between the shoulder use lane and the general purpose lanes. • High retro-reflectivity tape and high contrast delineators will be installed on the concrete barrier and along the inside shoulder. • Standard BPPS-1 Bridge Pier Protection TL-5 will be installed at the bridges. • 12 ft outside shoulders are provided from Sta 120+52.77 to Sta 123+95.29, Sta 155+17.85 to Sta 157+00, Sta 166+00.00 to Sta 171+54.66 and Sta 174+50 to Sta 181+01.14. Larger widths will be provided where possible along the project length. • A 24 ft outside shoulder is provided from Sta 159+40 to Sta 162+00. • A Lane Control System will be provided to allow for the shoulder use lane to be closed for emergency access during emergency situations or heavy rain events as a result of spread issues.
2	Inside Shoulder Width SB at Sign Structures	• At the location of all proposed DMS signs along the project limits the concrete median barrier encroaches into the existing inside shoulder for SB I-495. • The AASHTO Green Book requires the inside shoulder to be a minimum of 12 ft for Interstates. Only a 6 ft to 8 ft (plus a 2 ft lateral offset) inside shoulder width for SB I-495 can be provided for this project. • To correct the horizontal geometry to accommodate the required shoulder width the following impacts are created: - additional pavement widening - reconstruction of existing concrete median barriers and sign structures - reconstruction of existing noise barriers and retaining walls - additional SWM facilities - additional right-of-way acquisition due to SWM requirements created by increased impervious area - reconstruction of bridges along the project limits - ROW acquisition • Additional cost to meet minimum AASHTO standard: $39.2 million	• High retro-reflectivity tape and high contrast delineators will be installed on the concrete barrier and along the inside shoulder. • Additional camera coverage is being added along the length of the project for faster identification and response times.

I-495 Shoulder Use Project
Date: February 3, 2014

DESIGN EXCEPTION TABLE			
DE Number	**Required Exception**	**Reason for Exception**	**Mitigation of Exception**
3	Horizontal Sight Distance NB Inside Shoulder Use, Outside and Auxiliary Lanes	• The concrete median obstructs the view of drivers traveling on the inside shoulder along the curve near Georgetown Pike Bridge during AM and PM Peak Hours. The AASHTO Green Book requires a SSD of 730' for the 70 mph Design Speed. Only the 55 mph requirement of 495' can be met. • By shifting traffic in the outside thru lane and the auxiliary lane farther to the outside of the existing roadway, the driver's lined of sight becomes obstructed by the concrete barrier located on the existing edge of shoulder, the bridge abutment for Live Oak Drive and the embankment. The AASHTO Green Book requires a SSD of 730' for the 70 mph design speed. Only the 50 mph requirement of 425' can be met for the auxiliary lane and the 60 mph requirement of 570' can be met for the outside thru lane. • To correct the horizontal geometry to accommodate the required SSD the following impacts are created: - additional pavement widening - reconstruction of existing concrete median barriers - relocation and reconstruction of existing noise barriers and retaining walls - additional SWM facilities - realignment of NB ramps - reconstruction of the Georgetown Pike Bridge - reconstruction of the Live Oak Drive Bridge - ROW acquisition • Additional cost to meet minimum AASHTO standard: $49.5 million	• Dynamic Message Signs (DMS) are being added to warn drivers of backups and stopped traffic. • Existing cross slopes will be brought up to current standards. • Additional camera coverage is being added along the length of the project for faster identification and response times. • Joint repairs along the project will allow for easier driver control. • High Friction Asphalt Surface will be used on the shoulder use lane. • During non-peak hours, when traffic is moving at higher speeds, the sight distance to the inside is improved due to the additional inside shoulder width. • Trees along the outside shoulder that block sight distance will be removed.

I-495 Shoulder Use Project					
Design Exceptions and Design Waivers Mitigation Measures					
Design Exception / Design Waiver Mitigation (See Note 1 & 2 below)	Reduced NB Lane and Shoulder Widths	Inside Shoulder Width SB at Sign Structures	Horizontal Sight Distance NB Inside Shoulder Use, Outside and Auxiliary Lanes	Vertical Clearance at Georgetown Pike Bridge	Vertical Clearance at Old Dominion Bridge
	DE 1	**DE 2**	**DE 3**	**DW 1**	**DW 2**
Dynamic Message Signs (DMS)	x		x		
Enhanced Pavement Markings	x				
Joint Repairs along project	x		x		
ITS - Cameras (Rapid Incident Detection)	x	x	x		
Lane Control System for emergency shoulder use lane closures	x				
High Friction Asphalt on Shoulder Use Lane	x		x		
Bringing existing cross slopes up to standard	x		x		
Remove trees that block sight distance			x		
High retro-reflectivity tape and high contrast delineators on concrete barrier	x	x			
Standard BPPS-1 Bridge Pier Protection TL-5	x				
12 foot outside shoulder provided where possible	x				
24 foot outside shoulder from Sta 159+50 to Sta 162+00	x				
None				x	x

NOTES
1) Included mitigations are suggested in "FHWA's Mitigation Strategies For Design Exceptions (July 2007)"
2) See each individual DE/DW for the details of the mitigation provided.

ATTACHMENT 2.2 - ROADWAY INVENTORY AND MAJOR DESIGN CRITERIA
I-495 NORTHERN SECTION SHOULDER USE
VDOT PROJECT NUMBER 0495-029-123, P101, C501

	ROADWAY INVENTORY AND MAJOR DESIGN CRITERIA
	I-495 NORTHERN SECTION SHOULDER USE
Roadway Classification	Urban Principal Arterial - Freeway
Geometric Design Standard	GS-5
Existing (2013) ADT	109,000 (one way)
Projected (2035) ADT	177,400 (one way)
Design Hourly Volume	11,000 (one way)
Truck Percentage (Design Hour)	4.3%
Terrain	Level
Design Speed (mph)	70
Max. Rate of Superelevation	8.00%
Lane Width (min.)	11 ft
Minimum Vertical Clearance (ft.)	16’-0”
Maximum Rollover between Shoulder Use Lane and Regular Travel Lane	5%

Exhibit 1 to Part 3
Project-Specific Terms

(Date of Standard Exhibit 1 to Part 3: July 2013)

This Exhibit 1 to Part 3 (2013 Lump Sum Design-Build Agreement Between Department and Design-Builder) contains project-specific terms that are hereby incorporated, as identified below, into Part 3, Part 4 (2013 General Conditions of Contract Between Department and Design-Builder), and Part 5 (2013 Division I Amendments to the Standard Specifications General Provisions for Design-Build Contracts Between Department and Design-Builder).

Department and Design-Builder hereby agree any provisions in this Exhibit 1 that modify a specific clause of Parts 3, 4, or 5 shall supersede the clause contained in Parts 3, 4, or 5.

The Agreement Date is [_____].

The Parties to the Agreement are:

VIRGINIA DEPARTMENT OF TRANSPORTATION ("Department"),
An agency of the Commonwealth of Virginia:

Virginia Department of Transportation
Attention: Chief Engineer
1401 East Broad Street
Richmond, VA 23219

DESIGN-BUILDER:

[INSERT DESIGN-BUILDER INFORMATION]

Project No.:	**(FO) 0495-029-123, P101, C501**
Project:	**I-495 Northern Section Shoulder Use** **Fairfax County, Virginia**

PART 3
2013 LUMP SUM DESIGN-BUILD AGREEMENT BETWEEN DEPARTMENT AND DESIGN-BUILDER

2.1.4 The Department's Request for Proposals (RFP) is dated January 29, 2014.

2.1.7 The list of all final modifications to the Proposal is as follows:

[LIST PROPOSAL MODIFICATIONS BY NUMBER AND DATE]

5.2.1 The **Final Completion Date** is March 31, 2015.

5.2.2 The **Interim Milestone Date** is December 31, 2014.

The Interim Milestone is defined as all paving, striping, dynamic message signs, overhead lane control system, ITS devices and systems, ATM field device and software integration and preliminary Acceptance Testing, signs associated with the shoulder operation, drainage, concrete barrier and pier protection, and other required items completed, accepted, and fully operational; and the shoulder use lane opened to traffic.

5.5.1 Liquidated damages for failing to attain Final Acceptance by the Final Completion Date are Three Thousand One Hundred Dollars ($3,100.00) per day.

5.5.2 Liquidated damages for failing to attain the Interim Milestone Date are Twenty thousand and 00/100 Dollars ($20,000.00) per calendar day.

6.1 The **Contract Price** is [***written dollar value***] Dollars ($[***numerical***]).

6.3 The identification of eligible **Asphalt and/or Fuel and/or Steel** price adjustments for this contract is as follows:

Department and Design-Builder agree to adjust prices for asphalt, fuel and steel in accordance with the Department's pertinent special provisions.

9.1.1 The Department's Senior Representative is:

[***Name***]
[***Title***]
[***Address***]
[***Telephone Number***]

9.1.2 The Department's Representative is:

[***Name***]
[***Title***]

[***Address***]
[***Telephone Number***]

9.2.1 The Design-Builder's Senior Representative is:

[***Name***]
[***Title***]
[***Address***]
[***Telephone Number***]

9.2.2 The Design-Builder's Representative is:

[***Name***]
[***Title***]
[***Address***]
[***Telephone Number***]

11.1.2 The **Baseline Schedule** shall be submitted within sixty (60) days of Design-Builder's receipt of the Department's Notice to Proceed.

PART 4
2013 GENERAL CONDITIONS OF CONTRACT BETWEEN DEPARTMENT AND DESIGN-BUILDER

2.2.1 The duration of the **Scope Validation Period** is sixty (60) days.

[**INSERT ANY ADDITIONAL SPECIFIC SECTION CHANGES TO PART 4**]

PART 5
2013 DIVISION I AMENDMENTS TO THE STANDARD SPECIFICATIONS GENERAL PROVISIONS FOR DESIGN-BUILD CONTRACTS BETWEEN DEPARTMENT AND DESIGN-BUILDER

The following shall supersede Part 5, Section 103.06 of the 2013 Division I Amendments to the Standard Specifications General Provision for Design-Build Contracts between Department and Design-Builder

103.06—Documents Required as a Condition to Award

The portion of the executed Contract submitted by the Successful Offeror shall include the following documents, unless the filing of any of them at a later date is specifically permitted by the RFP or Contract Documents, provided, however notwithstanding anything to the contrary in the Contract Documents, that the submission of an executed Agreement and Contract Bonds shall always be a precondition to Award

(a) **Contract:** The Agreement executed by the Successful Offeror.

(b) **Contract Bonds:** Contract Bonds shall conform to the requirements of Section 103.05.

(c) **Affidavits and Documents:** Affidavits and documents set forth in the RFP and executed by the Successful Offeror.

(d) **Progress Schedule:** (Not Used)

(e) **Insurance Coverages and Certificates of Insurance:** The Design-Builder shall procure and maintain the insurance coverages required below, in accordance with Paragraph (f) below. Design-Builder shall file certificates of insurance with the Department evidencing the coverages and limits within 15 days after notification of Award of the Contract.

.1. Workers' Compensation and Employer's Liability Insurance, with statutory workers' compensation (Coverage A) limits and employer's liability (Coverage B) limits of $1 million bodily injury by accident or disease, each employee. If necessary, coverage shall be extended to cover any claims under the United States Longshoreman's Act and Harbor Workers Act and Jones' Act as may be appropriate for the Work.

.2 Commercial General Liability Insurance, including coverage for premises and operations, independent contractors, personal injury, product and completed operations, explosion, collapse and underground, and broad form contractual liability with limits of at least $1 million per occurrence and $2 million aggregate, applicable on a per project basis.

.3 Automobile Liability Insurance, with a limit of at least $1 million combined single limit for bodily injury and property damage covering all owned (if any), non-owned, hired or borrowed vehicles on-site or off.

.4 Umbrella/Excess Liability Insurance in excess of the underlying limits noted above for employer's liability, commercial general liability, and automobile liability in the amount of: (a) $5 million per occurrence and in the annual aggregate for Projects with a Contract Price less than $15 million; and (b) $20 million per occurrence and in the annual aggregate for Projects with a Contract Price greater than $15 million.

.5 Architects/Engineers Professional Liability Insurance, covering Design-Builder's lead design engineer for acts, errors or omissions arising in connection with the Work for not less than: (a) $2 million any one claim and in the aggregate for Projects with a Contract Price less than $50 million; and (b) $5 million any one claim and in the aggregate for Projects with a Contract Price greater than $50 million. Such insurance shall be

maintained throughout the duration of any warranty period and for at least three years after the expiration of any warranty period.

.6 Contractor's Pollution Liability Insurance, to indemnify for bodily injury or property damage or amounts which Design-Builder or its agents, Subcontractors, or employees are legally obligated to pay for clean-up/remediation arising out of the work undertaken pursuant to the Contract Documents. Such insurance shall have minimum limits of $5 million any one claim and in the aggregate and shall remain in full force and effect for five years following Final Completion.

.7 Builder's Risk Insurance, to provide coverage for physical loss, destruction or physical damage to the work. Such insurance shall cover Design-Builder, the Department, and all Subcontractors and shall be maintained at a limit of at least 100% of the Contract Price. Such insurance shall include replacement cost coverage for materials, supplies, equipment, machinery, and fixtures that are or will be part of the Project. Coverages shall include but are not limited to the following: right to partial occupancy, earthquake, earth movement, flood, transit, temporary and permanent works, expediting expenses, debris removal, offsite storage, soft costs and commissioning and start-up.

(f) **Insurance Requirements**. Design-Builder shall ensure that all insurances required in Paragraph (e) above contain the following provisions:

.1 With the exception of workers' compensation and architect/engineers' professional liability insurance, the Department shall be named as an additional insured on all policies. Each such policy shall also include the appropriate severability of interest and cross-liability clauses to allow one insured to bring claim against another insured party.

.2 All insurance coverages shall be considered primary and non-contributory with regard to other insurances that might be available to Design-Builder or the Department.

.3 All insurers shall waive rights of subrogation against the Department for any claims covered by insurance required herein.

.4 Any inadvertent errors or omissions by Design-Builder in procuring the insurance required herein shall in no way prejudice the rights of the Department to collect under such policies.

.5 Any deductibles shall be the sole responsibility of Design-Builder.

.6 The insurance shall remain in full force and in effect and will remain in effect for the duration required by the Contract Documents.

.7 No insurance coverage will be canceled, renewal refused, or materially changed unless at least thirty (30) days prior written notice is given to Department.

.8 With the exception of workers' compensation and automobile liability insurance, the insurance policies shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project.

(g) **Additional Insurance Requirements**

.1 Design-Builder shall require all Subcontractors to carry the same insurance, and in the same amounts, required by Paragraphs (e)(1), (e)(2) and (e)(3) above.

.2 Design-Builder shall file certificates of insurance with the Department evidencing the coverages and limits described above within the times required by Paragraph (e) above. The certificates shall be executed by approved insurance companies authorized to do business in Virginia with a minimum "Best Rating" of "B +" or greater, and shall cover the Contract.

.3 The insurance coverage limits shall not be construed to relieve Design-Builder or Subcontractor(s) of liability in excess of such coverage, nor shall it preclude the Department from taking such actions as are available to it under any other provision of the Contract Documents or otherwise in law.

DEPARTMENT:	**DESIGN-BUILDER:**
Virginia Department of Transportation	_____
(Name of Department)	*(Name of Design-Builder)*
_____	_____
(Signature)	*(Signature)*
_____	_____
(Printed Name)	*(Printed Name)*
Chief Engineer	_____
(Title)	*(Title)*
Date: _____	Date: _____

END OF EXHIBIT 1 to PART 3
PROJECT-SPECIFIC TERMS

PART 3

2013 Lump Sum Design-Build Agreement Between Department and Design-Builder

(Date of Standard Lump Sum Design-Build Agreement: July 2013)

This **AGREEMENT** is made as of the date by and between the parties, the **VIRGINIA DEPARTMENT OF TRANSPORTATION ("Department"), an agency of the Commonwealth of Virginia** and the **DESIGN-BUILDER** as listed in Exhibit 1, for services in connection with the Project identified in Exhibit 1.

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In consideration of the mutual covenants and obligations contained herein, Department and Design-Builder agree as set forth herein.

Article 1

Scope of Work

1.1 Design-Builder shall perform all design and construction services, and provide all material, equipment, tools and labor, necessary to complete the Work described in and reasonably inferable from the Contract Documents.

Article 2

Contract Documents

2.1 The Contract Documents are comprised of the following:

2.1.1 All written modifications, amendments and work orders to this Agreement issued in accordance with *2013 General Conditions of Contract Between Department and Design-Builder* ("General Conditions of Contract");

2.1.2 This Agreement (Part 3), executed by Department and Design-Builder, inclusive of all Exhibits;

2.1.3 2013 General Conditions of Contract (Part 4);

2.1.4 Department's Request for Proposals (RFP) dated **per Exhibit 1**, including all Addenda (track changes depicted in the Addenda have been accepted and are incorporated herein);

.1 Part 1, Instructions for Offerors

.2 Part 2, Project Technical Information and Requirements, including RFP Information Package;

2.1.5 2013 Division I Amendments (Part 5) to Standard Specifications, dated January 1, 2013 ("Division I Amendments");

2.1.6 Construction Documents prepared and approved in accordance with Section 2.4 of the General Conditions of Contract, and

2.1.7 Design-Builder's Proposal submitted in response to RFP, including all final modifications: **[PROPOSAL MODIFICATIONS LISTED BY NUMBER AND DATE IN EXHIBIT 1].**

Article 3

Interpretation and Intent

3.1 The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Time(s) for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards. In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, the Contract Documents shall take precedence in the order in which they are listed in Section 2.1.

3.2 Terms, words and phrases used in the Contract Documents, including this Agreement, shall have the meanings given them in this Agreement and the General Conditions of Contract.

3.3 The Contract Documents form the entire agreement between Department and Design-Builder with respect to its subject matter and by incorporation herein are as fully binding on the parties as if repeated herein. The parties have made no oral representations or other agreements, except as specifically stated in the Contract Documents.

3.4 Except as set forth in the last sentence of this Section 3.4, and notwithstanding anything to the contrary in Design-Builder's Proposal, Design-Builder is obligated to perform the Work in full compliance with the RFP Documents. The parties agree, however, that the betterments and higher and/or more stringent standards or specifications and design and construction criteria, concepts, and drawings set forth in the Design-Builder's Proposal (collectively referred to as "Enhancements") shall supersede the minimum requirements of the RFP Documents and Design-Builder is obligated to perform the Work in compliance with the Enhancements.

Article 4

Ownership of Work Product

4.1 **Work Product Defined**. The term "**Work Product**" is intended to include all drawings, specifications, calculations, reports, and documentation, whether in paper copy or electronic format, produced by or through Design-Builder that is furnished to Department.

4.2 **Ownership of Work Product**. Department shall own all rights, title and interest in the Work Product upon its receipt of such Work Product. Department's ownership rights, include without restriction or limitation, the right of the Department, and anyone contracting with Department, to incorporate any ideas or information from the Work Product into: (a) any other contract awarded in reference to the Project; or (b) any subsequent procurement by Department on another project. In receiving all rights, title and interest in the Work Product, Department is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Work Product,

and Design-Builder agrees that it shall, at the request of Department, execute all papers and perform all other acts that may be necessary (if any) to ensure that Department's rights, title and interest in the Work Product are protected. The rights conferred herein to Department include, without limitation, Department's ability to use the Work Product without the obligation to notify or seek permission from Design-Builder.

4.3 **Use of Work Product at Department's Risk**. The Department's use of the Work Product on any subsequent procurement by Department on another project shall be at Department's sole risk, and Design-Builder neither warrants nor represents that the Work Product is suitable for use on another project without modification. The Department waives any rights to seek recovery from Design-Builder for any claims, damages, liabilities, losses and expenses arising out of or resulting from the Department's use of the Work Product on another project.

Article 5

Contract Time

5.1 **Notice to Proceed.** The Work shall commence upon Design-Builder's receipt of Department's Notice to Proceed, unless the parties mutually agree otherwise in writing. The Department will issue a Notice to Proceed within fifteen (15) days after the Agreement Date, unless the parties mutually agree otherwise in writing.

5.2 **Completion Dates**

5.2.1 **Final Completion Date**. The Design-Builder shall finally complete the Work in accordance with the Contract Documents **per Exhibit 1** (the "**Final Completion Date**").

5.2.2 **Interim Milestone Dates**. In the event any identified portion of the Work is to be completed earlier than the Final Completion Date, such Work shall be identified in Exhibit 1 and the dates such Work shall be completed shall be set forth in Exhibit 1 ("**Interim Milestone Dates**"):

5.3 **Adjustments**. All of the scheduled completion dates set forth in Section 5.2 above (collectively referred to as **"Contract Times"**) shall be subject to adjustment in accordance with the General Conditions of Contract.

5.4 **Time is of the Essence**. Department and Design-Builder mutually agree that time is of the essence with respect to the Contract Times.

5.5. **Liquidated Damages**. Design-Builder understands that if the Final Completion Date or any Interim Milestone Dates are not attained, Department will suffer damages which are difficult to determine and accurately specify. To compensate Department for such damages, Design-Builder hereby agrees as follows:

5.5.1 If Final Acceptance of the Work is not attained by the Final Completion Date, Designer-Builder shall pay Department **THE AMOUNTS LISTED IN EXHIBIT 1** as

liquidated damages for each day that actual Final Acceptance of the Work extends beyond the Final Completion Date.

5.5.2 If Interim Milestone(s) are not attained by the Interim Milestone Date(s), Designer-Builder shall pay Department **THE AMOUNTS LISTED IN EXHIBIT 1** as liquidated damages for each day that each Interim Milestone(s) extends beyond the Interim Milestone Date.

5.6 Liquidated Damages Not Penalty. The parties acknowledge, recognize and agree on the following:

(a) that because of the unique nature of the Project, it is difficult or impossible to determine with precision the amount of damages that would or might be incurred by Department as a result of Design-Builder's failure to complete the Work on or before the applicable Contract Time(s);

(b) that any sums which would be payable under this Article 5 are in the nature of liquidated damages, and not a penalty, and are fair and reasonable and such payment represents a reasonable estimate of fair compensation for the losses that may reasonably be anticipated from such failure; and

(c) that any sums which would be payable herein shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages, whether special or consequential, and of whatsoever nature incurred by Department which are occasioned by any delay in achieving the applicable Contract Times for the above-referenced Work. Notwithstanding the above, liquidated damages are not intended to excuse Design-Builder from liability for any other breach of its obligations under the Contract Documents.

Article 6

Contract Price

6.1 Contract Price. Department shall pay Design-Builder in accordance with Article 6 of the General Conditions of Contract the sum of **THE AMOUNTS LISTED IN EXHIBIT 1** ("**Contract Price**"), subject to adjustments made in accordance with the General Conditions of Contract. Unless otherwise provided in the Contract Documents, the Contract Price is deemed to include all sales, use, consumer and other taxes mandated by applicable Legal Requirements.

6.2 Markups for Changes. If the Contract Price requires an adjustment due to changes in the Work, and the cost of such changes is determined under Section 9.4.1 of the General Conditions of Contract, markups shall be allowed on such changes in accordance with requirements of Section 109.05 of the Division I Amendments to the Standard Specifications.

6.3 **Adjustments to Asphalt, Fuel and Steel.** Department and Design-Builder agree to adjust prices for **THE ITEMS LISTED IN EXHIBIT 1**, in accordance with the Department's pertinent special provisions, attached hereto as Exhibits 6.3(a), 6.3(b), 6.3(c) and 6.3(d) provided Design-Builder declares its intent, in the Price Proposal, to use the provisions for price adjustments, and also submits the information required in the pertinent special provisions with its Proposal. Notwithstanding the special provisions, price adjustments for **THE ITEMS LISTED IN EXHIBIT 1** will be based on the quantities identified in the Schedule of Items in Design-Builder's Proposal, which quantities shall be specifically summarized and provided in Design-Builder's Price Proposal. Actual quantities shall be monitored and documented by Design-Builder, and submitted to Department in the monthly report required by Section 11.1.8 below, on forms provided by Department.

Article 7

Procedure for Payment

7.1 Progress Payments

7.1.1 Design-Builder shall submit to Department on the tenth (10th) day of each month, beginning with the first month after Design-Builder's receipt of Department's Notice to Proceed, Design-Builder's Application for Payment in accordance with Article 6 of the General Conditions of Contract.

7.1.2 Department shall make payment within thirty (30) days after Department's receipt of each properly submitted and accurate Application for Payment in accordance with Article 6 of the General Conditions of Contract, but in each case less the total of payments previously made, and less amounts properly withheld under Section 6.3 of the General Conditions of Contract. Department's payment shall comply with VA. CODE §2.2-4347, et seq., which addresses prompt payment.

7.1.3 Pursuant to VA. CODE §2.2-4354, Design-Builder agrees that, within seven (7) days following receipt of monies from the Department for work performed by any Subcontractor, Design-Builder shall either: (a) pay the Subcontractor for the proportionate share of the total payment received from the Department attributable to the work performed by the Subcontractor; or (b) notify the Department and Subcontractor, in writing, of Design-Builder's intention to withhold all or a part of the Subcontractor's payment, specifying the reason for the non-payment. Design-Builder also agrees that it shall include in all of its subcontracts a provision that: (a) obligates Design-Builder to pay interest to Subcontractors on all amounts owed by Design-Builder that remain unpaid after seven (7) days following receipt of monies from the Department for work performed by any Subcontractor, except for amounts withheld as allowed in the preceding sentence; (b) states, "Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month."; and (c) obligates each Subcontractor to include or otherwise be subject to the same payment and interest requirements as specified in this Section 7.1.3 with respect to each lower-tier Sub-subcontractor.

7.1.4 Design-Builder's obligations to pay an interest charge to a Subcontractor pursuant to Section 7.1.3 shall not be construed to be an obligation of the Department, nor shall any modification to this Agreement be allowed for the purpose of providing reimbursement for the interest charge. Cost reimbursement claims shall not include any amount for reimbursement for the interest charge.

7.1.5 Pursuant to VA. CODE §2.2-4354, Design-Builder agrees to provide the Department, within five (5) days of the Agreement Date, its federal employer identification number.

7.2 **Retainage on Progress Payments**. Retainage will not be withheld from Progress Payments.

7.3 **Final Payment.** Design-Builder shall submit its Final Application for Payment to Department in accordance with Section 6.6 of the General Conditions of Contract. Department shall make payment on Design-Builder's properly submitted and accurate Final Application for Payment within thirty (30) days after Department's receipt of the Final Application for Payment, provided that Design-Builder has satisfied the requirements for Final Payment set forth in Section 6.6.2 of the General Conditions of Contract. Department's payment shall comply with VA. CODE §2.2-4347 et seq. dealing with prompt payment.

7.4 **Interest.** Payments due and unpaid by Department to Design-Builder, whether progress payments or Final Payment, shall bear interest commencing seven (7) days after payment is due in accordance with VA. CODE §2.2-4355.

7.5 **Record Maintenance and Retention of Records**. Design-Builder shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and as may be provided in the Contract Documents. During the performance of the Work and for a period of five (5) years after Final Payment, Department and Department's accountants shall be afforded access from time-to-time, upon reasonable notice, to Design-Builder's records, books, correspondence, receipts, subcontracts, purchase orders, vouchers, memoranda and other data, including but not limited to electronic schedules and other electronic data (all collectively referred to as "Books and Records") relating to: (a) changes in the Work performed on a cost basis; or (b) any request by Design-Builder for an adjustment in the Contract Price or Contract Times. Design-Builder shall preserve all of its Books and Records for a period of five (5) years after Final Payment.

Article 8

Termination for Convenience

8.1 Upon ten (10) days written notice to Design-Builder, Department may, for its convenience and without cause, elect to terminate all or part of the Work if Department, in its sole discretion, determines that such a termination is in the Department's best

interests. The Department shall notify Design-Builder of the decision to terminate by delivering to Design-Builder a written notice of termination specifying the extent of termination and its effective date (a "**Notice of Termination**").

8.1.1 If Department terminates all of the Work for convenience before issuing a Notice to Proceed, Design-Builder agrees that it shall have no right to recover any monies from Department. Design-Builder specifically waives any and all rights to claim from the Department for any cost, profit, overhead contribution or any other monetary relief associated with the Contract Documents or Project, including but not limited to bid and proposal costs, or any services that might have constituted Work under the Contract Documents.

8.1.2 If Department terminates all or part of the Work for convenience after issuing a Notice to Proceed, then Sections 8.2 through 8.8 below shall apply.

8.2 After receipt of a Notice of Termination, and except as directed by Department, Design-Builder shall immediately proceed as follows, regardless of any delay in determining or adjusting any amounts due under this Article 8:

(a) Stop Work as specified in the notice;

(b) Enter into no further Subcontracts and place no further orders for materials, services or facilities, except as necessary to complete the continued portion of the Work, if any, or for mitigation of damages;

(c) Unless instructed otherwise by Department, terminate all Subcontracts to the extent they relate to the Work terminated and except to the extent that continuation of the Subcontract is necessary in order to mitigate damages;

(d) Assign to Department or its designee in the manner, at the times, and to the extent directed by Department, all of the right, title, and interest of Design-Builder under the Subcontracts so terminated, in which case Department will have the right, in its sole discretion, to accept performance, settle or pay any or all claims under or arising out of the termination of such Subcontracts;

(e) Settle outstanding liabilities and claims arising out of such termination of Subcontracts, with the approval or ratification of Department, to the extent it may require, which approval or ratification shall be final;

(f) Transfer and deliver to Department or its designee, as directed by Department: (1) possession and control of the Project; and (2) all right, title and interest of Design-Builder in and to: (i) the Work in process, completed Work, supplies and other materials produced or acquired for the Work terminated; (ii) the Construction Documents and all other completed or partially completed drawings (including plans, elevations, sections, details and diagrams), specifications, records, reports, books, samples, information and other Work Product that would have been required to be furnished to Department if the Work

had been completed; and (iii) all intellectual property developed specifically for the Project; provided, however, that in the event of such transfer, the Design-Builder shall not be liable for any warranties for Work which has not achieved Final Acceptance, nor shall the Design-Builder have any liability with respect to any design materials produced with respect to the Project;

(g) Complete performance in accordance with the Contract Documents of all Work not terminated;

(h) Take all action that may be necessary, or that Department may direct, for the protection and preservation of the property related to the Contract Documents that is in the possession of Design-Builder and in which Department has or may acquire an interest; and

(i) As authorized by Department, use its best efforts to sell at fair market value any property of the types referred to in Section 8.3; provided, however, that Design-Builder: (1) shall not take any such action with respect to any items for which title has previously transferred to Department; (2) is not required to extend credit to any purchaser; and (3) may acquire the property itself, under the conditions prescribed and at prices approved by Department. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by Department under the Contract Documents or paid in any other manner directed by Department.

8.3 Inventory. Design-Builder shall submit to Department a list of termination inventory not previously disposed of and excluding items authorized for disposition by Department; and within thirty (30) days of receipt of the list, Design-Builder shall deliver such inventory to Department and Department shall accept title to such inventory as appropriate.

8.4 Settlement Proposal. After termination, Design-Builder shall submit a final termination settlement proposal to Department in the form and with the certification prescribed by Department. Design-Builder shall submit the proposal promptly, but no later than thirty (30) days from the effective date of termination unless Design-Builder has requested a time extension in writing within such 30-day period and Department has agreed in writing to allow such an extension.

8.5 Amount of Termination Settlement. Design-Builder and Department shall negotiate in good faith to reach agreement on the settlement amount to be paid to Design-Builder by reason of the termination of Work pursuant to this Article 8 and any such settlement shall be subject to the provisions of the Code of Virginia §2.2-514. Such negotiated settlement shall include an allowance for profit solely on Work that has been performed as of the termination date. Such agreed amount or amounts payable for the terminated Work, exclusive of demobilization costs and other shut-down costs, shall not exceed the total Contract Price as reduced by the Contract Price of Work not performed. Upon determination of the settlement amount, this Agreement will be amended accordingly, and Design-Builder will be paid the agreed amount as described in this

Section 8.5. Department's execution and delivery of any settlement agreement shall not be deemed to affect any of its rights with respect to compliance of the Work which has achieved Final Acceptance with all applicable Contract requirements or any of its rights under payment and performance bonds or any of its rights against Subcontractors.

8.6 No Agreement as to Amount of Claim. In the event of failure of Design-Builder and Department to agree upon the amount to be paid Design-Builder by reason of the termination of Work pursuant to this Article 8, the amount payable (exclusive of interest charges) shall be determined in accordance with the dispute resolution procedures of the General Conditions.

8.7 Reduction in Amount of Claim. The amount otherwise due Design-Builder under this Article 8 shall be reduced by: (a) the amount of any valid claim which Department may have against Design-Builder in connection with this Agreement; and (b) the agreed price for, or the proceeds of sale of, materials, supplies or other things previously paid for by the Department and to be retained by Design-Builder or sold by the Design-Builder (with the proceeds being retained by the Design-Builder), pursuant to the provisions of this Article 8.

8.8 Payment. Department may, from time-to-time, under such terms and conditions as it may prescribe and in its sole discretion, make partial payments on account against costs incurred by Design-Builder in connection with the terminated portion of this Agreement, whenever in the opinion of Department the aggregate of such payments shall be within the amount to which Design-Builder will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this Article 8, such excess shall be payable by Design-Builder to Department upon demand together with interest at a variable rate per annum equal to the reference rate announced by Bank of America, N.A., from time–to-time, plus one percent (1%).

8.9 Inclusion in Subcontracts. Design-Builder shall insert in all Subcontracts that the Subcontractor shall stop Work on the date of and to the extent specified in a Notice of Termination from Department and shall require that Subcontractors insert the same provision in each Subcontract at all tiers. Design-Builder shall communicate, immediately upon receipt thereof, any Notice of Termination issued by Department to all affected Subcontractors.

8.10 No Consequential Damages. In the event of a termination for convenience under this Article 8, Design-Builder acknowledges and agrees that it shall not be entitled to any compensation in excess of the value of the Work performed plus its settlement and closeout costs. Under no circumstances shall Design-Builder or any Subcontractor be entitled to anticipatory or unearned profits, unabsorbed overhead, opportunity costs, or consequential or other damages as a result of a termination for convenience under this Article 8. The payment to Design-Builder determined in accordance with this Article 8 constitutes Design-Builder's exclusive remedy for a termination hereunder.

8.11 No Waiver. Anything contained in this Agreement to the contrary notwithstanding, a termination under this Article 8 shall not waive any right or claim to

damages which Department may have with respect to Work which has achieved Final Acceptance prior to the date of termination, and Department may pursue any cause of action which it may have by law or under this Agreement on account of such completed Work. The Design-Builder makes no warranties with respect to Work which has not achieved Final Acceptance prior to the date of termination. Department's termination of this Agreement shall not relieve any rights Department has under any performance bonds issued on the Project.

8.12 **Dispute Resolution.** The failure of the parties to agree on amounts due under Article 8 shall be a dispute to be resolved in accordance with the requirements of the General Conditions, Article 10.

8.13 **Right to Use Work Product.** If Department terminates this Agreement pursuant to this Article 8, Department's rights to use the Work Product shall be as set forth in Article 4 hereof.

Article 9

Representatives of the Parties

9.1 Department's Representatives

9.1.1 Department designates the individual listed below as its Senior Representative ("Department's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.2 of the General Conditions of Contract:

[DEPARTMENT'S SENIOR REPRESENTATIVE AS LISTED IN EXHIBIT 1]

9.1.2 Department designates the individual listed below as its Department's Representative, which individual has the authority and responsibility set forth in Section 3.4 of the General Conditions of Contract:

[DEPARTMENT'S REPRESENTATIVE AS LISTED IN EXHIBIT 1]

9.2 Design-Builder's Representatives

9.2.1 Design-Builder designates the individual listed below as its Senior Representative ("Design-Builder's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.2 of the General Conditions of Contract:

[DESIGN-BUILDER'S SENIOR REPRESENTATIVE AS LISTED IN EXHIBIT 1]

9.2.2 Design-Builder designates the individual listed below as its Design-Builder's Representative, which individual has the authority and responsibility set forth in Section 2.1.1 of the General Conditions of Contract:

[DESIGN-BUILDER'S REPRESENTATIVE AS LISTED IN EXHIBIT 1]

9.3 The Department and Design-Builder shall, in the spirit of cooperation, exchange information in a timely manner. While the Contract Documents establish a timeline and process for making decisions and managing communications on the Project, the parties recognize it is not possible to specify processes for all activities that may occur. The parties shall communicate in a manner consistent with the Special Provision for *Project Communication and Decision Making for Design-Build Projects* included in the RFP Information Package.

Article 10

Bonds and Insurance

10.1 **Insurance**. Design-Builder shall procure and maintain insurance in accordance with the Contract Documents, including Article 5 of the General Conditions of Contract and Division I Amendments.

10.2 **Performance and Payment Bonds**. Design-Builder shall procure and maintain performance and payment bonds executed by a surety acceptable to Department, each in the amount of one hundred percent (100%) of the Contract Price, and in accordance with all other requirements of the Contract Documents, including the Division I Amendments.

Article 11

Other Provisions

11.1 Project Management and Reporting Requirements

11.1.1 **Preliminary Schedule**. Unless otherwise stated in Exhibit 1, within fifteen (15) days of Design-Builder's receipt of Department's Notice to Proceed, Design-Builder shall submit to Department, for its review and approval, a Preliminary Schedule in accordance with Exhibit 11.1 (Special Provision for Design-Build Schedules). The Preliminary Schedule shall be the basis for monitoring the Design-Builder's performance of the Work until such time as a Baseline Schedule has been approved by Department in accordance with Section 11.1.2 below. Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes an approved Preliminary Schedule.

11.1.2 **Baseline Schedule**. Unless otherwise stated in Exhibit 1, within ninety (90) days of Design-Builder's receipt of Department's Notice to Proceed, Design-Builder shall submit to Department, for its review and approval, a Baseline Schedule in accordance

with Exhibit 11.1.Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes an approved Baseline Schedule.

11.1.3 Schedule Updates. Design-Builder shall submit Schedule Updates in accordance with Exhibit 11.1. Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes an approved Schedule Update.

11.1.4 Revised Baseline Schedule. Design-Builder shall submit a Revised Baseline Schedule when required in accordance with Exhibit 11.1. Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes an approved Revised Baseline Schedule.

11.1.5 Final As-Built Schedule. Design-Builder shall submit a Final As-Built Schedule in accordance with Exhibit 11.1. Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Final Payment until such time Design-Builder furnishes an approved Final As-Built Schedule.

11.1.6 Other Information and Alteration. Design-Builder shall, whenever required by Department, provide in writing a general description of the arrangements and methods which Design-Builder proposes to adopt for the execution of the Work. No significant alteration to the Baseline Schedule, or to such arrangements and methods, shall be made without informing Department and any alterations made shall reflect the requirement for coordination of the Work with the actions and obligations of Department and the work to be carried out by Department's Separate Contractors. If any alteration affects any such actions, obligations or Work, it shall not be made without the prior approval of Department. If the progress of the Work does not conform to the Baseline Schedule, as updated herein, Department may instruct Design-Builder to revise the Baseline Schedule, showing the modifications necessary to achieve completion within the Contract Times.

11.1.7 Department's Separate Contractors. Design-Builder agrees to include the activities of Department's Separate Contractors into the Baseline Schedule. Design-Builder shall reasonably cooperate with Department's Separate Contractors and coordinate its activities with those of such Separate Contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

11.1.8 Department's Review and Approval of Schedule Submissions. Department's review and approval of the Preliminary, Baseline Schedule or subsequent Schedule Updates and Revised Baseline Schedule shall not be construed as relieving Design-Builder of its complete and exclusive control and responsibility over the means, methods, sequences and techniques for executing the Work and does not constitute approval or acceptance of Design-Builder's ability to complete the Work within the Contract Time(s).

11.1.9 Monthly Reports. Monthly reports shall be prepared by Design-Builder and submitted to Department in six (6) copies. The first report shall cover the period up to the end of the calendar month after that in which the Agreement Date occurred; reports

shall be submitted monthly thereafter, on or before the tenth (10th) day of each month. Reporting shall continue until Department's determination that the Project has achieved Final Acceptance. Each report shall include:

.1 Photographs and detailed descriptions of progress, including each stage of design, right-of-way acquisition, Governmental Approvals (including but not limited to permit acquisition), procurement, delivery to Site, and construction;

.2 Charts showing the status of all design documents, purchase orders, right-of-way acquisition, Governmental Approvals (including but not limited to permit acquisition) and construction;

.3 Records of personnel and Design-Builder's equipment;

.4 Copies of quality assurance documents, and test results;

.5 Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations;

.6 Status of approvals for Governmental Approvals, as required by Section 2.6.1 of the General Conditions of Contract;

.7 Monthly updates to the Baseline Schedule and narrative;

.8 Unresolved claims or disputes that involve requests for extension to the Contract Time(s) or adjustment to any other date or milestone set forth in the Contract Documents or increases in the Contract Price;

.9 All required EEO documentation for federal-aid projects;

.10 Weekly work zone safety reviews, on Department-provided forms;

.11 Erosion & Sediment Control Reports, on Department-provided forms; and

.12 Actual quantities for fuel, asphalt and steel on Department-provided forms.

Failure of Design-Builder to provide complete monthly reports, including but not limited to the monthly schedule updates, shall be grounds for Department to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes such complete reports.

11.1.10 **<u>Project Records</u>**. Design-Builder shall organize and maintain its project records in a manner that allows such project records to be filed by work packages, as applicable. Additionally, Design-Builder shall develop a tracking log wherein the project records are provided chronologically, with the file type, description, date received/sent, entity the documentation is from/to, pay package reference, status and electronic location. The Project Record Tracking Log shall be developed in accordance with the format outlined

in Attachment 11.1.10. If the project record relates to changes in the Work, preferably only one work package shall be referenced in such project record. If a project record relates to multiple work packages, then all related work packages shall be referenced in such project record. As a condition of Final Payment, Design-Builder shall provide Department with a complete set of all project records by and between Design-Builder and Department exchanged on the Project.

11.2 Miscellaneous

11.2.1 In executing this Agreement, Department and Design-Builder each individually represents that it has the necessary financial resources to fulfill its obligations under this Agreement, and each has the necessary approvals to execute this Agreement and to perform the services and obligations described herein.

11.2.2 The parties acknowledge that as of the Agreement Date, the Virginia General Assembly has appropriated, and the Commonwealth Transportation Board (CTB) has allocated, funding for the Project, and the Department's obligation to pay the Contract Price for the Work is subject to the appropriations and allocations.

11.3 Exhibits

11.3.1 The following exhibits, as well as any other exhibits specifically set forth in Exhibit 1 (Project Specific Terms), are made part of, and incorporated into this Agreement. (Exhibits to Part 3 are included in the RFP):

EXHIBIT 1 -- PROJECT SPECIFIC TERMS
EXHIBIT 6.3(a) -- ADJUSTMENT FOR ASPHALT
EXHIBIT 6.3(b) -- FORM C-16a (PRICE ADJUSTMENT FOR ASPHALT)
EXHIBIT 6.3(c) -- ADJUSTMENT FOR FUEL
EXHIBIT 6.3(d) -- ADJUSTMENT FOR STEEL
EXHIBIT 11.1 -- SPECIAL PROVISION FOR DESIGN-BUILD SCHEDULES
EXHIBIT 11.1.8 -- EXAMPLE CORRESPONDENCE TRACKING LOG

THE PARTIES TO THE AGREEMENT SHALL SIGN EXHIBIT 1

END OF PART 3
LUMP SUM DESIGN-BUILD AGREEMENT

EXHIBIT 6.3(a)
ADJUSTMENT FOR ASPHALT

SPECIAL PROVISION FOR
ASPHALT MATERIAL PRICE ADJUSTMENT
DESIGN-BUILD PROJECTS

August 9, 2013

All asphalt material listed in the attached "Master Listing of Asphalt Material Items Eligible for Price Adjustment" will be adjusted in accordance with the provisions as set forth herein. Other items will not be adjusted, except as otherwise specified in the contract. Any item added through a Work Order which contains Asphalt Material will not be subject to Price Adjustment unless specifically designated in the Work Order to be subject to Price Adjustment.

Each month, the Department will publish an average state-wide PG 64-22 f.o.b. price per ton developed from the average terminal prices provided to the Department from suppliers of asphalt cement to contractors doing work in Virginia. The Department will collect terminal prices from approximately 12 terminals each month. These prices will be received once each month from suppliers on or about the last weekday of the month. The high and low prices will be eliminated and the remaining values averaged to establish the average statewide price for the following month. That monthly state-wide average price will be posted on the Construction Division website on or about the first weekday of the following month.

This monthly statewide average price will be the Base Index for all contracts on which Price Proposals are received during the calendar month of its posting and will be the Current Index for all asphalt placed during the calendar month of its posting. In the event an index changes radically from the apparent trend, as determined by the Engineer, the Department may establish an index which is determined to best reflect the trend.

The amount of adjustment applied will be based on the difference between the Price Proposal\Contract Base Index and the Current Index for the applicable calendar month during which the work is performed. Calculations must be done for each type of Asphalt Material put in place each month, whether the Current Index is higher or lower than the Base Index. The calculation for the adjustment shall be shown as follows:

A = Q x %AC x IC

Where: A = Asphalt Adjustment Dollar Amount
Q = Quantity of Asphalt Material put in place during the month
%AC = % of Asphalt Cement in the Asphalt Material as specified in the Job Mix Formula
IC = Numeric Dollar Difference, either positive or negative, between the Base Index and Current Index

Example Calculation for Negative Price Adjustment (Credit back to VDOT):
7,500 Tons of SM-12.5A put in place during the month (Q), Job Mix is 6.1% Asphalt Cement for SM-12.5A (%AC), Base Index for the Contract is $515/Ton, Current Index is $500/Ton, Difference of - $15.00/Ton (IC)

7,500 Tons SM-12.5A x 6.1% x - $15.00/Ton = - $6,862.50 Adjustment Amount

Example Calculation for Positive Price Adjustment (Paid to the Design-Builder):
10,000 Tons of BM-25.0A put in place during the month (Q), Job Mix is 5.2% Asphalt Cement for BM-25.0A (%AC), Base Index for the Contract is $515/Ton, Current Index is $560/Ton, Difference of + $45.00/Ton (IC)

10,000 Tons BM-25.0A x 5.2% x $45.00/Ton = + $23,400.00 Adjustment Amount

Adjustment of any asphalt material item designated as a price adjustment item which does not contain PG 64-22, except PG 76-22 or PG 70-28, will be based on the indexes for PG 64-22. The quantity of asphalt cement for asphalt concrete pavement to which adjustment will be applied will be the quantity based on the percent of asphalt cement shown on the appropriate approved job mix formula.
The quantity of asphalt emulsion for surface treatments to which adjustment will be applied will be the quantity based on 65 percent residual asphalt.

Price adjustment will be shown as a separate entry on the monthly application of payment for work packages completed; however, such adjustment will not be included in the total cost of the work for progress determination or for extension of contract time. Items the Design-Builder claims in its application of payment for asphalt adjustments must include supporting calculations certified by the Quality Assurance Manager (QAM). These calculations must be completed relative to the calendar month under which the work was performed and shall be submitted for either positive or negative adjustment.

Any apparent attempt to unbalance bids in favor of items subject to price adjustment or failure to submit required cost and price data as noted hereinbefore may result in rejection of items for asphalt adjustment.

VIRGINIA DEPARTMENT OF TRANSPORTATION

MASTER LISTING OF

ASPHALT MATERIAL ITEMS ELIGIBLE FOR PRICE ADJUSTMENT

(10-27-09)

ITEM	DESCRIPTION	UNITS	SPECIFICATION
10062	Asphalt-Stab. Open-Graded Material	Ton	313
10416	Liquid Asphalt	Gal	311 312
10420	Blotted Seal Coat Ty. B	Sy	ATTD
10422	Blotted Seal Coat Ty. C	Sy	ATTD
10423	Blotted Seal Coat Ty. C-1	Sy	ATTD
10424	Blotted Seal Coat Ty. D	Sy	ATTD
10598	Ns Asphalt Concrete	Ton	315
10606	Asphalt Concrete Ty. SM-9.5	Ton	315
10607	Asphalt Concrete Ty. SM-12.5A	Ton	315
10608	Asphalt Concrete Ty. SM-12.5D	Ton	315
10609	Asphalt Concrete Ty. SM-12.5E (76-22)	Ton	315
10610	Asphalt Concrete Ty. IM-19.0A	Ton	315
10611	Asphalt Concrete Ty. IM-19.0D	Ton	315
10612	Asphalt Conc. Base Cr. Ty. BM-25.0	Ton	315
10613	Asphalt Concrete Ty. BM-37.5	Ton	315
10635	Asphalt Concrete Ty. SM-9.5A	Ton	315
10636	Asphalt Concrete Ty. SM-9.5D	Ton	315
10637	Asphalt Concrete Ty. SM-9.5E (76-22)	Ton	315
10639	Asphalt Concrete Ty. SM-19.0	Ton	315
10642	Asphalt Concrete Ty. BM-25.0A	Ton	315
10643	Asphalt Concrete Ty. BM-25.0D	Ton	315
10650	Stone Matrix Asphalt SMA-9.5(70-22)	Ton	317
10651	Stone Matrix Asphalt SMA-9.5(76-22)	Ton	317
10652	Stone Matrix Asphalt SMA-12.5(70-22)	Ton	317
10653	Stone Matrix Asphalt SMA-12.5(76-22)	Ton	317
10654	Stone Matrix Asphalt SMA-19.0(70-22)	Ton	317
10655	Stone Matrix Asphalt SMA-19.0(76-22)	Ton	317
10701	Liquid Asphalt Coating	Sy	ATTD
12505	Asphalt Concrete Curb Backup Material	Ton	315
13240	Asphalt Concrete Sidewalk	Ton	504
16110	Emul. Asph. Slurry Seal Type A	Sy	ATTD
16120	Emul. Asph. Slurry Seal Type B	Sy	ATTD
16130	Emul. Asph. Slurry Seal Type C	Sy	ATTD
16144	Latex Mod. Emul. Treat. Type B	Ton	ATTD
16145	Latex Mod. Emul. Treat. Type C	Ton	ATTD
16146	Latex Mod. Emul. Treat. Rutfilling	Ton	ATTD
16161	Modified Single Seal	Sy	ATTD
16162	Modified Double Seal	Sy	ATTD
16249	Nontracking Tack Coat	Gal.	ATTD
16250	Liquid Asphalt Matl. CMS-2 (Mod)	Gal	ATTD
16251	Liquid Asphalt Matl. CMS-2	Gal	ATTD
16252	Liquid Asphalt Matl. CRS-2	Gal	ATTD
16253	Liquid Asphalt Matl. CRS-2H	Gal.	ATTD.
16254	Liquid Asphalt Matl. RC-250	Gal	ATTD
16256	Liquid Asphalt Matl. RC-800	Gal	ATTD
16257	Ns Liquid Asphalt Matl.	Gal	ATTD
16260	Liquid Asphalt Matl. CRS-2L	Gal	ATTD
16325	NS Asphalt Concrete	Ton	N/A

16330	Asphalt Concrete Ty. SM-9.0A	Ton	315
16335	Asphalt Concrete Ty. SM-9.5A	Ton	315
16337	Asph. Conc. Ty. SM-9.5ASL (Spot Level)	Ton	315
16340	Asphalt Concrete Ty. SM-9.5D	Ton	315
16342	Asph. Conc. Ty. SM-9.5DSL (Spot Level)	Ton	315
16345	Asphalt Concrete Ty. SM-9.5E (76-22)	Ton	315
16350	Asphalt Concrete Ty. SM-12.5A	Ton	315
16352	Asph. Con. Ty. SM-12.5ASL (Spot Level)	Ton	315
16355	Asphalt Concrete Ty. SM-12.5D	Ton	315
16357	Asph. Con. Ty. SM-12.5DSL (Spot Level)	Ton	315
16360	Asphalt Concrete Ty. SM-12.5E (76-22)	Ton	315
16365	Asphalt Concrete Ty. IM-19.0A	Ton	315
16370	Asphalt Concrete Ty. IM-19.0D	Ton	315
16373	Asphalt Concrete Ty. IM-19.0A (T)	Ton	315
16374	Asphalt Concrete Ty. IM-19.0D (T)	Ton	315
16377	Asphalt Concrete Ty. BM-37.5	Ton	315
16379	Asphalt Concrete Ty. IM-19.0T	Ton	315
16390	Asphalt Concrete Ty. BM-25.0A	Ton	315
16392	Asphalt Concrete Ty. BM-25.0D	Ton	315
16395	Asphalt Concrete Ty. BM-25.0A (T)	Ton	315
16397	Asphalt Concrete Ty. BM-25.0D (T)	Ton	315
16400	Stone Matrix Asphalt SMA-9.5(70-22)	Ton	ATTD
16401	Stone Matrix Asphalt SMA-9.5(76-22)	Ton	ATTD
16402	Stone Matrix Asphalt SMA-12.5(70-22)	Ton	ATTD
16403	Stone Matrix Asphalt SMA-12.5(76-22)	Ton	ATTD
16404	Stone Matrix Asphalt SMA-19.0(70-22)	Ton	ATTD
16405	Stone Matrix Asphalt SMA-19.0(76-22)	Ton	ATTD
16490	Hot Mix Asphalt Treatment	Ton	ATTD
16500	Surf.Preparation & Restoration Type I	Ton	ATTD
16502	Surf.Preparation & Restoration Type Ii	Ton	ATTD
16504	Surf.Preparation & Restoration Type Iii	Ton	ATTD
67201	NS Asphalt Concrete Overlay	Ton	315
67210	NS Asphalt Concrete	Ton	315
68240	NS Asphalt Concrete	Ton	315

Exhibit 6.3(b)

Form C-16a
August 9, 2013

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
ASPHALT PRICE ADJUSTMENT (PG76-22 or PG 70-28)
DESIGN-BUILD PROJECTS

INSTRUCTIONS - This form is to be completed and returned ONLY when asphalt concrete items containing PG 76-22 or PG 70-28 is being utilized on the project.

PROJECT NUMBER:

DISTRICT:

Bid Prices in this contract for items containing PG 76-22 or PG 70-28 asphalt cement were developed using an f.o.b. price of $ _____ per **IMPERIAL** ton for **PG 76-22 or PG 70-28**. This quote is project specific.

Price quotes signed by each supplier from which the Design-Builder proposes to obtain PG 76-22 or PG 70-28 shall be maintained by the Design-Builder. These quotes shall be retained on site during the life of the Contract for review by the Engineer upon request.

DATE:_____

SIGNATURE:_____

_____
(Firm or Corporation)

_____
(Vendor No.)

EXHIBIT 6.3 (c)
ADJUSTMENT FOR FUEL

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
OPTIONAL ADJUSTMENT FOR FUEL
DESIGN-BUILD PROJECTS

November 5, 2012

In the event the Design-Builder elects to seek adjustment for fuel items designated in the Price Proposal\Contract as Price Adjustment Items such items will be subject to price adjustment as set forth herein. Other items will not be adjusted, except as otherwise specified in the contract.

The Design-Builder will submit their monthly application for payment associated with eligible work packages with an adjustment up or down as appropriate for cost changes in fuel used on specific items of work identified in this provision. A master listing of standard items eligible for fuel adjustment is provided by the Department on its website at the following link http://www.virginiadot.org/business/resources/masteroptionalfuelitems.pdf. The listing on the web site also includes the corresponding fuel factor for each item. The fuel usage factor for each item is considered inclusive of all fuel usage.

The amount of adjustment will be computed from the change in the indexes and the on-site fuel use as shown in the Department's master listing of eligible items.

In order to be eligible for fuel adjustment under this provision, the Design-Builder shall clearly identify in within the Schedule of Values those pay items and the associated quantities it chooses to have fuel adjustment applied to in its work packages. Items the Design-Builder claims in its application of payment for fuel adjustments must be properly designated in order to be considered for adjustment. Items not properly designated or left out of the Design-Builder's Schedule of Values will automatically not be considered for adjustment.

The monthly index price to be used in the administration of this provision will be calculated by the Department from the Diesel fuel prices published by the U. S. Department of Energy, Energy Information Administration on highway diesel prices, for the Lower Atlantic region. The monthly index price will be the price for diesel fuel calculated by averaging each of the weekly posted prices for that particular month.

For the purposes of this provision, the base index price will be calculated using the data from the month preceding the receipt of bids. The base index price will be posted by the Department at the beginning of the month for all bids received during that month.

The current index price will be posted by the Department and will be calculated using the data from the month preceding the particular estimate being vouchered for payment.

The current monthly quantity for eligible items of work selected by the Design-Builder for fuel adjustment in its work packages will be multiplied by the appropriate fuel factor to determine the gallons of fuel to be cost adjusted. The amount of adjustment per gallon will be the net difference between the current index price and the base index price. Computation for adjustment will be made as follows:

$$S = (E - B)\ QF$$

Where; S = Monetary amount of the adjustment (plus or minus)
B = Base index price
E = Current index price
Q = Quantity of individual units of work

F = Appropriate fuel factor

Adjustments will not be made for work performed beyond the original contract time limit unless the original time limit has been changed by an executed Work Order.

If new pay items are added to this contract by Work Order and they are listed in the Department's master listing of eligible items, the Work Order must indicate which of these individual items will be fuel adjusted; otherwise, those items will not be fuel adjusted. If applicable, designating which new pay items will be added for fuel adjustment must be determined during development of the Work Order and clearly shown on the Work Order form. The Base Index price on any new eligible pay items added by Work Order will be the Base Index price posted for the month in which bids were received for that particular project. The Current Index price for any new eligible pay items added by Work Order will be the Index price posted for the month preceding the estimate on which the Work Order is paid.

When quantities differ between the last monthly application of payment prepared upon final acceptance and the final application of payment, adjustment will be made using the appropriate current index for the period in which that specific item of work was last performed.

In the event any of the base fuel prices in this contract increase more than 100 percent (i.e. fuel prices double), the Department will review each affected item of work and give the Design-Builder written notice if work is to stop on any affected item of work. The Department reserves the right to reduce, eliminate or renegotiate the price for remaining portions of affected items of work.

Any amounts resulting from fuel adjustment will not be included in the total cost of work for determination of progress or for extension of contract time.

__I elect to use this provision

__I elect not to use this provision

Date:_____

Signature:_____

Design-builder:_____

Vendor No.:_____

EXHIBIT 6.3(d)
ADJUSTMENT FOR STEEL

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PRICE ADJUSTMENT FOR STEEL
DESIGN-BUILD PROJECTS

June 30, 2011

In the event the Design-Builder elects to seek adjustment for steel items designated in the Price Proposal\Contract as Price Adjustment Items such items will be subject to price adjustment as set forth herein. If new pay items which involve steel are established by Work Order, they will not be subject to Price Adjustment unless specifically designated in the Work Order to be subject to Price Adjustment.

The Design-Builder will submit their monthly application for payment associated with eligible work packages with an adjustment up or down as appropriate for cost changes in steel used on specific items of work identified in the Price Proposal/contract in accordance with this provision. Provided at the end of this provision is a master listing of standard bid items the Department has determined are eligible for steel price adjustment. Inventoried materials from the listing of eligible items are specifically excluded for consideration. In addition, concrete items where reinforcing steel is normally included in the unit bid price for the item such as (but not limited to) drop inlets, median barriers, sound barrier walls, bridge railing and parapets, are not eligible for consideration under this provision.

The requirements of this provision shall apply only to material cost changes that occur between the date of the opening of the Price Proposal and the date the material is shipped to the fabricator. To be eligible for this price adjustment, Design-Builder is required to fill out the accompanying Form for Price Adjustment for Eligible Steel Items on Design-Build Projects and submit the same with its Price Proposal for the Project. By signing the Form and submitting it with its Price Proposal Design-Builder declares its intention to participate in the price adjustment in its contract with the Department. For the purposes of this provision, the prices listed on the Form for Price Adjustment for Eligible Steel Items on Design-Build projects are fixed for cost and adjustment calculations regardless of quantities incorporated into final design. Further, in order for steel items to be eligible for adjustment, once shipped to the fabricator, the items shall be specifically stored, labeled, or tagged, recognizable by color marking, and identifiable by project for inspection and audit verification.

Design-Builder shall upon request furnish documentation supporting the price per pound for eligible steel items as shown on the Form for Price Adjustment for Eligible Steel Items on Design-Build Projects furnished with its Price Proposal. Design-Builder must use the format as shown with this Form; no other format for presenting this information will be permitted. Design-Builder shall certify that all items of documentation are original and were used in the computation of the price per pound amount for the represented eligible pay items for the month the Price Proposal was opened. This documentation shall support the base line material price ("Base Price") of the steel item only. Base price per pound shall not include the following cost components: fabrication, shipping, storage, handling, and erection.

Failure to submit all documentation required or requested supporting the per pound prices on eligible steel items will result in Design-Builder being ineligible for a price adjustment of any or all steel items.

Price adjustment of each qualifying item under consideration will be subject to the following condition:

> There is an increase or decrease in the cost of eligible steel materials in excess of 10 percent up to a maximum of 60 percent from the Base Price when compared with the latest published price index ("Price Index") in effect at the time material is shipped to the fabricator.

The Price Index the Department is using is based on The U.S. Department of Labor, Bureau of Labor Statistics, Producers Price Index (PPI) which measures the average price change over time of the specific

steel eligible item from the perspective of the seller of goods. The Master List table provided at the end of this provision indicates the Producers Price Index (PPI) steel category index items and the corresponding I.D. numbers to which VDOT items will be compared. **Please note**: The Producers Price Index (PPI) is subject to revision 4 months after original publication, therefore, price adjustments and payments will not be made until the index numbers are finalized.

The price adjustment will be determined by computing the percentage of change in index value beyond 10 percent above or below the index on the date of opening of Design-Builder's Price Proposal to the index value on the date the steel material is shipped to the fabricator (Please see included sample examples). Weights and date of shipment must be documented by a bill of lading provided to the Department. The final price adjustment dollar value will be determined by multiplying this percent increase or decrease in the index (after 10%) by the represented quantity of steel shipped, by the Base Price per pound subject to the limitations herein.

Price increase/decrease will be computed as follows:

$$A = B \times P \times Q$$

Where;

- A = Steel price adjustment in lump sum dollars
- B = Average weighted price of steel submitted in Design-Builder's Price Proposal for project in price per pound as listed on the Form for Price Adjustment for Eligible Steel Items on Design-Build Project
- P = Adjusted percentage change in PPI average from shipping date to date of opening of Price Proposal minus 10% (0.10) threshold
- Q = Total quantity of steel in pounds shipped to fabricator for specific project

The need for application of the adjustments herein to extra work will be determined by the Engineer on an individual basis and, if appropriate, will be specified on the Work Order.

This price adjustment is capped at 60 percent. This means the maximum "P" value for increase or decrease that can be used in the above equation is 50% (60%-10% threshold).

Calculations for price adjustment shall be shown separate from the monthly progress payment for work packages and will not be included in the total cost of work for determination of progress or for extension of contract time.

Upon Department review and due process consideration for redress by Design-Builder, any apparent evidence to unbalance the price supplied by Design-Builder in favor of items subject to price adjustment will result in ineligibility for Department participation under this provision.

FORM FOR PRICE ADJUSTMENT FOR ELIGIBLE STEEL ITEMS ON DESIGN-BUILD PROJECTS
Must be supplied with Price Proposal for Department Participation

(All prices to be supported by project-specific quotes)

DATE FOR RECEIPT OF PRICE PROPOSAL _____

Note: All prices (costs) are to include any surcharges on materials quoted. Vendors must include this surcharge with their cost. All prices (costs) are F.O.B. from the originating mill.

Item Number	Item Description	Quantity	Unit	Unit Price	Supplier	Date of Quote

We/I, the undersigned, understand that by supplying prices for the steel items listed above and signing this form we are declaring our desire to apply the Special Provision For Steel Adjustment for Design-Build Projects to this Price Proposal and contract. The terms and conditions for participation are as stated in the Special Provision For Steel Adjustment for Design-Build Projects.

_____ _____
Design-Builder Date

Sample Calculation of a Price Adjustment (increase)

Project bid on April 28, 2004.

Project has 450,000 lb. of eligible structural steel.

Design Builder's *f.o.b. supplier price for structural steel submitted in the Price Proposal is $0.2816 per pound. *free on board

Adjusted** BLS Producers Price Index (PPI) most recently published average at time of opening of the Price Proposal is 139.6.

All eligible steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 161.1

Adjustment formula is as follows:

A = B X P X Q

Where;
- A = Steel price adjustment in lump sum dollars
- B = Average weighted price of steel submitted in the Price Proposal for Design-Build project in $ per pound
- P = Adjusted percentage change in PPI average from shipping date to date of submitted Price Proposal minus 10% (0.10) threshold
- Q = Total quantity of eligible steel shipped to fabricator in October 2004 for this project in pounds

B = $0.2816

P = (161.1- 139.6)/139.6 – 0.10 = 0.054

Q = 450,000 lb.

A = 0.2816 x 0.054 x 450,000

A = $6,842.88 pay adjustment to Design-Builder

Sample Calculation of a Price Adjustment (decrease)

Project bid on April 28, 2004.

Project has 450,000 lb. of eligible structural steel.

Design-Builder's *f.o.b. supplier price for structural steel submitted in the Price Proposal is $0.2816 per pound. *free on board

Adjusted BLS Producers Price Index (PPI) most recently published average at time of opening of the Price Proposal is 156.6.

All eligible steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 136.3

Adjustment formula is as follows:

A = B X P X Q

Where;
- A = Steel price adjustment in lump sum dollars
- B = Average weighted price of steel submitted in the Price Proposal for Design-Build project in $ per pound
- P = Adjusted percentage change in PPI average from shipping date to date of submitted Price Proposal minus 10% (0.10) threshold
- Q = Total quantity of eligible steel shipped to fabricator in October 2004 for this project in pounds

B = $0.2816

P = (156.6 – 136.3)/156.6 – 0.10 = 0.030

Q = 450,000 lb.

A = 0.2816 x 0.030 x 450,000

A = $3,801.60 credit to Department

MASTER LISTING

STANDARD BID ITEMS ELIGIBLE FOR STEEL PRICE ADJUSTMENT

March 18, 2009

ITEM NUMBER	ITEM DESCRIPTION	UNITS	BLS Series I. D. Number WPU used in $ adjust.
00519	SHEET PILE, STEEL	SF	avg. 1017 & 101
00540	REINF. STEEL	LB	101704
00542	EPOXY COATED REINF. STEEL	LB	101704
00560	STRUCTURAL STEEL JB-1	LB	avg. 1017 & 101
11030	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
11181	PATCH.HYDR.CEM.CONC. PAVE.	SY	101704
13290	GUARDRAIL GR-8 (NCHRP 350 TL-3)	LF	avg. 1017 & 101
13292	GUARDRAIL GR-8A (NCHRP 350 TL-3)	LF	avg. 1017 & 101
13294	GUARDRAIL GR-8B (NCHRP 350 TL-3)	LF	avg. 1017 & 101
13310	GUARDRAIL TERMINAL GR-6 (NCHRP 350)	LF	avg. 1017 & 101
13320	GUARDRAIL GR-2	LF	avg. 1017 & 101
13323	GUARDRAIL GR-2A	LF	avg. 1017 & 101
13331	RAD. GUARDRAIL GR-2	LF	avg. 1017 & 101
13333	RAD. GUARDRAIL GR-2A	LF	avg. 1017 & 101
13335	GUARDRAIL GR-3	LF	avg. 1017 & 101
13341	GUARDRAIL TER. GR-6(WEATHERING STEEL	LF	avg. 1017 & 101
13351	GUARDRAIL GR-8	LF	avg. 1017 & 101
13352	GUARDRAIL GR-8A	LF	avg. 1017 & 101
13353	GUARDRAIL GR-8B	LF	avg. 1017 & 101
13355	GUARDRAIL GR-10	LF	avg. 1017 & 101
13421	MEDIAN BARRIER MB-3	LF	avg. 1017 & 101
13450	MEDIAN BARRIER MB-5	LF	avg. 1017 & 101
13451	MEDIAN BARRIER MB-5A	LF	avg. 1017 & 101
13452	MEDIAN BARRIER MB-5B	LF	avg. 1017 & 101
13545	REINF. STEEL	LB	101704
14502	REINFORCING STEEL	LB	101704
15290	PATCH.CEM.CONC.PAVE.TY.CRCP-A	SY	101704
15302	PATCH.CEM.CONC.PAVE. TY. II	SY	101704
15305	PATCH.CEM.CONC.PAVE.TY. IV-A	SY	101704
17323	GUARDRAIL BEAM *	LF	avg. 1017 & 101
17325	RADIAL GUARDRAIL BEAM *	LF	avg. 1017 & 101
17327	RUB RAIL	LF	avg. 1017 & 101
17353	CABLE GR-3	LF	avg. 1017 & 101
17521	GUARDRAIL BEAM (WEATHERING STEEL)	LF	avg. 1017 & 101
17523	RADIAL GUARDRAIL BEAM (WEATHERING STEEL)	LF	avg. 1017 & 101
17525	RUB RAIL (WEATHERING STEEL)	LF	avg. 1017 & 101
22501	FENCE FE-W1	LF	avg. 1017 & 101
22643	FENCE FE-CL	LF	avg. 1017 & 101
22645	FENCE FE-CL VINYL COATED	LF	avg. 1017 & 101
23043	WATER GATE FE-4 TY.III	LF	avg. 1017 & 101
23501	FENCE FE-W1 (FABRIC ONLY)	LF	avg. 1017 & 101
45522	4" STEEL ENCASE. PIPE	LF	101706
45532	6" STEEL ENCASE. PIPE	LF	101706
45562	16" STEEL ENCASE. PIPE	LF	101706
45572	18" STEEL ENCASE. PIPE	LF	101706

45582	24" STEEL ENCASE. PIPE	LF	101706
45584	24" JACKED STEEL ENCASEMENT PIPE	LF	101706
45592	30" STEEL ENCASE. PIPE	LF	101706
50402	SIGN POST STEEL 3"	LF	101706
50404	SIGN POST STEEL 4"	LF	101706
50406	SIGN POST STEEL 6"	LF	101706
50410	SIGN POST STEEL 10"	LF	101706
50412	SIGN POST STEEL 12"	LF	101706
50414	SIGN POST STEEL 14"	LF	101706
50416	SIGN POST STEEL 16"	LF	101706
50418	SIGN POST STEEL 18"	LF	101706
51317	SIG. POLE MP-1 20' ONE ARM 30'	EA	101706
51319	SIG. POLE MP-1 20' ONE ARM 32'	EA	101706
51325	SIG. POLE MP-1 20' ONE ARM 38'	EA	101706
51327	SIG. POLE MP-1 20' ONE ARM 40'	EA	101706
51329	SIG. POLE MP-1 20' ONE ARM 42'	EA	101706
51331	SIG. POLE MP-1 20' ONE ARM 44'	EA	101706
51337	SIG. POLE MP-1 20' ONE ARM 50'	EA	101706
51339	SIG. POLE MP-1 20' ONE ARM 52'	EA	101706
51341	SIG. POLE MP-1 20' ONE ARM 54'	EA	101706
51344	SIG. POLE MP-1 20' ONE ARM 56'	EA	101706
51346	SIG. POLE MP-1 20' ONE ARM 58'	EA	101706
51347	SIG. POLE MP-1 20' ONE ARM 60'	EA	101706
51348	SIG. POLE MP-1 20' ONE ARM 62'	EA	101706
51368	SIG.POLE MP-1 20'TWO ARMS 36'& 42'	EA	101706
51400	SIG.POLE MP-1 CO.LU.ONE ARM 38	EA	101706
51402	SIG.POLE MP-1 CO.LU.ONE ARM 40	EA	101706
51408	SIG.POLE MP-1 CO.LU.ONE ARM 46	EA	101706
51412	SIG.POLE MP-1 CO.LU.ONE ARM 50	EA	101706
51414	SIG.POLE MP-1 CO.LU.ONE ARM 52	EA	101706
51416	SIG.POLE MP-1 CO.LU.ONE ARM 54	EA	101706
51418	SIG.POLE MP-1 CO.LU.ONE ARM 56	EA	101706
51420	SIG.POLE MP-1 CO.LU.ONE ARM 58	EA	101706
51422	SIG.POLE MP-1 CO.LU.ONE ARM 60	EA	101706
55162	LIGHTING POLE LP-1 30'-4'	EA	101706
55163	LIGHTING POLE LP-1 30'-6'	EA	101706
55166	LIGHTING POLE LP-1 30'-12'	EA	101706
55169	LIGHTING POLE LP-1 35'-6'	EA	101706
55171	LIGHTING POLE LP-1 35'-10'	EA	101706
55176	LIGHTING POLE LP-1 40'-8'	EA	101706
55185	LIGHTING POLE LP-2 TYPE A	EA	101706
55186	LIGHTING POLE LP-2 TYPE B	EA	101706
55187	LIGHTING POLE LP-2 TYPE C	EA	101706
55188	LIGHTING POLE LP-2 TYPE D	EA	101706
55189	LIGHTING POLE LP-2 TYPE E	EA	101706
55190	LIGHTING POLE LP-2 TYPE F	EA	101706
55192	LIGHTING POLE LP-2 TYPE H	EA	101706
60452	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
61700	REINF. STEEL	LB	101704
61704	CORROSION RESISTANT REINF. STEEL	LB	101704
61705	EPOXY COATED REINF. STEEL	LB	101704
61750	STRUCT.STEEL HIGH STRG.PLT.GIRDERS	LB	avg. 1017 & 101
61811	STR.STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
61812	STR.STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
61813	STR.STEEL PLATE GIRDER ASTM A709 GRADEHPS50W	LB	avg. 1017 & 101
61814	STR.STEEL PLATE GIRDER ASTM A709 GRADEHPS70W	LB	avg. 1017 & 101
61820	STR.STEEL ROLLED BEAM ASTM A709 GRADE 36	LB	avg. 1017 & 101

61821	STR.STEEL ROLLED BEAM ASTM A709 GRADE50	LB	avg. 1017 & 101
61822	STR.STEEL ROLLED BEAM ASTM A709 GRADE50W	LB	avg. 1017 & 101
61990	STEEL GRID FLOOR	SF	avg. 1017 & 101
64110	STEEL PILES 10"	LF	avg. 1017 & 101
64112	STEEL PILES 12"	LF	avg. 1017 & 101
64114	STEEL PILES 14"	LF	avg. 1017 & 101
64768	DRIVING TEST FOR 12" STEEL PILE	LF	avg. 1017 & 101
64778	DRIVING TEST FOR 14" STEEL PILE	LF	avg. 1017 & 101
65200	REINF. STEEL	LB	101704
65204	CORROSION RESISTANT REINF. STEEL	LB	101704
65205	EPOXY COATED REINF. STEEL	LB	101704
67086	PED. FENCE 6'	LF	avg. 1017 & 101
67088	PED. FENCE 8'	LF	avg. 1017 & 101
67089	PED. FENCE 10'	LF	avg. 1017 & 101
68100	REINF. STEEL	LB	101704
68104	CORROSION RESISTANT REINF. STEEL	LB	101704
68105	EPOXY COATED REINF. STEEL	LB	101704
68107	STR.STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
68108	STR. STEEL PLATE GIRDER ASTM A709 GR50W	LB	avg. 1017 & 101
68109	STR. STEEL PLATE GIRDER ASTM A709 GR.HPS50W	LB	avg. 1017 & 101
68110	STR. STEEL PLATE GIRDER ASTM A709 GR.HPS70W	LB	avg. 1017 & 101
68112	STR.STEEL ROLLED BEAM ASTM A709 GR.36	LB	avg. 1017 & 101
68113	STR.STEEL ROLLED BEAM ASTM A709 GR.50	LB	avg. 1017 & 101
68114	STR.STEEL ROLLED BEAM ASTM A709 GR. 50W	LB	avg. 1017 & 101
68115	STRUCT. STEEL	LB	avg. 1017 & 101
68270	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
69060	SHEET PILES, STEEL	SF	avg. 1017 & 101
69100	REINF. STEEL	LB	101704
69104	CORROSION RESISTANT REINF. STEEL	LB	101704
69105	EPOXY COATED REINF. STEEL	LB	101704
69110	STEEL PILES 10"	LF	avg. 1017 & 101
69112	STEEL PILE 12"	LF	avg. 1017 & 101
69113	DRIVING TEST FOR 12" STEEL PILE	LF	avg. 1017 & 101

___I elect to use this provision

___I elect not to use this provision

Date: _____

Signature: _____

Design-Builder: _____

Vendor No.: _____

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
Design-Build Project Schedule

July 10, 2013

Exhibit 11.1

1. General

Design-Builder shall develop and maintain a project schedule, which shall be used by all involved parties to plan and execute all work required to complete the project. The project schedule will be used by the Department to monitor the project, assess progress, and evaluate the effects of time-related issues on the project. The project schedule shall be prepared, maintained, and submitted in accordance with this provision, unless otherwise directed in writing by the VDOT Project Manager.

A. Scheduling Conference – At the meeting held after the Date of Commencement, Design-Builder shall attend a Scheduling Conference with the VDOT Project Manager to discuss Design-Builder's overall plan to accomplish the Work; the detail work plan for the initial one hundred and twenty (120) calendar days; and scheduling information, project specific requirements, and other key issues necessary for the preparation, maintenance, and submittal of the project schedule.

B. Project Scheduler – For projects with awarded Contract Price of $35 million or more, Design-Builder shall designate a Project Scheduler for the project and shall submit his/her qualifications for the VDOT Project Manager's written approval prior to submission of the Preliminary or Baseline Schedule. The Project Scheduler must have at least three (3) years of verifiable experience in successfully preparing and maintaining schedules on large scale projects of similar type and complexity. Design-Builder shall provide current contacts for verification of the Project Scheduler's qualifications and experience. The Project Scheduler shall be primarily responsible for the development and maintenance of the project schedule and shall be present in all scheduling meetings and discussions on major issues concerning the project schedule.

2. Schedule Submission Requirements

A. Preliminary Schedule – Unless otherwise stated in Exhibit 1, within fifteen (15) days of Design-Builder's receipt of Department's Notice to Proceed, Design-Builder shall submit to Department, for its review and approval, a Preliminary Schedule. At its discretion, Design-Builder may submit in lieu of the Preliminary Schedule, a Baseline Schedule according to Section 11.1.4 of the Agreement and Section 2.B below. Until such time as a Baseline Schedule has been approved by Department, Design-Builder shall provide an update of the Preliminary Schedule every month. The Preliminary Schedule will be used

to monitor and assess progress of the Work until a Baseline Schedule is approved by the Department. The Preliminary Schedule submission shall consist of:

1. **Preliminary Schedule**: A Preliminary Schedule showing at a minimum:

    i) The detailed activities depicting the sequence and dates for any work planned during the first one-hundred and twenty (120) calendar days, including as applicable project milestones, review by the Department, FHWA, and other regulatory agencies; as well as environmental, permits, scope validation period, design, right-of-way, utility, and construction activities.

    ii) Summary level activities depicting the sequence and general timing for work planned after the first one-hundred and twenty (120) calendar days. At Design-Builder's discretion, detailed activities may be shown in lieu of summary level activities.

    iii) Quantities and dollar value of work associated with each activity for which Design-Builder expects to receive payment.

    iv) The project critical path (based on the longest path).

2. **Preliminary Schedule Narrative**: A Preliminary Schedule Narrative describing the Design-Builder's overall plan to accomplish the entire scope of Work and the detailed plan for work planned during the initial one-hundred and twenty (120) calendar days. The narrative shall describe the sequence of work, means and methods, productivity, and other significant scheduling assumptions on which the Preliminary Schedule is based. The narrative shall also describe the project critical path (longest path), work planned during each construction season, and any known or foreseeable issues that may impact the schedule.

3. **Preliminary Earned Value Schedule**: A Preliminary Earned Value Schedule showing Design-Builder's anticipated monthly earnings for the entire Project. The Preliminary Earned Value Schedule shall be prepared using Department's Form C-13CPM, which shall be based on monthly costs data generated from the Preliminary Schedule. The Preliminary Earned Value Schedule submission shall include:

    i) An Activity Cost-loading Report (ACR), showing a breakdown of the quantities and costs for each activity. The ACR shall be grouped by pay items and sorted by activity ID showing:

        a) For each activity the Activity ID, Activity Name, Price/Unit, Budgeted Unit (quantity), Budgeted Cost, Actual Cost, Remaining Cost, and At Completion Cost.

b) Pay item sub-totals of the budgeted units and costs for associated activities.

c) The overall total budgeted cost for the Project.

ii) An Earned Value Schedule using the VDOT Form C-13CPM.

B. Baseline Schedule – Unless otherwise stated in Exhibit 1, within ninety (90) days of Design-Builder's receipt of Department's Notice to Proceed, Design-Builder shall submit to Department, for its review and approval, a Baseline Schedule showing the Design-Builder's initial detailed plan to accomplish the entire scope of the Project according to the Agreement. If the Department does not approve such submission, Design-Builder shall revise and resubmit a Baseline Schedule to Department within seven (7) calendar days of its receipt of Department's comments on such submission. This process shall continue until such time as the Department approves a Baseline Schedule. Upon approval of the Baseline Schedule, it will be the established as the Project "**Schedule of Record (SOR)**". The SOR is the official and only schedule with which all parties will plan and execute all work required to complete the Project and against which progress of the Project and the Design-Builder's performance will be assessed. The Baseline Schedule submission shall consist of:

1. **Baseline Schedule**: A Baseline Schedule depicting the detailed activities required to complete the entire scope of the Project, including as applicable, work to be performed by subcontractors, the Department, and other involved parties. The Baseline Schedule shall be prepared according to the following:

i) Design-Builder shall prepare and maintain the Baseline Schedule using scheduling software that is capable of meeting all requirements of this provision. Design-Builder's scheduling software shall be wholly compatible with the Department's scheduling software system and shall have the capability of creating a back-up copy of the working schedule in "XER" format. The Department's scheduling software system is the latest version of Primavera's Project Management software (currently P6 version 7.0). At the Design-Builder's request, secured access via the internet may be granted to allow the Design-Builder to develop and maintain its schedule in the Department's scheduling software system. Submission of data from another software system where data conversion techniques or software is used to import into Primavera's scheduling software is not acceptable and will be cause for rejection of the submitted schedule.

ii) For each schedule submission, the Project ID shall be unique and shall be defined using the Contract ID as a prefix followed by the submission number (i.e. C00012345DB12_B01, C00012345DB12_U01, etc.).

iii) The project "Must Finish By" date shall be defined with a specified date equal to the "Final Completion" date of the Contract.

iv) The Baseline Schedule shall be developed using a hierarchical WBS, broken down by major phases of the Project, as applicable (i.e. project milestones, project management, design, public involvement, environmental, right-of-way, utility, and construction, etc.). Each major phase of the Project shall be broken down by phase/stage, feature, as applicable. Each phase, stage, or feature shall then be further broken down into rational work packages, as applicable.

v) Each work package shall be broken down into discrete and definable activities, with activity durations generally twenty (20) working days or less. Longer durations may be allowed as approved by the VDOT Project Manager for certain administrative or level of effort activities that are typically performed over longer periods of time. The Work shall be broken down in sufficient details to identify the phase, stage, feature, type of work, deliverable, and specific location in which the work occurs, including as applicable:

a) Project milestones;

b) Administrative activities such as key submittals, notifications, and review by the Department, FHWA, and other regulatory agencies. Activity durations for submissions and approvals or consents required by the Department shall be no less than the Department's minimum review duration identified in Section 3.1 of the General Conditions of Contract;

c) Design activities showing all work required to complete each stage of design and deliverable;

d) Public involvement activities;

e) Scope Validation Period;

f) Environmental and permitting activities;

g) Right-of-way acquisition activities showing all lots/parcels;

h) Utility relocations and adjustments activities broken down by type and specific location;

i) Procurement, fabrication, delivery activities of materials;

j) Construction start-up activities such as mobilization, staging area, surveying, clearing and grubbing, construction access, etc.;

k) Maintenance of Traffic activities;

l) Construction activities broken down by phase, stage, feature, type of work, and specific location, as applicable;

m) Other necessary miscellaneous activities that consume time such as installation and removal of temporary systems or structures such as causeways, shoring, etc.; as well as settlement period, load test, curing, demolition, testing and acceptance period, punch list, clean-up, demobilization, etc.

vi) Each activity shall be named to identify the phase, stage, feature, type of work, and specific location in which the work occurs, as applicable.

vii) Activity calendars shall be assigned using project-level calendars. Use of global calendars is not allowed and shall be cause for rejecting the schedule.

viii) Activity codes shall be defined and assigned to the individual activities to allow for filtering, grouping, and sorting of activities by project phase, responsibility, area, phase, stage, feature, work type, Work Orders, DBE, and other major work category, as applicable. Activity codes shall be assigned using project-level activity codes. Use of global activity codes is not allowed and shall be cause for rejecting the schedule.

ix) Constraints shall be used sparingly and on a case by case basis, as necessary. Constraints such as “Mandatory Start” or “Mandatory Finish” that violate network logic are not allowed and shall be cause for rejecting the schedule. If the Contract includes a specified start-no-earlier-than milestone, then the Contract milestone activity shall be constrained with a “Start On or After” constraint, with a date equal to the date specified in the Contract. If the Contract includes a specified Interim Milestone or Substantial Completion Milestone, then the Contract interim completion milestone activity or substantial completion milestone activity shall be constrained with a “Finish On or Before” constraint, with a date equal to the date specified in the Agreement.

x) Each activity associated with a pay item for which Design-Builder expects to receive payment shall be cost-loaded, using the scheduling software “Material” resource type and according to the following:

a) A material resource shall be defined for each pay item shown in the Schedule of Items submitted in the Proposal, or as approved

by the VDOT Project Manager. Pay item ID codes shall be congruent to the extent possible with the VDOT five-digit standard and non-standard pay item numbers (for example: 00100 – Mobilization).

b) Each proposed pay item material resource shall indicate the Resource ID, Resource Name, Unit of Measure, and Price/Unit as shown in the Schedule of Items, or as approved by the VDOT Project Manager. The pay item material resource ID shall be unique and shall be defined using the Contract ID as a prefix followed by the pay item number (i.e. C00012345DB12.00100).

c) The "Auto Compute Actuals" and "Calculate costs from units" boxes for each pay item material resource shall be marked.

d) A project-specific 20-80 resource curve shall be defined in the scheduling software using the Contract ID as a prefix and assigned to each assigned pay item resource to allocate costs to each associated activity over its duration based on the 20-80 earned value progress payment rules, according to Part 4, Article 6, and Section 6.2.

e) The budgeted units and cost for each assigned pay item resource shall be defined to indicate the quantity and dollar value of work that the activity represents.

f) The aggregate sum of the budgeted units and costs for all activities associated with a pay item shall equal the total quantity and value of the proposed pay item as shown in the Schedule of Items provided in the Proposal.

g) The aggregate sum of the budgeted costs for all activities shall equal the current total Contract Price. Current total Contract Price will be considered to mean the current Contract amount including the original Contract Price and any approved adjustments for authorized changes to the Work. Anticipated payments or payments for adjustments such as asphalt, fuel, steel, retainage, incentives, disincentives, etc., shall not be included.

xi) For projects with awarded Contract Price of $35 million or more, the Baseline Schedule shall be resource-loaded to indicate the labor (manpower), material (re-usable materials), and equipment (machinery or equipment) required to accomplish each activity that represents a major operation. The Baseline Schedule shall be resource-loaded according to the following:

a) Project-specific labor resources using “Labor” resource type as defined in the scheduling software shall be defined and assigned to indicate labor classification, trade, or crew that will perform the work. The labor Resource ID shall be unique and shall be defined using the Contract ID as a prefix followed by a unique code (e.g. C00012345C01.Pipe – Drainage Pipe Crew). Also, the Max Units/Time shall be defined for each labor resource to establish the daily availability limits. Budgeted Units shall be defined for each assignment to establish the total units of time required to perform the activity.

b) Project-specific material resources using “Material” resource type as defined in the scheduling software shall be defined and assigned to indicate re-usable material that will be used to perform the work. The material Resource ID shall be unique and shall be defined using the Contract ID as a prefix followed by a unique code (e.g. C00012345C01.CF1 – Column Forms Set #1). Also, the Max Units/Time shall be defined for each material resource to establish the daily availability limits. Budgeted Units shall be defined for each assignment to establish the total units of time required to perform the activity.

c) Project-specific equipment resources using “Non-Labor” resource type as defined in the scheduling software shall be defined and assigned to indicate equipment or machinery that will be used to perform the work. The non-labor Resource ID shall be unique and shall be defined using the Contract ID as a prefix followed by a unique code (e.g. C00012345C01.CRN – Crane). Also, the Max Units/Time shall be defined for each non-labor resource to establish the daily availability limits. Budgeted Units shall be defined for each assignment to establish the total units of time required to perform the activity.

d) Assigned resource calendars shall be defined using the Contract ID as a prefix.

xii) The project schedule software settings shall be defined according to the following Primavera P6 settings:

a) Schedule dates shall be shown in the “Month-Day-Year” date format, with 2-digit numbers for the month, day, and year (e.g. 05-01-13).

b) Duration type for all activities shall be specified as “Fixed Duration & Units”.

c) The baseline for Earned Value calculations shall be specified as "Project Baseline".

d) The Earned Value technique for computing performance percent complete for the entire project WBS hierarchy shall be specified as "Custom percent complete", with a percent complete value of 20.

e) The "Link Budget and At Completion Cost for not started activities" checkbox in the Project Details Calculation tab shall be marked.

f) The "Reset Remaining Cost and Units to Original" in the Project Details Calculation tab shall be specified.

g) The "Subtract Actual from At Completion" under "When updating actual units or costs" in the Project Details Calculation tab shall be specified.

h) The "Recalculate Actual Units and Cost when duration % complete changes" checkbox in the Project Details Calculation tab shall be unmarked.

i) The "Update units when costs changes on resource assignments" checkbox in the Project Details Calculation tab shall be marked.

j) The "Link Actual and Actual This Period Units and Cost" checkbox in the Project Details Calculation tab shall be marked.

k) Specify "Retained Logic" in the Scheduling Options dialog box for scheduling progressed activities.

l) Specify "Longest Path" in the Scheduling Options dialog box for defining critical activities.

m) Specify "Finish Float = Late Finish – Early Finish" in the Scheduling Options dialog box as the schedule calculation option to compute total float.

xiii) The project schedule shall be calculated using the precedence diagram network logic method (PDM) and the Critical Path Method (CPM). The use of resource-leveling to determine sequence, order, or timing of the activities is not allowed and shall be cause for rejecting the schedule.

2. **Baseline Schedule Narrative**: A Baseline Schedule narrative describing Design-Builder's overall plan to accomplish the Work, as reflected on the Baseline Schedule including, as applicable:

   i) Project milestones including, as applicable Contract milestones and other key events such as start/finish dates for each major phase or stage of the project, major traffic switches, etc.

   ii) Work to be performed by the Department and other involved parties, including when the work must be performed.

   iii) The proposed overall sequence of Work, including where the work will begin and how the work will progress.

   iv) A description of the project critical path (based on the longest path).

   v) Scheduling assumptions including, the proposed means and methods, anticipated daily production rates, and general procedures for accomplishing major operations that are expected to drive the schedule.

   vi) A log identifying the schedule constraints used in the Baseline Schedule and reason for using each constraint.

   vii) A description of the project calendar(s) used in the Baseline Schedule, identifying the Calendar ID, standard number of work days per week, number of shifts per day, and number of hours per day as well as the anticipated number of non-working days per month for each calendar with considerations, as applicable, for holidays, normal weather conditions; as well as for seasonal or other known or specified restrictions (i.e. traffic, local events, environmental, permits, utility, etc.).

   viii) The Contractor's resource plan indicating the number of crews, crew make-up, and major equipment needed to accomplish the Work as planned. The resource plan shall also describe how Design-Builder plans on meeting the resource requirements.

   ix) A log of the applicable DBE participation activities in the schedule for which the Design-Builder intends to claim credit for attaining the DBE goal required in the Contract. The list shall indicate the proposed start/finish dates and durations of the DBE participation activities.

   x) Any known or foreseeable issues that may impact the schedule. Also, describe how the issues will impact the schedule and any actions taken or needed to avoid or mitigate the impact.

3. **<u>Baseline Earned Value Schedule</u>**: A Baseline Earned Value Schedule showing Design-Builder's anticipated monthly earnings for the entire Project. The Baseline Earned Value Schedule submission shall include:

   i) An Activity Cost-loading Report (ACR), showing a breakdown of quantities and costs for each activity. The ACR shall be grouped by pay items and sorted by activity ID showing:

      a) For each activity the Activity ID, Activity Name, Price/Unit, Budgeted Unit (quantity), Budgeted Cost, Actual Cost, Remaining Cost, and At Completion Cost.

      b) Pay item sub-totals of the budgeted units and costs for associated activities.

      c) The overall total budgeted cost for the Project.

   ii) An Earned Value Schedule using the VDOT Form C-13CPM, which shall be based on monthly costs data generated from the Baseline Schedule.

C. Schedule Updates – On or before the tenth (10th) day of each month and as part of the monthly reports required by Section 11.1.9 of Part 3 of the Agreement, Design-Builder shall submit to Department, for its review and approval, an update of the Baseline Schedule (**"Schedule Update"**). The Schedule Update shall reflect the current status of the Project and the plan to complete the remaining work as of the first (1st) day of the month (data date). If Department does not approve such submission, Design-Builder shall revise and resubmit a Schedule Update to Department within seven (7) calendar days of its receipt of Department's comments on such submission. The Schedule Update submission shall consist of:

1. **<u>Schedule Update</u>**: A Schedule Update showing the as-built status of completed and ongoing activities; as well as the sequence and dates during which the remaining activities are scheduled to be completed as of the data date. The Schedule Update shall be based on the most recent approved Schedule and shall be prepared according to the following:

   i) All activities that are completed prior to the current data date shall show actual start and finish dates. All on-going activities shall show an actual start date and remaining duration to indicate the amount of time required to complete the remaining work as of the current data date.

   ii) Activity percent complete for on-going activities shall be based on amount of work completed as of the current data date relative to the total amount of work planned.

iii) Actual units and cost for each assigned work item resource shall be updated based on the 20-80 earned value progress rules (i.e. 20% at initiation and 100% at completion), in accordance with Part 4, Article 6, and Section 6.2.

iv) Activity logic shall be modified as necessary to correct out-of-sequence progress for on-going and remaining activities to reflect the Design-Builder's current plan for completing the remaining work.

v) The project schedule shall be calculated using the current data date.

2. **Schedule Update Narrative**: A Schedule Update Narrative describing the current status of the project, any deviations from scheduled performance, and any changes in Design-Builder's work plan, and the current work plan for accomplishing the remaining work as of the data date. The Schedule Update Narrative shall include a description of:

i) The current status of project milestones including the Contract fixed completion date. It shall also describe any deviations from the date(s) specified in the Contract. If a milestone activity is scheduled to occur later than the date specified in the Contract, provide an explanation stating why the milestone date is forecasted to occur late. Also, describe any actions taken or proposed to correct the delay.

ii) The current status of the Project in terms of progress earnings percent complete based on the actual total earnings to date relative to the current approved Contract value; as well as any progress deficiencies relative to planned progress as indicated on the SOR. If progress is falling behind, describe reasons for the deficiency and any actions taken or proposed to correct the progress deficiency.

iii) The project critical path and any deviations from the SOR.

iv) The work performed since the previous Schedule Update and any deviations from the work scheduled.

v) Any major changes in the Contractor's work plan in terms of sequence of construction, shifts, means and methods, manpower, equipment, or materials.

vi) Any changes made to the SOR since the previous submission. A Claim Digger report (or equivalent) may be used to identify the changes.

vii) Number of days lost due to adverse weather or other factors during the current update period. Provide a list of the lost days, including a description and start/finish times of the weather event or factor;

activities affected and how the activities were affected, and any impacts on the critical path or project milestones. Also, describe any actions taken or proposed to mitigate any resulting delays.

viii) The status of pending issues such as access, permits, conflicts with other related or adjacent work, Work Orders, time extension requests, etc.

ix) Any problems encountered or anticipated since the previous submission, including an explanation of any corrective actions taken or required to mitigate or avoid the effects.

x) Work planned for the next update period and any actions needed to be taken by the Department or other involved parties.

3. **Schedule Update Earned Value**: A Schedule Update Earned Value showing the actual progress earnings to date and the projected earnings for each remaining month, as of the data date. The Schedule Update Earned Value submission shall include:

   i) An Activity Cost-loading Report (ACR) showing the updated cost data in the current Schedule Update as of the data date.

   ii) An updated Form C-13CPM showing the actual earnings to date and projected monthly earnings for the remaining periods as of the data date based on cost data generated from the current Schedule Update.

D. Revised Baseline Schedule – If Department believes that the Work is being performed significantly different from the SOR, or major modifications in logic, activity duration, manpower, or cost are necessary, or are required to incorporate approved changes in the Work, it will submit a written request to Design-Builder. Design-Builder shall respond in writing within seven (7) days, either agreeing with Department's proposed revision, and henceforth providing a **"Revised Baseline Schedule"**, as required by the VDOT Project Manager, or providing justification why the requested revisions should not be accomplished. If revisions cannot be agreed upon either through written correspondence or subsequent meetings, Department and Design-Builder shall agree to attempt to resolve the issues through the dispute resolution process of Article 10 in the General Conditions of Contract. If the Department and the Design-Builder cannot agree on the proposed revisions, the Design-Builder shall proceed under the previously approved Baseline Schedule. At no time shall Design-Builder continue to reflect items of non-concurrence from Department in the Schedule Updates. The Revised Baseline Schedule shall be prepared and submitted in the form of a Baseline Schedule, according to Section 2.B above, except it shall reflect the current status of the completed and on-going activities and actual earnings to date as of the current data date.

Upon approval by the Department, the Revised Baseline Schedule shall replace any previously approved Baseline Schedule as the SOR for the remainder of the Project.

E. Final As-built Schedule – As part of its submission of Final Application for Payment, Design-Builder shall submit the final Schedule Update **(Final As-built Schedule)**. The Final As-built Schedule shall show the actual start and finish dates for all activities in the schedule. Design-Builder shall certify in writing that the Final As-built Schedule accurately reflects the dates on which all activities contained in the schedule were actually performed. The Final As-built Schedule shall be submitted in the form of a Schedule Update according to Section 11.1.5 above.

3. Schedule Submittal Format and Reports

Unless otherwise approved in writing by the VDOT Project Manager, Design-Builder shall submit for each Preliminary Schedule, Baseline Schedule, Schedule Update, or Baseline Revision Schedule submission, the following submittal items and reports, in the formats specified below. Each electronic file submittal shall have a unique file name prefixed by the Contract ID to identify the Contract and type, number, item, and data date of the submission (e.g. C00012345DB01_B01_01-01-13.xer, C00012345DB01_B01_Narrative_01-01-13.pdf, C00012345DB01_B01_FormC-13CPM_01-01-13.xlsx, etc.). The submittals shall include.

1. A transmittal letter to the VDOT Project Manager, identifying the date of submittal and which Schedule is being submitted for review.

2. Two (2) sets of data compact disks ("CD") containing a backup copy of the working schedule in the Primavera proprietary exchange format ("XER") file format; as well as other required electronic file submittals as defined in Section11.1.8.4 below. Each CD shall be labeled to indicate the Contract ID, type of submission, filename, and data date.

3. Two (2) sets of paper copies of the following schedule reports:

    i) Schedule calculation log.

    ii) A legible time-scaled bar-chart plot of the Schedule, organized by WBS, to show for each activity the Activity ID, Activity Name, Original Duration, Remaining Duration, Start and Finish dates, Activity Percent Complete, and Total Float. The bar-chart plot shall identify the project critical path (longest path).

4. Electronic file copies by email of the following:

    i) A backup copy of the working schedule in "XER" file format.

    ii) A copy of the time-scaled bar-chart plot of the project schedule in "PDF" file format.

iii) A tabular Predecessor and Successor Report (PSR) in "PDF" file format to show the predecessors and successors for each activity. The PSR shall be sorted by WBS and in ascending order by Activity ID and shall show for each activity:

a) Activity ID;

b) Activity Name;

c) Original Duration;

d) Remaining Duration;

e) Early Start;

f) Early Finish;

g) Late Start;

h) Late Finish;

i) Free Float;

j) Total Float;

k) Critical ("Yes" or "No");

l) For each predecessor/successor activity, show the Activity ID, Activity Name, Relationship Type, Lag, Free Float, Total Float, Driving ("Yes" or "No"), and Critical ("Yes" or "No").

iv) A copy of the schedule narrative in "PDF" file format.

v) A copy of the Activity Cost-loading Report ("ACR") in "PDF" file format.

vi) A working file copy of the Earned Value Schedule (Form C-13CPM) in "xls" or "xlsx" file format.

vii) A copy of the Earned Value Schedule S-Curve in "PDF" file format.

4. Monitoring the Work and Assessing Progress

The VDOT Project Manager will monitor the Work regularly and will assess progress of the Work monthly relative to the SOR to identify deviations from Design-Builder's scheduled performance and to determine if progress of the Work is satisfactory according to the following:

1. **Monthly Progress Meetings** – At the monthly progress meeting held in accordance with Part 4 General Conditions, Article 2, Section 2.1.8, Design-Builder shall furnish a detailed 4-week look-ahead schedule based on the current schedule update and shall discuss the current status of the project, on-going work, and work planned for the following four (4) weeks.

2. **Progress Evaluation** – Progress will be evaluated by the VDOT Project Manager at the time of the monthly progress pay application on the basis of the Design-Builder's latest approved Schedule Update. The Design-Builder's actual progress will be considered unsatisfactory if any of the following conditions occur.

   i) The actual total earnings percentage for work completed to date, based on the current Pay Application, falls behind the anticipated cumulative late earnings percentage indicated in the SOR by one (1) percent or more.

   ii) The current projected completion date of a Contract milestone is more than fourteen (14) days after the milestone completion date specified in the Agreement, as applicable.

   iii) The current projected completion date of the project is more than thirty (30) days after the lattermost of the Final Completion date or its extension.

3. **Progress Deficiency and Schedule Slippage** – When a monthly progress evaluation shows that the actual progress of the Work is unsatisfactory, the VDOT Project Manager will issue a written notice of unsatisfactory performance to the Design-Builder. Within 14 days from the date of receipt of the VDOT Project Manager's notice, Design-Builder shall respond by submitting a written statement describing any actions taken or proposed by the Design-Builder to correct the progress deficiency. If the Design-Builder's response includes a proposed recovery plan, the current progress schedule update shall be modified accordingly to show the Design-Builder's proposed recovery plan. Design-Builder may submit to the VDOT Project Manager a written explanation and supporting documentation to establish that such delinquency is attributable to conditions beyond its control. If the VDOT Project Manager approves the Design-Builder's recovery plan, the modified progress schedule update showing the recovery plan will be treated as the current update and will not replace the SOR.

   If the Design-Builder fails to respond within the time required, or the response is unacceptable, its prequalification status may be changed as provided in Section 102.01 of Part 5, and the Design-Builder may be temporarily disqualified from bidding on contracts with the Department as provided in Section 102.08 of Part 5, if progress remains unsatisfactory at the time of preparation of the next monthly progress estimate. The VDOT Project Manager may postpone taking these actions when a time extension is under consideration.

5. Schedule Impact Analysis (SIA)

In the event of an excusable delay that extends the completion date of the project beyond the Final Completion date, the Design-Builder shall submit a request for an adjustment to the Agreement within the time period specified in Article 8 of Part 4 – General Conditions, unless directed otherwise in writing by the Engineer. For prospective delays the Contractor shall prepare and submit a SIA based on the TIA method. For retrospective delays the

Contractor shall prepare and submit a SIA based on the Contemporaneous Impact Analysis method. The Contractor shall submit along with its request for an adjustment to the Contract a SIA statement and applicable SIA schedules in accordance with the following.

1. **SIA Statement** – The SIA statement shall include the following.

    i) A description of the delay event, including time, date, and location of the event, if appropriate.

    ii) An explanation of why the delay constitutes a change to the Agreement, including references to applicable portions of the Contract.

    iii) A description of the activities or work items affected and any impact on the project critical path, milestones, or completion date of the project, as applicable.

    iv) A description of any shifts in the project critical path and the reasons for the shifts for each successive schedule update contemporaneous with the delay event relative to the preceding schedule update, as applicable.

    v) A SIA summary showing the data date and calculated completion dates for all applicable milestones and the project completion date for each successive SIA schedule, including as applicable, the SOR, pre-delay unimpacted schedule, any contemporaneous monthly schedule updates, and the post-delay impacted schedule. The SIA summary shall also show any incremental schedule gains or slippages on the project completion date for each SIA schedule. The SIA summary shall also categorized the schedule gain/slippage as excusable compensable, excusable non-compensable, or non-excusable.

    vi) A description of any revisions made to the SIA schedules since the pre-delay schedule update, including added or deleted activities, and changes in logic, activity durations, calendars, and constraints; as well as the reasons for the revisions.

    vii) Any actions taken or needed to avoid or mitigate the delay impacts.

    viii) Any additional information needed to justify the request or facilitate timely resolution of the issue.

2. **SIA Schedules** – The SIA schedule submission shall include the following.

    i) The SOR in place prior to the date the delay event started, showing the project critical path and any applicable milestones.

ii) The most recently accepted project schedule update in place prior to the date the delay event started, showing the current status of the project, including any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the SOR.

iii) A pre-delay unimpacted schedule, which shall be based on the most recently accepted project schedule update in place prior to the start date of the delay event updated to show the current status of the project, as of the date the delay event started. The pre-delay unimpacted schedule shall also show any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the most recently accepted project schedule update.

iv) Any contemporaneous monthly schedule updates submitted during the delay event, showing the current status of the project, including any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the previous monthly schedule update.

v) A post-delay impacted schedule, showing the delay events, affected activities, and the current status of the project, including any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the pre-delay unimpacted schedule.

Date: 2/6/2014

Exhibit 11.1.10

Correspondence Tracking Log for Project Records

VDOT Project: XYZ Project
Project:
CONTRACT ID #:

CORR	Correspondence
EMAIL	Email
MEET	Meeting Minutes
MEMO	Memo (Internal)
MISC	Miscellaneous Files

ID Number	Process	Description / Issue	Pay Package Reference	Date Received or Sent	From	To	Status (Open/ Closed	Record File Location Or Insert Hyperlink (ctrl + k)
C00011111DB00-1	CORR	VDOT to Design-Builder - Notice of Intent Letter	n/a	5/9/2007	VDOT	Design-Builder	Closed	
C00011111DB00-2	CORR	Performance and Payment Bonds	n/a	5/11/2007	Design-Builder	AAA	Closed	
C00011111DB00-3	CORR	Certificate of Insurance	n/a	5/15/2007	Design-Builder	CCC	Closed	
C00011111DB00-4	CORR	SWPP Certification Permit	n/a	5/15/2007	Design-Builder	Design-Builder	Closed	
C00011111DB00-5	CORR	C112 - Binding Agreements	n/a	5/17/2007	Design-Builder	BBB	Closed	
C00011111DB00-6	CORR	VDOT Request for Design-Builder Preconstruction Meeting	n/a	6/9/2007	VDOT	Design-Builder	Closed	
C00011111DB00-7	CORR	Design-Builder to VDOT - Escrow Document Review Meeting	n/a	6/15/2007	Design-Builder	VDOT	Closed	
C00011111DB00-8	CORR	VDOT to Design-Builder - CTB Award	n/a	6/21/2007	VDOT	Design-Builder	Closed	
C00011111DB00-9	MISC	Design-Builder Questions Regarding Final Contract Document Timeline	n/a	6/22/2007	Design-Builder	VDOT	Closed	
C00011111DB00-10	CORR	Design-Builder to VDOT - Preconstruction Meeting	n/a	7/17/2007	Design-Builder	VDOT	Closed	
C00011111DB00-11	CORR	VDOT to Design-Builder - Final Contract Documents	n/a	7/18/2007	VDOT	Design-Builder	Closed	
C00011111DB00-12	MEET	Preconstruction Meeting Minutes	n/a	7/23/2007	Design-Builder	VDOT	Closed	
C00011111DB00-13	CORR	VDOT to Design-Builder - Notice to Proceed	n/a	8/2/2007	VDOT	Design-Builder	Closed	
C00011111DB00-14	CORR	Design-Builder to VDOT Permit Application Request	1	8/2/2007	Design-Builder	VDOT	Closed	
C00011111DB00-15	EMAIL	Geotechnical Investigations - Preliminary Data	2	8/8/2007	Design-Builder	Design-Builder	Closed	
C00011111DB00-16	CORR	Design-Builder to VDOT - Flood Plain Study Inquiry	3	8/9/2007	Design-Builder	VDOT	Closed	
C00011111DB00-17	CORR	Payment Requisition # 1 - First submission	1,2,3	8/10/2007	Design-Builder	VDOT	Closed	
C00011111DB00-18	CORR	Payment Requisition # 1 - Second submission	1,2,3	8/13/2007	Design-Builder	VDOT	Closed	
C00011111DB00-19	MEMO	VDOT Acknowledgement of Receipt of Preliminary Roadway Plans	4	8/14/2007	VDOT	Design-Builder	Closed	
C00011111DB00-20	MEMO	VDOT to Design-Builder - ROW Plan Submittal 1 Comments	5	8/22/2007	VDOT	Design-Builder	Closed	
C00011111DB00-21	CORR	VDOT ID Outstanding Issues to Design-Builder	5	8/24/2007	VDOT	Design-Builder	Closed	
C00011111DB00-22	CORR	VDOT to Design-Builder - Comments Regarding Preliminary Roadway Plans	4	9/5/2007	VDOT	Design-Builder	Closed	
C00011111DB00-23	CORR	Payment Requisition # 2	4,5	9/10/2007	Design-Builder	VDOT	Closed	
C00011111DB00-24	MEMO	NVRPA Comments - Bridge Details	6	9/16/2007	NVRPA	Design-Builder	Closed	
C00011111DB00-25	CORR	Design-Builder to VDOT - Outstanding Issues	n/a	9/18/2007	Design-Builder	VDOT	Closed	
C00011111DB00-26	CORR	FWD: FOIA Request Mrs. Smith	n/a	9/20/2007	VDOT	Design-Builder	Closed	
C00011111DB00-27	CORR	FOIA Response to Mrs. Smith	n/a	9/23/2007	Design-Builder	VDOT	Closed	
C00011111DB00-28	MEMO	Memo to File - Reporting Requirements	n/a	9/25/2007	DDD	File	Closed	
C00011111DB00-29	CORR	Conflict of Interest Request for Determination	n/a	9/27/2007	OAG	VDOT	Closed	
C00011111DB00-30	CORR	VDOT Acknowledgement of Receipt of Final Roadway Plans	7	10/4/2007	VDOT	Design-Builder	Closed	
C00011111DB00-31	CORR	Payment Requisition # 3	6,7	10/10/2007	Design-Builder	VDOT	Closed	
C00011111DB00-32	CORR	VDOT to Design-Builder - Comments Regarding Final Roadway Plans	7	10/17/2007	VDOT	Design-Builder	Closed	
C00011111DB00-33	MEET	Permit Coordination Meeting Minutes	8	10/26/2007	VDOT	Design-Builder	Closed	
C00011111DB00-34	CORR	Town of Leesburg Comment - Utililty Relocation Plans	9	10/27/2007	Design-Builder	VDOT	Open	

SPECIAL PROVISION COPIED NOTE FOR
POLYMER MODIFIED (PG 76-22 and PG 70-28)
ASPHALT CEMENT ADJUSTMENT
DESIGN-BUILD PROJECTS

August 9, 2013

When asphalt concrete mixtures require the use of Performance Graded asphalt cement PG 76-22 or PG 70-28, the Contractor shall show in the space provided on Form C-16A included in the Price Proposal submitted by the Contractor, the f.o.b. cost per ton for asphalt cement PG 76-22 or PG 70-28 upon which bid items containing PG 76-22 or PG 70-28 were developed.

During the life of the Contract, the Contractor shall document to the Department, by invoice signed by the supplier, his cost for PG 76-22 or PG 70-28 used. The Department will then adjust payments for asphalt concrete containing PG 76-22 or PG 70-28 by the difference in the actual f.o.b. price and the f.o.b. quote submitted with the Price Proposal. Adjustments will be made at the time for partial payments for asphalt concrete containing PG 76-22 or PG 70-28 in accordance with the requirements of Section 109.08 in the Division I Amendments (Part 5) of the design-build contract.

In the event the Design-Builder fails to show on Form C-16A of the Price Proposal the f.o.b. cost per ton for asphalt cement PG 76-22 or PG 70-28 upon which material items containing PG 76-22 or PG 70-28 were developed, or during the life of the contract fails to provide the appropriate invoices with the Current Index for asphalt cement PG 76-22 or PG 70-28 for the applicable calendar month during which the work was performed, the Department will base the price adjustment for asphalt concrete containing PG 76-22 or PG 70-28 asphalt cement on the indexes for PG 64-22 in accordance with the Special Provision For Asphalt Material Price Adjustment Design-Build Projects included in the Contract.

PART 4

2013 General Conditions of Contract Between Department and Design-Builder

(Date of Standard General Conditions: July 2013)

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Article 1
General

1.1 Mutual Obligations

1.1.1 Department and Design-Builder commit at all times to cooperate fully with each other, and proceed on the basis of trust and good faith, to permit each party to realize the benefits afforded under the Contract Documents.

1.2 Basic Definitions

1.2.1 For the purposes of the Contract Documents, the following words and terms shall have the meanings specified below (other words and abbreviations that have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings), provided, however, that capitalized terms defined in other Contract Documents, including but not limited to the Agreement, shall have the meanings specified in such document.

.1 *Agreement* refers to the executed Lump Sum Design-Build Agreement Between Department and Design-Builder.

.2 *Agreement Date* is the date that the Agreement is executed by both parties.

.3 *Business Day(s)*, whether capitalized or not, means any day(s) other than a Saturday, Sunday, Commonwealth of Virginia holiday, or a day when the New York Stock Exchange or banks are authorized or required to close in New York, New York or Richmond, Virginia.

.4 *Contract Documents* refer to those documents identified in Article 2 of the Agreement.

.5 *Contractor* shall mean Design-Builder.

.6 *Day* or *Days*, whether capitalized or not, shall mean calendar days unless otherwise specifically noted in the Contract Documents.

.7 *Department's Project Criteria* are developed by or for Department to describe Department's program requirements and objectives for the Project, including use, space, price, time, site and expandability requirements, as well as submittal requirements and other requirements governing Design-Builder's performance of the Work. Department's Project Criteria are included in the Request for Proposals and may include conceptual documents, design criteria, performance requirements and other Project-specific technical materials and requirements.

.8 *Design Consultant* is a qualified, licensed design professional, eligible to provide professional engineering and/or land surveying services in the Commonwealth of Virginia, who is not an employee of Design-Builder, but is retained by Design-Builder, or employed or retained

by anyone under contract with Design-Builder or Subcontractor, to furnish design services required under the Contract Documents.

.9 *Engineer* shall mean the Department's Chief Engineer, who acts directly or through his duly authorized representative, the representative acts within the scope of the particular duties assigned to him or the authority given to him.

10. *Final Acceptance* is achieved when the Design-Builder receives written notice from the Department that the Work is finally complete as set forth in Section 6.6 below.

.11 *General Conditions of Contract (or General Conditions)* refer to this document.

.12 *Governmental Approval* means any authorization, consent, approval, license, lease, ruling, permit, certification, exemption, or registration by or with any Governmental Unit.

.13 *Governmental Unit* means any national, state or local government, any political subdivision thereof, or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body or other entity having jurisdiction over the performance of the Work, the Project or the Parties; provided, however, that the term "Governmental Unit" shall not be construed to include the Department.

.14 *Hazardous Environmental Condition* means the presence at the Site of Hazardous Materials in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto on connection with the Work.

.15 *Hazardous Materials* are any materials, wastes, substances and chemicals deemed to be hazardous under applicable Legal Requirements, or the handling, storage, remediation, or disposal of which are regulated by applicable Legal Requirements, including Hazardous Waste.

.16 *Hazardous Waste* means a waste that is: (a) listed as a hazardous waste in 40 CFR Section 261.31 to 261.33; or (b) exhibits one of the following characteristics: ignitability, corrosivity, reactivity or toxicity, or is otherwise defined as a hazardous waste by the Legal Requirements.

.17 *Interim Milestone(s) is* completion and delivery date(s) for parts of the Work specified by the Contract Documents.

.18 *Known Pre-Existing Hazardous Materials* means Hazardous Materials identified in Part 2 (Project Technical Information and Requirements) of the RFP.

.19 *Legal Requirements* are all applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any Governmental Unit.

.20 *Pre-Existing Hazardous Materials* means Known Pre-Existing Hazardous Materials and Unknown Pre-Existing Hazardous Materials.

.21 *Proposal* means that document submitted by Design-Builder pursuant to the RFP and identified in Article 2 of the Agreement.

.22 *QA Manager* (QAM) is Design-Builder's designee who shall be from an independent firm that has no involvement in construction operations for the Project, and shall be responsible for the quality assurance (QA) inspection and testing of all materials used and Work performed on the Project, to include monitoring of the contractor's quality control (QC) program. The QAM will ensure that all work and materials, testing, and sampling are performed in conformance with the contract requirements, and the "approved for construction" plans and specifications. This individual shall be a registered, licensed, Professional Engineer in the Commonwealth of Virginia.

.23 *QA/QC Plan* is a plan that details how the Design-Builder will provide quality assurance (QA) and quality control (QC) for both the design and construction elements of the project, obtain samples for Design-Builder quality control testing, perform tests for Design-Builder quality control, provide inspection, and exercise management control (e.g. quality assurance testing) to ensure the work conforms to the Contract Documents.

24. *Remedial Actions* means the management, treatment, handling, storage, monitoring, removal, transport or disposal measures carried out by Design-Builder with respect to Hazardous Materials in accordance with Section 4.1.1.2 of the General Conditions of Contract.

25. *Remedial Action Plan* means the plan developed by Design-Builder with respect to Hazardous Materials encountered by Design-Builder.

.26 *Request for Proposals* (RFP) is the document identified in Article 2 of the Agreement, inclusive of all of its parts, addenda, Department's Project Criteria, and any other document that is attached thereto or incorporated therein by reference.

.27 *Request for Qualifications* (RFQ) means all documents, whether attached or incorporated by reference, utilized for soliciting interested persons to apply for prequalification. The RFQ is the first phase of a two-phase selection process for the purpose of inviting interested Offerors to submit qualifications for a project.

.28 *RFP Documents* refer to those documents identified in Part 1 of the RFP, Instructions for Offerors.

.29 *Separate Contractor* means a contractor retained by the Department other than the Design-Builder to perform work or to provide services or materials in connection with the Project.

.30 *Site* is the land or premises on which the Project is located.

.31 *Standard Drawings* are the applicable drawings in the Virginia Department of Transportation *Road and Bridge Standards* in effect as of the Agreement Date.

.32 *Standard Specifications* are the Virginia Department of Transportation *Road and Bridge Specifications* in effect as of the Agreement Date.

.33 *State* means the Commonwealth of Virginia.

.34 *State Highway* means any highway designated a State Highway pursuant to Title 33.1, Chapter 1, Sections 25, 48 and 67, Code of Virginia.

.35 *State Indemnitee* means and includes the Department, the Commissioner, the Commonwealth Transportation Board, the State and all elected representatives, appointed officials, commissioners, officers, members, employees, authorized agents and authorized representatives of any of them.

.36 *Subcontract* means any and all agreements between Design-Builder and its Design Consultants, Subcontractors and other agreements between Design Consultants or Subcontractors and their respective Sub-subcontractors (and/or any other lower tier subcontractors), it being the intent that all this term encompasses all agreements deriving directly or indirectly from Design-Builder, in connection with the performance of the Work.

.37 *Subcontractor* is any person or entity retained by Design-Builder as an independent contractor to perform a portion of the Work and shall include materialmen and suppliers, but shall not be deemed to include Design Consultants.

.38 *Sub-Subcontractor* is any person or entity retained by a Subcontractor as an independent contractor to perform any portion of a Subcontractor's Work and shall include materialmen and suppliers, but shall not be deemed to include Design Consultants.

39. *Unknown Pre-Existing Hazardous Materials* means any Hazardous Materials present on the Site prior to the Agreement Date which are not Known Pre-Existing Hazardous Materials.

.40 *Work* is comprised of all Design-Builder's design, construction and other services required by the Contract Documents, including procuring and furnishing all materials, equipment, services and labor reasonably inferable from the Contract Documents.

.41 *Work Breakdown Structure* (WBS) is a hierarchically-structured grouping of project elements that organizes and defines the total scope of the Project. Each descending level is an increasingly detailed definition of a project component. Project components may be products (a product-oriented WBS) or tasks (a task-oriented WBS).

.42 *Work Package* is a deliverable at the lowest level of the WBS, and may be divided into activities and used to identify and control work flows in the organization.

Article 2
Design-Builder's Services and Responsibilities

2.1 General

2.1.1 Design-Builder's Representative shall be reasonably available to Department and shall have the necessary expertise and experience required to supervise the Work. Design-Builder's Representative shall communicate regularly with Department and shall be vested with the authority to act on behalf of Design-Builder. Design-Builder's Representative may be replaced only by the mutual agreement of Department and Design-Builder.

2.1.2 Design-Builder will attend a kick-off meeting with Department to discuss issues affecting the administration of the Work and to implement the necessary procedures, including those relating to submittals and payment, to facilitate the ability of the parties to perform their obligations under the Contract Documents. Department will notify Design-Builder of the time and location of the kick-off meeting. All Key Personnel shall participate in this kick-off meeting.

2.1.3 Design-Builder shall provide Department with the Preliminary Schedule, Baseline Schedule, Schedule Updates, Schedule Revisions, monthly reports and Final As-Built Schedule set forth in Section 11.1 of the Agreement.

2.1.4 Design-Builder shall, at its sole cost and expense, perform all services associated with the acquisition of any other properties that are necessary, or that Design-Builder deems necessary, to enable Design-Builder to perform the Work. The Design-Builder will not be responsible for the right-of-way acquisition cost. The term "right-of-way acquisition cost" means the actual purchase price to a landowner for right of way, including fees, any and all easements, and miscellaneous fees associated with closing as part of the Project.

2.1.5 Design-Builder shall provide management for the Work in accordance with the organization chart set forth in the Proposal. Design-Builder acknowledges the importance of its "Key Personnel". "Key Personnel" shall include the Design-Build Project Manager, Design Manager, QA Manager, Construction Manager, and any other positions specifically identified in the Department's RFQ/RFP or the Proposal as "Key Personnel" (collectively, "**Key Personnel**"). None of the Key Personnel may be withdrawn from the Project without prior written approval of Department, with it being understood and agreed that Design-Builder will provide Department with at least thirty (30) days written notice of any request to withdraw any Key Personnel. Design-Builder shall remove or replace, or have removed or replaced, any personnel performing the Work if Department has a reasonable objection to such person.

2.1.6 If Design-Builder wishes to deviate from the right-of-way limits shown on the RFP Conceptual Plans included in Part 2 (Project Technical Information and Requirements), such deviations will be subject to Department's prior written approval. It will be the responsibility of Design-Builder to coordinate directly with the affected property owners to acquire such right-of-way. Design-Builder shall be responsible for assuming all risks associated with exceeding such right-of-way limits, including any public hearings and any NEPA document re-evaluation that

may be required, and no modifications to the Contract Price or Contract Time(s) will be granted or considered.

2.1.7 Design-Builder shall submit its QA/QC Plan to VDOT for review and approval at the kick-off meeting referenced in Section 2.1.2 above. At the kick-off meeting, Design-Builder's Design Manager and QA Manager shall provide a presentation of the QA/QC Plan for design and construction, using project-related scenarios

2.1.8 Design-Builder shall coordinate and lead all monthly progress meetings. During such meetings, progress during the prior month shall be reviewed. Design-Builder shall collect information from Design Consultants and any key Subcontractors responsible for work completed during the specified duration and work scheduled during the upcoming reporting duration. The monthly meetings shall be attended by all Key Personnel, as well as any other individuals that Department may require. Meetings will occur monthly beginning the month after Design-Builder's receipt of Department's Notice to Proceed. Design-Builder shall be responsible for preparing, maintaining and distributing minutes of the meetings to all attendees for review. The meeting minutes shall be provided to the Department within two (2) days of the monthly progress meeting.

2.1.9 Design-Builder shall perform the Work in accordance with: (a) the Contract Documents; (b) applicable Legal Requirements and Governmental Approvals; and (c) the degree of skill and judgment prevailing on the Agreement Date that is expected to be exercised by prudent, skilled and experienced contractors and design professionals on similar projects in the Commonwealth of Virginia, taking into consideration safety, operational requirements, level of service, and life cycle costs. Notwithstanding the above, if any of (a), (b) or (c) in the preceding sentence conflict, Design-Builder shall be obligated to perform the Work in accordance with the more stringent standard.

2.2 Scope Validation and Identification of Scope Issues

2.2.1 **Scope Validation Period**. The term "**Scope Validation Period**" is the period of time that begins on Design-Builder's receipt of Department's Notice to Proceed and extends for one hundred twenty (120) days from such date of receipt, unless otherwise stated in Exhibit 1. During the Scope Validation Period, Design-Builder shall thoroughly review and compare all of the then-existing Contract Documents, including without limitation the RFP Documents and the Proposal, to verify and validate Design-Builder's proposed design concept and identify any defects, errors, or inconsistencies in the RFP Documents that affect Design-Builder's ability to complete its proposed design concept within the Contract Price and/or Contract Time(s) (collectively referred to as "**Scope Issues**"). The term "Scope Issue" shall not be deemed to include items that Design-Builder should have reasonably discovered prior to the Agreement Date.

2.2.2 **Scope Validation Period for Non-Accessible Areas of the Site**. The Parties recognize that Design-Builder may be unable to conduct the additional geotechnical evaluations contemplated by Section 4.2.2 below because it will not have access to certain areas of the Site within the Scope Validation Period set forth in Section 2.2.1 above. Design-Builder shall notify

Department at the meeting set forth in Section 2.1.2 of all such non-accessible areas and the dates upon which such areas are expected to become accessible. If Department agrees that such areas are non-accessible, then, for the limited purpose of determining Scope Issues that directly arise from geotechnical evaluations for such areas, the term "**Scope Validation Period**" shall be deemed to be the thirty (30) day period after the date the specified area becomes accessible for purposes of conducting the geotechnical evaluation.

2.2.3 Submission Requirements for Scope Issues. If Design-Builder intends to seek relief for a Scope Issue, it shall promptly, but in no event later than the expiration of the Scope Validation Period, provide Department in writing with a notice ("General Notice") of the existence of such Scope Issue, which General Notice shall generally explain the basis for such Scope Issue. Within twenty-one (21) days of the General Notice of a Scope Issue, Design-Builder shall provide Department with documentation that specifically explains its support for the Scope Issue ("Supporting Documentation"), which Supporting Documentation shall include, among other things: (a) the assumptions that Design-Builder made during the preparation of its proposal that form the basis for its allegation, along with documentation verifying that it made such assumptions in developing its proposal; (b) an explanation of the defect, error or inconsistency in the RFP Documents that Design-Builder could not have reasonably identified prior to the Agreement Date: and (c) the specific impact that the alleged Scope Issue has had on Design-Builder's price and time to perform the Work. For the avoidance of doubt: (1) Design-Builder shall not be entitled to raise in its Supporting Documentation any Scope Issues that were not previously addressed in a General Notice; and (2) Design-Builder shall have no right to seek any relief for any Scope Issues that have not been specifically identified in a General Notice provided to Department during the Scope Validation Period.

2.2.4 Resolution of Scope Issues. Within a reasonable time after Department's receipt of the Supporting Documentation described in the Section 2.2.3 above, the Parties shall meet and confer to discuss the resolution of such Scope Issues. If Department agrees that Design-Builder has identified a valid Scope Issue that materially impacts Design-Builder's price or time to perform the Work, a Work Order shall be issued in accordance with Article 9 hereof. If Department disagrees that Design-Builder has identified a valid Scope Issue that materially impacts Design-Builder's price or time to perform the Work, then Design-Builder's recourse shall be as set forth in Article 10. Notwithstanding anything to the contrary in the Contract Documents or as a matter of law, Design-Builder shall have the burden of proving that the alleged Scope Issue could not have been reasonably identified prior to the Agreement Date and that such Scope Issue materially impacts its price or time to perform the Work.

2.2.5 Design-Builder's Assumption of Risk of Scope Issues. The Parties acknowledge that the purpose of the Scope Validation Period is to enable Design-Builder to identify those Scope Issues that could not reasonably be identified prior to the Agreement Date. By executing this Agreement, Design-Builder acknowledges that the Scope Validation Period is a reasonable time to enable Design-Builder to identify Scope Issues that will materially impact Design-Builder's price or time to perform the Work. After the expiration of the Scope Validation Period, with the sole exception of those Scope Issues made the subject of a General Notice during the Scope Validation Period and subject to valid requests for Work Orders in accordance with Section 2.2.3 above, the Parties agree as follows:

.1 Design-Builder shall assume and accept all risks, costs, and responsibilities of any Scope Issue arising from or relating to the Contract Documents, including but not limited to conflicts within or between the RFP Documents and Proposal;

.2 Design-Builder shall be deemed to have expressly warranted that the Contract Documents existing as of the end of the Scope Validation Period are sufficient to enable Design-Builder to complete the design and construction of the Project without any increase in the Contract Price or extension to the Contract Time(s); and

.3 Department expressly disclaims any responsibility for, and Design-Builder expressly waives its right to seek any increase in the Contract Price or extension to the Contract Time(s) for, any Scope Issue associated with any of the Contract Documents, including but not limited to the RFP Documents.

2.2.6 **Waiver of Rights**. The failure of Design-Builder to meet the submission requirements required under Section 2.2.3 above for a Scope Issue, including but not limited to the times for providing notice and documentation of the Scope Issue, shall conclusively constitute a waiver of Design-Builder's rights to seek relief for such Scope Issue.

2.2.7 **Failure of Technical Proposal to Meet Requirements of the Contract Documents**. Notwithstanding anything to the contrary in this Section 2.2 or elsewhere in the Contract Documents, Department shall have no responsibility in the event Design-Builder's Proposal fails to meet the requirements of the Contract Documents, regardless of whether: (a) Department modified the RFP Documents to permit Design-Builder to implement a technical approach; (b) Department accepted Design-Builder's Proposal; or (c) any other action or inaction of Department is alleged by Design-Builder.

2.3 Design Professional Services

2.3.1 Design-Builder shall, consistent with applicable state licensing laws, provide through qualified, licensed design professionals employed by Design-Builder, or procured from qualified, independent licensed Design Consultants, the necessary design services, including architectural, engineering, surveying, and other design professional services, for the preparation of the required drawings, specifications and other design submittals to permit Design-Builder to complete the Work consistent with the Contract Documents. All design professional services shall be performed by professionals properly licensed in the Commonwealth of Virginia and who are well-versed in the Department's design standards and practices.

2.3.2 No Design Consultant is intended to be, nor shall any Design Consultant be deemed to be, a third-party beneficiary of this Agreement. Department is intended to be and shall be deemed a third-party beneficiary of all contracts between Design-Builder and any Design Consultant. In the event that this Agreement is terminated, Design-Builder shall, upon the written demand of Department, assign such contracts to Department.

2.3.3 Design-Builder shall incorporate all obligations and understandings of the Contract Documents applicable to design services in its respective contracts with any Design Consultant,

and require that such obligations be flowed down to lower-tiered Design Consultants, including the obligations relative to ownership of the Work Product set forth in Article 4 of the Agreement.

2.4 Design Development Services

2.4.1 Design-Builder shall be responsible for the professional quality, technical accuracy, timely completion and coordination of all drawings, specifications and other design submissions required to be developed by Design-Builder under the Contract Documents and shall, without additional compensation, correct or revise any errors, omissions or other deficiencies in such design submissions.

2.4.2 Design-Builder shall, consistent with any applicable provision of the Contract Documents, provide Department with ten (10) sets of the following interim design submissions, in accordance with Part 2 (Project Technical Information and Requirements). The submissions should generally correspond to the Department's concurrent engineering process, including but not limited to: (i) Preliminary Field Inspection (PFI); (ii) Field Inspection and Right-of-Way (FI/RW); and (iii) additional interim design submissions that Department may require. On or about the time of the scheduled submissions, Design-Builder and Department shall meet and confer about the submissions, with Design-Builder identifying during such meetings, among other things, the evolution of the design and any significant changes or deviations from the Contract Documents, or, if applicable, previous design submissions. Minutes of the meetings will be maintained by Design-Builder and provided to all attendees for review. Following the design review meeting, Department shall review and provide comments on the interim design submissions (except that it will specifically approve or disapprove of the FI/RW submissions) within twenty-one (21) days after receipt of the required submissions. Design-Builder shall promptly revise and modify all such submittals so as to fully reflect all comments and shall deliver to Department revised submittals for review and comment (and approval as the case may be).

2.4.3 Design-Builder shall submit to Department Construction Documents setting forth in detail drawings and specifications describing the requirements for construction and QA/QC activities associated with such Work, in full compliance with the Contract Documents and all Legal Requirements and Governmental Approvals. The Construction Documents shall be consistent with the latest set of interim design submissions; as such submissions may have been modified in a design review meeting, as agreed upon in writing, and shall be submitted after Design-Builder has obtained all requisite Governmental Approvals associated with the Work contained in such documents. The parties shall have a design review meeting to discuss, and Department shall review and approve, the Construction Documents in accordance with the procedures set forth Section 2.4.1 above. Design-Builder shall proceed with construction in accordance with the approved Released for Construction Documents and shall submit the approved Released for Construction Documents to Department prior to commencement of Work in accordance with Part 2 (Project Technical Information and Requirements)..

2.4.4 Department's review, comment and/or approval of interim design submissions and the Construction Documents are for the purpose of establishing Design-Builder's compliance with the requirements of the Contract Documents and mutually establishing a conformed set of

Contract Documents compatible with the requirements of the Work. Department's review, comment and/or approval of any interim or final design submission (including but not limited to the Construction Documents) shall not be deemed to transfer any liability from Design-Builder to Department.

2.4.5 To the extent not prohibited by the Contract Documents or Legal Requirements, Design-Builder may, with the prior agreement of Department, prepare design submittals and Construction Documents for a portion of the Work to permit procurement and construction to proceed on that portion of the Work prior to completion of the Construction Documents for the entire Work.

2.5 Legal Requirements

2.5.1 Design-Builder shall keep fully informed of and perform the Work in accordance with all Legal Requirements. Design-Builder shall provide all notices, and execute and file the documents, statements and/or affidavits applicable to the Work as required by the Legal Requirements. Design-Builder shall permit Department's examination of any records made subject to such examination by any applicable Legal Requirements.

2.5.2 Design-Builder may request, by submission of a Work Order request, that the Contract Price and/or Contract Time(s) shall be adjusted to compensate Design-Builder for the effects of any changes in the Legal Requirements enacted after the Agreement Date, affecting the performance of the Work. Such effects may include, without limitation, revisions Design-Builder is required to make to the Construction Documents because of changes in Legal Requirements. Notwithstanding anything to the contrary, the relief afforded by this Section 2.5 shall not apply to changes in any tax laws, with Design-Builder bearing the risk of such changes.

2.6 Governmental Approvals

2.6.1 Except as identified in the Department's Governmental Approvals List, Exhibit 3.5.1, Design-Builder shall obtain and pay for all necessary Governmental Approvals required for the prosecution of the Work by any Governmental Unit. If any such Governmental Approval is required to be formally issued in the name of Department, Design-Builder shall undertake all efforts to obtain such Governmental Approvals subject to Department's reasonable cooperation with Design-Builder, including execution and delivery of appropriate applications and other documentation in forms approved by Department. Design-Builder shall deliver to Department, promptly after Design-Builder's receipt, a copy of each such Governmental Approval, with a listing of the status of all such Governmental Approvals included in the monthly reports required by Section 11.1 of the Agreement.

2.6.2 Design-Builder shall provide reasonable assistance to Department in obtaining those Governmental Approvals that are Department's responsibility, and no construction activity will commence until: (i) all Governmental Approvals required for the relevant construction activity (including any activity that may disturb the Site) have been obtained; (ii) Department has been notified that such Governmental Approvals have been obtained; and (iii) Department has, after

reviewing the validity and scope of the Governmental Approval, authorized Design-Builder to proceed.

2.6.3 Design-Builder shall ensure that the Work conforms to the requirements and stipulations of all Governmental Approvals. Any violations of or noncompliance with any Governmental Approval, including but not limited to suspensions caused by Design-Builder violating or not being in compliance with a Governmental Approval, shall be at the sole risk of Design-Builder, and shall not be a basis for adjusting the Contract Price and/or Contract Time(s).

2.7 Design-Builder's Construction Phase Services

2.7.1 Unless otherwise provided in the Contract Documents to be the responsibility of Department or a Separate Contractor, Design-Builder shall provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Design-Builder to complete construction of the Project consistent with the Contract Documents.

2.7.2 Design-Builder shall perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents, and shall maintain or cause to be maintained all licenses required of the Design-Builder or its employees in connection with the Work. Design-Builder shall at all times exercise complete and exclusive control over the means, methods, sequences and techniques of construction.

2.7.3 Design-Builder shall employ only Subcontractors who are duly licensed and qualified to perform the Work lawfully in the Commonwealth of Virginia and consistent with the Contract Documents. Design-Builder shall not use any Subcontractor to whom Department has a reasonable objection, and shall obtain Department's written consent before making any substitutions or additions to Subcontractors previously identified to Department as being members of Design-Builder's Project team, including those who may have been identified in the Proposal.

2.7.4 Design-Builder assumes responsibility to Department for the proper performance of the Work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Department and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

2.7.5 Design-Builder shall coordinate the activities of all Subcontractors. If Department performs other work on the Project or at the Site with Separate Contractors under Department's control, Design-Builder agrees to reasonably cooperate and coordinate its activities with those of such Separate Contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

2.7.6 Design-Builder shall keep the Site reasonably free from debris, trash and construction wastes to permit Design-Builder to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Upon Final Acceptance of the Work, or a

portion of the Work, Design-Builder shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit Department to occupy the Project or a portion of the Project for its intended use.

2.7.7 Design-Builder shall be responsible for the security of the Site until Final Acceptance of the Work, or a portion of the Work.

2.8 Design-Builder's Responsibility for Project Safety

2.8.1 Design-Builder recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to: (i) all individuals at the Site, whether working or visiting; (ii) the Work, including materials and equipment incorporated into the Work or stored on-Site or off-Site; and (iii) all other property at the Site or adjacent thereto. Design-Builder assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work. Design-Builder shall, prior to commencing construction, designate a Safety Representative with the necessary qualifications and experience to supervise the implementation and monitoring of all safety precautions and programs related to the Work. Unless otherwise required by the Contract Documents, Design-Builder's Safety Representative shall be an individual stationed at the Site who may have responsibilities on the Project in addition to safety. The Safety Representative shall make routine daily inspections of the Site and shall hold weekly safety meetings with Design-Builder's personnel, Subcontractors and others as applicable. Design-Builder shall provide minutes of each safety meeting to Department within five (5) days of such meeting.

2.8.2 Design-Builder shall provide, for Department's review, comment and acceptance, a Health, Safety and Welfare (HS&W) plan on or before the earlier of fifteen (15) days of Design-Builder's receipt of Department's Notice to Proceed, or twenty-one (21) days before Design-Builder intends to commence any construction-related activities at the Site. Design-Builder shall not perform any construction-related activity (including any activity that disturbs the Site) until an acceptable HS&W plan is in place.

2.8.3 Design-Builder and Subcontractors shall comply with: (i) all Legal Requirements relating to safety; (ii) Design-Builder's HS&W plan; and (iii) any Department-specific safety requirements set forth in the Contract Documents, provided that such Department-specific requirements do not violate any applicable Legal Requirement. Design-Builder will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Department's Representative and, to the extent mandated by Legal Requirements, to all Governmental Units having jurisdiction over safety-related matters involving the Project or the Work.

2.8.4 Department shall have the right to immediately suspend any or all Work if Design-Builder fails to comply with its obligations hereunder.

2.8.5 Design-Builder's responsibility for safety under this Section 2.8 is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for: (i) complying with all Legal Requirements, including those

related to health and safety matters; and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injury, losses, damages or accidents resulting from their performance of the Work.

2.9 Design-Builder's Warranty

2.9.1 Design-Builder warrants to Department that the construction, including all materials and equipment furnished as part of the construction, shall be new unless otherwise specified in the Contract Documents, of good quality, in conformance with the Contract Documents and free of defects in materials and workmanship. Design-Builder's warranty obligation excludes defects caused by abuse, damage, alterations, or failure to maintain the Work by persons other than Design-Builder or anyone for whose acts Design-Builder may be liable. Nothing in this warranty is intended to limit any manufacturer's warranty which provides Department with greater warranty rights than set forth in this Section 2.9 or the Contract Documents. Design-Builder will provide Department with all manufacturers' warranties upon Final Acceptance.

2.10 Correction of Defective Work

2.10.1 Design-Builder agrees to correct any Work that is found to not be in conformance with the Contract Documents, including that part of the Work subject to Section 2.9 hereof, within a period of one (1) year from the date of Final Acceptance of the Work or any portion of the Work, or within such longer period to the extent required by the Contract Documents or applicable Legal Requirements or Government Approvals.

2.10.2 Design-Builder shall, within seven (7) days of receipt of written notice from Department or the QA Manager that the Work is not in conformance with the Contract Documents, take meaningful steps to commence correction of such nonconforming Work, including the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If Design-Builder fails to commence the necessary steps within such seven (7) day period, Department, in addition to any other remedies provided under the Contract Documents, may provide Design-Builder with written notice that Department will commence correction of such nonconforming Work with its own forces. If Department does perform such corrective Work, Design-Builder shall be responsible for all reasonable costs incurred by Department in performing such correction. If the nonconforming Work creates an emergency requiring an immediate response, the seven (7) day periods identified herein shall be deemed inapplicable.

2.10.3 The one (1) year period referenced in Section 2.10.1 above applies only to Design-Builder's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies Department may have regarding Design-Builder's other obligations under the Contract Documents.

2.11 Department's Rights to Direct Design-Builder

2.11.1 When any act, omission, or other action of Design-Builder occurs that violates the requirements, conditions, or terms of the Contract Documents; or affects the health, safety, or

welfare of the public or natural resources, Department will have the right, but not the obligation, to direct Design-Builder to take prompt action to repair, replace, or restore the damage or injury within a time frame established by Department. If Design-Builder fails to make such repair, replacement, or restoration within the established time frame, Department will have the damage or injury repaired, replaced, or restored and will deduct the cost of such repair, replacement, or restoration (plus 25% for supervisory and administrative personnel costs) from monies due Design-Builder.

Article 3
Department's Services and Responsibilities

3.1 Duty to Cooperate

3.1.1 Department shall, throughout the performance of the Work, cooperate with Design-Builder and perform its responsibilities, obligations and services in a timely manner to facilitate Design-Builder's timely and efficient performance of the Work and so as not to delay or interfere with Design-Builder's performance of its obligations under the Contract Documents.

3.1.2 Department shall provide timely reviews and (where required) approvals of submittals, interim design submissions and Construction Documents consistent with the turnaround times set forth in Design-Builder's schedule, provided, however that, unless stated otherwise in the Contract Documents, Department shall have twenty-one (21) days after receipt of such submissions to act upon such submissions. This Section 3.1.2 shall not be construed to apply to the acquisition of Governmental Approvals by either the Design-Builder or the Department.

3.1.3 Department's Representative will participate in monthly progress meetings for the duration of the Project. .

3.2 Furnishing of Services and Information

3.2.1 Department has provided RFP Information Documents in Part 2 of the RFP for Design-Builder to consider in developing the Proposal and for executing the Work. Design-Builder shall thoroughly review and compare all such documents during the Scope Validation Period and, to the extent that any Scope Issues arise, Department shall consider such issues in accordance with Section 2.2 above.

3.3 Financial Information

3.3.1 At Design-Builder's request, Department shall promptly furnish reasonable evidence satisfactory to Design-Builder that Department has adequate funds available and committed to fulfill all of Department's contractual obligations under the Contract Documents. If Department fails to furnish such financial information in a timely manner, Design-Builder may stop Work under Section 11.3 hereof or exercise any other right permitted under the Contract Documents.

3.3.2 Design-Builder shall cooperate with the reasonable requirements of Department's lenders or other financial sources. Notwithstanding the preceding sentence, after the Agreement Date, Design-Builder shall have no obligation to execute for Department or Department's lenders or other financial sources any documents or agreements that require Design-Builder to assume obligations or responsibilities greater than those existing obligations Design-Builder has under the Contract Documents.

3.4 Department's Representative

3.4.1 Department's Representative shall be responsible for providing Department-supplied information and approvals in a timely manner to permit Design-Builder to fulfill its obligations under the Contract Documents. Department's Representative shall also provide Design-Builder with prompt notice if it observes any failure on the part of Design-Builder to fulfill its contractual obligations, including any errors, omissions or defects in the performance of the Work.

3.5 Governmental Approvals

3.5.1 Department shall obtain and pay for all necessary Governmental Approvals set forth in the Department's Governmental Approval List, Exhibit 3.5.1, which is included with the RFP.

3.5.2 Department shall provide reasonable assistance to Design-Builder in obtaining those Governmental Approvals that are Design-Builder's responsibility.

3.6 Department's Separate Contractors

3.6.1 The Department may at any time contract or approve concurrent contracts for performance of other work on, near, or within the same geographical area of the work specified in an existing contract. Design-Builder shall not impede or limit access to such work by others.

3.6.2 When separate contracts are awarded within the limits of one project, contractors shall not hinder the work being performed by other contractors. Design-Builder(s) and/or Separate Contractor(s) working on the same project shall cooperate with each other. In case of dispute, the Department's Representative will be the referee, and his decision will be binding on all parties.

3.6.3 When contracts are awarded to Design-Builder(s) and/or Separate Contractor(s) for known concurrent construction in a common area, the Design-Builder(s) and/or Separate Contractor(s), in conference with the Department's Representative, shall establish a written joint schedule of operations. The schedule shall be based on the limitations of the individual contracts and the joining of the work of one contract with the others. The schedule shall set forth the approximate dates and sequences for the several items of work to be performed and shall ensure completion within the contract time limit. The schedule shall be submitted to the Department's Representative for review and approval no later than twenty-one (21) days after the award date of the later contract and prior to the first monthly progress meeting. The schedule shall be agreeable to, signed by, and binding on each Design-Builder(s) and/or Separate Contractor(s).

The Department's Representative may allow modifications of the schedule when benefit to the Design-Builder(s) and/or Separate Contractor(s) and the Department will result.

3.6.4 Any modification of the schedule shall be in writing, mutually agreed to and signed by the Design-Builder(s) and/or Separate Contractor(s), and shall be binding on the Design-Builder(s) and/or Separate Contractor(s) in the same manner as the original agreement.

3.6.5 If the Design-Builder(s) and/or Separate Contractor(s) fail to agree on a joint schedule of operations, they shall submit their individual schedules to the Department's Representative, who will prepare a schedule that will be binding on each Design-Builder and/or Separate Contractor.

3.6.6 The joint schedule and any modification thereof shall become a part of each contract involved. The failure of any Design-Builder and/or Separate Contractor to abide by the terms of the joint schedule will be justification for declaring the Design-Builder and/or Separate Contractor in default of his contract.

3.6.7 Each Design-Builder and/or Separate Contractor shall assume all liability, financial or otherwise, in connection with his contract and shall protect and save harmless the Commonwealth from any and all damages and claims that may arise because of any inconvenience, delay, or loss he experiences as a result of the presence and operations of other Design-Builder(s) and/or Separate Contractor(s) working in or near the work covered by his contract. He shall also assume all responsibility for any of his work not completed because of the presence or operation of other Design-Builder(s) and/or Separate Contractor(s).

3.6.8 Except for an extension of the contract time limit, the Department will not be responsible for any inconvenience, delay, or loss experienced by the Design-Builder and/or Separate Contractor as a result of his failure to gain access to the work at the time contemplated. When the failure to gain access is not due to any fault or negligence of the Design-Builder and/or Separate Contractor, an extension of the contract time limit will be allowed on the basis of the amount of time delayed.

3.6.9 The Department will not assume any responsibility for acts, failures, or omissions of one Design-Builder and/or Separate Contractor that delay the work of another except as provided herein.

Article 4
Hazardous Environmental Conditions and Differing Site Conditions

4.1 Hazardous Environmental Conditions

4.1.1 General Obligations

.1 Unless specifically stated to the contrary in Part 2 (Project Technical Information and Requirements) of the RFP, Design-Builder will be responsible for the management, treatment, handling, storage, monitoring, remediation, removal, transport and/or disposal of any Hazardous Environmental Conditions that are encountered on, in or under the Site.

.2 Design-Builder shall notify the Department prior to implementing any Remedial Actions contained in Design-Builder's Environmental Management Plan for Known Pre-Existing Hazardous Materials.

.3 If Design-Builder encounters any Unknown Pre-Existing Hazardous Materials the presence of which constitutes a Hazardous Environmental Condition, then Design-Builder will promptly notify Department and, in consultation with the Department, will develop a Remedial Action Plan setting out the scope of the Remedial Actions that Design-Builder proposes to take in relation to the relevant Hazardous Environmental Condition, such actions to include, but not be limited to: (i) conducting such further investigations as may be necessary or appropriate to determine the nature and extent of the Hazardous Materials and submitting copies of such data and reports to Department for its review and approval, (ii) taking reasonable steps, including in the case of excavation, construction, reconstruction or rehabilitation, modifications and/or construction techniques, to avoid or minimize excavation or dewatering in areas with Hazardous Materials, (iii) preparing and obtaining Governmental Approvals for remedial action plans, including Department approval, (iv) carrying out the Remedial Action Plan, including, as necessary, disposal of the Hazardous Materials and (v) timely informing Department of all such actions.

.4 Before any Remedial Actions for Unknown Pre-Existing Hazardous Materials are taken that would inhibit Department's ability to ascertain the nature and extent of the Hazardous Environmental Condition, Design-Builder will afford Department the opportunity to inspect areas and locations that require Remedial Actions; *provided*, that in the case of a sudden release of any Unknown Pre-Existing Hazardous Materials, Design-Builder may take all reasonable actions necessary to stabilize and contain the release without prior notice or inspection, but will promptly notify Department of the sudden release and its location.

.5 Design-Builder will obtain all Governmental Approvals relating to all Remedial Actions. Design-Builder will be solely responsible for compliance with such Governmental Approvals and applicable Legal Requirements concerning or relating to Hazardous Materials. In carrying out Remedial Actions that are compensable by Department pursuant to Section 4.1.2, Design-Builder will not take any steps or actions which impair Department's potential claims for indemnity and contribution, statutory or otherwise.

.6 Unless directed otherwise by Department, Design-Builder will seek to recover costs from any available reimbursement program or from any third party responsible for generating or otherwise creating or contributing to conditions that led to the need for Remedial Action. Without limiting the preceding sentence, Design-Builder will seek pre-approval and pursue reimbursement from the Virginia Petroleum Storage Tank Fund (VPSTF) for qualifying expenses incurred during the course of investigation, containment, management, mitigation or remediation activities on petroleum storage tank releases. The parties will cooperate with and notify each other with respect to activities undertaken pursuant to this Section 4.1.1.6.

.7 Except as provided in Section 4.1.2 below, Design-Builder will bear all costs and expenses of preparing and complying with any Remedial Action Plan, of complying with Legal

Requirements and obtaining and complying with Governmental Approvals pertaining to Hazardous Materials, and otherwise of carrying out Remedial Actions.

4.1.2 Pre-Existing Hazardous Materials

.1 Department will reimburse, to the extent permitted by the Legal Requirements, Design-Builder for Design-Builder's costs for Remedial Actions with respect to any Unknown Pre-Existing Hazardous Materials, the presence of which constitutes a Hazardous Environmental Condition.

.2 Department will assume, to the extent permitted by the Legal Requirements, responsibility for third-party claims against Design-Builder for personal injury, damages or harm to property or business due to any Pre-Existing Hazardous Materials, the presence of which constitutes a Hazardous Environmental Condition, and all related penalties, fines and administrative or civil sanctions arising out of or related to such Pre-Existing Hazardous Materials; except to the extent Design-Builder is obliged to indemnify Department pursuant to Section 4.1.3 below.

.3 Design-Builder will provide cost estimates with respect to such Remedial Actions which may be reimbursed by Department, for Department's review and approval prior to proceeding with any such Remedial Actions, subject to Section 4.1.1.3 above

.4 Department reserves the right to perform Remedial Actions for Unknown Pre-Existing Hazardous Materials in lieu of, and as replacement for, Design-Builder's Remedial Action obligations subject to Section 4.1.1.2 above.

.5 Design-Builder will be entitled to submit a request for a Work Order in accordance with these General Conditions of Contract, to an adjustment in its Contract Price and/or Contract Time(s) to the extent Design-Builder's cost and/or time of performance have been adversely impacted by the presence, removal or remediation of Unknown Pre-Existing Hazardous Materials that constitute a Hazardous Environmental Condition.

4.1.3 Design-Builder's Indemnification Obligations Regarding Hazardous Materials

.1 Design-Builder will indemnify, protect, defend and hold harmless and release each State Indemnitee from and against any and all claims against State Indemnitees by a person not party to the Agreement, including reasonable attorney's fees, expert witness fees and court costs suffered or incurred by such State Indemnitee, to the extent caused by:

(A) Hazardous Materials introduced to or brought onto the Site by Design-Builder or its Subcontractors;

(B) failure of Design-Builder or any of its Subcontractors to comply with any requirement of the Contract Documents relating to Hazardous Materials (including any failure to perform any Remedial Action required in accordance with Section 4.1.1 above)

or to otherwise comply with applicable Legal Requirements and Governmental Approvals; or

(C) the exacerbation, release, spreading, migration, or toxicity of Hazardous Materials due to the negligence, omission, recklessness, or willful misconduct of Design-Builder or any of its Subcontractors.

.2 Design-Builder shall defend such claims in accordance with Section 7 below.

.3 Design-Builder's obligations under this Section 4.1.3 will not apply to claims to the extent caused by the negligence, recklessness, or willful misconduct of any State Indemnitee.

4.2 Inspection of Site Conditions

4.2.1 Design-Builder represents and warrants that it has, as of the Agreement Date, ascertained the nature and location of the Work, the character and accessibility of the Site, the existence of obstacles to construction, the availability of facilities and utilities, the location and character of existing or adjacent work or structures, the surface and subsurface conditions, and other general and local conditions (including labor) which might affect its performance of the Work or the cost thereof.

4.2.2 Design-Builder will, after its receipt of Department's Notice to Proceed, undertake such testing, inspections and investigations as may be necessary to perform its obligations under the Contract Documents, including but not limited to additional geotechnical evaluations or Hazardous Materials studies. If Design-Builder intends to conduct additional geotechnical evaluations to supplement or corroborate the information contained in the RFP Documents, it shall do so during the Scope Validation Period. Any Scope Issues that arise from such evaluations shall be treated in the manner set forth in Section 2.2 above. All reports or analyses generated by Design-Builder's testing, inspections and investigations, including but not limited to additional geotechnical testing, shall be furnished to Department promptly after such reports or analyses are generated.

4.3 Differing Site Conditions

4.3.1 Concealed or latent physical conditions or subsurface conditions at the Site that: (i) materially differ from the conditions indicated in the RFP Documents (as such conditions may be further described through reports or analyses undertaken during the Scope Validation Period); or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work are collectively referred to herein as "Differing Site Conditions." If Design-Builder encounters a Differing Site Condition, Design-Builder will be entitled to submit a request for a Work Order for an adjustment in the Contract Price and/or Contract Time(s) to the extent Design-Builder's cost and/or time of performance are adversely impacted by the Differing Site Condition as allowed for herein.

4.3.2 Upon encountering a Differing Site Condition, Design-Builder shall provide prompt written notice to Department of such condition, which notice shall not be later than fourteen (14)

days after such condition has been encountered. Design-Builder shall, to the extent reasonably possible, provide such notice before the Differing Site Condition has been substantially disturbed or altered.

4.3.3 Design-Builder shall not be entitled to any adjustment in the Contract Price and/or Contract Time(s) due to impacts of Differing Site Conditions not identified during the Scope Validation Period.

Article 5
Insurance and Bonds

5.1 Design-Builder's Insurance Requirements

5.1.1 Design-Builder shall procure and maintain the insurance coverages required by Section 103.06(e) of the Division I Amendments.

5.2 Bonds and Other Performance Security

5.2.1 Design-Builder shall procure performance and payment bonds executed by a surety acceptable to Department, each in the amount of one hundred percent (100%) of the Contract Price, and in accordance with all other requirements of the Contract Documents, including the Division I Amendments.

5.2.2 If the Design-Builder is structured as a limited liability company, partnership or joint venture, the bonding approach used will ensure that the members of such organizations will have joint and several liability for the performance of the Work required for the Project. A single 100% performance bond and a single 100% payment bond shall be provided regardless of any co-surety relationship.

Article 6
Payment

6.1 Schedule of Payments

6.1.1 Design-Builder shall submit to Department, for its review and approval, and as part of its submission of the Preliminary Schedule and the Baseline Schedule under Section 11.1 of the Agreement, the Earned Value Schedule indicating the Design-Builder's anticipated monthly earnings schedule in accordance with Exhibit 11.1 of the Agreement (Special Provision for Design-Build Schedules) Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes an approved Preliminary Schedule and subsequent Baseline Schedule.

6.1.2 The parties agree that progress payments for Work performed prior to Department's approval of the Baseline Schedule is based on the Earned Value Schedule in the approved Preliminary Schedule.

6.1.3 Neither the Earned Value Schedule included in the Design-Builder's Baseline Schedule nor payments made under Section 6.1.2 above shall exceed the monthly payment schedule submitted with the Proposal, unless Department specifically approves this in writing.

6.2 Monthly Progress Payments

6.2.1 On the tenth (10th) day of each month, Design-Builder shall submit for Department's review and approval its Application for Payment requesting payment for all Work performed as of the first day of such month and coinciding with the progress reflected in the monthly Baseline Schedule update. The Application for Payment shall be accompanied by all supporting documentation required by the Contract Documents and/or established at the meeting required by Section 2.1.2 hereof. Payment shall be made in accordance with the following earned value calculation:

.1 Design-Builder shall identify each activity, and the value in dollars of such activity, in accordance with Section 6.1.1 above. Applications for Payment shall be made based on the following earned values.

.1 Design-Builder shall earn twenty percent (20%) of the value of an activity upon initiation of the respective activity.

.2 Design-Builder shall earn eighty percent (80%) of the value of an activity upon completion of the respective activity.

.2 QA/QC shall be an integral part of each activity. As part of each Application for Payment that includes completed activities, Design-Builder's designated quality assurance manager shall: (a) verify that the design included in each activity has been completed in accordance with the Contract Documents; (b) certify that the construction included in each activity has been completed in accordance with the Contract Documents; and (c) certify that all required QA/QC tests, measurements, permits or other requirements have been completed and all non-conformance reports relative to the respective activity have been resolved. The Design-Builder shall submit with the Application for Payment evidence of the QA/QC reviews, including any checklists, summary data, high-level/outline calculations or design checks, and evaluations of the work and the qualifications of the responsible personnel that completed the work, etc., that the relevant QA or QC reviewer relied on to make its determination the work is complete and conforms to the requirements of the Contract Documents.

6.2.2 The Application for Payment may request payment for equipment and materials not yet incorporated into the Project, provided that: (i) Department, in its sole discretion, agrees that it is willing to allow payment for such equipment and materials; (ii) Department is satisfied that the equipment and materials are suitably stored at either the Site or another acceptable location; (iii) the equipment and materials are protected by suitable insurance; and (iv) upon payment, Department will receive the equipment and materials free and clear of all liens and encumbrances.

6.2.3 The Application for Payment shall constitute Design-Builder's representation that the Work has been performed consistent with the Contract Documents, has progressed to the point indicated in the Application for Payment, and that title to all Work will pass to Department free and clear of all claims, liens, encumbrances, and security interests upon the incorporation of the Work into the Project, or upon Design-Builder's receipt of payment, whichever occurs earlier.

6.3 Withholding of Payments

6.3.1 On or before the date established in the Agreement, Department shall pay Design-Builder all amounts properly due. If Department determines that Design-Builder is not entitled to all or part of an Application for Payment, it will notify Design-Builder in writing at least seven (7) days prior to the date payment is due. The notice shall indicate the specific amounts Department intends to withhold, the reasons and contractual basis for the withholding, and the specific measures Design-Builder must take to rectify Department's concerns. Design-Builder and Department will attempt to resolve Department's concerns prior to the date payment is due. If the parties cannot resolve such concerns, Design-Builder may pursue its rights under the Contract Documents, including those under Article 10 hereof.

6.3.2 Notwithstanding anything to the contrary in the Contract Documents, Department shall pay Design-Builder all undisputed amounts in an Application for Payment within the times required by the Agreement.

6.4 Right to Stop Work and Interest

6.4.1 If Department wrongfully fails to pay Design-Builder any amount that becomes due, Design-Builder, in addition to all other remedies provided in the Contract Documents, may stop Work pursuant to Section 11.3 hereof. All payments due and unpaid shall bear interest at the rate set forth in the Agreement.

6.5 Design-Builder's Payment Obligations

6.5.1 Design-Builder will pay Design Consultants and Subcontractors, in accordance with its contractual obligations to such parties, all the amounts Design-Builder has received from Department on account of their work. Design-Builder will impose similar requirements on Design Consultants and Subcontractors to pay those parties with whom they have contracted. Design-Builder will indemnify and defend Department against any claims for payment and mechanic's liens as set forth in Section 7.2.1 hereof.

6.6 Acceptance

6.6.1 Until Final Acceptance of the Work by the Department in accordance with the requirements of this Section, the Design-Builder shall have charge and care thereof and shall take every precaution against damage to any part thereof by action of the elements or from any other cause. The Design-Builder shall rebuild, repair, restore, and make good on damage to any portion of the Work occasioned by any of the foregoing causes before Final Acceptance and shall bear the expense thereof.

In case of suspension of work, the Department shall issue instructions and directions to the Design-Builder as to the implementation of the suspension, which may include directing Design-Builder to develop a maintenance and transition plan. Unless specifically directed otherwise by the Department, Design-Builder shall, during the suspension period, continue to have full responsibility for the Project, including but not limited to its obligations to take such precautions as may be necessary to prevent damage to the Work, comply with Governmental Approvals, and ensure public safety. Such obligations include, but are not limited to, erosion control and drainage and erection of any necessary Temporary Structures, signs, or other facilities.

6.6.2 Design-Builder shall notify Department when it believes the Work, or to the extent permitted in the Contract Documents, a portion of the Work, is finally complete. Within seven (7) days of Department's receipt of Design-Builder's notice, along with a certification for the QA Manager that such Work is finally complete, Department and Design-Builder will jointly inspect such Work to verify that such Work is finally complete in accordance with the requirements of the Contract Documents. If Department concludes that the applicable Work is not finally complete, it will so advise the Design-Builder, whereupon the preceding process will continue until the Department agrees that the applicable Work is finally complete. Once the Work is determined to be finally complete, the Design-Builder will be notified in writing, of the determination of Final Acceptance.

6.6.3 Upon notification of Final Acceptance, Design-Builder will provide Department with a Final Application for Payment. Department shall make final payment by the time required in the Agreement. At the time of submission of its Final Application for Payment, Design-Builder shall provide the following information:

.1 an affidavit that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which will in any way affect Department's interests;

.2 a general release executed by Design-Builder waiving, upon receipt of final payment by Design-Builder, all claims, except those claims previously made in writing to Department and remaining unsettled at the time of final payment, which claims shall be specifically listed in an attachment to the general release;

.3 consent of Design-Builder's surety to final payment;

.4 all operating manuals, warranties and other deliverables required by the Contract Documents, including the project records required by Section 11.1.9 of the Agreement; and

.5 certificates of insurance confirming that required coverages will remain in effect consistent with the requirements of the Contract Documents.

6.6.4 Upon making final payment, Department waives all claims against Design-Builder except claims relating to: (i) Design-Builder's failure to satisfy its payment obligations, if such failure affects Department's interests; (ii) Design-Builder's failure to complete the Work consistent with

the Contract Documents, including defects appearing after final payment; and (iii) the terms of any special warranties and indemnifications required by the Contract Documents.

Article 7
Indemnification

7.1 Patent and Copyright Infringement

7.1.1 Design-Builder shall defend any action or proceeding brought against any State Indemnitee based on any claim that the Work, or any part thereof, or the operation or use of the Work or any part thereof, constitutes infringement of any United States patent or copyright, now or hereafter issued. The State Indemnitee shall give prompt written notice to Design-Builder of any such action or proceeding and will reasonably provide authority, information and assistance in the defense of same. Design-Builder shall indemnify and hold harmless State Indemnitees from and against all damages and costs, including but not limited to attorneys' fees and expenses awarded against State Indemnitees or Design-Builder in any such action or proceeding. Design-Builder agrees to keep the State Indemnitees informed of all developments in the defense of such actions.

7.1.2 If a State Indemnitee is enjoined from the operation or use of the Work, or any part thereof, as the result of any patent or copyright suit, claim, or proceeding, Design-Builder shall at its sole expense take reasonable steps to procure the right to operate or use the Work. If Design-Builder cannot so procure such right within a reasonable time, Design-Builder shall promptly, at Design-Builder's option and at Design-Builder's expense: (i) modify the Work so as to avoid infringement of any such patent or copyright; or (ii) replace said Work with Work that does not infringe or violate any such patent or copyright.

7.1.3 Sections 7.1.1 and 7.1.2 above shall not be applicable to any suit, claim or proceeding based on infringement or violation of a patent or copyright: (i) relating solely to a particular process or product of a particular manufacturer specified by Department and not offered or recommended by Design-Builder to Department; or (ii) arising from modifications to the Work by Department after acceptance of the Work.

7.2 Payment Claim Indemnification

7.2.1 Providing that Department is not in breach of its contractual obligation to make payments to Design-Builder for the Work, Design-Builder shall indemnify, defend and hold harmless State Indemnitees from any claims or mechanic's liens brought against any State Indemnitee or against the Project as a result of the failure of Design-Builder, or those for whose acts it is responsible, to pay for any services, materials, labor, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work. Within three (3) days of receiving written notice from a State Indemnitee that such a claim or mechanic's lien has been filed, Design-Builder shall commence to take the steps necessary to discharge said claim or lien, including, if necessary, the furnishing of a mechanic's lien bond. If Design-Builder fails to do so, The State Indemnitee will have the right to discharge the claim or lien and hold Design-Builder liable for costs and expenses incurred, including attorneys' fees.

7.3 Design-Builder's General Indemnification

7.3.1 Design-Builder, to the fullest extent permitted by law, shall indemnify, hold harmless and defend State Indemnitees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for: (i) bodily injury, sickness or death, and property damage or destruction (other than to the Work itself) to the extent resulting from the negligent acts or omissions of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable; and (ii) any violation of Sections 2.5, 2.6, or 2.8 hereof by Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable.

7.3.2 If an employee of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable, has a claim against a State Indemnitee, Design-Builder's indemnity obligation set forth in Section 7.3.1 above shall not be limited by any limitation on the amount of damages, compensation or benefits payable by or for Design-Builder, Design Consultants, Subcontractors, or other entity under any employee benefit acts, including workers' compensation or disability acts.

7.4 Defense and Indemnification Procedures

7.4.1 If Department receives notice of or otherwise has actual knowledge of a claim which it believes is within the scope of Design-Builder's indemnification under the Contract Documents, it shall by writing as soon as practicable: (i) inform Design-Builder of such claim; (ii) send to Design-Builder a copy of all written materials Department has received asserting such claim and (iii) notify Design-Builder that either: (i) the defense of such claim is being tendered to Design-Builder; or (ii) Department has elected to conduct its own defense for a reason set forth below.

7.4.2 If the insurer under any applicable insurance policy accepts tender of defense, Design-Builder and Department shall cooperate in the defense as required by the insurance policy. If no defense is provided by insurers under potentially applicable insurance policies, then the following provisions shall apply.

7.4.3 If the defense is tendered to Design-Builder, it shall within forty-five (45) days of said tender deliver to Department a written notice stating that Design-Builder: (i) accepts the tender of defense and confirms that the claim is subject to full indemnification hereunder without any "reservation of rights" to deny or disclaim full indemnification thereafter; (ii) accepts the tender of defense but with a "reservation of rights" in whole or in part; or (iii) rejects the tender of defense if it reasonably determines it is not required to indemnify against the claim under the Contract Documents. If such notice is not delivered within such forty-five (45) days, the tender of defense shall be deemed rejected.

7.4.4 If Design-Builder accepts the tender of defense, Design-Builder shall have the right to select legal counsel for the State Indemnitees, subject to reasonable approval of the State Attorney General, and Design-Builder shall otherwise control the defense of such claim, including settlement, and bear the fees and costs of defending and settling such claim. During

such defense: (i) Design-Builder shall at Design-Builder's expense, fully and regularly inform Department of the progress of the defense and of any settlement discussions; and (ii) Department shall, at Design-Builder's expense for all of Department's reasonable out-of-pocket third party expenses, fully cooperate in said defense, provide to Design-Builder all materials and access to personnel it requests as necessary for defense, preparation and trial and which or who are under the control of or reasonably available to Department and maintain the confidentiality of all communications between it and Design-Builder concerning such defense to the extent allowed by law.

7.4.5 Department shall be entitled to select its own legal counsel and otherwise control the defense of such claim if: (i) the defense is tendered to Design-Builder and it refuses the tender of defense, or fails to accept such tender within forty-five (45) days, or reserves any right to deny or disclaim such full indemnification thereafter; or (ii) Department, at the time it gives notice of the claim or at any time thereafter, reasonably determines that: (i) a conflict exists between it and the Design-Builder which prevents or potentially prevents Design-Builder from presenting a full and effective defense; or (ii) Design-Builder is otherwise not providing an effective defense in connection with the claim and Design-Builder lacks the financial capability to satisfy potential liability or to provide an effective defense. Department may assume its own defense pursuant to the above by delivering to Design-Builder written notice of such election and the reasons therefore.

7.4.6 If Department is entitled and elects to conduct its own defense pursuant hereto, all reasonable costs and expenses it incurs in investigating and defending and claim for which it is entitled to indemnification hereunder (and any settlements or judgments resulting therefrom) shall be reimbursed by Design-Builder after completion of the proceeding.

7.4.7 If Department is entitled to and elects to conduct its own defense, then it shall have the right to settle or compromise the claim with the Design-Builder's prior written consent, which shall not be unreasonably withheld or delayed, or with approval of the court, and with the full benefit of the Design-Builder's indemnity. Notwithstanding the foregoing, if the Department elects to conduct its own defense and it is later determined that no indemnification obligation existed as to the particular claim, the Department shall pay its own costs and expenses relating thereto. In addition, if the Department elects to conduct its own defense because it perceives a conflict of interest, the Department shall pay its own costs and expenses relating thereto.

Article 8
Time

8.1 Obligation to Achieve the Contract Times

8.1.1 Design-Builder agrees that it will commence performance of the Work and achieve the Contract Time(s) in accordance with Article 5 of the Agreement.

8.2 Delays to the Work

8.2.1 If Design-Builder is delayed in the performance of the Work due to acts, omissions, conditions, events, or circumstances beyond its control and due to no fault of its own,

Subcontractors, Design Consultants, or those for whom Design-Builder, Subcontractors, or Design Consultants are responsible, Design-Builder may submit a request for a Work Order that the Contract Time(s) for performance be reasonably extended by Work Order. By way of example, events that Department may consider for an extension of the Contract Time(s) include acts or omissions of Department or anyone under Department's control (including separate contractors), changes in the Work, Differing Site Conditions, Hazardous Materials, wars, floods in excess of the base flood (as defined in the Division 1 Amendment), hurricane force winds, tornados, labor disputes, and earthquakes that cause ground accelerations in excess of AASHTO bridge design standards for the Site. It is specifically understood that other than floods in excess of the base flood, hurricane force winds and tornados, Design-Builder assumes the risk, and will not be entitled a time extension for any delays caused by weather or conditions resulting from weather.

8.2.2 In addition to Design-Builder's right to a time extension for those events set forth in Section 8.2.1 above, Design-Builder shall also be entitled to submit a request of a Work Order for an appropriate adjustment of the Contract Price provided, however, that the Contract Price shall not be adjusted for those events set forth in Section 8.2.1 above that are beyond the control of both Design-Builder and Department, including the events of wars, floods in excess of the base flood (as defined in the Division 1 Amendment), hurricane force wind, tornados, labor disputes, and earthquakes that cause ground accelerations in excess of AASHTO bridge design standards for the Site.

8.2.3 As a condition precedent to Design-Builder receiving an extension of the Contract Time(s), Design-Builder shall demonstrate that: (i) notice has been given by Design-Builder as provided in these General Conditions; (ii) the delay impacts the critical path (as reflected on the most recent monthly Baseline Schedule update) and is outside the reasonable control of Design-Builder; (iii) Design-Builder's performance would not have been concurrently delayed or interrupted by any event other than those identified in Section 8.2.1 above; (iv) Design-Builder, in view of all the circumstances, has exercised reasonable efforts to avoid the delay and did not cause the delay; and (v) Design-Builder has complied with the requirements of Section 8.3 below. Delays of Subcontractors shall be deemed to be within the reasonable control of Design-Builder, unless such delays are themselves excusable in accordance with the provisions of Section 8.2.1.

8.2.4 Should Department have a reasonable belief that the Contract Time(s) will not be met for causes that do not constitute an excusable delay under Section 8.2.1 above, Department has the right, but not the obligation, to so notify Design-Builder, and Design-Builder shall then work additional overtime, engage additional personnel and take such other measures as necessary to complete the Work within the Contract Time(s). Design-Builder shall bear all costs related to such overtime, additional personnel and other measures.

8.2.5 Notwithstanding the right of Design-Builder to receive a time extension pursuant to Section 8.2.1, Design-Builder agrees that if it encounters an excusable delay, it will, if directed by Department, develop and implement a recovery schedule and plan to improve progress and take such measures to overcome such delay.

8.3 Schedule Impact Analysis for Proposed Time Extensions

8.3.1 If Design-Builder claims that any event, including but not limited to a change in the Work, justifies an extension to the Contract Time(s), Design-Builder shall submit to Department a written Schedule Impact Analysis (SIA) in accordance with Exhibit 11.1 of the Agreement. Upon approval by Department, the event shall be included in the next Baseline Schedule update.

8.3.2 Activity delays shall not automatically mean that an extension of the Contract Time(s) is warranted or due Design-Builder. Design-Builder recognizes that certain events will not affect existing critical activities or cause non-critical activities to become critical, and that such events may result in only absorbing a part of the available total float that may exist within an activity chain of the network, thereby not causing any effect on the Contract Time.

8.3.3 Float is not for the exclusive use or benefit of either Department or Design-Builder, but rather shall be used for the benefit of the overall Project. Activity splitting or float suppression techniques will not be permitted. Extension of the Contract Time(s) will be granted only to the extent the equitable time adjustments to the activity or activities affected by the event exceeds the total float of a critical activity or path and extends the Contract Time(s).

8.3.4 Two (2) copies of each SIA shall be submitted in accordance with the following along with a written proposal for any requested time extension:

.1 Within seven (7) days after receipt of a written change order.

.2 Within ten (10) days from the beginning of any other event claimed to give rise to a delay.

.3 Within the time period required for the filing of a written notice of claim pursuant to Article 10 Contract Adjustments and Disputes.

8.3.5 In cases where Design-Builder does not submit a SIA within the time requirements stated above, it shall be considered a waiver of any request for an extension of the Contract Time(s).

8.3.6 Approval or rejection of each SIA by Department shall be made within ten (10) days after receipt of each SIA, unless subsequent meetings and negotiations are necessary. Upon approval, a copy of the SIA signed by Department shall be returned to Design-Builder, and incorporated into the next Baseline Schedule update.

8.3.7 The SIA related to a change order shall be incorporated into and attached to the applicable change order.

Article 9
Changes to the Contract Price and Time

9.1 Work Orders

9.1.1 A **Work Order** (change order), is a written instrument on VDOT Form C-10, issued after the Agreement Date signed by Department and Design-Builder, stating their agreement upon all of the following:

.1 The scope of the change in the Work;

.2 The amount of the adjustment to the Contract Price; and

.3 The extent of the adjustment to the Contract Time(s).

9.1.2 All changes in the Work authorized by applicable Work Order shall be performed under the applicable conditions of the Contract Documents. Department and Design-Builder shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for such changes.

9.1.3 If Department requests a proposal for a change in the Work from Design-Builder and subsequently elects not to proceed with the change, a Work Order shall be issued to reimburse Design-Builder for reasonable costs incurred for estimating services, design services and services involved in the preparation of proposed revisions to the Contract Documents.

9.2 Contract Change Directive

9.2.1 A **Contract Change Directive** (CCD) is a written order prepared and signed by Department, directing a change in the Work prior to agreement on an adjustment in the Contract Price and/or the Contract Time(s).

9.2.2 Department and Design-Builder shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for the Contract Change Directive. Upon reaching an agreement, the parties shall prepare and execute an appropriate Work Order reflecting the terms of the agreement.

9.2.3 The Department may issue a CCD by unilateral Work Order using VDOT Form C-10, subject further to the terms of Section 9.4.1.3.

9.3 Minor Changes in the Work

9.3.1 Minor changes in the Work do not involve an adjustment in the Contract Price and/or Contract Time(s) and do not materially and adversely affect the Work, including the design, quality, performance and workmanship required by the Contract Documents. Design-Builder may make minor changes in the Work consistent with the intent of the Contract Documents, provided, however that Design-Builder shall promptly inform Department and the QAM, in

writing, of any such changes and record such changes on the documents maintained by Design-Builder.

9.4 Contract Price Adjustments

9.4.1 The increase or decrease in Contract Price resulting from a change in the Work shall be determined by one or more of the following methods:

.1 Unit prices set forth in the Agreement or as subsequently agreed to between the parties;

.2 A mutually accepted, lump sum, properly itemized and supported by sufficient substantiating data to permit evaluation by Department;

.3 Costs, fees and any other markups set forth in accordance with Section 109.05 of the Division 1 Amendments; and

.4 If an increase or decrease cannot be agreed to as set forth in items .1 through .3 above and Department issues a Contract Change Directive, the cost of the change of the Work shall be determined by the reasonable expense and savings in the performance of the Work resulting from the change, including a reasonable overhead and profit, as may be set forth in the Agreement. If the net result of both additions and deletions to the Work is an increase in the Contract Price, overhead and profit shall be calculated on the basis of the net increase to the Contract Price. If the net result of both additions and deletions to the Work is a decrease in the Contract Price, there shall be no overhead or profit adjustment to the Contract Price. Design-Builder shall maintain a documented, itemized accounting evidencing the expenses and savings associated with such changes.

9.4.2 If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but application of such unit prices will cause substantial inequity to Department or Design-Builder because of differences in the character or quantity of such unit items as originally contemplated, such unit prices shall be equitably adjusted. Design-Builder shall bear the burden of proving that there is a substantial inequity in the unit rates.

9.5 Emergencies

9.5.1 In any emergency affecting the safety of persons and/or property, Design-Builder shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price and/or Contract Time(s) on account of emergency work shall be determined as provided in this Article 9.

Article 10
Contract Adjustments and Disputes

10.1 Requests for Contract Adjustments and Relief

10.1.1 If Design-Builder believes that it is entitled to an adjustment to the Contract Price or Contract Times or other relief for any occurrence arising out of or related to the Work or Project, including the acts or omissions of Department, it shall submit a written request to Department stating the basis for such Contract Price or Contract Time adjustment or relief. Such request shall be submitted: (a) prior to Design-Builder incurring any cost or expense, or performing any work on which the request is based; and (b) in accordance with any specific requirements contained in applicable sections of these General Conditions of Contract or, absent any specific requirement, then within a reasonable time, not to exceed twenty-one (21) days, after the time of the occurrence giving rise to the request for Contract Price or Contract Time adjustment or relief or after Design-Builder reasonably should have recognized the occurrence giving rise to the request for Contract Price or Contract Time adjustment or relief, whichever is later. Such request shall include sufficient information to advise Department of the facts and circumstances giving rise to the request for Contract Price or Contract Time adjustment or relief, the specific contractual adjustment or relief requested and the basis for Design-Builder's entitlement to the adjustment or relief.

10.2 Dispute Avoidance and Resolution

10.2.1 The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes and disagreements. If disputes or disagreements do arise, Design-Builder and Department each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the Work.

10.2.2 Design-Builder and Department will first attempt to resolve all disputes or disagreements at the field level through best efforts and good faith negotiations between Design-Builder's Representative and Department's Representative. If the dispute or disagreement cannot be resolved through Design-Builder's Representative and Department's Representative, Design-Builder's Senior Representative and Department's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than forty-five (45) days after such a request is made, to attempt to resolve such dispute or disagreement. Prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving the dispute or disagreement. If the Senior Representatives determine that the dispute or disagreement cannot be resolved to the mutual satisfaction of both parties, despite their best efforts, then Design-Builder's sole remedy shall be to pursue the processes set forth in VA. CODE §§33.1-386 and 33.1-387.

10.3 Duty to Continue Performance

10.3.1 Unless provided to the contrary in the Contract Documents, Design-Builder shall continue to perform the Work and Department shall continue to satisfy its payment obligations to Design-Builder, pending the final resolution of any dispute or disagreement between Design-Builder and Department.

10.4 CONSEQUENTIAL DAMAGES

10.4.1 NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY (EXCEPT AS SET FORTH IN SECTION 10.4.2 BELOW), NEITHER DESIGN-BUILDER NOR DEPARTMENT SHALL BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL LOSSES OR DAMAGES, WHETHER ARISING IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO LOSSES OF USE, PROFITS, BUSINESS, REPUTATION OR FINANCING.

10.4.2 The consequential damages limitation set forth in Section 10.4.1 above will not affect the payment of liquidated damages set forth in Article 5 of the Agreement, which both parties recognize has been established, in part, to reimburse Department for some damages that might otherwise be deemed to be consequential.

Article 11
Stop Work and Termination for Cause

11.1 Department's Right to Stop Work

11.1.1 Department may, without cause and for its convenience, order Design-Builder in writing to stop and suspend the Work. Such suspension shall not exceed sixty (60) consecutive days or aggregate more than ninety (90) days during the duration of the Project.

11.1.2 Design-Builder is entitled to seek an adjustment of the Contract Price and/or Contract Time(s) if its cost or time to perform the Work has been adversely impacted by any suspension or stoppage of work by Department, by requesting a Work Order.

11.2 Department's Right to Perform and Terminate for Cause

11.2.1 If Design-Builder persistently fails to do any of the following:

.1 begin the Work upon receipt of Department's Notice to Proceed;

.2 provide a sufficient number of skilled workers, equipment, or supply the materials required by the Contract Documents;

.3 comply with applicable Legal Requirements;

.4 timely pay, without cause, Design Consultants or Subcontractors;

.5 prosecute the Work with promptness and diligence to ensure that the Work is completed by the Contract Time(s), as such times may be adjusted; or

.6 perform material obligations under the Contract Documents;

then Design-Builder may be declared in default and Department, in addition to any other rights and remedies provided in the Contract Documents or by law, shall have the rights set forth in Section 11.2.2 below.

11.2.2 If any of the conditions set forth in Section 11.2.1 above exists, Department will give written notice to Design-Builder and its surety of the condition. If, within ten (10) days after such notice, Design-Builder or its surety fails to cure, or reasonably commence to cure, such condition to the satisfaction of Department, then Department may then, or at any time thereafter, send a second written notice to Design-Builder declaring Design-Builder in default. Upon declaring Design-Builder in default, Department shall have the right, among other things, to terminate this Agreement for default.

11.2.3 Upon terminating this Agreement for default, Department will have the right to, in addition to any other right available at law, take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which Design-Builder hereby transfers, assigns and sets over to Department for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items. Design-Builder specifically agrees that it will assign all Subcontractors and Design Consultants to Department, upon Department's written demand that it do so. In the event of such termination, Design-Builder shall not be entitled to receive any further payments under the Contract Documents until the Work shall be finally completed in accordance with the Contract Documents. At such time, if the unpaid balance of the Contract Price exceeds the cost and expense incurred by Department in completing the Work, such excess shall be paid by Department to Design-Builder. If Department's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Design-Builder shall be obligated to pay the difference to Department. Such costs and expense shall include not only the cost of completing the Work, but also losses, damages, costs and expense, including attorneys' fees and expenses, incurred by Department in connection with the reprocurement and defense of claims arising from Design-Builder's default, subject to the waiver of consequential damages set forth in Section 10.4 hereof.

11.2.4 If Department improperly terminates the Agreement for cause, the termination for cause will be converted to a termination for convenience in accordance with the provisions of Article 8 of the Agreement.

11.2.5 Department shall have the right, upon the occurrence of any of the conditions set forth in Section 11.2.1 above, and regardless of whether or not Design-Builder is declared in default

and/or terminated, to communicate with Design-Builder's surety and compel such surety to cure such conditions.

11.3 Design-Builder's Right to Stop Work

11.3.1 Design-Builder may, in addition to any other rights afforded under the Contract Documents or at law, stop work for the following reasons:

.1 Department's failure to provide financial assurances as required under Section 3.3 hereof; or

.2 Department's failure to pay amounts properly due under Design-Builder's Application for Payment.

11.3.2 Should any of the events set forth in Section 11.3.1 above occur, before exercising its rights under this section, Design-Builder shall provide Department with written notice that Design-Builder will stop work unless said event is cured within ten (10) days from Department's receipt of Design-Builder's notice. If Department does not cure the problem within such ten (10) day period, Design-Builder may stop work. In such case, Design-Builder shall be entitled to make a claim for adjustment to the Contract Price and Contract Time(s) to the extent it has been adversely impacted by such stoppage.

11.4 Design-Builder's Right to Terminate for Cause

11.4.1 Design-Builder, in addition to any other rights and remedies provided in the Contract Documents or by law, may terminate the Agreement for cause for the following reasons:

.1 The Work has been stopped for one hundred twenty (120) consecutive days, or more than one hundred eighty (180) days during the duration of the Project, because of court order, any Governmental Unit having jurisdiction over the Work, or orders by Department under Section 11.1.1 hereof, provided that such stoppages are not due to the acts or omissions of Design-Builder or anyone for whose acts Design-Builder may be responsible.

.2 Department's failure to provide Design-Builder with any information, permits or approvals that are Department's responsibility under the Contract Documents which result in the Work being stopped for one hundred twenty (120) consecutive days, or more than one hundred eighty (180) days during the duration of the Project, even though Department has not ordered Design-Builder in writing to stop and suspend the Work pursuant to Section 11.1.1 hereof.

.3 Department's failure to cure the problems set forth in Section 11.3.1 above after Design-Builder has stopped the Work.

11.4.2 Upon the occurrence of an event set forth in Section 11.4.1 above, Design-Builder may provide written notice to Department that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within ten (10) days of Department's receipt of such notice. If Department fails to cure, or reasonably commence to cure, such problem, then

Design-Builder may give a second written notice to Department of its intent to terminate within an additional ten (10) day period. If Department, within such second ten (10) day period, fails to cure, or reasonably commence to cure, such problem, then Design-Builder may declare the Agreement terminated for default by providing written notice to Department of such declaration. In such case, Design-Builder shall be entitled to recover in the same manner as if Department had terminated the Agreement for its convenience under Article 8 of the Agreement.

11.5 Bankruptcy of Design-Builder

11.5.1 If Design-Builder institutes or has instituted against it a case under the United States Bankruptcy Code, such event may impair or frustrate Department's ability to perform its obligations under the Contract Documents. Accordingly, should such event occur:

.1 Design-Builder, its trustee or other successor, shall furnish, upon request of Department, adequate assurance of the ability of Design-Builder to perform all future material obligations under the Contract Documents, which assurances shall be provided within ten (10) days after receiving notice of the request; and

.2 Design-Builder shall file an appropriate action within the bankruptcy court to seek assumption or rejection of the Agreement within sixty (60) days of the institution of the bankruptcy filing and shall diligently prosecute such action.

If Design-Builder fails to comply with its foregoing obligations, Department shall be entitled to request the bankruptcy court to reject the Agreement, declare the Agreement terminated and pursue any other recourse available to Department under this Article 11.

11.5.2 The rights and remedies under Section 11.5.1 above shall not be deemed to limit the ability of Department to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code. It shall also not limit the ability of Department to seek recourse against Design-Builder's surety, who shall be obligated to perform notwithstanding the bankruptcy proceedings against Design-Builder.

Article 12
Miscellaneous

12.1 Assignment

12.1.1 Design-Builder shall not, without the prior written consent of Department (which consent may be withheld or denied for any reason), assign, transfer or sublet any portion or part of the Work or the obligations required by the Contract Documents.

12.2 Successorship

12.2.1 Design-Builder and Department intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

12.3 Governing Law

12.3.1 The Agreement and all Contract Documents shall be governed by the laws of the Commonwealth of Virginia, without giving effect to its conflict of law principles.

12.4 Severability

12.4.1 If any provision or any part of a provision of the Contract Documents shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

12.5 No Waiver

12.5.1 The failure of either Design-Builder or Department to insist, in any one or more instances, on the performance of any of the obligations required by the other under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

12..6 No Third-Party Beneficiary Status

12.6.1 Nothing under the Contract Documents shall afford any third party to this Agreement, including members of the public, third-party beneficiary status hereunder.

12.7 Headings

12.7.1 The headings used in these General Conditions of Contract, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

12.8 Notice

12.8.1 Whenever the Contract Documents require that notice be provided to the other party, notice will be deemed to have been validly given: (i) if delivered in person to the individual intended to receive such notice; (ii) four (4) days after being sent by registered or certified mail, postage prepaid to the address indicated in the Agreement; or (iii) if transmitted by facsimile, by the time stated in a machine generated confirmation that notice was received at the facsimile number of the intended recipient, provided, however, that the intended recipient is present to receive the facsimile and the transmittal is immediately followed by a hard copy delivered in accordance with (i) or (ii) above.

12.9 Amendments

12.9.1 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

12.10 Exhibits

12.10.1 The following exhibits, as well as any other exhibits specifically set forth in Exhibit 1 (Project Specific Terms), are made part of, and incorporated into these General Conditions of Contract. (Exhibits to Part 4 are included in the RFP):

EXHIBIT 1 to PART 3 -- PROJECT SPECIFIC TERMS
EXHIBIT 3.5.1 -- GOVERNMENTAL APPROVALS LIST

END OF PART 4
GENERAL CONDITIONS OF CONTRACT

Exhibit 3.5.1

Governmental Approvals List

The following will be the responsibility of the Department to obtain:

1. National Environmental Policy Act approval, Categorical Exclusion (December 18, 2013) – completed by VDOT.

2. Preliminary Environmental Certification/Commitments Checklist (January 16, 2014) – completed by VDOT.

3. Preliminary Environmental Document Re-evaluation for PSE (Plans, Specifications, and Estimates) Authorization (January 16, 2014) – completed by VDOT.

4. Final Environmental Certification/Commitments Checklist – to be completed by VDOT.

5. Final Document Re-evaluation for Right-of-Way – to be completed by VDOT.

6. Final Document Re-evaluation for PSE (Plans, Specifications, and Estimates) – to be completed by VDOT.

PART 5

2013 Division I Amendments to the Standard Specifications General Provisions for Design-Build Contracts Between Department and Design-Builder

(Date of Standard Division I Amendments July 2013)

These Division I Amendments supersede Division I of the Standard Specifications

SECTION 101—DEFINITIONS OF ABBREVIATIONS, ACRONYMS, AND TERMS

101.01—Abbreviations and Acronyms

Abbreviations and Acronyms shall be as stated in Section 101.01 of the Standard Specifications.

101.02—Terms

In these Division I Amendments to the Standard Specifications and other Contract Documents, the following terms and pronouns used in place of them shall be interpreted as follows, except that if such terms and pronouns are defined in the Agreement or General Conditions of Contract, such definitions shall govern:

-A-

Advertisement, Notice of. A public announcement, as required by law, inviting, in a single-phase procurement, the submission of proposals from interested Offerors in response to a Request for Proposals, or in a two-phase procurement, Statements of Qualifications from interested Offerors in response to a RFQ by the Department for a designated design-build project. The announcement will indicate the general nature and location of the project, and the time and place for submitting the Statements of Qualifications or Proposals.

Affiliate. means: (a) any Person which directly or indirectly through one or more intermediaries controls, or is controlled by, or is under common control with, Design-Builder or any of its members, partners or shareholders holding an interest in Design-Builder; and (b) any Person for which ten percent (10%) or more of the equity interest in such Person is held directly or indirectly, beneficially or of record by: (i) Design-Builder; (ii) any of Design-Builder's members, partners or ten percent (10%) or greater shareholders; or (iii) any Affiliate of Design-Builder under part (a) of this definition. For purposes of this definition the term "control" means the possession, directly or indirectly, of the power to cause the direction of the management of a Person, whether through voting securities, a trust, contract, family relationship or otherwise.

Agreement. As defined in the 2013 General Conditions of Contract Part 4 ("General Conditions").

Alkali Soil. Soil in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Award. The decision of the Board to award a contract to an Offeror based on the selection processes identified in the Requests for Proposal. The Award is subject to the execution and approval of a satisfactory Agreement therefore, and such conditions as may be specified or required by law.

Award Date. The date on which the decision is made by the Board or Commissioner to accept the proposal of an Offeror.

-B-

Backfill. Material used to replace, or the act of replacing, Material removed during construction; may also denote Material placed, or the act of placing, Material adjacent to structures.

Balance Point. The approximate point, based on estimated shrinkage or swell, where the quantity of Earthwork Excavation and borrow, if required, is equal to the quantity of Embankment Material plus any surplus Excavation material.

Base Course. A layer of material of specified thickness on which the intermediate or surface course is placed.

Base Flood. The flood or tide having a one percent chance of being exceeded in any given year.

Bid (also referred to as Proposal). The documents submitted by an Offeror in response to a Request for Proposal.

Bidder (also referred to as Offeror). Any individual, partnership, Corporation, or Joint Venture that formally submits a SOQ or proposal for the work contemplated thereunder.

Bids, Invitation for. Used interchangeably with **"Advertisement, Notice of"** defined above.

Board. Commonwealth Transportation Board of Virginia.

Borrow. Suitable material from sources outside the Roadway that is used primarily for Embankments.

Brackish Water. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Bridge. A structure, including supports, that is erected over a depression or an obstruction, such as water, a Highway, or a railway, that has a track or passageway for carrying traffic.

Bridge Lift. A layer of fill material placed in excess of standard depth over an area that does not support the weight of hauling Equipment and for which compaction effort is not required.

-C-

Camber. A vertical curvature induced or fabricated into beams or girders and a deck slab or slab span formwork; a vertical curvature set in the grade line of a pipe culvert to accommodate differential settlement.

Change Order (See Work Order).

Channel. A watercourse or drainage way.

Commissioner. Commonwealth Transportation Commissioner.

Commonwealth. Commonwealth of Virginia.

Composite Hydrograph. A graph showing the mean daily discharge versus the day, indicating trends in high and low flow for a one-year period.

Construction Area. The area where authorized construction on this Project occurs.

Construction Limits (On-Site). The disturbed area utilized for the construction of a Project including the intersection of side slopes with the original ground plus slope rounding and slopes for Drainage Ditches, Bridges, Culverts, Channels, temporary or incidental construction, and identified by the surface planes as shown or described within the Contract Documents.

Contract (also referred to as Contract Documents). The Agreement between the Department and Design-Builder for the Project, inclusive of all Contract Documents as defined in Article 2 of the Agreement. Oral representations or promises shall not be considered a part of the Contract.

Contract Bond(s). Those documents defined in Section 103.05.

Contract Engineer. The Engineer's authorized representative for administering the advertisement, receiving proposals, and awarding contracts for the Department.

Contract Item. A specifically described unit of work for which a price is provided in the Contract.

Contract Times. As defined in **Article 5 of the Agreement.** .

Corporation. A body of Persons granted a charter legally to conduct business recognizing them as a separate entity having its own rights, privileges, and liabilities distinct from those of its members.

Cul-de-sac. An area at the terminus of a dead-end Street or Road that is constructed for the purpose of allowing vehicles to turn around.

Culvert. A structure that is not classified as a bridge which provides an opening under any Roadway.

Cut. When used as a noun with reference to Earthwork, that portion of a Roadway formed by excavating below the existing surface of the earth and limited by design.

Cut Slope. See also Fill Slope**.** A surface plane generally designated by design, which is formed during Excavation below existing ground elevations that intersects with existing ground at its termini.

-D-

Day. As defined in Article 1.2 of the General Conditions.

Deflection. The vertical movement occurring between the supports of a Bridge superstructure or its components (beams, girders, and slabs) that results from their own weight and from dead and live loads. Although all parts of a structure are subject to deflections, usually only those deflections that occur in the superstructure are of significance during construction.

Department. Virginia Department of Transportation.

Design-Builder. The entity that enters into the Agreement (Part 3 of the Contract Documents) with the Department to perform the Work.

Design Flood. The magnitude of flood that a given structure can convey without exceeding a designated flood level.

Disincentive. A verifiable monetary deterrent used to discourage the Design-Builder from failing to meet an Interim Milestone or the Contract Time Limit that is identified and defined in the Contract.

Disposable Material. Material generally found to be unsuitable for Roadway construction or material that is surplus.

Disposal Areas. Areas generally located outside of the Construction Limits identified in the Contract Documents where Disposable Material is deposited.

Drainage Ditch. An artificial depression constructed to carry off surface water.

-E-

Earthwork. The work consisting of constructing Roadway earthwork in conformity with the specified tolerances for the lines, grades, typical sections, and cross sections shown on the Contract Documents. Earthwork shall include regular, borrow, undercut, and minor structure Excavation; constructing Embankments; disposing of surplus and Unsuitable Material; shaping; grading, compaction; sloping; dressing; and temporary erosion control work.

Easement. A grant of the right to use property for a specific use.

Embankment. A structure of soil, soil aggregate, soil-like materials, or broken rock between the existing ground and Subgrade.

Employee. Any individual working on the Project specified in the Contract who is under the direction or control of or receives compensation from the Design-Builder or a subcontractor.

Engineer. As defined in Article 1.2 of the General Conditions

Equipment. Machinery, tools, and other apparatus, together with the necessary supplies for upkeep and maintenance that are necessary for acceptable completion of the work.

Excavation (**Excavate).** The act of creating a man-made cavity in the existing soil for the removal of material necessary to obtain a specific elevation or to install a structure, material, component, or item necessary to complete a specific task or form a final surface or subsurface.

Extra Work. An item of work that was not provided for in the Contract as awarded but that is found to be essential to the satisfactory fulfillment of the Contract within its intended scope and authorized pursuant to Article 9 of the General Conditions.

-F-

Falsework. A temporary framework used to support work while in the process of constructing permanent structural units.

Federal Agencies or Officers. An agency or officer of the federal government and any agency or officer succeeding, in accordance with the law to the powers, duties, jurisdictions, and authority of the agency or officer mentioned.

Fill Slope (See also Cut Slope). A surface plane formed during the construction of an Embankment above existing ground elevations that intersects with existing ground at its termini.

Firm. A commercial partnership of two or more Persons formed for the purpose of transacting business.

Flood Frequency. A statistical average recurrence interval of floods of a given magnitude.

Formwork. A temporary structure or mold used to retain the plastic or fluid concrete in its designated shape until it hardens. Formwork shall be designed to resist the fluid pressure exerted by plastic concrete and additional fluid pressure generated by vibration and temporary construction loads.

Frontage Street or Road. A local Street or Road auxiliary to and located on the side of a Highway for service to abutting property and adjacent areas and control of access.

-G-

Gage. U.S. Standard Gage.

Grade Separation. Any structure that provides a Traveled Way over or under another Traveled Way or over a body of water.

-H-

Highway. The entire Right of Way reserved for use in constructing or maintaining the roadway and its appurtenances.

Historical Flood Level. The highest flood level that is known to have occurred at a given location.

Holidays. The days specifically set forth in Section 108.02 or in the Contract Documents.

Hydrologic Data Sheet. A tabulation of hydrologic data for facilities conveying a 100-year discharge equal to or greater than 500 cubic feet per second.

-I-

Incentive. A verifiable monetary amount used to encourage the Design-Builder to complete work prior to the Contract Times that are identified and defined by specific Contract.

Inspector. The Engineer's authorized representative who is assigned to make detailed inspections of the quality and quantity of the Work and its conformance to the requirements and provisions of the Contract.

Invert. The lowest point in the internal cross-section of a pipe or other drainage structure.

-J-K-

Joint Venture. Two or more individuals, partnerships, Corporations, or combinations thereof that join together for the purpose of bidding on and performing a contract.

-L-

Laboratory. The testing laboratory of the Department or any other testing laboratory that may be designated by the Contract or by the Design-Builder.

Liquidated Damages. As defined in Article 5 of the Agreement.

-M-

Major Item. Any Pay Item specifically indicated as such in the Contract Documents.

Material. Any substance that is used in the Work specified in the Contract.

Median. The portion of a divided Highway that separates the Traveled Ways.

-N-

Non-Contract Item. An item of work required to permit completion of the specified Work in an acceptable manner, which item of work is located within the Construction Limits but is not included in the Contract Documents as being Design-Builder's responsibility, and which item of work will be completed by others prior to, during, or after the construction of the Project.

No Plan and Minimum Plan Concept Project. Generally a project of a very limited scope and duration requires few details to describe proposed work.

Notice to Proceed. As defined in Article 5.1 of the Agreement.

-O-

Offeror. See the definition for the term **"Bidder."**

Ordinary High Water. A water elevation based on analysis of all daily high waters that will be exceeded approximately 25 percent of the time during any 12 month period.

Overtopping Flood. The magnitude of flood that just overflows the Traveled Way at a given structure or on the approach Traveled Way of such structure.

-P-Q-

Pavement Structure. The combination of Select or stabilized materials, Subbase, Base, and surface courses, described in the typical pavement section in the Contract Documents that is placed on a Subgrade to support the traffic load and distribute it to the Roadbed.

Pay Item. A specifically described unit of work for which a price is provided in the Contract.

Person. Any individual (including the heirs, beneficiaries, executors, legal representatives or administrators thereof), Corporation, partnership, Joint Venture, trust, limited liability company, limited partnership, joint stock company, unincorporated association, county, district, authority, municipality, political subdivision or other entity of the Commonwealth or the United States of America, or other entity.

Plans. The approved Project plans and profiles, which may include Standard Drawings, survey data, typical sections, summaries, general notes, details, plan and profile views, cross-sections, special design drawings, computer output listings, supplemental drawings, or exact reproductions thereof, and all subsequently approved revisions thereto which show the location, character, dimensions, and details of the Work specified in the Contract.

Prequalification. The procedure used by the Department to assure itself of the Design-Builder's ability to perform the Work with attention to quality and safety, including his experience in similar work, and sufficiency of Equipment to accomplish the Work and that the Design-Builder's financial resources will permit financing the cost in accordance with the Rules Governing Prequalification Privileges.

Professional Engineer (PE). An engineer holding a valid license to practice engineering in the State of Virginia.

Profile Grade. The line of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the Roadbed.

Project. The total scope of Work specified to be performed in the Contract Documents.

Project Showing. The scheduled event at which the Department's representative meets with prospective Offerors to describe and answer questions regarding the proposed work.

Proposal: As defined in Article 1.2 of the General Conditions.

-R-

Ramp. A connecting Roadway between two Highways or Traveled Ways or between two intersecting Highways at a Grade Separation.

Request for Proposals (RFP). As defined in Article 1.2 of the General Conditions.

RFP Documents. As defined in Article 1.2 of the General Conditions.

Request for Qualifications (RFQ). As defined in Article 1.2 of the General Conditions.

Right of Way. A general term denoting land, property, or interest therein, usually in the form of a strip, that is acquired for or devoted to transportation facilities but is not meant to denote the legal nature of ownership.

Road. A general term denoting a public way for purposes of vehicular travel including the entire area within the Right of Way; the entire area reserved for use in constructing or maintaining the Roadway and its appurtenances.

Roadbed. The graded portion of a Highway within the top and side slopes that is prepared as a foundation for the Pavement Structure and Shoulders.

Roadbed Material. The material below the Subgrade in cuts, Embankments, and Embankment foundations that extends to a depth and width that affects the support of the pavement structure.

Roadside. A general term that denotes the area within the Right of Way that adjoins the outer edges of the Roadway; extensive areas between the Roadways of a divided Highway.

Roadside Development. Items that are necessary to complete a Highway that provide for the preservation of landscape materials and features; rehabilitation and protection against erosion of areas disturbed by construction through placing seed, sod, mulch, and other ground covers; and such suitable plantings and other improvements as may increase the effectiveness, service life and enhance the appearance of the Highway.

Roadway. The portion of a Highway within the limits of construction and all structures, ditches, channels, and waterways which are necessary for the correct drainage thereof.

-S-

Schedule of Record (SOR). The latest accepted Baseline Schedule in accordance with Part 3, Article 11 of the Contract by which all schedule references will be made and progress evaluated.

Seawater. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent of total solids.

Select Borrow. Borrow material that has specified physical characteristics.

Select Material. Material obtained from Roadway Cuts, Borrow areas, or commercial sources that is designated or reserved for use as a foundation for the Subbase, Subbase material, Shoulder surfacing, or other specified purposes designated in the Contract Documents.

Shoulder. The portion of the Roadway contiguous with the Traveled Way that is for the accommodation of stopped vehicles, emergency use, and lateral support of the Base and Surface courses.

Sidewalk. The portion of the Roadway constructed primarily for the use of pedestrians.

Skew. The acute angle formed by the intersection of a line normal to the centerline of the Roadway with a line parallel to the face of the abutments or, in the case of Culverts, with the centerline of the Culverts.

Special Provision (SP). A document that sets forth specifications or requirements for a particular project that are not covered by the Standard Specifications.

Special Provision Copied Note (SPCN). A document that sets forth specific specifications or requirements, usually limited in scope, for a particular project.

Specialty Item. An item of work designated as "Specialty Item" in the Proposal that is limited to work that requires highly specialized knowledge, craftsmanship, or Equipment that is not ordinarily available in contracting organizations prequalified to submit proposals and is usually limited to minor components of the overall Contract.

Specifications. A general term that includes all directions, provisions, and requirements contained herein and those that may be added or adopted as supplemental specifications, special provisions, or special provision copied notes. All are necessary for the proper fulfillment of the Contract.

Standard Drawings. Unless otherwise specified, applicable drawings in the Standard Specifications and such other standard drawings as are referred to in the Contract Documents.

Standard Specifications. As defined in Article 1.2 of the General Conditions.

State. As defined in Article 1.2 of the General Conditions

Statement of Qualifications (SOQ). The documents submitted by an Offeror in response to an RFQ.

Station. When used as a definition or term of measurement, 100 linear feet.

Storm Sewer System. A drainage system consisting of a series of at least two interconnecting pipes and structures (minimum of two drop inlets, manholes, junction boxes, etc.) designed to intercept and convey stormwater runoff from a specific storm event without surcharge.

Street. A general term denoting a public way for purposes of vehicular travel including the entire area within the Right of Way; the entire Right of Way reserved for use in constructing or maintaining the Roadway and its appurtenances.

Structures. Bridges, Culverts, catch basins, inlets, retaining walls, cribs, manholes, end walls, buildings, steps, fences, sewers, service pipes, underdrains, foundation drains, and other features that may be encountered in the Work and are not otherwise classed herein.

Subbase. A layer(s) of specified or selected material of designed thickness that is placed on a Subgrade to support a Base Course.

Subcontractor. As defined in Article 1.2 of the General Conditions

Subcontracting. Contracting with a Subcontractor for the performance of a portion of the Work without relinquishing any of the responsibility that the Design-Builder has toward the Department for performance of the entire Contract.

Subgrade. The top Earthwork surface of a Roadbed, prior to application of Select (or stabilized) Material courses, shaped to conform to the typical section on which the Pavement Structure and Shoulders are constructed, or surface that must receive an additional material layer, such as topsoil, stone or other Select Material.

Subgrade Stabilization. The modification of Roadbed soils by admixing with stabilizing or chemical agents that will increase the load bearing capacity, firmness, and resistance to weathering or displacement.

Substructure. The part of a structure that is below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the back walls, wingwalls, and wing protection railings.

Successful Offeror. The Offeror that will be recommended for Award of the Contract in accordance with the RFP.

Superstructure. The portion of a structure that is not defined as Substructure.

Supplemental Specifications. Additions and revisions to the Standard Specifications

Surety. A corporate entity bound with and for the Design-Builder for full and complete fulfillment of the Contract and for payment of debts pertaining to the Work. When applied to the proposal guaranty, it refers to the corporate body that engages to be responsible in the execution by the Offeror, within the specified time, of a satisfactory Contract and the furnishing of an acceptable payment and Contract bond.

Surface Course (See Wearing Course). One or more top layers of a Pavement Structure designed to accommodate the traffic load, which is designed to resist skidding, traffic abrasion, and disintegrating effects of weather.

Surplus Material. Material that is present on the Project as a result of unbalanced Earthwork quantities, excessive swell, slides, undercutting, or other conditions beyond the control of the Design-Builder.

Suspension. A written notice issued by the Engineer to the Design-Builder that orders the work on the Project to be stopped wholly or in part as specified. The notice will include the reason for the suspension.

-T-

Temporary Structure. Any structure that is required to maintain traffic while permanent structures or parts of structures specified in the Contract are constructed or reconstructed. The Temporary Structure shall include earth approaches.

Theoretical Maximum Density. The maximum compaction of materials that can be obtained in accordance with the values established VTM-1.

Tidewater, Virginia. Areas within the State as defined in the Department of Conservation and Recreation Erosion and Sediment Control Manual.

Topsoil: The uppermost original layer of material that will support plant life and contains more than 5 percent organic material and is reasonably free from roots exceeding 1 inch in diameter, brush, stones larger than 3 inches in the largest dimension, and toxic contaminants.

Ton. A short ton; 2,000 pounds avoirdupois.

Top of Earthwork. The uppermost surface of the regular or Embankment Excavation, not including Select Material that is shaped to conform to the typical section shown in the Contract Documents.

Traveled Way. The portion of the Roadway for the movement of vehicles, not including Shoulders.

U-

Unsuitable Material. As defined in Part 2 of the Contract Documents ("Technical Requirements"). All unsuitable material shall be disposed of and/or treated as discussed in Section 106.04 at no additional cost to the Department.

Utilities. Private, county, city, municipal or public facilities designed, owned, and maintained for public use such as electricity, water, sanitary sewer, storm sewer, drainage culverts, telecommunications, conduits, gas, oil, fiber optics, and cable television that are not identified as a Pavement Structure, Roadway, Highway, Street, or Traveled Way.

-V-

Vouchered. The action of approval by the Department; constitutes the date of release to the State Comptroller for payment.

-W-X-Y-Z-

Wearing Course (See Surface course). The top and final layer of any pavement

Work. As defined in Article 1.2 of the General Conditions

Working Drawings. Stress sheets, shop drawings, erection plans, Falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data the Design-Builder is required to submit to the Department's Representative for record purposes.

Work Order. As defined in Article 9 of the General Conditions

SECTION 102—BIDDING REQUIREMENTS AND CONDITIONS

102.01—Prequalification of Offerors

(a) Prospective Offerors and Subcontractors shall prequalify in accordance with the instructions in the RFQ or the RFP for each design-build project. When required, prospective Offerors and Subcontractors shall prequalify with the Department and shall have received a certification of qualification in accordance with the rules and regulations adopted by the Board.

The names of individuals authorized to sign proposals shall be on file with the Department. A name will be considered to be on file if it appears as that of an officer, a partner, or an owner on the current Design-Builder's Financial Statement. Requests by the Offeror to revise the list of individuals authorized to sign proposals shall be submitted in writing and approved prior to the date proposals are opened. A proposal signed by someone whose name is not on file may be rejected.

Unless otherwise designated by the Offeror, the proposal amount of a Joint Venture will be divided equally among the Joint Venture members to determine if the maximum capacity rating for each member is within that member's range.

An Offeror who makes a false certification on the proposal will be subject to forfeiture of the proposal bond, disqualification from bidding on future work for a 90-day period, or both.

When an individual is prequalified to submit a proposal jointly only with a specific company, the Joint Venture will be considered a unified entity for qualification purposes.

Offerors seeking new Prequalification must complete and submit the Prequalification package.

Offerors intending to submit proposals consistently shall prequalify at least once each two years using the Prequalification Renewal Application. However, the maximum capacity rating or classification, or both, may be changed by the Department during that period if additional favorable reports are submitted; or upon unsatisfactory performance as determined in accordance with the requirements of Exhibit 11.1; or from the Contractor's performance evaluations; or upon non-performance as determined in accordance with the provisions of Section 108.07. The Department may require a Design-Builder to furnish a current financial and experience statement at any time.

Temporary disqualification of a Design-Builder as provided herein will result in the temporary disqualification of each member of a Joint Venture and any affiliate having substantially the same operational management or drawing from the same equipment or labor resource pool. Temporary

disqualification will also result in non-approval of the Design-Builder and each member of a Joint Venture and affiliates as defined herein for performance of Work as Subcontractors, which, in the opinion of the Department, could adversely affect other work under contract to the Department.

(b) If Prequalification is approved, prospective Offerors will be placed on the Department's List of Prequalified Vendors. Offerors are subject to varying levels of pre-qualification as stated within the Rules Governing Prequalification Privileges. Offerors will be subject to removal from this list based on disqualification in accordance with the Contract Documents and Prequalification rules and regulations.

Unless otherwise stated, consideration for reinstatement to the Department's List of Prequalified Vendors will be made by the Contract Engineer.

102.02—Contents of RFQ and RFP (Not Used)

102.03—Interpretation of Quantities in RFP (Not Used)

102.04—Examination of Site of Work and Proposal

(a) Evidence of Examination of Site of Work and Proposal (Refer to General Conditions, Section 4.2)

(b) Subsurface Data

Subsurface data may be available for review by the Offeror in the office of the District Materials Engineer or State Materials Engineer or as stated elsewhere in the RFP documents. Such data may be reasonably relied upon by Offeror as being accurate with regard to test holes and are made available to the Offeror in good faith in order to apprise him of information in possession of the Department. Any conclusions drawn by the Department concerning subsurface conditions are based solely on the data and are merely indications of what appear to be existing subsurface conditions. The Department does not warrant these conclusions to be correct, either expressly or by implication. Further, the Department does not warrant the condition, amount, or nature of the material that may be encountered or the sufficiency of the data, either expressly or by implication. Prior to submitting a proposal, the Offeror shall make his own interpretation of the subsurface data that may be available and satisfy himself with regard to the nature, condition, and extent of the material to be excavated, graded, or driven through. After the Date of Commencement, the Successful Offeror shall comply with Section 4.2.2 of the General Conditions.

(c) Notice of Alleged Ambiguities

If a word, phrase, clause, or any other portion of the RFQ or RFP is alleged to be ambiguous, the Offeror shall submit written notice of the same in accordance with the requirements of and within the time periods specified in the RFQ or RFP. Responses by the Department will be provided accordingly. The Department's responsibility for answering the notice will be limited to the processes defined by the RFQ or RFP.

The Department will not be responsible for any other explanations or interpretations of the alleged ambiguities except those brought to the attention of and responded to by the Department point of contact (POC) as identified in the RFQ or RFP. No employee or agent of the Department shall have the authority to furnish any explanation or interpretation, verbal or written, of alleged ambiguities.

If the Offeror fails to give written notice and request an interpretation of the alleged ambiguity within the specified time, he shall waive any right he may have had to his own interpretation of the alleged ambiguity. The true meaning of the alleged ambiguity will be as interpreted by the Department through the POC.

102.05—Preparation of Proposal

(a) General (Refer to RFP)

(b) Design Options (Refer to RFP)

(c) Debarred Suppliers

The Offeror is cautioned against utilizing price quotes for materials for use in the preparation of proposals from suppliers that are debarred by the Department. The Department will not approve for use any material furnished by a supplier debarred by the Department. The Offeror shall ascertain from the Department's listings which suppliers are debarred. Lists of approved suppliers can be found on the Department's Materials Division web site.

If a previously debarred supplier is reinstated to eligibility subsequent to the Award of a contract, the Department may approve the use of the supplier when requested by the Contractor.

(d) Required Certifications (Not Used)

(e) Acknowledgement of Receipt of Revisions (Refer to RFP)

(f) Signing the Proposal (Refer to RFP)

(g) Additional Proposal Requirements

Offeror shall also comply with the requirements as set forth in the following exhibits included with the RFP:

.1 Exhibit 102.05(g.1) *Use of Domestic Material*

.2 Exhibit 102.05(g.2) *FHWA Required Contract Provisions Federal-Aid Construction Contracts*

.3 Exhibit 102.05(g.3) *Executive Order 11246*

102.06—Irregular Proposals

Proposals will be considered irregular and may be rejected for *any* of the following reasons:

(a) if the Offeror fails to comply with the requirements of Sections 102.05 and 102.07;

(b) if the proposal is not written in ink or typed;

(c) if the Offeror adds any provisions reserving the right to accept or reject an Award or enter into a contract pursuant to an Award except as otherwise permitted in the RFP;

(d) if the Price Proposal is not in compliance with the RFP;

(e) if the proposal is not properly signed;

(f) if erasures or alterations in the Offeror's entries are not initialed by the Offeror;

(g) if the Offeror fails to provide a complete Acknowledgment of Revision Sheet (C-78);

(h) if there are unauthorized additions, conditional or alternate proposals, or irregularities of any kind that may make the proposal incomplete, indefinite, or ambiguous;

(i) if the unit prices in the proposal are obviously unbalanced, or either in excess or below the cost analysis values as determined by the Department;

(j) if any papers included in the proposal are detached or altered when the proposal is submitted except as otherwise provided for herein;

(k) if proposals are submitted in envelopes showing a designation for a project other than the project for which the proposal is made;

(l) if the Offeror fails to submit a statement concerning collusion;

(m) if the proposal contains any other deviation from the RFP; or

(n) failure to be registered with "eVA Internet e-procurement solution" prior to the Award of the Contract.

102.07—Proposal Guaranty

A proposal in excess of $250, 000.00 will not be accepted or considered unless accompanied by a guaranty in the form of a proposal bond made payable to the Treasurer of Virginia. A proposal bond will be accepted only if executed on a form that contains the exact wording as the form furnished by the Department. Any proposal accompanied by a bond having wording that differs in any respect from that furnished by the Department will be rejected. The amount of the proposal guaranty shall be 5 percent of the Proposal Price.

When the principal is a Joint Venture, each party thereof shall be named and shall execute the proposal guaranty. Each surety to the proposal bond shall be named and shall execute the proposal bond. The proposal bond shall be accompanied by a certified copy of the power of attorney for the surety's attorney-in-fact.

102.08—Disqualification of Offeror

Any of the following causes may be considered sufficient for the disqualification of an Offeror and rejection of its proposal:

(a) more than one proposal for the same work from an individual, partnership, Corporation, or Joint Venture under the same or different name. A proposal submitted by an Affiliate of an individual, partnership, Corporation, or any party of a Joint Venture will be considered as more than one proposal submitted for the same work. *Affiliate* as used herein shall conform to the definition in Section 101.02—Terms, with the term "Offeror" being used in lieu of the term "Design-Builder.";

(b) evidence of collusion among Offerors in which case the participants in such collusion will not be considered for future bids until re-qualified by the Board;

(c) incompetency or inadequate machinery, plants, or other Equipment as revealed by the Offeror's financial and experience statements required by the RFP and Contract Documents;

(d) unsatisfactory workmanship or progress as demonstrated by performance records of current or past work for the Department, other agencies or departments of the Commonwealth, or agencies or departments of other states in the United States or federal government;

(e) The Design-Builder may be temporarily disqualified from bidding on contracts with the Department when progress on the Work is determined by the VDOT Project Manager to be unsatisfactory according to Exhibit 11.1. If its name is removed from the list of prequalified Offerors, the Design-Builder will not be reinstated as a prequalified Offeror until the Department deems that progress of the Work has improved to the extent that the Work can be completed within the Contract Time or until Final Acceptance of the Project.

(f) uncompleted work with the Department that in the judgment of the Department might hinder or prevent prompt completion of additional work if awarded;

(g) failure to pay or settle satisfactorily all bills for Materials, labor, Equipment, supplies, or other items specified in contracts in force at the time the new work comes before the Board for Award;

(h) failure to comply with any Prequalification regulation of the Department;

(i) failure to cooperate properly with representatives of the Commonwealth inspecting, monitoring, or administering construction or disorderly conduct toward any such representative in previous contracts;

(j) default under a previous contract; or

(k) Failure to pay back amounts owed the Department as specified in Section 103.08

Temporary disqualification of an Offeror as provided herein will result in the temporary disqualification of each member of a Joint Venture and any Affiliate. Temporary disqualification will also result in non-approval of the Offeror, each member of a Joint Venture, and Affiliates as defined herein, for performance of work as subcontractors that in the opinion of the VDOT Project Manager could adversely affect other work under contract to the Department.

The above listed reasons for possible disqualification are not totally inclusive and disqualification may also occur based on other requirements within the RFP or Contract Documents.

Offerors who are disqualified may be reinstated at the discretion of the Engineer or the Prequalification Panel upon satisfactory compliance with the requirements of the RFP.

102.09—Submission of Proposal

Proposals shall be delivered in accordance with the instructions in the RFP. Unless clearly stated otherwise, proposals shall be submitted in two separate, sealed parcels containing the Technical Proposal in one and the Price Proposal in the other. Parcels shall be clearly marked to identify the Project and the Offeror, and to identify the contents as Technical Proposal or Price Proposal. Proposals shall be sealed in an envelope and addressed to the Point of Contact identified in the RFP for receipt of proposals, and shall be filed prior to the time and at the place specified in the RFP. Proposals received after that time will be returned to the Offeror unopened. The Department may defer the date for the opening of proposals in which case the Offerors will be notified.

If the Department so elects, RFPs may be issued for projects in combination or separately. Proposals may be submitted for either the combination or separate units of the combination. The Department may make Awards on combination proposals or separate proposals to its best advantage. Combination proposals other than those set up in the RFP by the Department will not be considered.

Conditional proposals will be considered only when so stated in the RFP.

102.10—Withdrawal of Proposal (Not Used)

102.11—eVA Business-To-Government Vendor Registration

Offerors are not required to be registered with “eVA Internet e-procurement solution” at the time Proposals are submitted, however, prior to award of a contract, the Successful Offeror must be registered with “eVA Internet e-procurement solution” or the Proposal may be rejected. Registration shall be performed by accessing the eVA website portal www.eva.state.va.us, following the instructions and complying with the requirements therein.

When registering with eVa it is the Offeror’s responsibility to enter or have entered their correct PA type address or addresses in eVa in order to receive payments on any contracts that the Department (VDOT) may award to them as

the Successful Offeror. The Offeror shall also ensure their prequalification address(es) match those registered with eVa. Failure on the part of the Successful Offeror to meet either of these requirements may result in late payment of monthly estimates.

102.12—Public Opening of Proposals.

Price Proposals will be opened in accordance with the instructions in the RFP. Interested parties are invited to be present.

SECTION 103—AWARD AND EXECUTION OF DESIGN-BUILD CONTRACTS

103.01—Consideration of Proposals

After Price Proposals have been opened and read, they will be evaluated in accordance with the RFP for the design-build contract.

The Board reserves the right to reject any or all proposals, waive technicalities, advertise for new proposals, or proceed to do the work otherwise if it deems that the best interest of the Commonwealth would be promoted thereby.

103.02—Award of Contract (Not Used)

103.03—Cancellation of Award

The Board or the Commissioner, where permitted by law, may cancel the Award of any contract at any time before the execution of the contract by all parties without liability to the State.

103.04—Return of Proposal Guaranty

Proposal guaranties, except those of the two highest ranked Offerors, will be returned immediately after the evaluation of proposals, if requested. The proposal guaranties of the two highest ranked Offerors will be returned within 5 days after the Contract has been duly executed by both the Successful Offeror and Department, if requested. If the Successful Offeror withdraws his Proposal prior to Award, the proposal guaranty will be forfeited in accordance with the requirements of Section 2.2-4336 of the *Code of Virginia*.

103.05—Requirements of Contract Bond

Within 15 days after Notice of Intent to Award of a contract, the Successful Offeror shall furnish the following bonds ("Contract Bonds") for contracts in excess of $250,000.00:

(a) a performance bond in the sum of one hundred percent (100%) of the Contract Price conditioned upon the faithful performance of the Work in strict conformity with the Contract Documents, and

(b) a payment bond in the sum of one hundred percent (100%) of the Contract Price conditioned upon the prompt payment for all labor, materials, public utility services, and rental of equipment used in the prosecution of the Work.

Offerors will not be awarded an unbonded contract when their proposal plus the balance of other unbonded contracts exceeds $250,000.00 or if their current Ability Factor is less than 8.0 as determined by their Prequalification status.

The Contract Bonds shall be made on official forms furnished by the Department and shall be executed by the Offeror and a Surety company authorized to do business in Virginia in accordance with the laws of Virginia and the rules and regulations of the State Corporation Commission. To be considered properly executed, the Contract Bonds shall include authorized signatures and titles.

In lieu of payment or performance bonds, the Offeror may furnish a certified check or cash escrow in the face amount required for each of the bonds, which will be held for the full statutory period as applicable for each bond.

Upon written request from the Offeror, the Contract Bonds may be reduced on Contracts having planting items with an establishment period after acceptance of all Contract Work and during the establishment period. The amount of Contract Bonds for the duration of the remaining establishment period shall be equal to 35 percent of the total contract price of the planting items.

If the Design-Builder is structured as a limited liability company, partnership or joint venture, the bonding approach used will ensure that the members of such organizations will have joint and several liability for the performance of the Work required for the Project.

103.06—Documents Required as a Condition to Award

The portion of the executed Contract submitted by the Successful Offeror shall include the following documents, unless the filing of any of them at a later date is specifically permitted by the RFP or Contract Documents, provided, however notwithstanding anything to the contrary in the Contract Documents, that the submission of an executed Agreement and Contract Bonds shall always be a precondition to Award

(a) **Contract:** The Agreement executed by the Successful Offeror.

(b) **Contract Bonds:** Contract Bonds shall conform to the requirements of Section 103.05.

(c) **Affidavits and Documents:** Affidavits and documents set forth in the RFP and executed by the Successful Offeror.

(d) **Progress Schedule:** (Not Used)

(e) **Insurance Coverages and Certificates of Insurance:** The Design-Builder shall procure and maintain the insurance coverages required below, in accordance with Paragraph (f) below. Design-Builder shall file certificates of insurance with the Department evidencing the coverages and limits within 15 days after Notice of Intent to Award of the Contract.

.1. Workers' Compensation and Employer's Liability Insurance, with statutory workers' compensation (Coverage A) limits and employer's liability (Coverage B) limits of $1 million bodily injury by accident or disease, each employee. If necessary, coverage shall be extended to cover any claims under the United States Longshoreman's Act and Harbor Workers Act and Jones' Act as may be appropriate for the Work.

.2 Commercial General Liability Insurance, including coverage for premises and operations, independent contractors, personal injury, product and completed operations, explosion, collapse and underground, and broad form contractual liability with limits of at least $1 million per occurrence and $2 million aggregate, applicable on a per project basis.

.3 Automobile Liability Insurance, with a limit of at least $1 million combined single limit for bodily injury and property damage covering all owned (if any), non-owned, hired or borrowed vehicles on-site or off.

.4 Umbrella/Excess Liability Insurance in excess of the underlying limits noted above for employer's liability, commercial general liability, and automobile liability in the amount of: (a) $5 million per occurrence and in the annual aggregate for Projects with a Contract Price less than $15 million; and (b) $20 million per occurrence and in the annual aggregate for Projects with a Contract Price greater than $15 million.

.5. Architects/Engineers Professional Liability Insurance, covering Design-Builder's lead design engineer for acts, errors or omissions arising in connection with the Work for not less than: (a) $2 million any one claim and in the aggregate for Projects with a Contract Price less than $50 million; and (b) $5 million any one claim and in the aggregate for Projects with a Contract Price greater than $50 million. Such insurance shall be maintained throughout the duration of any warranty period and for at least three years after the expiration of any warranty period.

.6 Contractor's Pollution Liability Insurance, to indemnify for bodily injury or property damage or amounts which Design-Builder or its agents, Subcontractors, or employees are legally obligated to pay for clean-up/remediation arising out of the work undertaken pursuant to the Contract Documents. Such insurance shall have minimum limits of $5 million any one claim and in the aggregate and shall remain in full force and effect for five years following Final Completion.

(f) **Insurance Requirements**. Design-Builder shall ensure that all insurances required in Paragraph (e) above contain the following provisions:

.1 With the exception of workers' compensation and architect/engineers' professional liability insurance, the Department shall be named as an additional insured on all policies. Each such policy shall also include the appropriate severability of interest and cross-liability clauses to allow one insured to bring claim against another insured party.

.2 All insurance coverages shall be considered primary and non-contributory with regard to other insurances that might be available to Design-Builder or the Department.

.3 All insurers shall waive rights of subrogation against the Department for any claims covered by insurance required herein.

.4 Any inadvertent errors or omissions by Design-Builder in procuring the insurance required herein shall in no way prejudice the rights of the Department to collect under such policies.

.5 Any deductibles shall be the sole responsibility of Design-Builder.

.6 The insurance shall remain in full force and in effect and will remain in effect for the duration required by the Contract Documents; and

.7 No insurance coverage will be canceled, renewal refused, or materially changed unless at least thirty (30) days prior written notice is given to Department.

.8 With the exception of workers' compensation and automobile insurance, the insurance policies shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project.

(g) **Additional Insurance Requirements**

.1 With the exception of architect/engineer's professional liability and builder's risk insurance, Design-Builder shall require all Subcontractors to carry the same insurance required by Paragraph (e) above, in the same amounts as outlined in Paragraph (e) above, except that the limit for Contractor's Pollution Liability shall be $1 million.

.2 Design-Builder shall file certificates of insurance with the Department evidencing the coverages and limits described above within the times required by Paragraph (e) above. The certificates shall be executed by approved insurance companies authorized to do business in Virginia with a minimum "Best Rating" of "B +" or greater, and shall cover the Contract.

.3 The insurance coverage limits shall not be construed to relieve Design-Builder or Subcontractor(s) of liability in excess of such coverage, nor shall it preclude the Department from taking such actions as are available to it under any other provision of the Contract Documents or otherwise in law.

103.07—Failure to Furnish Bonds or Certificate of Insurance

Failure by the Successful Offeror to furnish the Department acceptable bonds or certificates of insurance within 15 days after Notice of Intent to Award of the Contract shall be considered just cause for cancellation of Award and forfeiture of the proposal guaranty. In such event, the proposal guaranty shall become the property of the Commonwealth, not as a penalty but in liquidation of damages sustained. The Contract may then be awarded to the next highest-ranked responsible and responsive Offeror, or the work may be re-advertised or constructed otherwise, as determined by the Board.

No plea of mistake in the proposal shall be available to the Offeror for the recovery of his proposal guaranty or in defense of action taken by the Department as a result of his neglect or refusal to execute a contract.

In the event the Successful Offeror on an unbonded contract is unwilling or unable to fulfill a contract and fails to notify the Department prior to execution of a contract by the Department, the Offeror will be declared in default in accordance with the requirements of Section 108.07.

In the event the Offeror on an unbonded contract notifies the Department prior to execution of a contract by the Department of such unwillingness or inability to fulfill a contract, the Offeror will be enjoined from bidding on any unbonded contracts for a period of no less than 90 days from the date of notice by the Department.

An Offeror who has never been enjoined or defaulted on an unbonded contract and who notifies the Department prior to contract execution of an unwillingness or inability to fulfill a contract will not be enjoined for the first occurrence; however, said Offeror will not be permitted to rebid or perform work on that specific contract.

103.08—Contract Audit

The Design-Builder shall permit the Department to audit, examine, and copy all documents, computerized records, electronic mail, or other records of the Design-Builder during the life of the Contract and for a period of not less than five years after the date of final payment, or the date the Design-Builder is declared in default of Contract, or the date of termination of the Contract. The documents and records shall include, but not be limited to:

(a) Those that were used to prepare and compute the Proposal, prepare all schedules used on the Project, record the progress of Work on the Project, accounting records, purchasing records, personnel payments or records necessary to determine Employee credentials, vendor payments and written policies and procedures used to record, compute and analyze all costs incurred on the Project, including those used in the preparation or presentation of claims to the Department.

(b) Records pertaining to the Project as the Department may deem necessary in order to permit adequate evaluation and verification of Design-Builder's compliance with contract requirements, compliance with the Department's business policies, and compliance with provisions for pricing Work Orders or claims submitted by the Design-Builder or Subcontractors, shall be made available to the auditor(s) at the Department's request. The Design-Builder shall make his personnel available for interviews when requested by the Department.

(c) Upon request, the Design-Builder shall provide the Department with data files on data disks, or other suitable alternative computer data exchange format. Data furnished by the Design-Builder that cannot be verified will be subject to a complete audit by the Department.

The Design-Builder shall ensure that the requirements of this provision are made applicable to Subcontractors. The Design-Builder shall cooperate and shall cause all related parties to furnish or make available in an expeditious

manner all such information, materials, and data. The Design-Builder shall be forthcoming in disclosing all sources and locations of media.

The Design-Builder shall provide immediate access to records for the audit and provide immediate acceptable facilities for the audit. Failure on the part of the Design-Builder to afford the Department immediate access or proper facilities for the audit will be considered failure to cooperate and will result in disqualification as an Offeror in accordance with Section 102.08.

Upon completion of the Contract audit, any adjustments or payments due by the Design-Builder as a result of the audit shall be made within 60 days from presentation of the Department's findings to the Design-Builder. Failure on the part of the Design-Builder to make payment may result in disqualification as an Offeror in accordance with Section 102.08.

If the Design-Builder disagrees with the findings of the Department's audit, the Design-Builder may appeal the decision in accordance with provisions of Section 105.19 or the *Code of Virginia* as amended and as applicable, except that the provision for the Design-Builder to submit a claim within 60 days after final payment shall not apply. If the Design-Builder elects to appeal the decision of the audit he shall within 60 days of the date of the notice of the Department's findings submit a written request to appeal the decision to the Engineer. Failure on the part of the Design-Builder to file a claim disputing the Department's audit within 60 days will be interpreted as a waiver of any claim for dispute of the Department's findings.

103.09—Execution of Contract

The Proposal as submitted, including the documents specified in Section 103.06, shall be deemed accepted by the Department upon submittal of the contract bond, contract bodily injury and property damage liability insurance certificate, and workers' compensation insurance certificate, and the final execution by the Department. After the Department has recommended the Proposal for Award, the Successful Offeror shall be required to sign and return a paper copy of such documents to the Contract Engineer. Failure to sign and return such documents will result in forfeiture of the Proposal bond. If a contract is not awarded within the time limit specified in Section 103.02, the Offeror may withdraw his Proposal without penalty or prejudice unless the time limit is extended by mutual consent. No contract shall be considered effective until it has been fully executed by all parties.

SECTION 104—SCOPE OF WORK

104.01—Intent of Contract

The intent of the Contract is to provide for completion of the Work specified therein within the Contract Price and Contract Times. Further it is understood that the Design-Builder will execute the Work under the Contract as an independent Design-Builder and not as an agent of the Department, the Commissioner, or the Commonwealth Transportation Board.

104.02—Alteration of Quantities or Character of Work

(a) General

The Department reserves the right to make, in writing, at any time during the Work, such changes in quantities and such alterations in the Work as are necessary to complete the Project satisfactorily. Such changes shall be administered under Article 9 of the General Conditions, and shall not invalidate the Contract or release the Surety, and the Design-Builder shall agree to perform the Work as altered. No change, alteration, or modification in or deviations from the Contract Documents, or the giving by the Department of any extension of time for the performance of the Work, or the forbearance on the part of the Department shall release or exonerate in whole or in part either the Design-Builder or any Surety on the obligations of any bond given in connection with the Contract. Neither the Department nor the Design-Builder shall be under any obligation to notify the Surety or sureties of any such alteration, change, extension, or forbearance notice thereof being expressly

waived. Any increase in the Contract Price shall automatically result in a corresponding increase in the penal amount of the bonds without notice to or consent from the Surety, such notice and consent being hereby waived. Decreases in the Contract Price shall not, however, reduce the penal amount of the bonds unless specifically provided in any Work Order as authorized in accordance with the provisions of Section 109.05 decreasing the scope of the Work.

(b) Value Engineering Proposals

The Design-Builder may submit to the Department written Value Engineering Proposals (VEP) for modifying the requirements of Contract Documents for the purpose of reducing the total Contract Price or Contract Times without reducing the design capacity or quality of the finished product. If the VEP is accepted by the Department, the net savings or reduction of Contract Times will be equally divided by the Department and the Design-Builder.

Each VEP shall result in a net savings over the Contract Price or Contract Times without impairing essential functions and characteristics of the item(s) or of any other part of the Project, including, but not limited to, service life, reliability, economy of operation, ease of maintenance, aesthetics, and safety. At least the following information shall be submitted with each VEP:

- Statement that the proposal is submitted as a VEP
- Statement concerning the basis for the VEP benefits to the Department and an itemization of the contract items and requirements affected by the VEP
- Detailed estimate of the cost under the existing Contract and under the VEP
- Proposed specifications and recommendations as to the manner in which the VEP changes are to be accomplished
- Statement as to the time by which a contract Work Order adopting the VEP must be issued so as to obtain the maximum cost-effectiveness

The Department will process the VEP in the same manner as prescribed for any other proposal that would necessitate issuance of a Work Order. The Department may accept a VEP in whole or part by issuing a Work Order that will identify the VEP on which it is based. The Department will not be liable to the Design-Builder for failure to accept or act on any VEP submitted pursuant to these requirements or for delays in the Work attributable to any VEP. Until a VEP is put into effect by a Work Order, the Design-Builder shall remain obligated to the terms and conditions of the existing Contract. If an executed Work Order has not been issued by the date on which the Design-Builder's proposal specifies that a decision should be made or such other date as the Design-Builder may subsequently have specified in writing, the VEP shall be deemed rejected.

The Work Order effecting the necessary modification of the Contract will establish the net savings agreed on, provide for adjustment of the contract prices, or contract time, and indicate the net savings. The Design-Builder shall absorb all costs incurred in preparing a VEP. Costs for reviewing and administering a VEP will be borne by the Department. The Department may include in the agreement any conditions it deems appropriate for consideration, approval, and implementation of the VEP. The Design-Builder's 50 percent share of the net savings or contract time shall constitute full compensation to him for effecting all changes pursuant to the agreement.

Unless specifically provided for in the Work Order authorizing the VEP, acceptance of the VEP and performance of the work thereunder will not change the Contract Time.

The Department may adopt a VEP for general use in contracts administered by the Department if it determines that the VEP is suitable for application to other contracts. VEPs identical with or similar to previously submitted VEPs will be eligible for consideration and compensation under these

provisions if they have not been previously adopted for general application to other contracts administered by the Department. When a VEP is adopted for general use, compensation pursuant to these requirements will be applied only to those awarded contracts for which the VEP was submitted prior to the date of adoption of the VEP.

Proposed changes in the basic design of a Bridge or pavement type or those changes that require different right-of-way limits will not normally be considered an acceptable VEP. If a VEP is based on or is similar to a change in the Contract Documents prior to submission of the VEP, the Department will not accept the VEP.

The Department will be the sole judge of the acceptability of a VEP. The requirements herein apply to each VEP initiated, developed, and identified as such by the Design-Builder at the time of its submission to the Department. However, nothing herein shall be construed as requiring the Department to approve a VEP.

Subject to the provisions herein, the Department or any other public agency shall have the right to use all or part of an accepted VEP without obligation or compensation of any kind to the Design-Builder.

104.03—Differing Site Conditions (Refer to Part 4 – General Conditions – Section 4.3, Differing Site Conditions)

SECTION 105—CONTROL OF WORK

105.01—Notice to Proceed

The Department will issue a Notice to Proceed in accordance with the RFP, whereupon the Contract Times will start. In no case shall work begin before the Contract is executed by the Department. The Design-Builder shall notify the Department at least 3 days prior to the date on which it will begin any Work at the Site.

The Letter of Contract Execution will identify the Engineer's authorized representative who is responsible for written directives and changes to the Contract. The Department will contact the Design-Builder after notice of Award to arrange a pre-construction conference.

In the event the Design-Builder, for matters of his convenience, wishes to begin work later than 15 days from the date of Notice to Proceed he shall make such a request in writing to the Engineer promptly after the execution of the Contract. If the Design-Builder's requested start date is acceptable to the Engineer, the Design-Builder will be notified in writing; however, the Contract Time will not be adjusted but will remain binding. The Design-Builder's request to adjust the start date for the Work on the Contract will not be considered as a basis for claim that the time resulting from Design-Builder's requested start date, if accepted by the Engineer, is insufficient to accomplish the Work nor shall it relieve the Design-Builder of his responsibility to perform the Work in accordance with the scope of work and requirements of the Contract. In no case shall work begin before the Department executes the Contract. The Design-Builder shall notify the Engineer at least 3 days prior to the date on which he plans to begin the Work.

105.02—Pre-Construction Conference (Not Used)

105.03—Authorities of Project Personnel

(a) Authority of Department

During prosecution of the Work, the Department will answer all questions that may arise as to the quantity, quality, and acceptability of Materials furnished and work performed; rate of progress of the Work; interpretation of the Contract Documents; acceptable fulfillment of the Contract by the Design-Builder; disputes and mutual rights between contractors; and compensation.

The Department has the authority to suspend the Work wholly or in part if the Design-Builder has created conditions that are unsafe or fails to correct conditions that are unsafe for workers or the general public or fails to carry out the provisions of the Contract. The Department may also suspend Work for such periods as it may deem necessary because of catastrophic or extraordinary weather in accordance with the definition of such in Section 108.04, conditions considered unsuitable for prosecution of the Work, or any other condition or reason deemed to be in the public interest.

The Department may issue written clarifications or directives that either enhance or alter the Contract Documents. The Department may order such work as may be necessary to complete the Contract satisfactorily.

(b) Authority of Inspector

Inspectors employed by the Department are authorized to inspect all Work performed and Materials furnished. Inspection may extend to all or any part of the Work and to the preparation, fabrication, and manufacture of the Materials to be used. The Inspector is not authorized to alter or waive the provisions of the Contract Documents, or make changes to the Contract Documents.

The Inspector is not authorized to make Final Acceptance of the Project, approve any operation or item, or act as foreman for the Contractor. However, the Inspector will have the authority to reject defective work and material and suspend work that is being improperly performed, subject to the concurrence of the Engineer. Such inspection shall not relieve the Contractor of any obligation to furnish acceptable Materials or provide completed construction that is in accordance with the requirements of the Contracts.

The Inspector will exercise only such additional authority as may be delegated by the Engineer. The Engineer will advise the Contractor in writing of delegations of authority that will affect his operations.

105.04—Gratuities

Gifts, gratuities, or favors shall not be given or offered by the Design-Builder to personnel of the Department. A gift, gratuity, or favor of any nature whatsoever or offer of such by the Design-Builder to personnel of the Department shall be a violation of this provision.

The Design-Builder shall not employ any personnel of the Department for any services without the prior written consent of the Department.

If the Department determines after investigation that the Design-Builder or the Design-Builder's Employees, representatives, or agents of any Person acting in his behalf have violated this provision, the Design-Builder may, at the discretion of the Engineer, be disqualified from bidding on future contracts with the Department for a period of six months from the date of the Engineer's determination of such a violation. Any implicated Employees, agents, or representatives of the Design-Builder may be prohibited from working on any contract awarded by the Department for the period of disqualification.

105.05—Character of Workers, Work Methods, and Equipment

(a) Workers

Workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special or skilled work shall have sufficient experience in such work and in the operation of Equipment required to perform it properly and satisfactorily.

Any Person employed by the Design-Builder or any Subcontractor who, in the opinion of the Department, does not perform his work in a proper and skillful manner or is intemperate or disorderly

shall, when directed in writing by the Department, be removed by the Design-Builder or Subcontractor employing the individual and shall not be employed again on any portion of the Work without the written approval of the Department. If the Design-Builder fails to remove the individual or to furnish suitable and sufficient personnel for proper prosecution of the Work, the Department may withhold all monies that are or may become due the Design-Builder and may suspend the Work until the Design-Builder has complied with the Department directive.

(b) Equipment

Equipment shall be of sufficient size and in such mechanical condition as to comply with the requirements of the Work and produce a satisfactory quality of work. Equipment shall be such that no damage to the Roadway, adjacent property, or other Highways or danger to the public will result from its use. The Department may order the removal and require replacement of unsatisfactory Equipment.

(c) Work Methods

When methods and Equipment to be used by the Design-Builder are not prescribed in the Contract, the Design-Builder is free to use whatever methods or Equipment he feels will accomplish the Work in conformity with the requirements of the Contract.

When the Contract specifies that construction be performed by the use of particular methods and Equipment, they shall be used unless others are authorized by the Department. If the Design-Builder desires to use a different method or type of Equipment, he may request permission from the Department to do so. The request shall be in writing and shall include a full description of the methods and Equipment he proposes to use and an explanation of the reasons for desiring to make the change. If permission is not given, the Design-Builder shall use the specified methods and Equipment. If permission is given, it will be on the condition that the Design-Builder shall be fully responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods or Equipment, the Department determines that the work produced does not conform to the requirements of the Contract, the Design-Builder shall discontinue the use of the substitute method or Equipment and shall complete the remaining construction with the specified methods and Equipment. The Design-Builder shall remove any deficient work and replace it with work of the specified quality or take such other corrective action as the Department may direct. No change will be made in the basis of payment for the construction items involved or the Contract Times as the result of authorizing or denying a change in methods or Equipment under these provisions.

105.06—Subcontracting

The Design-Builder shall perform with his own organization Work amounting to not less than 30 percent (30%) of the original Contract Price unless otherwise specified in the Contract Documents.

The Design-Builder shall not subcontract any part of the Work to a contractor who is not prequalified with the Department in accordance with the requirements of Section 102.01, unless otherwise indicated in the Contract Documents. This restriction does not apply to contract specialty items, consultants, manufacturers, suppliers, or haulers. Consent to subcontract or otherwise dispose of any portion of the Work shall not relieve the Design-Builder of any responsibility for the fulfillment of the entire Contract.

105.07—Cooperation of Design-Builder

The Design-Builder shall give the Work the constant attention necessary to facilitate quality and progress and shall fully cooperate with the Department, and other contractors involved in the prosecution of the Work. If any portion of the Project is located within the limits of a municipality, military installation, or other federally owned property; the Design-Builder shall cooperate with the appropriate officials and agents in the prosecution of the Work to the same extent as with the Department.

The Design-Builder shall have on the Project at all times during prosecution of Work a competent Construction Manager capable of reading and understanding the Contract Documents and experienced in the type of work being performed who shall receive instructions from the Design-Builder or the Department or the Department's authorized representatives. The Construction Manager shall have full authority to execute the orders and directions of the Department without delay and supply promptly such Materials, Equipment, tools, labor, and incidentals as may be required.

105.08—Cooperation With Regard to Utilities

The adjustment of utilities consists of the relocation, removal, replacement, rearrangement, reconstruction, improvement, disconnection, connection, shifting, or altering of an existing utility facility in any manner.

Existing private and public utilities within the Department's knowledge prior to the issuance of the RFP will be indicated in RFP Documents. To the extent such existing utilities require adjustment, they will be adjusted by the utility owner or, if denoted in the Contract as the responsibility of the Design-Builder, then they will be adjusted by the Design-Builder. The location of the adjustment will not normally be shown in the RFP Documents, and Design-Builder is on notice that some of the utilities may be adjusted within the construction limits simultaneously with Project construction operations.

The Design-Builder shall coordinate Project construction with planned utility adjustments and take all necessary precautions to prevent disturbance of the utility facilities. The Design-Builder shall report to the Department any failure on the part of the utility owner to cooperate or proceed with the planned utility adjustments.

The Design-Builder shall perform utility work under the Contract in a manner that will cause the least inconvenience to the utility owner and those being served by the utility owner.

Existing, adjusted, or new utility facilities that are to remain within the Right of Way shall be properly protected by the Design-Builder to prevent disturbance or damage resulting from construction operations. If during prosecution of the Work the Design-Builder encounters an existing utility that requires adjustment, he shall not interfere with the utility but shall take the proper precautions to protect the facility and shall promptly notify the Department of the need for adjustment.

Prior to preparing a Proposal, the Design-Builder shall contact known utility owners to determine the nature, extent, and location of existing, adjusted, or new utility facilities. Any additional cost resulting therefrom shall be reflected in the Proposal.

If the Design-Builder desires the temporary or permanent adjustment of utilities for his own benefit, he shall conduct all negotiations with the utility owners and pay all costs in connection with the adjustment.

Except as provided in the General Conditions, the Department will not be responsible for any claims for additional compensation from the Design-Builder resulting from delays, inconvenience, or damage sustained by him attributable to interference by utility appurtenances or the operation of moving the same.

105.09—Cooperation among Contractors

Section 3.6 of the General Conditions of Contract has precedence.

105.10—Plans and Working Drawings

(a) General

Refer to Article 2 of the General Conditions for Required Submittals.

(b) Plans

Design-Builder shall furnish all plans consisting of general drawings and showing such details as are necessary to give a comprehensive understanding of the work specified. Except as otherwise shown on the plans, dimensions shown on the plans are measured in the respective horizontal or vertical planes. Dimensions that are affected by gradients or vertical curvatures shall be adjusted as necessary to accommodate actual field conditions and shall be specifically denoted on the Working Drawings.

(c) Working Drawings

The Design-Builder shall furnish Working Drawings and maintain a set for the Department as may be required. Working drawings shall not incorporate any changes from the requirements of the Contract unless the changes are specifically denoted, together with justification, and are approved in writing by the Department. The Design-Builder shall identify Working Drawings and submittals by the complete state project and job designation numbers. Items or component materials shall be identified by the specific Contract Item number and Specification reference in the Contract.

A PE shall certify Working Drawings for Falsework supporting a Bridge superstructure.

The Design-Builder shall provide four sets of any submittal. If a railroad, municipality, or other entity as specified in the Contract Documents is required to review the Working Drawings, the reviewed Working Drawings will be returned within 45 days from the date of receipt by the Department. If the Working Drawings are not returned by the time specified, no additional compensation will be allowed, but Design-Builder may submit, in accordance with the applicable requirements of the Contract Documents, a request for a time extension. Upon completion of the work, the original tracings, if required, shall be supplied to the Department.

Deviations from the Contract requirements initiated by the Design-Builder shall be requested in writing and clearly identified on the Working Drawings. Explicit supporting justification shall be furnished specifically describing the reason for the requested deviations as well as any impact such deviations shall have on the schedule of Work. Failure to address time or other impacts associated with the Design-Builder's request will be cause for rejection of the Design-Builder's request. Deviations from the Contract requirements shall not be made unless authorized by the Engineer. If authorized by the Engineer, such authorization shall not relieve the Design-Builder from the responsibility for complying with the requirements of the Contract for a fully functional finished work item as specified or designed.

Upon completion of the requested work, Working Drawings indicating the actual as-constructed field conditions, if required, shall be supplied to the Department.

The Design-Builder may authorize the fabricator in writing to act for him in matters relating to Working Drawings. Such authorization shall have the force and effect of any other representative of the Design-Builder's organization.

(1) Steel Structures

Working drawings for steel structures, including metal handrails, shall consist of shop detail, erection, and other working drawings showing details, dimensions, sizes of units, and other information necessary for the fabrication and erection of metal work. Such drawings shall be signed and sealed by a PE.

(2) Falsework

Working drawings for Falsework supporting a Bridge Superstructure shall be signed and sealed by a PE.

(3) Concrete Structures and Prestressed Concrete Members

Working drawings for concrete structures and prestressed concrete members shall provide such details as required for the successful prosecution of the Work and which are not included in the RFP Documents furnished by the Department. Drawings shall include plans for items such as prestressing strand details and elongation calculations, location of lift points, Falsework, bracing, centering, form work, masonry, layout diagrams, and bending diagrams for reinforcing steel when necessary or when requested. Such drawings shall be signed and sealed by a PE.

(4) Lighting, signal and pedestal poles, overhead and Bridge mounted sign structures, breakaway support systems, anchor bolts, framing units, panels, and foundations.

Prior to fabrication or construction, the Design-Builder shall submit for review one original and six copies of each Working Drawing and design calculation for lighting, signal and pedestal poles, overhead and Bridge mounted sign structures, breakaway support systems, anchor bolts, framing units, panels, and foundations. All sheets of these submittals shall include the PE's signature and seal. Certification for foundations will be required only when the designs are furnished by the Design-Builder. The designs shall be in accordance with the specific editions of the AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals* as required in Section 700. Such designs shall be signed and sealed by a PE.

(5) Reinforced Concrete Pipe

When specified, and prior to manufacture of reinforced concrete pipe, the Design-Builder shall furnish to the Department a certification of the acceptability of the design of such pipe, as determined from a review that has been signed and sealed by a PE. Such certification shall cover all design data, supporting calculations, and materials. Pipe designs previously certified or approved by the Department will not require recertification.

105.11—Conformity with Contract Documents

Values for Materials to be used in the Work shall conform to the specified values or range of values specified in the Contract. Less than complete conformity may be tolerated if obtaining exact or complete conformity would not be feasible and if authorized by the Department.

Permissible tolerances for the elevation of Subgrade and finished grade and for the thickness of the various courses of Pavement Structure are specified in the Contract Documents. If permissive tolerances are exceeded or if consistent deviations from the Contract Documents or abrupt changes in grade occur, even though within the tolerances, the affected areas shall be reconstructed to conform to the specified tolerance and provide a smooth riding surface.

When the Contract Documents require the finished surface to tie into any structural item whose elevation is fixed, the elevation of the finished surface must coincide with the elevation of the structural item.

105.12—Coordination of Contract Documents

The Design-Builder shall be responsible for the coordination of the Contract Documents. In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, such inconsistency, conflict or ambiguity shall be interpreted as set forth in Section 3.1 of the Agreement.

The Design-Builder shall not take advantage of any obvious or apparent error or omission in the Contract Documents. If the Design-Builder discovers an error or omission, he shall immediately notify the Department of the corrections in accordance with the Contract Documents and make such corrections as necessary for fulfilling the intent of the Contract Documents.

105.13—Construction Stakes, Lines, and Grades

The Design-Builder shall perform all construction and other surveying that the Design-Builder deems necessary to construct this Project in accordance with the Contract Documents. The cost for all surveying performed by the Design-Builder is included in the Contract Price. All construction surveys shall be performed under the direct supervision of a land surveyor duly registered and licensed in the State.

105.14—Maintenance during Construction

The Design-Builder shall prosecute his work so as to avoid obstructions to traffic to the greatest extent practicable. The Design-Builder shall provide for the safety and convenience of the general public and residents along the Roadway and the protection of Persons and property.

Highways closed to traffic shall be protected by barricades and other warning devices as required by the Department. Barricades and warning devices shall be illuminated where required during periods of darkness and low visibility. The Design-Builder shall erect warning devices in advance of a location on the Project where operations or obstructions may interfere with the use of the Road by traffic and at all intermediate points where the new work crosses or coincides with an existing Roadway. The Design-Builder shall maintain sign faces and reflective surfaces of warning devices in a clean and visible condition. The Design-Builder shall cover or remove signs when the messages thereon are not applicable. Barricades, warning signs, lights, temporary signals, and other protective devices shall conform to the requirements of Section 512 of the Standard Specifications.

The Design-Builder shall maintain the Work from the beginning of construction operations until the Final Acceptance Date. Maintenance shall be inherent to the continuous and effective work prosecuted day-by-day with adequate Equipment and forces to such end that the Roadway and structures are sustained in a safe and satisfactory condition at all times.
When a Contract specifies placing a course on another course or Subgrade previously constructed, the Design-Builder shall maintain the previous course or Subgrade in accordance with the Contract requirements during all construction operations.

The Road shall be kept open to all traffic while undergoing improvements unless otherwise permitted in the Contract. The Design-Builder shall keep the portion of the Project being used by public, pedestrian, and vehicular traffic in such condition that traffic will be safely and adequately accommodated. However, removal of snow and control of ice on Roads open to public travel will be performed by the Department.

The Design-Builder shall bear all costs of performing maintenance work before Final Acceptance and of constructing and maintaining necessary approaches, crossings, intersections, and other features without direct compensation except as provided for herein. When the Design-Builder confines his operation to the surface of the Roadway and reasonable width of the Shoulder and the surface is disturbed or damaged by his operations or Equipment, he shall be responsible for the restoration and maintenance of the surface that is disturbed or damaged.

The Design-Builder shall keep the portions of the Road being used by the public free from irregularities and obstructions that could present a hazard or annoyance to traffic. Design-Builder shall allay dust whenever required,

or whenever directed by the Department, and the cost shall be included in the contract price. Holes in hard surface pavements shall be filled with approved asphalt patching material.

The Design-Builder shall provide at least one person on the project site during all work operations who is currently verified either by the Department in Intermediate Work Zone Traffic Control, or by the American Traffic Safety Services Association (ATSSA) as a Traffic Control Supervisor (TCS). This person must have the verification card with them while on the project site. This person shall be responsible for the oversight of work zone traffic control within the project limits in compliance with the contract requirements involving the plans, specifications, the VWAPM, and the MUTCD. This person's duties shall include the supervision of the installation, adjustment (if necessary), inspection, maintenance and removal when no longer required of all traffic control devices on the project.

If none of the Design-Builder's on-site personnel responsible for the supervision of such work has the required verification with them or if they have an outdated verification card showing they are not currently verified either by the Department in Intermediate Work Zone Traffic Control, or by the American Traffic Safety Services Association (ATSSA) as a Traffic Control Supervisor (TCS) all work on the project will be suspended by the Department.

The Design-Builder shall provide at least one person on site who is, at a minimum, verified by the Department in Basic Work Zone Traffic Control for each construction and\or maintenance operation that involves installing, maintaining, or removing work zone traffic control devices. This person shall be responsible for the placement, maintenance and removal of work zone traffic control devices.

In the event none of the Design-Builder's on-site personnel of any construction/maintenance operation has, at a minimum, the required verification by the Department in Basic Work Zone Traffic Control, that construction/maintenance operation will be suspended by the Department until that operation is appropriately staffed in accordance with the requirements herein.

(a) **Detours:** Detours may be indicated in the Contract Documents or may be used with the approval of the Department. Unless otherwise designated in the Contract, the Design-Builder will furnish and erect all directional markings for through traffic on off-Project detours authorized or requested by the Department. Detours over existing State Roads will be designated, marked, and maintained by Design-Builder. If any part of the Project is located wholly or in part within the corporate limits of a municipality and through traffic is to be detoured at the request of the municipality, the municipality will provide and maintain the detours within the corporate limits and will furnish and erect all directional markings. The provision of detours and marking of alternate routes will not relieve the Design-Builder of the responsibility for ensuring the safety of the public or from complying with any requirements of the Contract Documents affecting the rights of the public within his Contract limits, including those concerning lights and barricades. Maintenance of all other detours shall be the responsibility of the Design-Builder.

    Right of Way for temporary Highways, diversion Channels, sediment and erosion control features or Bridges required by these provisions will be furnished by the Department.

(b) **Maintenance of Traffic during Suspension of Work:** During any suspension of Work, the Design-Builder shall temporarily open to traffic such portions of the Project and temporary Roadways as may be agreed upon by the Design-Builder and Department.

(c) **Flagging Traffic:** Certified flaggers shall be provided in sufficient number and locations as necessary for control and protection of vehicular and pedestrian traffic in accordance with the requirements of the *Virginia Work Area Protection Manual* (VWAPM). Flaggers shall be able to communicate to the traveling public in English while performing the job duty as a flagger at the flagger station. Flaggers shall use sign paddles to regulate traffic in accordance with the requirements of the *VWAPM*.

    Certification for flaggers will be awarded upon a candidate's satisfactory completion of an examination. Certification cards shall be carried by flaggers while performing flagging duties. Flaggers found not to be in possession of their certification card shall be removed from the flagging site and operations requiring

flagging will be suspended by the Department. Further, flaggers performing duties improperly will have their certifications revoked.

(d) **Delays:** Unless indicated in the Contract Documents or otherwise approved by the Department, two-way traffic shall be maintained at all times. The Design-Builder shall not stop traffic without permission of the Department.

If one-way traffic is approved, the Design-Builder shall provide flaggers to direct the traffic. When specified in the Contract as a Pay Item, pilot vehicles shall be furnished in accordance with the requirements of Section 512 of the Standard Specifications. Upon request from the Design-Builder and where deemed appropriate by the Department, the Department will install traffic signals that may be used for the control of one-way traffic. The Design-Builder shall pay the costs of installation, electrical service, maintenance or repair work, and a predetermined rental charge per day for the signals and removal when no longer needed.

(e) **Connections and Entrances:** Connections with other Roads and public and private entrances shall be kept in a reasonably smooth condition at all times.

Stabilization or surfacing material shall be applied to connections and entrances.

The Design-Builder shall schedule construction operations so that approved continuous access is provided for all property adjacent to the construction when the property is shown in the Contract Documents to require access. When Frontage Roads are shown in the Contract Documents, they shall be constructed prior to the closing of any access routes unless other approved access is provided and is acceptable to the property owner.

Connections or entrances shall not be disturbed by the Design-Builder until necessary. Once connections or entrances have been disturbed, they shall be maintained and completed as follows:

1. **Connections:** Connections that had an original paved surface shall be brought to a grade that will smoothly and safely accommodate vehicular traffic through the intersection, using temporary pavement as soon as practicable after connections are disturbed. Connections that had an original unpaved surface shall be brought to a grade that will smoothly and safely accommodate vehicular traffic through the intersection, using either the required material or a temporary aggregate stabilization course that shall be placed as soon as practicable after connections are disturbed.

   If there are delays in prosecution of work for connections, connections that were originally paved shall have at least two lanes maintained with a temporary paved surface. Those that were not originally paved shall be maintained with a temporary aggregate stabilization course.

2. **Entrances:** Entrances shall be graded concurrently with the Roadway with which they intersect. Once an entrance has been disturbed, it shall be completed as soon as is practicable, including placing the required Base and Surface Course or stabilization. If the entrance must be constructed in stages, such as when there is a substantial change in the elevation of the Roadway with which it intersects, the surface shall be covered with a temporary aggregate stabilization course or other suitable salvaged material until the entrance can be completed and the required Base and Surface or stabilization Course can be placed.

(f) **Grading Operations:** When the Design-Builder elects to complete the rough grading operations for the entire Project or exceed the length of one full day's surfacing operations; the rough grade shall be machined to a uniform slope from the top edge of the existing pavement to the ditch line.

When the surface is to be widened on both sides of the existing pavement, construction operations involving grading or paving shall not be conducted simultaneously on sections directly opposite each other.

The surface of pavement shall be kept free from soil and other materials that might be hazardous to traffic. Prior to opening of new pavement to traffic, Shoulders shall be roughly dressed for a distance of 3 feet from the edge of the paved surface.

(g) **Obstruction Crossing Roadways:** Where the Design-Builder places obstructions such as suction or discharge pipes, pump hoses, steel plates, or any other obstruction that must be crossed by vehicular traffic; they shall be bridged as directed by the Department at the Design-Builder's expense. Traffic shall be protected by the display of warning devices both day and night. If operations or obstructions placed by the Design-Builder damage an existing traveled Roadway, the Design-Builder shall cease operations and repair damages to the Roadway at no additional cost to the Department.

(h) **Patching Operations:** Where existing hydraulic cement concrete pavement is to be patched, the operation of breaking and excavating old pavement shall extend for a distance of not more than two miles. Patching shall be coordinated with excavating so that an area of not more than one-half mile in which excavated patches are located shall be left at the end of any day's work. Necessary precautions shall be taken to protect traffic during patching operations.

(i) **Temporary Structures:** The Design-Builder shall construct, maintain, and remove Temporary Structures and approaches necessary for use by traffic. After new structures have been opened to traffic, Temporary Structures and approaches shall be removed. The materials contained therein shall remain the property of the Design-Builder.

The proposed design of Temporary Structures shall be submitted to the Department prior to the beginning of construction in accordance with the requirements of Section 105.10.

(j) **Failure to Maintain Roadway or Structures:** If the Design-Builder fails to remedy unsatisfactory maintenance immediately after receipt of a notice by the Department, the Department may proceed with adequate forces, Equipment, and Material to maintain the Project. The cost of the maintenance, plus 25 percent for supervisory and administrative personnel, will be deducted from monies due the Design-Builder for the Project.

(k) **Haul Route:** The Design-Builder shall select haul routes between the Project and Material source(s) that will minimize disturbance to the community. The Design-Builder shall furnish to the Department, for review, his plan for the haul route and for minimizing the adverse effects of hauling operations on Persons who reside adjacent to the haul route or Persons who otherwise use a portion of the haul route for ingress or egress to their residential or work area. The Department may select alternate haul routes, divide the hauling traffic over several routes, and impose other restrictions deemed necessary to minimize the impact of the hauling operation on local residents.

(l) **Opening Sections of Projects to Traffic**

When specified in the Contract or when directed by the Department, certain sections of the Work may be opened to traffic. Such opening shall not constitute acceptance of the work or any part thereof or a waiver of any provision of the Contract.

On any section of the Work opened by order of the Department where the Contract does not provide for traffic to be carried through the Work, the Design-Builder will not be required to assume any expense entailed in maintaining the Road for traffic. Such expense will be borne by the Department or will be compensated for in accordance with the requirements of Section 109.05. Repair of slides and repair of damage attributable to traffic will be compensated for in accordance with the requirements of Section 109.05. Slides shall be removed by the Design-Builder in accordance with the requirements of Section 303.

On any section of the Work opened by order of the Department where the Contract does not provide for traffic to be carried through the Work, any additional cost for the completion of other items of work that are

required because of the changed working conditions will be compensated in accordance with the requirements of Section 109.05.

If the Design-Builder is not continuously prosecuting the Work to the satisfaction of the Department, he shall not be relieved of the responsibility for maintenance during the period the section is opened to traffic prior to Final Acceptance. Any expense resulting from the opening of such portions under these circumstances, except slides, shall be borne by the Design-Builder. The Design-Builder shall conduct the remainder of the construction operations so as to cause the least obstruction to traffic.

105.15—Removing and Disposing of Structures and Obstructions

The Design-Builder shall remove and dispose of or store, as directed by the Department, fences, buildings, structures, or encumbrances within the construction limits. Materials so removed, including existing drains or pipe culverts, shall become the property of the Design-Builder, with the exception of those materials to be stored or delivered to the Department or others as designated in the Contract.

(a) **Signs:** The Design-Builder shall relocate all signs within the construction limits that conflict with construction work as approved by the Department. Signs that are not needed for the safe and orderly control of traffic during construction as determined by the Department shall be removed and stored at a designated location within the Project limits. The removed signs shall be stored above ground in a manner that will preclude damage and shall be reinstalled in their permanent locations prior to Final Acceptance. If any of the removed signs are not to be reinstalled, the Design-Builder shall notify the Department at the time the signs have been properly stored. Such signs will be removed from the storage area by the Department. Any sign that is damaged or lost because of the fault of the Design-Builder shall be repaired or replaced at his expense. Costs for removing, storing, protecting, and reinstalling such signs shall be included in the Contract Price and no additional compensation will be made.

(b) **Mailboxes and Newspaper Boxes:** When removal of existing mailboxes and newspaper boxes is made necessary by construction operations, the Design-Builder shall place them in temporary locations so that access to them will not be impaired. Prior to Final Acceptance, boxes shall be placed in their permanent locations as designated by the Department and left in as good condition as when found. Boxes or their supports that are damaged through negligence on the part of the Design-Builder shall be replaced at his expense. The cost of removing and resetting existing boxes shall be included in other pay items of the Contract. New mailboxes designated in the plans shall be paid for in accordance with the provisions of Section 521 of the Specifications.

105.16—Cleanup

Removal from the Project of rubbish, scrap material, and debris caused by the Design-Builder's personnel or construction operations shall be a continuing process throughout the course of the Work. The work site shall have a neat, safe and orderly appearance at all times.

Before Final Acceptance, the Highway, Borrow pits, quarries, Disposal Areas, storage areas, and all ground occupied by the Design-Builder in connection with the Work shall be cleaned of rubbish, surplus materials, and Temporary Structures, except in the case where the property is owned or controlled by the Design-Builder. All parts of the Work and the Construction Area shall be left in a neat, safe, and orderly condition.

Within 30 days after Final Acceptance, the Design-Builder shall remove his Equipment, Materials and debris from the Right of Way and property adjacent to the Project that he does not own or control.

105.17—Inspection of Work

The Design-Builder is responsible for continuous quality control and quality assurance in accordance with the QA/QC Plan. However, all stages, Materials, and details of the work are subject to inspection. The Design-Builder shall provide the Department with full and safe access to all parts of the Work and shall be furnished such

information and assistance by the Design-Builder as are required to make a complete, timely, and detailed inspection. The Department and its appointed representatives shall have ready access to machines and plant Equipment used in processing or placing Materials.

Prior to the beginning of operations, the Department will meet with the Design-Builder to establish an understanding of the critical stages of Work that shall be performed in the presence of the Inspector. In order for the Department to schedule inspection of the Work, the Design-Builder shall keep the Department informed of planned operations in accordance with the requirements of Section 108.03.

If the Department requests it, the Design-Builder shall remove or uncover such portions of the finished work as may be directed at any time before Final Acceptance. The Design-Builder shall restore such portions of the Work to comply with the appropriate requirements of the Contract Documents. If the work exposed is acceptable, the uncovering or removing and replacing the covering or making good the parts removed will be paid for as Extra Work in accordance with the General Conditions of the Contract. If the work is unacceptable, the cost of uncovering or removing and replacing the covering or making good the parts removed shall be borne by the Design-Builder.

When any unit of government, political subdivision, or public or private Corporation is to pay a portion of the cost of the Work specified in the Contract, its representatives shall have the right to inspect the Work. The exercise of this right shall not be construed as making them a party or parties to the Contract or conferring on them the right to issue instructions or orders to the Design-Builder.

If Materials are used or work is performed without inspection by Independent Quality Control staff and certified by the Quality Assurance Manager, the Department may order the Design-Builder to remove and replace the work or Material at his own expense.

If an inspection reveals that work has not been properly performed, the Design-Builder will be so advised and he shall immediately inform the Department of his schedule for correcting such work and the time when a reinspection can be made.

105.18—Removal of Unacceptable Work

Work will be considered as unacceptable if it: (a) does not conform to the requirements of the Contract Documents; (b) is performed contrary to the instructions of the Department; or (c) is performed without the authorization of the Department. Unacceptable work shall be remedied or removed immediately unless otherwise determined by the Department, and replaced in an acceptable manner at the Design-Builder's expense. The Department may elect, in its sole discretion, to accept otherwise unacceptable work at a reduced price and a warranty extended to five (5) years for the subject portion of the work when acceptance is considered to be in the best interest of the public.

The Design-Builder shall not perform destructive sampling or testing of the Work without written authorization of the Department. Unauthorized destructive sampling or testing will cause the Work to be considered unacceptable.

In the event the Design-Builder is granted authorization to perform destructive sampling or testing, the Design-Builder shall obtain the approval of the Department for the method and location of each test prior to beginning such sampling or testing. In addition, destructive sampling and testing shall be performed in the presence of the Department.

If the Design-Builder fails to comply immediately with any order of the Engineer made under the provisions of this Section, the Engineer will have the authority to cause unacceptable work to be removed and replaced and to deduct the cost from any monies due or to become due the Design-Builder.

105.19—Submission and Disposition of Claims (Refer to Part 4 – General Conditions – Article 10 Contract Adjustments and Disputes)

SECTION 106—CONTROL OF MATERIAL

106.01—Source of Supply and Quality Requirements

The Materials used throughout the Work shall conform to the requirements of the Contract. The Design-Builder shall regulate his supplies so that there will be a sufficient quantity of tested Material on hand at all times to prevent any delay of Work. Except as otherwise specified, Materials, Equipment, and components that are to be incorporated into the finished work shall be new.

At the option of the Department, Materials may be approved at the source of supply. If it is found during the life of the Contract that previously approved sources of supply do not supply Materials or Equipment conforming to the requirements of the Contract, do not furnish the valid test data required to document the quality of the Material or Equipment, or do not furnish documentation to validate quantities to document payment, the Design-Builder shall change the source of supply and furnish Material or Equipment from other approved sources. The Design-Builder shall notify the Department of this change, and provide the same identifying information noted in this Section, at least 60 days prior to their use on the Project, but not less than two weeks prior to delivery.

Materials shall not contain toxic, hazardous, or regulated solid wastes or be furnished from a source containing toxic, hazardous or regulated solid wastes.

When optional Materials are included in the Contract, the Design-Builder shall advise the Department in writing of the specific Materials selected. Thereafter, the Design-Builder shall use the selected Materials throughout the Project unless a change is authorized in writing by the Department. However, when the Design-Builder has an option as to the type of pipe that may be used, he may use any of the approved types for each size of pipe, but he shall use the same type for a particular line. The Department may authorize other types and sources in an emergency that will not unreasonably delay delivery of the selected Material.

Equipment and Material guaranties or warranties that are normally given by a manufacturer or supplier, or are otherwise required in the Contract, shall be obtained by the Design-Builder and assigned to the Commonwealth in writing. The Design-Builder shall also provide an in-service operation guaranty on all mechanical and electrical Equipment and related components for a period of at least six months beginning on the date of partial acceptance of that specific item(s) or Final Acceptance of the Project.

106.02—Material Delivery

The Design-Builder shall advise the Quality Assurance Manager and the Department at least 2 weeks prior to the delivery of any Material from a commercial source. Upon delivery of any such Material to the Project, the Design-Builder shall provide the Department with one copy of all invoices (prices are not required). The following Materials shall also comply with the requirements of Section 109.01: asphalt concrete; dense graded aggregate, to include aggregate base, Subbase, and Select Material; fine aggregate; open graded coarse aggregate; crusher run aggregate; and Road stabilization aggregate. The printed weights of each load of these Materials, as specified in Section 109.01, shall accompany the delivery, and such information shall be furnished to the Lead QA Inspector at the Project.

106.03—Local Material Sources (Pits and Quarries)

The requirements set forth herein apply exclusively to non-commercial pits and quarries from which Materials are obtained for use on contracts awarded by the Department.

Local Material sources shall be concealed from view from the completed Roadway and any existing public Roadway. Concealment shall be accomplished by selectively locating the pit or quarry and spoil pile, providing environmentally compatible screening between the pit or quarry site and the Roadway, or using the site for another purpose after removal of the Material, or restoration equivalent to the original use (such as farm land, pasture, turf, etc.). The foregoing requirements shall also apply to any pit or quarry opened or reopened by a Subcontractor.

However, the requirements will not apply to commercial sand and gravel and quarry operations actively processing Material at the site prior to the date of the execution of the Contract.

The Design-Builder shall furnish the Department a statement signed by the property owner in which the property owner agrees to the use of his property as a source of Material for the Project. Upon completion of the use of the property as a Material source, the Design-Builder shall furnish the Department a release signed by the property owner indicating that the property has been satisfactorily restored. This requirement will be waived for commercial sources, sources owned by the Design-Builder, and sources furnished by the Department.

Local Material pits and quarries that are not operated under a local or State permit shall not be opened or reopened without authorization by the Department. The Design-Builder shall submit for approval a site plan, including, but not limited to, the following

(1) the location and approximate boundaries of the Excavation; with a slope gradient of 3:1 or greater;

(2) procedures to minimize erosion and siltation;

(3) provision of environmentally compatible screening;

(4) restoration;

(5) cover vegetation;

(6) other use of the pit or quarry after removal of Material, including the spoil pile;

(7) the drainage pattern on and away from the area of land affected, including the directional flow of water and a certification with appropriate calculations that verify all receiving Channels are in compliance with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations;

(8) location of haul Roads and stabilized construction entrances if construction Equipment will enter a paved Roadway;

(9) constructed or natural waterways used for discharge;

(10) a sequence and schedule to achieve the approved plan and;

(11) the total drainage area for temporary sediment traps and basins shall be shown. Sediment traps are required if the runoff from a watershed area of less than three acres flows across a disturbed area. Sediment basins are required if the runoff from a watershed area of three acres or more flows across a disturbed area. The Design-Builder shall certify that the sediment trap or basin design is in compliance with the Contract Documents and all Legal Requirements. Once a sediment trap or basin is constructed, the dam and all outfall areas shall be immediately stabilized.

The Design-Builder's design and restoration shall be in accordance with the Contract Documents and all Legal Requirements.

If the approved plan provides for the continued use or other use of the pit or quarry beyond the date of Final Acceptance, the Design-Builder shall furnish the Department a bond made payable to the Commonwealth of Virginia in an amount equal to the Engineer's estimate of the cost of performing the restoration work. If the pit or quarry is not used in accordance with the approved plan within 8 months after Final Acceptance, the Design-Builder shall perform restoration work as directed by the Department, forfeit his bond, or furnish the Department with evidence that he has complied with the applicable requirements of the State Mining Law.

Topsoil on Department owned or furnished Borrow sites shall be stripped and stockpiled as directed by the Department for use as needed within the construction limits of the Project or in the reclamation of Borrow and Disposal Areas.

If payment is to be made for Material measured in its original position, Material shall not be removed until Digital Terrain Model (DTM) or cross-sections have been taken. The Material shall be reserved exclusively for use on the Project until completion of the Project or until final DTM or cross-sections have been taken.

If the Design-Builder fails to provide necessary controls to prevent erosion and siltation, if such efforts are not made in accordance with the approved sequence, or if the efforts are found to be inadequate the Department will withdraw approval for the use of the site and may cause the Design-Builder to cease all contributing operations and direct his efforts toward corrective action or may perform the Work with State forces or other means as determined by the Department. If the Work is not performed by the Design-Builder, the cost of performing the Work plus 25 percent for supervisory and administrative personnel will be deducted from monies due the Design-Builder.

Costs for applying seed, fertilizer, lime, and mulch; restoration; drainage; erosion and siltation control; regrading; haul Roads; and screening shall be included in the Contract price for the type of Excavation or other appropriate items.

If the Design-Builder fails to fulfill the provisions of the approved plan for screening or restoring Material sources, the Department may withhold and use for the purpose of performing such work any monies due the Design-Builder. The Design-Builder shall be held liable for penalties, fines, or damages incurred by the Department as a result of his failure to prevent erosion or siltation and take restorative action.

After removing the Material, the Design-Builder shall remove metal, lumber, and other debris resulting from his operations and shall shape and landscape the area in accordance with the approved plan for such work.

(a) **Sources Furnished by the Department:** Sources furnished by the Department will be made available to the Design-Builder together with the right to use such property as may be required for a plant site, stockpiles, and haul roads. The Design-Builder shall confine his Excavation operations to those areas of the property specified in the Contract.
The Design-Builder shall be responsible for Excavation that shall be performed in order to furnish the specified Material.

(b) **Sources Furnished by the Design-Builder:** When the Design-Builder desires to use local Material from sources other than those furnished by the Department, he shall first secure the approval of the Department. The use of Material from such sources will not be permitted until test results have been approved by the Department and written authority for its use has been issued.

The Design-Builder shall acquire the necessary rights to take Material from sources he locates and shall pay all related costs, including costs that may result from an increase in the length of the haul. Costs of exploring, sampling, testing, and developing such sources shall be borne by the Design-Builder. The Design-Builder shall obtain representative samples from at least two borings in parcels of 10 acres or less and at least three additional borings per increment of 5 acres or portion thereof to ensure that lateral changes in Material are recorded. Drill logs for each test shall include a soil description and the moisture content at intervals where a soil change is observed or at least every 5 feet of depth for consistent Material. Samples obtained from the boring shall be tested by an approved Laboratory for grading, Atterberg limits, CBR, maximum density, and optimum moisture. The Department will review and evaluate the Material based on test results provided by the Design-Builder. The Department will reject any Material from a previously approved source that fails a visual examination or whose test results show that it does not conform to the Contract Documents.

106.04—Disposal Areas

Unsuitable or Surplus Material shown in the Contract Documents shall be disposed of as specified herein. Material not used on the Project shall be disposed of by the Design-Builder off the Right of Way. The Design-Builder shall obtain the necessary rights to property to be used as an approved Disposal Area. For the purpose of these Division I Amendments to the Standard Specifications an approved Disposal Area is defined as that which is owned privately, not operated under a local or State permit, and has been approved by the Department for use in disposing of Material not used on the Project.

The Design-Builder shall furnish the Department a statement signed by the property owner in which the owner agrees to the use of his property for the deposit of Material from the Project. Upon completion of the use of the property as an approved Disposal Area, the Design-Builder shall furnish the Department a release signed by the property owner indicating that the property has been satisfactorily restored. This requirement will be waived for commercial sources, sources owned by the Design-Builder, and sources furnished by the Department.

When neither unsuitable nor surplus Material is shown in the Contract Documents, the Design-Builder shall dispose of it as shown herein. If the Design-Builder, having shown reasonable effort, is unsuccessful in obtaining the necessary rights to property to be used as an approved Disposal Area, the Department will obtain rights for disposal unless otherwise provided for in the contract. Compensation, if not shown in the Contract, will be in accordance with the requirements of Section 104.02.

Prior to the Department approving a Disposal Area, the Design-Builder shall submit a site plan. The plan shall show:

(1) the location and approximate boundaries of the Disposal Area;

(2) procedures to minimize erosion and siltation;

(3) provision of environmentally compatible screening;

(4) restoration;

(5) cover vegetation;

(6) other use of the Disposal Area;

(7) the drainage pattern on and away from the area of land affected, including the directional flow of water and a certification with appropriate calculations that verify all receiving Channels are in compliance with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations;

(8) location of haul roads and stabilized construction entrances if construction Equipment will enter a paved Roadway;

(9) constructed or natural waterways used for discharge;

(10) a sequence and schedule to achieve the approved plan and;

(11) the total drainage area for temporary sediment traps and basins shall be shown. Sediment traps are required if the runoff from a watershed area of less than three acres flows across a disturbed area. Sediment basins are required if the runoff from a watershed area of three acres or more flows across a disturbed area. The Design-Builder shall certify that the sediment trap or basin design is in compliance with the Contract Documents and all Legal Requirements. Once a sediment trap or basin is constructed, the dam and all outfall areas shall be immediately stabilized. Costs for the work described herein shall be included in the Contract Price. The Design-Builder shall certify that the sediment basin design is in compliance with the

Virginia Erosion and Sediment Control Regulations, all local, state, and federal ordinances, and Section 107.16.

Disposal Areas shall be cleared but need not be grubbed. The clearing work shall not damage grass, shrubs, or vegetation outside the limits of the approved area and haul roads thereto. After the Material has been deposited, the area shall be shaped to minimize erosion and siltation of nearby streams and landscaped in accordance with the approved plan for such work or shall be used as approved by the Department. The Design-Builder's design and restoration shall conform to the requirements of the contract and federal, state, and local laws and regulations.

Excavated rock in excess of that used in Embankments in accordance with the requirements of Section 303 shall be deposited off the Right of Way in an approved Disposal Area. Deposits whose surface is composed largely of rock shall be leveled by special arrangement of the Material or reduction of the irregularity of the surface by crushing projections to create a reasonably uniform and neat appearance.

The Design-Builder's design and restoration shall be in accordance with the requirements of the Contract Documents and Legal Requirements.

If the Design-Builder fails to provide and maintain necessary controls to prevent erosion and siltation, if such efforts are not made in accordance with the approved sequence, or if the efforts are found to be inadequate, the Department will withdraw approval for the use of the site and may cause the Design-Builder to cease all contributing operations and direct his efforts toward corrective action or may perform the Work with State forces or other means as determined by the Department. If the Work is not performed by the Design-Builder, the cost of performing the Work plus 25 percent for supervisory and administrative personnel will be deducted from monies due the Design-Builder.

Costs for applying seed, lime, fertilizer, and mulch; reforestation; drainage; erosion and siltation control; regrading; haul roads; and screening shall be included in the Contract Price.

Material encountered by the Design-Builder shall be handled as follows:

(a) **Unsuitable Material** -. The Design-Builders' geotechnical engineer shall confirm that slopes, earthwork, pavement, and foundation subgrades satisfy the design and Contract Document requirements. The Design-Builders' geotechnical engineer shall perform an inspection of all embankment and pavement subgrades and minor structure excavations immediately prior to placement of embankment fill, aggregate base, subbase or bedding materials to identify excessively soft, loose, dry or saturated soils that exhibit excessive pumping, weaving or rutting under the weight of the construction equipment. Such materials are considered unsuitable and must be removed or modified in place to provide adequate support for embankment, pavement subgrade or minor structures. Materials unsuitable for use in the Work shall be disposed of at an approved Disposal Area or landfill licensed to receive such Material unless the materials can be adequately treated in place through chemical and/or mechanically stabilized method that shall be approved by the Department. Such method shall be approved prior to use in the Work. All Unsuitable Materials shall be disposed of off-site and/or treated in place at no cost to the Department. Design-Builder shall identify unsuitable Materials and methods of treatment on the plans and cross sections.

(b) **Surplus Material** as shown in the Contract Documents that is not classified as unsuitable may be used to flatten slopes, to fill in ramp gores and medians provided the material is placed in accordance with the earthwork specifications. Surplus Material that is not needed shall be disposed of at an approved Disposal Area or a landfill licensed to receive such Material.

Surplus Material stockpile areas on the right-of-way shall be cleared but need not be grubbed. The clearing work shall not damage grass, shrubs, or vegetation outside the limits of the approved area and the haul Roads thereto. Placement of fill material shall not adversely affect existing drainage structures. If necessary, modified existing drainage structures, as approved by the Department, shall be paid for in accordance with Section 109.05. Within *7* days after the material has been deposited, the area shall be shaped and stabilized to minimize erosion and siltation.

(c) **Organic materials** such as, but not limited to, tree stumps and limbs (not considered merchantable timber), roots, rootmat, leaves, grass cuttings, or other similar materials shall be chipped or shredded and used on the Project as mulch, given away, sold as firewood or mulch, burned at the Design-Builder's option if permitted by local ordinance, or disposed of at a facility licensed to receive such materials. Organic material shall not be buried in State Rights of Way or in an approved Disposal Area.

(d) **Rootmat** for the purpose of these Division I Amendments to the Standard Specifications is defined as any material that, by volume, contains approximately 60 percent or more roots and shall be disposed of in accordance with (c) herein.

(e) **Inorganic materials** such as brick, cinder block, broken concrete without exposed reinforcing steel, or other such material may be used in accordance with Section 303.04 or shall be disposed of at an approved Disposal Area or landfill licensed to receive such materials. If disposed of in an approved Disposal Area, the material shall have enough cover to promote soil stabilization in accordance with the requirements of Section 303 and shall be restored in accordance with other provisions of this Section.

Concrete without exposed reinforcing steel, may be crushed and used as rock in accordance with Section 303. If approved by the Department, these materials may be blended with soils that meet AASHTO M57 requirements and deposited in fill areas within the right-of-way in accordance with the requirements of Section 303 as applicable.

(f) **Excavated rock** in excess of that used within the Project site in accordance with the requirements of Section 303 shall be treated as surplus material.

(g) **Other materials** such as, but not limited to, antifreeze, asphalt (liquid), building forms, concrete with reinforcing steel exposed, curing compound, fuel, Hazardous Materials, lubricants, metal, metal pipe, oil, paint, wood or metal from building demolition, or similar materials shall not be disposed of at an approved Disposal Area but shall be disposed of at a landfill licensed to receive such material.

If the Design-Builder fails to fulfill the provisions of the approved plan for screening or restoring Disposal Areas, the Department may withhold and use for the purpose of performing such work any moneys due the Design-Builder. The Design-Builder shall be held liable for all penalties, fines, or damages incurred by the Department as a result of his failure to prevent erosion or siltation.

106.05—Rights for and Use of Materials Found on Project

With the approval of the Department, the Design-Builder may use in the Project any materials found in the Excavation that comply with the requirements of the Contract Documents. The Design-Builder shall replace at his own expense with other acceptable material the Excavation material removed and used that is needed for use in Embankments, Backfills, approaches, or otherwise. The Design-Builder shall not excavate or remove any material from within the construction limits that is not within the grading limits, as indicated by the slope and grade lines.

106.06—Samples, Tests, and Cited Specifications

The Design-Builder shall inspect and test materials in accordance with the QA/QC Plan.
Unless reference is made to a specific dated specification or special provision, references in the Contract Documents to AASHTO, ASTM, VTM, and other standard test methods and materials requirements shall refer to either the test specifications that have been formally adopted or the latest interim or tentative specifications that have been published by the appropriate committee of such organizations as of the date of the Notice of Advertisement.

Where permitted by the Special Provision for Use of Domestic Material, the inspection cost of structural steel items, precast concrete items, and prestressed concrete items fabricated in a country other than the continental United States shall be borne by the Design-Builder. Inspection of structural fabrication shall be performed in accordance with the requirements of the appropriate VTM by a commercial Laboratory approved by the Department. Additional cleaning or repair necessary because of environmental conditions in transit shall be at the Design-Builder's expense.

Materials requiring an MSDS will not be accepted at the Project site for sampling without the document.

106.07—Plant Inspection

If the Department inspects materials at the source, the following conditions shall be met:

(a) The Department shall have the cooperation and assistance of the Design-Builder and producer of the Materials.

(b) The Department shall have full access to parts of the plant that concern the manufacture or production of the Materials being furnished.

(c) For Materials accepted under a quality assurance plan, the Design-Builder or producer shall furnish equipment and maintain a plant laboratory at locations approved for plant processing of Materials. The Design-Builder or producer shall use the laboratory and equipment to perform quality control testing.

The laboratory shall be of weatherproof construction, tightly floored and roofed, and shall have adequate lighting, heating, running water, ventilation, and electrical service. The ambient temperature shall be maintained between 68 degrees F and 86 degrees F and thermostatically controlled. The laboratory shall be equipped with a telephone, intercom, or other electronic communication system connecting the laboratory and scale house if the facilities are not in close proximity to each other. The laboratory shall be constructed in accordance with the requirements of local building codes.

The Design-Builder or producer shall furnish, install, maintain, and replace, as conditions necessitate, testing equipment specified by the appropriate ASTM, AASHTO method, or VTM being used and provide necessary office equipment and supplies to facilitate keeping records and generating test reports. The Design-Builder or producer's technician shall maintain current copies of test procedures performed in the laboratory. The Design-Builder shall calibrate or verify all balances, scales, and weights associated with testing performed as specified in AASHTO R18. The Design-Builder or producer shall also provide and maintain an approved test stand for accessing truck beds for the purpose of sampling and inspection. Cast iron grinding pots and rubber mauls will be furnished by the Department where required. The Department may approve a single laboratory to service more than one plant belonging to the same Design-Builder or producer.

For crushed glass, the plant equipment requirements are waived in lieu of an independent third-party evaluation and certification of crushed glass properties by an AASHTO Materials Reference Laboratory (AMRL)-accredited commercial soil testing Laboratory demonstrating that the supplied Material conforms to the specified requirements of Section 203. Random triplicate samples will be evaluated and analyzed for every 1,000 tons of Material supplied to the Project. The averaged results will be used for evaluation purposes. Suppliers of crushed glass shall maintain third party certification records for a period of three years.

(d) Adequate safety measures shall be provided and maintained.

(e) Design-Builder shall inspect all Materials upon delivery to the site for compliance with Contract requirements. All non-conforming Materials shall be rejected and removed from the site.

106.08—Storing Materials

Materials shall be stored in a manner so as to ensure the preservation of their quality and fitness for the Work. When considered necessary by the Department, Materials shall be stored in weatherproof buildings on wooden platforms or other hard, clean surfaces that will keep the Material off the ground. Materials shall be covered when directed by the Department. Stored Material shall be located so as to facilitate their prompt inspection. Approved portions of the Right of Way may be used for storage of Material and Equipment and for plant operations. However, Equipment and Materials shall not be stored within the clear zone of the travel lanes open to traffic.

Additional required storage space shall be provided by the Design-Builder at his expense. Private property shall not be used for storage purposes without the written permission of the owner or lessee. The Design-Builder shall furnish copies of the owner's written permission to the Department. Upon completion of the use of the property, the Design-Builder shall furnish the Department a release signed by the property owner indicating that the property has been satisfactorily restored.

Chemicals, fuels, lubricants, bitumens, paints, raw sewage, and other harmful materials as determined by the Department shall not be stored within any floodplain unless no other location is available and only then shall the material be stored in a secondary containment structure(s) with an impervious liner. Also, any storage of these materials in proximity to natural or man-made drainage conveyances or otherwise where the materials could potentially reach a waterway if released under adverse weather conditions, must be stored in a bermed or diked area or inside a container capable of preventing a release. Double-walled storage tanks shall meet the berm/dike containment requirement except for storage within flood plains. Any spills, leaks, or releases of such materials shall be addressed in accordance with Section 107.16(b). Accumulated rain water may also be pumped out of the impoundment area into approved dewatering devices

106.09—Handling Materials

Materials shall be handled in a manner that will preserve their quality, integrity, and fitness for the Work. Aggregates shall be transported in vehicles constructed to prevent loss or segregation of materials.

106.10—Unacceptable Materials

Materials that do not conform to the requirements of the Contract Documents shall be considered unacceptable. Such Materials, whether in place or not, will be rejected and shall be removed from the site of the Work. If it is not practical for the Design-Builder to remove rejected Material immediately, the Department will mark the Material for identification. Rejected Material whose defects have been corrected shall not be used until approval has been given by the Department. The Department shall file documentation of the correction with resolution of the Non-conformance report (NCR).

106.11—Material Furnished by the Department

The Design-Builder shall furnish all Materials required to complete the Work except those specified to be furnished by the Department.

Material furnished by the Department will be delivered or made available to the Design-Builder at the points specified in the Contract. The cost of handling and placing Materials after delivery to the Design-Builder shall be included in the Contract Price

After receipt of the Materials, the Design-Builder shall be responsible for Material delivered to him, including shortages, deficiencies, and damages that occur after delivery, and any demurrage charges.

106.12—Critical Materials (Not Used)

SECTION 107—LEGAL RESPONSIBILITIES

107.01—Legal Requirements to Be Observed (Refer to Part 4 - General Conditions – Section 2.5, Legal Requirements)

107.02—Permits, Certificates, and Licenses. (Refer to Part 4 - General Conditions – Section 2.6, Governmental Approvals, and Section 3.5, Governmental Approvals)

107.03—Federal-Aid Provisions

When the U.S. Government pays all or any portion of the cost of a project, the Design-Builder shall comply with all applicable federal Legal Requirements. The Work shall be subject to inspection by the appropriate federal agency. Such inspection shall in no sense make the federal government a party of the Contract and will in no way interfere with the rights of either party to the Contract.

107.04—Furnishing Right of Way

The Design-Builder shall secure necessary rights of way and easements in advance of construction, in accordance with the provisions of the Contract. The Department will not be responsible for any delay in the acquisition of a Right of Way other than consideration of an extension of time. Easements for temporary uses and detours requested by the Design-Builder and approved by the Department in lieu of a detour within the Right of Way or Easement area shall be acquired by the Design-Builder without the Department being a party to the agreement, unless otherwise expressly stated in Part 2 of the Contract Documents.

107.05—Patented Devices, Materials, and Processes (Refer to Part 4 - General Conditions – Article 7, Indemnification)

107.06—Personal Liability of Public Officials

In carrying out any of the provisions of the Contract Documents, or in exercising any power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the Board, Commissioner, Department, or their authorized representatives, either personally or as officials of the Commonwealth. In all such matters, they act solely as agents and representatives of the Commonwealth.

107.07—No Waiver of Legal Rights

The Commonwealth shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after Final Acceptance of the Work and payment therefore from showing (1) the true amount and character of the work performed and Materials furnished by the Design-Builder, (2) that any such measurement, estimate, or certificate is untrue or incorrectly made, or (3) that the work or Materials do not comply with the provisions of the Contract. The Commonwealth shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate, and payment in accordance therewith, from recovering from the Design-Builder or his Surety, or both, such damage as it may sustain by reason of his failure to comply with the terms of the Contract. Neither the acceptance by the Department or any representative of the Department nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Department shall operate as a waiver of any portion of the Contract or of any power herein reserved or of any right to damages. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

107.08—Protecting and Restoring Property and Landscape

The Design-Builder shall preserve property and improvements along the boundary lines of and adjacent to the Work unless their removal or destruction is specified in the Contract Documents. The Design-Builder shall use suitable precautions to prevent damage to such property.
When the Design-Builder finds it necessary to enter on private property, beyond the limits of the construction Easement shown in the Contract Documents, he shall secure from the owner or lessee a written permit for such entry prior to moving thereon. An executed copy of this permit shall be furnished to the Department.

The Design-Builder shall be responsible for any damage or injury to property during the prosecution of the Work resulting from any act, omission, neglect, or misconduct in the Design-Builder's method of executing the Work or attributable to defective work or Materials. This responsibility shall not be released until Final Acceptance of the Project and a written release from the owner or lessee of the property is obtained.

When direct or indirect damage is done to property by or on account of any act, omission, neglect, or misconduct in the Design-Builder's method of executing the Work or in consequence of the non-execution thereof on the part of the Design-Builder, the Design-Builder shall restore such property to a condition similar or equal to that existing before such damage was done by repairing, rebuilding, or restoring, as may be directed by the Department, or making settlement with the property owner. The Design-Builder shall secure from the owner a release from any claim against the Department without additional compensation therefore. A copy of this release shall be furnished the Department.

107.09—Design-Builder's Responsibility for Utility Property and Services

At points where the Design-Builder's operations are on or adjacent to the properties of any utility, including railroads, and damage to which might result in expense, loss, or inconvenience, work shall not commence until arrangements necessary for the protection thereof have been completed.

The Design-Builder shall cooperate with owners of utilities so that removal and adjustment operations may progress in a timely, responsible, and reasonable manner, duplication of adjustment work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted.

If any utility service is interrupted as a result of accidental breakage or of being exposed or unsupported, the Design-Builder shall promptly notify the proper authority and shall cooperate fully with the authority in the restoration of service. If utility service is interrupted, repair work shall be continuous until service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority. When the Design-Builder's work operations require the disconnection of "in service" fire hydrants, the Design-Builder shall notify the locality's fire department or communication center at least 24 hours prior to disconnection. In addition, the Design-Builder shall notify the locality's fire department or communications center no later than 24 hours after reconnection of such hydrants. The Design-Builder shall be responsible for any damage to utilities that, in the investigation and determination of the Department, is found to be attributable to the Design-Builder's neglect, means, or methods of performing the Work.

Nothing in this Section shall be construed to be in conflict with the provisions of Section 107.08.

The Design-Builder shall comply with all requirements of the *Virginia Underground Utility Damage Prevention Act* (the Miss Utility law). The Design-Builder shall wait a minimum of 48 hours after notifying the Miss Utility notification center before commencing Excavation work. The Design-Builder may commence Excavation work after 48 hours only if confirmed through the Ticket Information Exchange (TIE) System that all applicable utilities have either marked their underground line locations or reported that no lines are present in the Work vicinity. The Design-Builder shall wait an additional 24 hours before commencing Excavation operations if any utility operators have failed to respond to the TIE within the first 48 hours.

107.10—Restoration of Work Performed by Others

The Department may construct or reconstruct any utility service within the construction limits or grant a permit for the same at any time. The Design-Builder shall not be entitled to any damages occasioned thereby other than a consideration of an extension of time, unless the Design-Builder's Work is damaged, altered or impeded by the condition.

When authorized by the Department, the Design-Builder shall allow any Person to make an opening in the Highway within the limits of the Project upon presentation of a duly executed permit from the Department or any municipality for sections within its corporate limits. When directed by the Department, the Design-Builder shall satisfactorily repair portions of the Work disturbed by the openings. The work for such repairs as authorized and directed by the Department will be paid for in accordance with the requirements of Section 109.05 and shall be subject to the same conditions as the original work performed.

107.11—Use of Explosives

The Design-Builder shall be responsible for damage resulting from the use of explosives. Explosives shall be stored in a secure manner in compliance with federal, state, and local laws and ordinances.

The Design-Builder shall notify each property and utility owner having a building, structure, or other installation above or below ground in proximity to the site of the Work of his intention to use explosives. Notice shall be given sufficiently in advance to enable the owners to take steps to protect their property. The review of the Design-Builder's plan of operations, blasting plan and the notification of property owners shall in no way relieve the Design-Builder of his responsibility for damage resulting from his blasting operations.

107.12—Responsibility for Damage Claims (Refer to General Conditions, Article 7 Indemnification)

107.13—Labor and Wages

The Design-Builder shall comply with the provisions and requirements of the workers' compensation law and public statutes that regulate hours of employment on public work.

(a) **Predetermined Minimum Wages:** The provisions of laws requiring the payment of a minimum wage of a predetermined minimum wage scale for the various classes of laborers and mechanics, when such a scale is incorporated in the Contract, shall be expressly made a part of any Contract hereunder. The Design-Builder and his agents shall promptly comply with all such applicable provisions.

Any classification not listed and subsequently required shall be classified or reclassified in accordance with the wage determination. If other classifications are used, omission of classifications shall not be cause for additional compensation. The Design-Builder shall be responsible for determining local practices with regard to the application of the various labor classifications. For additional details of predetermined minimum wage rates, see Exhibit 107.13 included with the RFP.

(b) **Labor Rate Forms:** The Design-Builder shall complete Form C-28, indicating by classification the total number of Employees, excluding executive and administrative Employees, employed on the Project. The Design-Builder shall also indicate on the form the compensation rate per hour for each classification. The Design-Builder shall submit an original and two copies of the form prior to the due date of the second estimate for payment and for each 90-day period thereafter until the Work specified in the Contract has been completed.
If at the time of Final Acceptance the period since the last labor report is 30 days or more, the Design-Builder shall furnish an additional labor report as outlined herein prior to payment of the final estimate.

(c) **Job Service Offices**: In advance of the Contract starting date, the Design-Builder may contact the Job Service Office of the Virginia Employment Commission at the nearest location to secure referral of available qualified workers in all occupational categories. The closest office may be obtained by accessing the VEC website at http://www.vec.virginia.gov and "clicking" on "VEC Workforce Centers".

107.14—Equal Employment Opportunity

The Design-Builder shall comply with the applicable provisions of presidential executive orders and the rules, regulations, and orders of the President's Committee on Equal Employment Opportunity.

The Design-Builder shall maintain the following records and reports as required by the contract EEO provisions:

a. record of all applicants for employment

b. new hires by race, work classification, hourly rate, and date employed

c. minority and non-minority Employees employed in each work classification

d. changes in work classifications

e. Employees enrolled in approved training programs and the status of each

f. minority Subcontractor or Subcontractors with meaningful minority group representation

g. copies of Form C-57 submitted by Subcontractors

If the Contract has a stipulation or requirement for trainees, the Design-Builder shall submit semiannual training reports in accordance with the instructions shown on the forms furnished by the Department. If the Design-Builder fails to submit such reports in accordance with the instructions, his monthly progress estimate for payment may be delayed.

The Design-Builder shall cooperate with the Department in carrying out EEO obligations and in the Department's review of activities under the Contract. The Design-Builder shall comply with the specific EEO requirements specified herein and shall include these requirements in every subcontract of $10,000 or more with such modification of language as may be necessary to make them binding on the Subcontractor.

(a) **EEO Policy:** The Design-Builder shall accept as operating policy the following statement:

It is the policy of this Company to assure that applicants are employed and that Employees are treated during employment without regard to their race, religion, sex, color, or national origin. Such action shall include employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship or on-the-job training.

(b) **EEO Officer:** The Design-Builder shall designate and make known to the Department an EEO Officer who can effectively administer and promote an active contractor EEO program and who shall be assigned adequate authority and responsibility to do so.

(c) **Dissemination of Policy:**

1. Members of the Design-Builder's staff who are authorized to hire, supervise, promote, and discharge Employees or recommend such action or are substantially involved in such action shall be made fully aware of and shall implement the Design-Builder's EEO policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. The following actions shall be taken as a minimum:

   a. Periodic meetings of supervisory and personnel office Employees shall be conducted before the start of work and at least once every 6 months thereafter, at which time the Design-Builder's EEO policy and its implementation shall be reviewed and explained. The meetings shall be conducted by the EEO Officer or another knowledgeable company official.

   b. New supervisory or personnel office Employees shall be given a thorough indoctrination by the EEO Officer or another knowledgeable company official covering all major aspects of the Design-Builder's EEO obligations within 30 days following their reporting for duty with the Design-Builder.

   c. The EEO Officer or appropriate company official shall instruct Employees engaged in the direct recruitment of Employees for the Project relative to the methods followed by the Design-Builder in locating and hiring minority group Employees.

2. In order to make the Design-Builder's EEO policy known to all Employees, prospective Employees, and potential sources of Employees such as, but not limited to, schools, employment agencies, labor

unions where appropriate, and college placement officers, the Design-Builder shall take the following actions:

a. Notices and posters setting forth the Design-Builder's EEO policy shall be placed in areas readily accessible to Employees, applicants for employment, and potential employees.

   The Design-Builder shall furnish, erect, and maintain at least two bulletin boards having dimensions of at least 48 inches in width and 36 inches in height at locations readily accessible to all personnel concerned with the Project. The boards shall be erected immediately upon initiation of the Work and shall be maintained until the completion of such Work, at which time they shall be removed from the Project. Each bulletin board shall be equipped with a removable glass or plastic cover that when in place will protect posters from weather or damage. The Design-Builder shall promptly post official notices on the bulletin boards.

b. The Design-Builder's EEO policy and the procedures to implement such policy shall be brought to the attention of Employees by means of meetings, employee handbooks, or other appropriate means.

(d) **Recruitment:**

1. When advertising for employees, the Design-Builder shall include in all advertisements for employees the notation "An Equal Opportunity Employer" and shall insert all such advertisements in newspapers or other publications having a large circulation among minority groups in the area from which the Project work force would normally be derived.

2. Unless precluded by a valid bargaining agreement, the Design-Builder shall conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges, and minority group organizations. The Design-Builder shall identify sources of potential minority group employees and shall establish procedures with such sources whereby minority group applicants may be referred to him for employment consideration.

3. The Design-Builder shall encourage his Employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all Employees. In addition, information and procedures with regard to referring minority group applicants shall be discussed with Employees.

(e) **Personnel Actions:** Wages, working conditions, and Employee benefits shall be established and administered, and personnel action of any type shall be taken without regard to race, color, religion, sex, or national origin.

1. The Design-Builder shall conduct periodic inspections of the Project sites to ensure that working conditions and Employee facilities do not indicate discriminatory treatment of personnel.

2. The Design-Builder shall periodically evaluate the spread of wages paid within each classification to determine whether there is evidence of discriminatory wage practices.

3. The Design-Builder shall periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Design-Builder shall promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, corrective action shall include all affected individuals.

4. The Design-Builder shall investigate all complaints of alleged discrimination made to him in connection with obligations under the Contract, attempt to resolve such complaints, and take appropriate corrective action. If the investigation indicates that the discrimination may affect Persons

other than the complainant, corrective action shall include those individuals. Upon completion of each investigation, the Design-Builder shall inform every complainant of all avenues of appeal.

(f) **Training:**

1. The Design-Builder shall assist in locating, qualifying, and increasing the skills of minority group and women employees and applicants for employment.

2. Consistent with work force requirements and as permissible under federal and State regulations, the Design-Builder shall make full use of training programs, i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

3. The Design-Builder shall advise Employees and applicants for employment of available training programs and the entrance requirements for each.

4. The Design-Builder shall periodically review the training and promotion potential of minority group Employees and shall encourage eligible Employees to apply for such training and promotion.

5. If the Contract does not provide a separate Pay Item for trainees, the cost associated with the training specified herein shall be included in the contract price.

6. If the Contract requires trainees, training shall be in accordance with the requirements of Section 518.

(g) **Unions:** If the Design-Builder relies in whole or in part on unions as a source of employees, best efforts shall be made to obtain the cooperation of such unions to increase opportunities for minority groups and women in the unions and to effect referrals by such unions of minority and women employees. Actions by the Design-Builder, either directly or through his Design-Builder's Association acting as agent, shall include the following procedures:

1. In cooperation with the unions, best efforts shall be used to develop joint training programs aimed toward qualifying more minority group members and women for membership in the unions and to increase the skills of minority group employees and women so that they may qualify for higher-paying employment.
2. Best efforts shall be used to incorporate an EEO clause into union agreements to the end that unions shall be contractually bound to refer applicants without regard to race, color, religion, sex, or national origin.

3. Information shall be obtained concerning referral practices and policies of the labor union except that to the extent the information is within the exclusive possession of the union. If the labor union refuses to furnish the information to the Design-Builder, the Design-Builder shall so certify to the Department and shall set forth what efforts he made to obtain the information.

4. If a union is unable to provide the Design-Builder with a reasonable flow of minority and women referrals within the time limit set forth in the union agreement, the Design-Builder shall, through his recruitment procedures, fill the employment vacancies without regard to race, color, religion, sex, or national origin, making full efforts to obtain qualified or qualifiable minority group individuals and women. If union referral practice prevents the Design-Builder from complying with the EEO requirements, the Design-Builder shall immediately notify the Department.

(h) **Subcontracting:** The Design-Builder shall use best efforts to use minority group Subcontractors or Subcontractors with meaningful minority group and female representation among their employees. Design-Builders shall obtain lists of MBE, DBE, and WBE construction firms from the Department. If MBE, DBE, or WBE goals are established in the Proposal, the Design-Builder shall comply with the requirements of Section 107.15.

The Design-Builder shall use best efforts to ensure Subcontractor compliance with his EEO obligations.

(i) **Records and Reports:** The Design-Builder shall keep such records as are necessary to determine compliance with his EEO obligations. The records shall be designed to indicate the following:

1. the number of minority and non-minority group members and females employed in each work classification on the Project,

2. the progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and females if unions are used as a source of the work force,

3. the progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female Employees, and

4. the progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority group and female representation among their Employees.

Records shall be retained for a period of three years following completion of the Work and shall be available at reasonable times and places for inspection by authorized representatives of the Department.

Each month for the first three months after construction begins and every month of July thereafter for the duration of the Project, Form C-57 shall be completed to indicate the number of minority, non-minority, and female Employees currently engaged in each work classification shown on the form. The completed Form C-57 shall be submitted within three weeks after the reporting period. Failure to do so may result in delay of approval of the Design-Builder's monthly progress estimate for payment.

107.15—Use of Minority Business Enterprises (MBEs)

Design-Builder shall comply with all requirements of Exhibit 107.15, included with the RFP. This Exhibit is a Special Provision from the Department.

107.16—Environmental Stipulations

By signing the Proposal, the Offeror shall have stipulated (1) that any facility to be used in the performance of the Contract (unless the Contract is exempt under the Clean Air Act as amended [42 U.S.C. 1857, et seq., as amended by P.L. 91-604], the Federal Water Pollution Control Act as amended [33 U.S.C. 1251 et seq. as amended by P.L. 92-500], and Executive Order 11738 and regulations in implementation thereof [40 C.F.R., Part 15]) is not listed on the EPA's List of Violating Facilities pursuant to 40 C.F.R. 15.20; and (2) that the Department will be promptly notified prior to the Award of the Contract if the Offeror receives any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be used for the Contract is under consideration to be listed on the EPA's List of Violating Facilities.

No separate payment will be made for the Work or precautions described herein.

Reference is made in various subsections of this section to Tidewater, Virginia. For the purposes of identifying the affected regions assigned to this designation and the requirements therein Tidewater, Virginia is defined as the Counties of Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King George, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland and York and the Cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach and Williamsburg.

(a) **Erosion and Siltation**: The Design-Builder shall exercise every reasonable precaution, including temporary and permanent soil stabilization measures, throughout the duration of the Project to control erosion and prevent siltation of adjacent lands, rivers, streams, wetlands, lakes, and impoundments. Soil stabilization or erosion control measures shall be applied to erodible soil or ground materials exposed by any activity associated with construction, including clearing, grubbing, and grading, but not limited to local or on-site sources of materials, stockpiles, Disposal Areas and haul roads.

The Design-Builder shall comply with the requirements of Sections 301.02 and 303.03. Should the Design-Builder as a result of negligence or noncompliance leave an area exposed more than 15 days, the cost of temporary soil stabilization in accordance with the provisions of Section 303 shall be at the Design-Builder's expense.

Temporary measures shall be coordinated with the Work to ensure effective and continuous erosion and sediment control. Permanent erosion control measures and drainage facilities shall be installed as the Work progresses.

For projects that disturb 10,000 square feet or greater of land or 2,500 square feet or greater in Tidewater, Virginia, the Design-Builder shall have within the limits of the project during land disturbance activities, an employee certified by the Department in Erosion and Sediment control who shall inspect erosion and siltation control devices and measures for proper installation and operation and promptly report their findings to the Inspector. Inspections shall include all areas of the site disturbed by construction activity and all off site support facilities covered by the project's Stormwater Pollution Prevention Plan. Inspections shall be conducted at least once every 14 calendar days and within 48 hours following any runoff producing storm event (Note: If an inspection is conducted as a result of a storm event, another inspection is not required for 14 calendar days following provided there are no more runoff producing storm events during the that period). For those areas that have been temporarily stabilized or runoff is unlikely to occur due to winter conditions (e.g., the site is covered with snow or ice or frozen ground exists), inspections shall be conducted at least once a month. Those definable areas where final stabilization has been achieved will not require further inspections provided such areas have been identified in the project's Stormwater Pollution Prevention Plan. Failure of the Design-Builder to maintain a certified employee within the limits of the project will result in the Department suspending work related to any land disturbing activity until such time as a certified employee is present on the project. Failure on the part of the Design-Builder to maintain appropriate erosion and siltation control devices in a functioning condition may result in the Department notifying the Design-Builder in writing of specific deficiencies. Deficiencies shall be corrected immediately. If the Design-Builder fails to correct or take appropriate actions to correct the specified deficiencies within 24 hours after receipt of such notification, the Department may do one or more of the following: require the Design-Builder to suspend work in other areas and concentrate efforts towards correcting the specified deficiencies, withhold payment of monthly progress estimates, or proceed to correct the specified deficiencies and deduct the entire cost of such work from monies due the Design-Builder. Failure on the part of the Design-Builder to maintain a Department certified erosion and sediment control employee within the project limits when land disturbance activities are being performed will result in the Department suspending work related to any land disturbance activity until such time as the Design-Builder is in compliance with this requirement.

(b) **Pollution:**

1. **Water:** The Design-Builder shall exercise every reasonable precaution throughout the duration of the Project to prevent pollution of rivers, streams, and impoundments. Pollutants such as, but not limited to, chemicals, fuels, lubricants, bitumens, raw sewage, paints, sedimentation, and other harmful material shall not be discharged into or alongside rivers, streams, or impoundments or into Channels leading to them. The Design-Builder shall provide the Department a contingency plan for reporting and immediate actions to be taken in the event of a dump, discharge, or spill within eight hours after he has mobilized to the Project site.

   Construction discharge water shall be filtered to remove deleterious materials prior to discharge into State waters. Filtering shall be accomplished by the use of a standard dewatering basin or a dewatering

bag. Dewatering bags shall conform to the requirements of Section 245. During specified spawning seasons, discharges and construction activities in spawning areas of State waters shall be restricted so as not to disturb or inhibit aquatic species that are indigenous to the waters. Neither water nor other effluence shall be discharged onto wetlands or breeding or nesting areas of migratory waterfowl. When used extensively in wetlands, heavy Equipment shall be placed on mats. Temporary construction fills and mats in wetlands and flood plains shall be constructed of approved non-erodible materials and shall be removed by the Design-Builder to natural ground when the Department so directs.

If the Design-Builder dumps, discharges, or spills any oil or chemical that reaches or has the potential to reach a waterway, he shall immediately notify all appropriate jurisdictional Governmental Units in accordance with the requirements of the Contract and shall take immediate actions to contain, remove, and properly dispose of the oil or chemical.

Excavation material shall be disposed of in approved areas above the mean high water mark shown in the Contract Documents in a manner that will prevent the return of solid or suspended materials to State waters. If the mark is not shown on the Plans, the mean high water mark shall be considered the elevation of the top of stream banks.

Constructing new Bridge(s) and dismantling and removing existing Bridge(s) shall be accomplished in a manner that will prevent the dumping or discharge of construction or Disposable Materials into rivers, streams, or impoundments.

Construction operations in rivers, streams, or impoundments shall be restricted to those areas where identified on the Plans and to those that must be entered for the construction of structures. Rivers, streams, and impoundments shall be cleared of Falsework, piling, debris, or other obstructions placed therein or caused by construction operations. Stabilization of the streambed and banks shall occur immediately upon completion of work if work is suspended for more than 15 days.

The Design-Builder shall prevent stream constriction that would reduce stream flows below the minimum, as defined by the State Water Control Board, during construction operations.

If it is necessary to relocate an existing stream or drainage facility temporarily to facilitate construction, the Design-Builder shall design and provide temporary Channels or culverts of adequate size to carry the normal flow of the stream or drainage facility. The Design-Builder shall submit a temporary relocation design to the Department for review and acceptance in sufficient time to allow for discussion and correction prior to beginning the Work the design covers. Costs for the temporary relocation of the stream or drainage facility shall be included in the Contract. Stabilization of the streambed and banks shall occur immediately upon completion of, or during the Work, if the Work is suspended for more than 15 days.

Temporary Bridges or other minimally invasive structures shall be used wherever the Design-Builder finds it necessary to cross a stream more than twice in a 6 month period unless otherwise authorized by water quality permits issued by the U. S. Army Corps of Engineers, Virginia Marine Resources Commission, or the Virginia Department of Environmental Quality for the Contract.

Conduct all operations near rivers, streams, or impoundments in accordance with applicable water quality permits. Do not conduct clearing or grubbing within 100 feet of the limits of Ordinary High Water or a delineated wetland until authorized by the Department.

2. **Air:** The Design-Builder shall comply with the provisions of the Contract and the State Air Pollution Control Law and Rules of the State Air Pollution Control Board, including notifications required therein.

   Burning shall be performed in accordance with all applicable local laws and ordinances and under the constant surveillance of watchpersons. Care shall be taken so that the burning of materials does not

destroy or damage property or cause excessive air pollution. The Design-Builder shall not burn rubber tires, asphalt, used crankcase oil, or other materials that produce dense smoke. Burning shall not be initiated when atmospheric conditions are such that smoke will create a hazard to the motoring public or airport operations. Provisions shall be made for flagging vehicular traffic if visibility is obstructed or impaired by smoke. At no time shall a fire be left unattended.

Asphalt mixing plants shall be designed, equipped, and operated so that the amount and quality of air pollutants emitted will conform to the rules of the State Air Pollution Control Board.

Emission standards for asbestos incorporated in the EPA's National Emission Standards for Hazardous Air Pollutants apply to the demolition or renovation of any institutional, commercial, or industrial building, structure, facility, installation, or portion thereof that contains friable asbestos or where the Design-Builder's methods for such actions will produce friable asbestos.

3. **Noise:** The Design-Builder's operations shall be performed so that exterior noise levels measured during a noise-sensitive activity shall not exceed 80 decibels. Such noise level measurements shall be taken at a point on the perimeter of the construction limit that is closest to the adjoining property on which a noise sensitive activity is occurring. A *noise-sensitive activity* is any activity for which lowered noise levels are essential if the activity is to serve its intended purpose and not present an unreasonable public nuisance. Such activities include, but are not limited to, those associated with residences, hospitals, nursing homes, churches, schools, libraries, parks, and recreational areas.

   The Design-Builder shall monitor construction-related noise. If construction noise levels exceed 80 decibels during noise sensitive activities, the Design-Builder shall take corrective action before proceeding with operations. The Design-Builder shall be responsible for costs associated with the abatement of construction noise and the delay of operations attributable to noncompliance with these requirements.

   The Department may prohibit or restrict to certain portions of the Project any work that produces objectionable noise between 10 P.M. and 6 A.M. If other hours are established by local ordinance, the local ordinance shall govern.

   Equipment shall in no way be altered so as to result in noise levels that are greater than those produced by the original equipment.

   When feasible, the Design-Builder shall establish haul routes that direct his vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.

   These requirements shall not be applicable if the noise produced by sources other than the Design-Builder's operation at the point of reception is greater than the noise from the Design-Builder's operation at the same point.

(c) **Forests:** The Design-Builder shall take all reasonable precautions to prevent and suppress forest fires in any area involved in construction operations or occupied by him as a result of such operations. The Design-Builder shall cooperate with the proper authorities of Governmental Units in reporting, preventing, and suppressing forest fires. Labor, tools, or equipment furnished by the Design-Builder upon the order of any forest official issued under authority granted the official by law shall not be considered a part of the Contract. The Design-Builder shall negotiate with the proper forest official for compensation for such labor, tools, or equipment

(d) **Archeological, Paleontological, and Rare Mineralogical Findings:** In the event of the discovery of prehistoric ruins, Indian or early settler sites, burial grounds, relics, fossils, meteorites, or other articles of archeological, paleontological, or rare mineralogical interest during the prosecution of Work, the Design-Builder shall act immediately to suspend work at the site of the discovery and notify the Engineer. The Engineer will immediately notify the proper State authority charged with the responsibility of investigating

and evaluating such finds. The Design-Builder shall cooperate and, upon the request of the Engineer, assist in protecting, mapping, and removing the findings. Labor, tools, or Equipment furnished by the Design-Builder for such work will be paid for in accordance with the requirements of Section 104.03. Findings shall become the property of the Commonwealth unless they are located on federal lands, in which event they shall become the property of the U.S. government.

When such findings delay the progress or performance of the Work, the Design-Builder shall notify the Department in accordance with the provisions of Sections 108.03 and Section 109.05.

(e) **Storm Water Pollution Prevention Plan**

A Stormwater Pollution Prevention Plan (SWPPP) identifies potential sources of pollutants which may reasonably be expected to affect the stormwater discharges from the construction site and any off site support areas and describes and ensures implementation of practices which will be used to reduce pollutants in such discharges.

The SWPPP is comprised of, but not limited to, the Erosion and Sediment Control (ESC) Plan, the Stormwater Management (SWM) Plan, and related Specifications and Standards requirements contained within the Contract Documents and shall be required for all land-disturbing activities that disturb 10,000 square feet or greater, or 2,500 square feet or greater in Tidewater, Virginia."

Land-disturbing activities that disturb one 1 acre or greater, or 2,500 square feet or greater in an area designated as a Chesapeake Bay Preservation Area, require coverage under the Department of Conservation and Recreation's Virginia Stormwater Management Program (VSMP) General Permit for the Discharge of Stormwater from Construction Activities (hereafter referred to as the VSMP Construction Permit), DCR-01 is required. Where applicable, the Department will apply for and retain coverage under the VSMP Construction Permit for those land disturbing activities for which it has contractual control.

The required contents of a SWPPP for those land disturbance activities requiring coverage under the VSMP Construction Permit are found in Section II D of the General Permit section of the VSMP Regulations (4VAC50-60-1170). While a SWPPP is an important component of the VSMP Construction Permit, it is only one of the many requirements for the land disturbing activity that must be addressed in order to be in full compliance with the conditions of this permit. The requirements of this permit will be satisfied by the Design-Builder's compliance with the Project's SWPPP terms and conditions.

The Design-Builder and all other persons that oversee or perform activities covered by the VSMP Construction Permit shall be responsible for reading, understanding, and complying with all of the terms, conditions and requirements of the DCR-01 General Permit and the project's SWPPP including, but not limited to, the following:

1. Project Implementation Responsibilities

The Design-Builder shall be responsible for the installation, maintenance, inspection, and, on a daily basis, ensuring the functionality of all erosion and sediment control measures on a daily basis and all other stormwater and pollutant runoff control measures identified within or referenced within the SWPPP, plans, Specifications, permits, and other Contract Documents or applicable governmental approvals.

The Design-Builder shall take all reasonable steps to prevent or minimize any storm water or non-storm water discharge that will have a reasonable likelihood of adversely affecting human health or public and/or private properties.

2. Certification Requirements

In addition to satisfying the personnel certification requirements contained herein, the Design-Builder shall certify his activities by completing, signing, and submitting Form C-45 VDOT SWPPP Design-Builder and Subcontractor Certification Statement to the Department at least 7 days prior to commencing any Project-related land-disturbing activities, both on-site and off-site.

3. SWPPP Requirements for Support Facilities Off Site (Outside the Construction Limits) Requirements

The Design-Builder shall develop erosion and sediment control plan(s) and storm water pollution prevention plan(s) for submission and acceptance by the Department prior to usage of any on-site or off-site support facilities including but not limited to, off-site Borrow and Disposal Areas, construction and waste materials or Equipment storage areas, equipment and vehicle storage and fueling areas, storage areas for fertilizers or chemicals, sanitary waste facilities and any other areas that may generate a storm water or non-stormwater discharge directly related to the construction process. Such plans, upon acceptance, shall document the location and description of potential pollutant sources from these areas and shall include a description of the controls to reduce, prevent and control pollutants from these sources including spill prevention and response. The Design-Builder shall submit such plans and documentation as specified herein to the Department and, upon review and approval, they shall immediately become a component part of the project's SWPPP and VSMP Construction Permit (where applicable) and shall be subject to all conditions and requirements of the Overall Project plan, VSMP Construction Permit (where applicable) and all other Contract Documents.

4. Reporting Procedures

a. Inspection Requirements

The Design-Builder shall be responsible for conducting inspections in accordance with the requirements herein. The Design -Builder shall document such inspections by completion of Form C-107 (a) and (b), Construction Runoff Control Inspection Form and Continuation Sheet, in strict accordance with the directions contained within the form.

b. Unauthorized Discharge Requirements

The Design-Builder shall not discharge into State waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances nor shall otherwise alter the physical, chemical, or biological properties of such waters that render such waters detrimental for or to domestic use, industrial consumption, recreational or other public uses.

(1) Notification of non-compliant discharges

The Design-Builder shall immediately notify the Department upon the discovery of or potential of any unauthorized, unusual, extraordinary, or non-compliant discharge from the land disturbing activity. Where immediate notification is not possible, such notification shall be not later than 24 hours after said discovery.

(2) Detailed report requirements for non-compliant discharges

The Design-Builder shall submit to the Department within 5 days of the discovery of any actual or potential non-compliant discharge a written report describing details of the discharge to include its volume, location, cause, and any apparent or potential effects on private and/or public properties and State waters or endangerment to public health, as well as steps being taken to eliminate the discharge. A completed Form C-107 (a) and (b) shall be used for such reports.

5. Plans, Changes, Deficiencies, and Revisions

a. Design-Builder SWPPP

The Design-Builder shall develop and provide SWPPP that documents the location and description of potential pollutant sources such as vehicle fueling areas, storage areas for fertilizers or chemicals, sanitary waste facilities, construction and waste material storage areas, etc. prior to any such pollutant sources being established on the Project site. Such plans and documentation shall include a description of the controls to reduce, prevent, and control pollutants from these sources including spill prevention and response. The Design-Builder shall submit such plans and documentation as specified herein to the Department and, upon review and approval, they shall immediately become a component of the Project's SWPPP and subject to all corresponding requirements contained therein.

The Design-Builder shall ensure that the SWPPP is kept on the Project site at all times in accordance with the provisions of Section 105.10 and shall be available for review upon request.

b. Changes and Deficiencies

The Design-Builder shall report to the Department when: (a) any planned physical alterations or additions are made to the land disturbing activity; or (b) deficiencies in the project plans or Contract Documents are discovered that could significantly change the nature or increase the quantity of the pollutants discharged from the land disturbing activity to surface waters.

c. Revisions to the SWPPP

Where site conditions, construction sequencing or scheduling necessitates revisions or modifications to the erosion and sediment control plan or any other component of the SWPPP for the land disturbing activity, such revisions or modifications shall be approved by the Department and shall be documented by the Design -Builder on a designated plan set (Record Set).

Such plans shall be maintained on the project site or at a location convenient to the project site where no on site facilities are available and shall be available for review upon request during normal business working hours.

107.17—Construction Safety and Health Standards

Compliance with construction safety and health standards is a condition of the Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Design-Builder and any Subcontractor shall not require any worker employed in performance of the Contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to their health or safety as determined under construction safety and health standards promulgated by the U.S. Secretary of Labor in accordance with the requirements of Section 107 of the Contract Work Hours and Safety Standards Act.

The Design-Builder shall comply with the Virginia Occupational Safety and Health Standards adopted under the *Code of Virginia* and the duties imposed under the Code. Any violation of the requirements or duties that is brought to the attention of the Design-Builder by the Department or any other individual shall be immediately abated.
At a minimum, all Design-Builder personnel shall comply with the following unless otherwise determined unsafe or inappropriate in accordance with OSHA regulations:

1. Hard hats shall be worn while participating in or observing all types of field work when outside of a building or outside of the cab of a vehicle, and exposed to, participating in, or supervising construction.

2. Respiratory protective equipment shall be worn whenever an individual is exposed to any item listed in the OSHA Standards as needing such protection unless it is shown that the Employee is protected by engineering controls.

3. Adequate eye protection shall be worn in the proximity of grinding, breaking of rock or concrete, while using brush chippers, striking metal against metal ,or when working in situations where the eyesight may be in jeopardy.

4. A safety vest shall be worn by all exposed to vehicular traffic and construction Equipment.

5. Standards and guidelines of the current Virginia Work Area Protection Manual shall be used when setting, reviewing, maintaining, and removing traffic controls.

6. Flaggers shall be certified in accordance with the Virginia Flagger Certification Program.

7. No individual shall be permitted to position themselves under any raised load or between hinge points of Equipment without first taking steps to support the load by the placing of a safety bar or blocking.

8. Explosives shall be purchased, transported, stored, used, and disposed of by a Virginia State Certified Blaster in possession of a current criminal history record check and a commercial driver's license with Hazardous Materials endorsement and a valid medical examiner's certificate. All Federal, State, and local regulations pertaining to explosives shall be strictly followed.

9. All electrical tools shall be adequately grounded or double insulated. Ground Fault Circuit Interrupter (GFCI) protection must be installed in accordance with the National Electrical Code (NEC) and current Virginia Occupational Safety and Health agency (VOSH). If extension cords are used, they shall be free of defects and designed for their environment and intended use.

10. No individual shall enter a confined space without training, permits, and authorization.

11. Fall protection shall be required whenever an Employee is exposed to a fall six feet or greater.

107.18—Sanitary Provisions

The Design-Builder shall provide and maintain in a neat, sanitary condition such accommodations for the use of Employees as may be necessary to comply with the requirements of the State and local Board of Health or other bodies or tribunals having jurisdiction.

107.19—Railway-Highway Provisions

If the Design-Builder's work requires hauling materials across the tracks of a railway, he shall make arrangements with the railway for any new crossing(s) required. Access to existing rail crossings with off-road heavy Equipment shall also be arranged by the Design-Builder. Charges made by the railway company for the construction or use of new or existing crossings and their subsequent removal and for watchperson or flagger service at such crossings shall be reimbursed by the Design-Builder directly to the railway company under the terms of their separate individual arrangements before Final Acceptance.
Work to be performed by the Design-Builder in construction on or over the railway Right of Way shall be performed at times and in a manner that will not unnecessarily interfere with the movement of trains or traffic on the railway track. The Design-Builder shall use care to avoid accidents, damage, or unnecessary delay or interference with the railway company's trains or other property. If any interruption of railway traffic is required by the Design-Builder's actions, he shall obtain prior written approval from the railway company.

The Design-Builder shall conduct operations that occur on or over the Right of Way of any railway company fully within the rules, regulations, and requirements of the railway company and in accordance with the requirements of any agreements made between the Department and the railway company. The applicable portions of such

agreements shall be provided by Department to Design-Builder upon Design-Builder's request, unless the Contract Documents require the Design-Builder to obtain such agreement.

(a) **Flagger or Watchperson Services:** Flagger or watchperson services required by the railway company for the safety of railroad operations because of work being performed by the Design-Builder or incidental thereto will be provided by the railway company. The cost for such services as required for work shown in the Contract Documents will be borne by the Design-Builder. Any cost of such services resulting from work not shown in the Contract Documents or for the Design-Builder's convenience shall be borne by the Design-Builder and shall be paid directly to the railway company(s) under the terms of their separate individual agreement.

No work shall be undertaken on or over the railway Right of Way until the watchpersons or flaggers are present at the Project site. The Design-Builder shall continuously prosecute the affected work to completion to minimize the need for flagger or watchperson services. Costs for such services that the Department determines to be unnecessary because of the Design-Builder's failure to give notice as required herein before initially starting, intermittently continuing, or discontinuing work on or over the railway Right of Way shall be borne by the Design-Builder and will be deducted from monies due him.

(b) **Approval of Construction Methods on Railway Right of Way:** The Design-Builder shall submit to the Department a plan of operations showing the design and method of proposed structural operations and shall obtain its approval before performing any work on the railway company's Right of Way unless otherwise indicated in the railroad agreement. The plan shall be clear and legible and details shall be drawn to scale. The plan shall incorporate any stipulations or requirements the railroad may impose for the evaluation of the Design-Builder's contemplated operations. The plan shall show, but not be limited to, the following:

1. proximity of construction operations to tracks
2. depth of Excavation with respect to tracks
3. description of structural units
4. vertical and horizontal clearances to be afforded the railroad during installation and upon completion of Excavation
5. sheeting and bracing
6. method and sequence of operations

Approval shall not relieve the Design-Builder of any liability under the Contract. The Design-Builder shall arrange the Work so as not to interfere with the railway company's operation except by agreement with the railway company.

(c) **Insurance:** In addition to insurance or bonds required under the terms of the Contract, the Design-Builder shall carry insurance covering operations affecting the property of the railway company. The original railroad protective liability insurance policy and certificate of insurance showing insurance carried by the Design-Builder and any Subcontractors shall be submitted to the railway company for approval and retention.

Neither the Design-Builder nor any Subcontractor shall begin any work affecting the railway company until the railway company has received the insurance.

Notice of any material change in or cancellation of the required policies shall be furnished the Department and the railway company at least 30 days prior to the effective date of the change or cancellation. The insurance shall be of the following kinds and amounts:

1. **Design-Builder's public liability and property damage insurance:** The Design-Builder shall furnish evidence to the Department with respect to the operations to be performed that he carries regular contractor's public liability insurance. The insurance shall provide for a limit of at least the dollar value specified in the Contract for all damages arising out of bodily injuries to or the death of one person and subject to that limit for each person a total limit of at least the dollar value specified in the Contract for all damages arising out of bodily injuries to or death of two or more persons in any one occurrence, and regular design-builder's property damage insurance providing for a limit of at least the dollar value specified in the Contract for all damages arising out of bodily injury to or destruction of property in any one occurrence, and subject to that limit per occurrence, a total or aggregate limit of at least the dollar value specified in the Contract for all damages arising out of injury to or destruction of property during the policy period. The Design-Builder's public liability and property damage insurance shall include explosion, collapse, and underground damage coverage. If the Design-Builder subcontracts any portion of the Work, he shall secure insurance protection in his own behalf under the Contract's public liability and property damage insurance policies to cover any liability imposed on him by law for damages because of bodily injury to, or death of persons and injury to, or destruction of property as a result of Work undertaken by the Subcontractors. In addition, the Design-Builder shall provide similar insurance protection for and on behalf of any Subcontractors to cover their operation by means of separate and individual design-builder's public liability and property damage policies. As an alternative, he shall require each Subcontractor to provide such insurance in his own behalf.

2. **Railroad protective insurance and public liability and property damage:** The policy furnished the railway company shall include coverage for contamination, pollution, explosion, collapse, and underground damage. The policy shall be of the type specified hereinafter and shall be expressed in standard language that may not be amended. No part shall be omitted except as indicated hereinafter or by an endorsement that states an amendment or exclusion of some provision of the form in accordance with the provisions of a manual rule. The form of the endorsement shall be approved as may be required by the supervising authority of the State in which the policy is issued. A facsimile of the Policy Declarations form as shown in the Proposal shall be made a part of the policy and shall be executed by an officer of the insurance company. The several parts of the requirements and stipulations specified or inferred herein may appear in the policy in such sequence as the company may elect.

   a. **For a policy issued by one company:**

      (NAME AND LOCATION OF INDEMNITY COMPANY), a _____ Insurance
      (Type of Company)
      Company, herein called the Company, agrees with the insured named in the Policy Declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the Policy Declarations made by the named insured and subject to all of the terms of his policy.

      For a policy issued by two companies:

      (NAME AND LOCATION OF INDEMNITY COMPANY) and
      (NAME AND LOCATION OF INDEMNITY COMPANY),
      each a _____ Insurance Company, herein called the Company, severally
      (Type of Company)
      agree with the insured named in the Policy Declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the Policy Declaration made by the named insured and subject to all of the terms of this policy, provided the named Indemnity Company shall be the insured with respect to Coverage _____ and no other and the named Insurance Company shall be the insurer with respect to Coverage _____ and no other.

b. **Insuring agreements:**

(1) **Coverages: Coverage A—Bodily injury liability:** To pay on behalf of the insured all sums that the insured shall become legally obligated to pay as damages because of bodily injury, sickness, or disease including death at any time resulting therefrom (hereinafter called bodily injury) either (1) sustained by any person arising out of acts or omissions at the designated job site that are related to or are in connection with the Work described in Item 6 of the Policy Declarations; or (2) sustained at the designated job site by the Design-Builder, any Employee of the Design-Builder, any employee of the governmental authority specified in Item 5 of the Policy Declarations, or any designated employee of the insured, whether or not arising out of such acts or omissions.

Coverage B—Property damage liability: To pay on behalf of the insured all sums the insured shall become legally obligated to pay as damages because of physical injury to or destruction of property, including loss of use of any property because of such injury or destruction (hereinafter called property damage) arising out of acts or omissions at the designated job site that are related to or are in connection with the Work described in Item 6 of the Policy Declarations.

Coverage C—Physical damage to property: To pay for direct and accidental loss of or damage to rolling stock and other contents, mechanical construction Equipment, or motive power Equipment (hereinafter called loss) arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Policy Declarations; provided such property is owned by the named insured or is leased or entrusted to the named insured under a lease or trust agreement.

(2) **Definitions:** *Insured* means and includes the named insured and any executive officer, director, or stockholder thereof while acting within the scope of his duties as such.

Design-Builder means the Design-Builder designated in Item 4 of the Policy Declarations and includes all Subcontractors of the Design-Builder but not the named insured.

Designated employee of the insured means (1) any supervisory employee of the insured at the job site; (2) any employee of the insured while operating, attached to, or engaged on work trains or other railroad Equipment at the job site that is assigned exclusively to the Design-Builder; or (3) any employee of the insured not within (1) or (2) who is specifically loaned or assigned to the work of the Design-Builder for prevention of accidents or protection of property, the cost of whose services is borne specifically by the Design-Builder or governmental authority.

Contract means any contract or agreement to carry a Person or property for a consideration or any lease, trust, or interchange contract or agreement respecting motive power, rolling stock, or mechanical construction Equipment.

(3) **Defense and settlement supplementary payments:** With respect to such insurance as is afforded by this policy under Coverages A and B, the Company shall defend any suit against the insured alleging such bodily injury or property damage and seeking damages that are payable under the terms of this policy, even if any of the allegations of the suit are groundless, false, or fraudulent. However, the Company may make such investigation and settlement of any claim or suit as it deems expedient.

In addition to the applicable limits of liability, the Company shall pay (1) all expenses incurred by the company, all costs taxed against the insured in any such suit, and all interest on the entire amount of any judgment therein that accrues after entry of the judgment and before the Company has paid or tendered or deposited in court that part of the judgment that

does not exceed the limit of the Company's liability thereon; (2) premiums on appeal bonds required in any such suit and premiums on bonds to release attachments for an amount not in excess of the applicable limit of liability of this policy, but without obligation to apply for or furnish any such bonds; (3) expenses incurred by the insured for first aid to others that shall be imperative at the time of the occurrence; and (4) all reasonable expenses, other than loss of earnings, incurred by the insured at the Company's request.

(4) **Policy period and territory:** This policy applies only to occurrences and losses during the policy period and within the United States, its territories or possessions, or Canada.

c. **Exclusions:** This policy does not apply to the following:

(1) liability assumed by the insured under any contract or agreement except a contract as defined herein;

(2) bodily injury or property damage caused intentionally by or at the direction of the insured;

(3) bodily injury, property damage, or loss that occurs after notification to the named insured of the acceptance of the Work by the governmental authority, other than bodily injury, property damage, or loss resulting from the existence or removal of tools, uninstalled Equipment, and abandoned or unused Materials;

(4) under Coverage A(1), B, and C, to bodily injury, property damage, or loss, the sole proximate cause of which is an act or omission of any insured;

(5) under Coverage A, to any obligation for which the insured or any carrier as his insurer may be held liable under any workers' compensation, employment compensation, or disability benefits law or under any similar law; provided that the Federal Employer's Liability Act, *U.S. Code* (1946) Title 45, Sections 51-60, as amended, shall for the purpose of this insurance be deemed not to be any similar law;

(6) under Coverage B, to injury to or destruction of property owned by the named insured or leased or entrusted to the named insured under a lease or trust agreement;

(7) under any liability coverage, to injury, sickness, disease, death, or destruction (1) with respect to which an insured under the policy is also an insured under a nuclear energy liability policy issued by the Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, or Nuclear Insurance Association of Canada or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or (2) resulting from the hazardous properties of nuclear material and with respect to which any Person is required to maintain financial protection pursuant to the Atomic Energy Act of 1954 or any law amendatory thereof or the insured is (or had this policy not been issued would be) entitled to indemnity from the United States or any agency thereof under any agreement entered into by the United States, or any agency thereof, with any Person;

(8) under any Medical Payments Coverage or any Supplementary Payments provision relating to immediate medical or surgical relief or to expenses incurred with respect to bodily injury, sickness, disease, or death resulting from the hazardous properties of nuclear material and arising out of the operation of a nuclear facility by any Person;

(9) under any liability coverage, to injury, sickness, disease, death, or destruction resulting from the hazardous properties of nuclear material if (1) the nuclear material is at any nuclear facility owned or operated by or on behalf of an insured or has been discharged or dispersed therefrom; (2) the nuclear material is contained in spent fuel or waste at any time possessed, handled, used, processed, stored, transported, or disposed of by or on behalf of an insured; or

(3) the injury, sickness, disease, death, or destruction arises out of the furnishing by an insured of services, Materials, or parts for Equipment in connection with the planning, construction, maintenance, operation, or use of any nuclear facility; if such facility is located in the United States, its territories or possessions, or Canada, this exclusion applies only to injury to or destruction of property at such nuclear facility;

(10) under Coverage C, to loss attributable to nuclear reaction, nuclear radiation, or radioactive contamination or to any act or condition incident to any of the foregoing.

As used in exclusions (7), (8), and (9), the following definitions apply: *Hazardous properties* include radioactive, toxic, or explosive properties. *Nuclear material* means source material, special nuclear material, or byproduct material. *Source material, special nuclear material, and byproduct material* have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof. *Spent fuel* means any fuel element or fuel component (solid or liquid) that has been used or exposed to radiation in a nuclear reaction. *Disposable material* means material containing byproduct material and resulting from the operation by any Person of any nuclear facility included in the definition of nuclear facility under 1 or 2 below. *Nuclear facility* means:

(1) any nuclear reactor

(2) any equipment or device designed or used for separating the isotopes of uranium or plutonium; processing or utilizing spent fuel; or handling, processing, or packaging waste

(3) any equipment or device designed or used for the processing, fabricating, or alloying of special nuclear material if at any time the total amount of such material in the custody of the insured at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 (or any combination thereof) or more than 250 grams of uranium 235

(4) any structure, basin, Excavation, premises, or place prepared or used for the storage or disposal of waste (includes the site on which any of the foregoing is located, all operation conducted on such site, and all premises used for such operations)

Nuclear reactor means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material. With respect to injury to or destruction of property, *injury* or *destruction* includes all forms of radioactive contamination of property.

d. **Conditions:** The following conditions, except conditions (3) through (12), apply to all coverages. Conditions (3) through (12) apply only to the coverage noted thereunder.

(1) **Premium:** The premium bases and rates for the hazards described in the Policy Declarations are stated therein. Premium bases and rates for hazards not so described are those applicable in accordance with the requirements of the manuals used by the company. The term “contract cost” means the total cost of all Work described in Item 6 of the Policy Declaration. The term “rental cost” means the total cost to the Design-Builder for rental or work trains or other railroad Equipment, including the remuneration of all employees of the insured while operating, attached to, or engaged thereon. The advance premium stated in the Policy Declarations is an estimated premium only. Upon termination of this policy, the earned premium shall be computed in accordance with the Company’s rules, rates, rating plans, premiums, and minimum premiums applicable to this insurance. If the earned premium thus computed exceeds the estimated advance premium paid, the Company shall look to the Design-Builder specified in the Policy Declarations for any such excess. If the earned premium is less than the estimated advance premium paid, the Company shall return to the

Design-Builder the unearned portion paid. In no event shall payment or premium be an obligation of the named insured.

(2) **Inspection:** The named insured shall make available to the Company records of information relating to the subject matter of this insurance. The Company shall be permitted to inspect all operations in connection with the Work described in Item 6 of the Policy Declarations.

(3) **Limits of liability, Coverage A:** The limit of bodily injury liability stated in the Policy Declarations as applicable to "each person" is the limit of the Company's liability for all damages (including damages for care and loss of services) arising out of bodily injury sustained by one Person as the result of any one occurrence. The limit of such liability stated in the Policy Declarations as applicable to "each occurrence" is (subject to the provision respecting each Person) the total limit of the Company's liability for all such damage arising out of bodily injury sustained by two or more Persons as the result of any one occurrence.

(4) **Limits of liability, Coverages B and C:** The limit of liability under Coverages B and C stated in the Policy Declarations as applicable to "each occurrence" is the total limit of the Company's liability for all damages and all loss under Coverages B and C combined arising out of physical injury to, destruction of, or loss of all property of one or more Persons or organizations, including the loss or use of any property attributable to such injury or destruction under Coverage B, as the result of any one occurrence. Subject to the provision respecting "each occurrence", the limit of liability under Coverages B and C stated in the Policy Declaration as "aggregate" is the total limit of the Company's liability for all damages and all loss under Coverages B and C combined arising out of physical injury to, destruction of, or loss of property, including the loss or use of any property attributable to such injury or destruction under Coverage B.

Under Coverage C, the limit of the Company's liability for loss shall not exceed the actual cash value of the property, or if the loss is a part thereof, the actual cash value of such part, at time of loss, nor what it would then cost to repair or replace the property of such part thereof with other of like kind and quality.

(5) **Severability of interests, Coverages A and B:** The term *the insured* is used severally and not collectively. However, inclusion herein of more than one insured shall not operate to increase the limits of the Company's liability.

(6) **Notice:** In the event of an occurrence or loss, written notice containing particulars sufficient to identify the insured and also reasonably obtainable information with respect to the time, place, and circumstances thereof and the names and addresses of the injured and of able witnesses shall be given by or for the insured to the company or any of its authorized agents as soon as is practicable. If a claim is made or a suit is brought against the insured, he shall immediately forward to the Company every demand, notice, summons, or other process received by him or his representative.

(7) **Assistance and cooperation of the insured, Coverages A and B:** The insured shall cooperate with the Company and upon the Company's request attend hearings and trials and assist in making settlements, securing and giving evidence, obtaining the attendance of witnesses, and conducting suits. Except at its own cost, the insured shall not voluntarily make any payment, assume any obligations, or incur any expense other than for first aid to others that shall be imperative at the time of an accident.

(8) **Action against Company, Coverages A and B:** No action shall lie against the Company unless as a condition precedent thereto the insured shall have fully complied with all the terms of this policy, nor until the amount of the insured's obligation to pay shall have been finally determined either by judgment against the insured after actual trial or by written agreement of

the insured, the claimant, and the Company. Any Person who has secured such judgment or written agreement shall thereafter be entitled to recover under this policy to the extent of the insurance afforded by this policy. No Person shall have any right under this policy to join the Company as a part to any action against the insured to determine the insured's liability. Bankruptcy or insolvency of the insured or of the insured's estate shall not relieve the Company of any of its obligations hereunder.

(9) **Action against Company, Coverage C:** No action shall lie against the Company unless, as a condition precedent thereto, there shall have been full compliance with all the terms of this policy nor until 30 days after proof of loss is filed and the amount of loss is determined as provided in this policy.

(10) **Insured's duties in event of loss, Coverage C:** In the event of loss, the insured shall protect the property, whether or not the loss is covered by this policy. Any further loss attributable to the insured's failure to protect shall not be recoverable under this policy. Reasonable expenses incurred in affording such protection shall be deemed incurred at the company's request.

The insured shall also file with the Company, as soon as practicable after loss, his sworn proof of loss in such form and including such information as the Company may reasonably require and shall, upon the Company's request, exhibit the damaged property.

(11) **Appraisal, Coverage C:** If the insured and the Company fail to agree as to the amount of loss, either may demand an appraisal of the loss within 60 days after the proof of loss is filed. In such event the insured and the Company shall each select a competent appraiser, and the appraisers shall select a competent and disinterested umpire. An award in writing or any two shall determine the amount of loss. The insured and the Company shall each pay his chosen appraiser and shall bear equally the other expenses of the appraisal and umpire. The Company shall not be held to have waived any of its rights by any act relating to appraisal.

(12) **Payment of loss, Coverage C:** The Company may pay for the loss in money, but there shall be no abandonment of the damaged property to the Company.

(13) **No benefit to bailee coverage:** The insurance afforded by this policy shall not inure directly or indirectly to the benefit of any carrier or bailee (other than the named insured) liable for loss to the property.

(14) **Subrogation:** In the event of any payment under this policy, the Company shall be subrogated to all of the insured's rights of recovery therefore against any Person. The insured shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The insured shall do nothing after loss to prejudice such rights.

(15) **Application of insurance:** The insurance afforded by this policy is primary insurance. If the insured has other primary insurance against a loss covered by this policy, the Company shall not be liable under the policy for a greater proportion of such loss than the applicable limit of liability stated in the Contract bears to the total applicable limit of all valid and equitable insurance against such loss.

(16) **3-year policy:** A policy period of 3 years is comprised of three consecutive annual periods. Computation and adjustment of earned premium shall be made at the end of each annual period. Aggregate limits of liability as stated in this policy shall apply separately to each annual period.

(17) **Changes:** Notice to any agent of knowledge possessed by any agent or by any other Person shall not affect a waiver or a change in any part of this policy or stop the Company from asserting any right under the terms except by endorsement issued to form a part of this policy

signed by *_____ provided, however, changes may be made in the written portion of the Policy Declaration by *_____ when initialed by such *_____ or by endorsement issued to form a part of this policy signed by such *_____. [*Insert titles of authorized company representatives.]

(18) **Assignment:** Assignment of interest under this policy shall not bind the Company until its consent is endorsed hereon.

(19) **Cancellation:** This policy may be cancelled by the named insured by mailing to the Company written notice stating when the cancellation shall become effective. This policy may be cancelled by the Company by mailing to the named insured, Design-Builder, and governmental authority at the respective addresses shown in this policy written notice stating when such cancellation shall be effective (not less than 30 days thereafter). The mailing of notice shall be sufficient proof of notice. The effective date and hour of cancellation stated in the notice shall become the end of the policy period. Delivery of such written notice either by the named insured or the Company shall be equivalent to mailing. If the named insured cancels, the earned premium shall be computed in accordance with the customary short rate table and procedure. If the Company cancels, the earned premium shall be computed pro rata. The premium may be adjusted either at the time cancellation is effected or as soon as practicable after the cancellation becomes effective, but payment or tender of unearned premium is not a condition of cancellation.

(20) **Policy Declarations:** By acceptance of this policy, the named insured agrees that such statements in the Policy Declarations as are made by him are his agreements and representations, that his policy is issued in reliance on the truth of such representations, and that this policy embodies all agreements existing between himself and the Company or any of its agents relating to this insurance.

e. **For a policy issued by one company:**

In witness whereof, the _____ Indemnity Company has caused this policy to be signed by its president and a secretary at _____ and countersigned on the Policy Declarations page by a duly authorized agent of the Company.

(Facsimile of Signature)	(Facsimile of Signature)
Secretary	President

For a policy issued by two companies:

In witness whereof, the _____ Indemnity Company has caused this policy with respect to Coverages _____ and such other parts of the policy as are applicable thereto to be signed by its president and a secretary at _____ and countersigned on the Policy Declarations page by a duly authorized agent of the Company.

(Facsimile of Signature)	(Facsimile of Signature)
Secretary	President

(d) **Submitting Copies of Insurance Policies:** Prior to beginning construction operations on or over the railway Right of Way, the Design-Builder shall submit to the Department evidence of the railway company's approval and a copy of the required insurance policies. The State will not be responsible for any claims from the Design-Builder resulting from delay in the acceptance of any of these policies by the railway company other than consideration of an extension of time. If the delay is caused by the failure of the Design-Builder or his insurer to file the required insurance policies promptly, an extension of time will not be granted.

(e) **Beginning Construction:** Preliminary contingent work or other work by the railway company may delay the starting or continuous prosecution of the work by the Design-Builder. The Design-Builder shall be satisfied as to the probable extent of such work and its effect on the operations prior to submitting a bid for the work. The State will not be responsible for any claims by the Design-Builder resulting from such delays except that an extension of time may be considered.

(f) **Arranging for Tests:**

1. **Railroad Specifications:** When ordering Materials that are to conform to railroad specifications, the Design-Builder shall notify the railway company, who will arrange for tests. The Design-Builder shall specify in each order that the Materials are to be tested in accordance with the requirements of the railroad specifications and not those of the Department.

2. **Highway Specifications:** When ordering Materials that are to conform to highway specifications, the Design-Builder shall specify in each order that the Materials are to be tested in accordance with the requirements of the Standard Specifications.

107.20—Construction Over or Adjacent to Navigable Waters

The Department will obtain a permit from the U.S. Coast Guard for the anticipated construction or demolition activities of structures on Department projects that cross a waterway(s) under the jurisdiction of the U.S. Coast Guard. As the permit holder, the Department must apply to the U.S. Coast Guard for approval of permit modifications that the Design-Builder requests to the original Department permit.

Prior to starting demolition or construction operations the Design-Builder shall meet with the Department and the U.S. Coast Guard (U.S. Coast Guard Coordination Meeting) to present its planned operations and the potential impacts those operations may pose to water traffic. As part of this meeting, the parties shall establish in writing the proper protocol for emergency closures and be governed accordingly.

(a) Activities subject to Coast Guard regulation under the Permit. Following the U.S. Coast Guard Coordination meeting, the Design-Builder shall submit its proposed schedule of operations in writing to the Department. The Department shall review and provide written comments, if applicable, to the Design-Builder within 7 days following receipt of the Design-Builder's schedule of operations. The Design-Builder shall incorporate the Department's comments and submit its notice of scheduled operations to the Department and to the U.S. Coast Guard at least 30 days prior to commencement of any permitted construction or demolition operations. U.S. Coast Guard acceptance of the Design-Builder's written schedule of operations is a condition precedent to the Design-Builder's commencement of those operations.

(b) **Activities that require Channel closures or restrictions**. In addition to the submittal of its proposed schedule of operations as described in (a) above, Design-Builder shall submit Plans that comply with the Permit for Falsework, cofferdams, floating Equipment and other obstructions to the Channel or Channels to the Department. The Design-Builder's attention is directed to the possibility that advance notification for consideration of approval may vary depending on the type and duration of proposed closures, the time of year for requested closure(s), and location of existing Bridge(s) and waterway(s) involved, and the impact to entities served along or through the waterway(s). The Department shall review and provide written comments, if applicable, to the Design-Builder within thirty (30) days following receipt of the Design-Builder's Plans. The Design-Builder shall incorporate the Department's comments and submit its Plans to the Department and to the U.S. Coast Guard at least 30 days prior to commencement of any permitted construction or demolition operations. The Design-Builder may not commence activities that require Channel closures or restrictions without the prior written approval of the Department and the U.S. Coast Guard. The Design-Builder shall be responsible for complying with all operational requirements that the U.S. Coast Guard may place on the Design-Builder as conditions of approval.

In addition, the Design-Builder shall request and obtain Department and U.S. Coast Guard approval in writing before commencing any operations that deviate from the Design-Builder's schedule of operations when these operations interfere or have the potential to interfere with navigation of water traffic outside of timeframes previously approved by the Department and the U.S. Coast Guard.

Notices shall be sent to the U.S. Coast Guard, Fifth District Bridge Office (OBR), 431 Crawford Street, Portsmouth, VA 23704-5004. Payment of any penalty or fine that may be levied by the U.S. Coast Guard for Design-Builder violations of Bridge regulations found in 33 CFR Parts 115, 116, 117 and 118 shall be the responsibility of the Design-Builder. Further, any delay to the contract as a result of actions or inaction by the Design-Builder relative to the requirements herein that are determined by the Department to be the fault of the Design-Builder will not be compensable.

The cost to comply with the requirements of this provision and to provide and maintain temporary navigation lights, signals and other temporary work associated with the structure(s) under this contract required by the U.S. Coast Guard for the protection of navigation during construction or demolition operations shall be included in price Proposal for other appropriate items.

107.21—Size and Weight Limitations

(a) **Hauling or Moving Material and Equipment on Public Roads Open to Traffic:** The Design-Builder shall comply with legal size and weight limitations in the hauling or moving of Material and Equipment on public Roads open to traffic unless the hauling or moving is covered by a hauling permit.

(b) **Hauling or Moving Material and Equipment on Public Roads Not Open to Traffic:** The Design-Builder shall comply with legal weight limitations in the hauling or moving of Material and Equipment on public Roads that are not open to traffic unless the hauling or moving is permitted elsewhere herein or is otherwise covered by a hauling permit. The Design-Builder shall be liable for damage that results from the hauling or moving of Material and Equipment. The hauling or moving of Material and Equipment on the Pavement Structure or across any structure during various stages of construction shall be subject to additional restrictions as specified or directed by the Department.

(c) **Furnishing Items in Component Parts of Sections:** If the size or weight of fabricated or manufactured items together with that of the hauling or moving vehicle exceeds the limitations covered by hauling permit policies and other means of transportation are not available, permission will be given to furnish the items in component parts of sections with adequately designed splices or connections at appropriate points. Permission for such adjustments shall be requested in writing, and approval in writing shall be secured from the Department prior to fabrication or manufacture of the items. The request shall state the reasons for adjustment and shall be accompanied by supporting data, including Working Drawings where necessary.

(d) **Construction Loading of Structures** - In the construction, reconstruction, widening, or repair of bridge, culvert, retaining wall and other similar type structures including approaches, the Design-Builder shall consider construction loads during the planning and prosecution of the work. If the loading capacity of these type structure(s) is not shown in the Contract Documents, the Design-Builder is responsible for contacting the office of the appropriate district bridge engineer to obtain the loading capacity information. Construction loads include but are not limited to the weight of cranes, trucks, other heavy construction or material delivery equipment, as well as the delivery or storage of materials placed on or adjacent to the structure or parts thereof during the various stages (phases) of the work in accordance with the Design-Builder's proposed work plan. The Design-Builder shall consider the effect(s) of construction loads on the loading capacity of these type structure(s) in his sequencing of the work and operations, including phase construction. At the Department's request the Design-Builder shall be prepared to discuss or review his proposed operations with the Department with regard to construction loads to demonstrate he has taken such into consideration in the planning and execution of the work.

SECTION 108—PROSECUTION AND PROGRESS OF WORK

108.01—Prosecution of Work

The Design-Builder shall provide a sufficient force of workers, Materials, Equipment, and tools and shall prosecute the Work with such diligence as is required to attain and maintain a rate of progress necessary to ensure completion of the Project in accordance with the Contract Documents.

Once the Design-Builder has begun work, it shall be prosecuted continuously and to the fullest extent possible except for authorized suspensions ordered by the Department as defined in Section 108.05. If approval is given to discontinue the Work temporarily, the Design-Builder shall notify the Department at least 24 hours in advance of resuming operations.

At least once every 30 days, or as specified in the Contract Documents, the Design-Builder shall meet with the Department to discuss current progress of the Project relative to the SOR and to establish the schedule of work planned during the following 30 days. The Department shall be advised at least 24 hours in advance of any changes in the Design-Builder's planned operations or critical stage work requiring inspection. For the purposes stated herein, the SOR is defined in accordance with the provisions of Section 108.03.

108.02—Limitation of Operations

(a) General.

The Design-Builder shall conduct the Work in a manner and sequence that will ensure its expeditious completion with the least interference to traffic and shall have due regard for the location of detours and provisions for handling traffic. The Design-Builder shall not open any work to the prejudice or detriment of work already started. The Department may require the Design-Builder to finish a section of work before work is started on any other section.

(b) Holidays

Except as is necessary to maintain traffic, work shall not be performed on Sundays or the following holidays without the permission of the Department: January 1, Easter, Memorial Day, July 4, Labor Day, Thanksgiving Day, and Christmas Day.

If any of these holidays occurs on a Sunday, the following Monday shall be considered the holiday.

In addition to the Sunday or Holiday work limitations, mobile, short duration, short-term stationary, or intermediate-term stationary temporary traffic control zone (as defined in the Virginia Work Area Protection Manual) lane closures on mainline lanes, shoulders, or ramps shall not be performed during the following Holiday time periods without the written permission of the Department. Additionally, a long-term stationary temporary traffic control zone (as defined in the Virginia Work Area Protection Manual) shall not be initially put in place, adjusted, or removed during the following Holiday time periods without the written permission of the Department:

- **January 1**: From Noon on the preceding day until Noon on the following day, except as indicated below.

- **Easter**: As indicated below.
- **Memorial Day**: As indicated below.

- **July 4**: From Noon on the preceding day until Noon on the following day, except as indicated below.

- **Labor Day**: As indicated below.

- **Thanksgiving Day**: From Noon on the Wednesday preceding Thanksgiving Day until Noon on the Monday following Thanksgiving Day.

- **Christmas Day**: From Noon on the preceding day until Noon on the following day, except as indicated below.

If the Holiday occurs on a Friday or Saturday: From Noon on the preceding Thursday to Noon on the following Monday.

If the Holiday occurs on a Sunday or Monday: From Noon on the preceding Friday to Noon on the following Tuesday.

108.03—Progress Schedule (Refer to Part 3 - Lump Sum Design-Build Agreement – Article 11 - Other Provisions)

The Design-Builder shall submit a Preliminary Schedule, Baseline Schedule and updates in accordance with the requirements of the General Conditions of Contract. Payment for Material stockpiled or stored in accordance with the requirements of Section 109.08 will not be considered in determining the Design-Builder's rate of progress.

108.04—Determination and Extension of Contract Time Limit (Refer to Part 4 - General Conditions – Article 8 Time, Article 9 Changes to the Contract Price and Time, and Article 10 Contract Adjustments and Disputes)

108.05—Suspension of Work Ordered by the Department (Refer to Part 4 - General Conditions – Article 11 Stop Work and Termination for Cause)

108.06—Failure to Complete on Time

For each day that any work remains incomplete after the Contract Times specified for the completion of the Work, the Department will assess liquidated damages against the Design-Builder in accordance with the Contract.

108.07—Default of Contract (Refer to Part 4 - General Conditions – Article 11 Stop Work and Termination for Cause)

108.08—Termination of Contract (Refer to Part 4 - General Conditions – Article 11 Stop Work and Termination for Cause)

108.09—Acceptance (Refer to Part 4 – General Conditions – Article 6 Payment)

108.10—Termination of Design-Builder's Responsibilities (Refer to Part 4 - General Conditions – Article 11 Stop Work and Termination for Cause)

SECTION 109—MEASUREMENT AND PAYMENT

109.01—Measurement of Quantities

Unless otherwise specifically stated to the contrary in Article 6 of the Agreement, this Section 109.01 will only be applicable to Contract Price adjustments made under Article 9 of the General Conditions.
The methods of measurement and computations to be used to determine quantities of Material furnished and work performed will be those generally recognized as conforming to good engineering practice.
Longitudinal measurements for surface area computations will be made along the surface and transverse measurements will be the surface measure shown in the Contract Documents or ordered in writing by the Department. Individual areas of obstructions with a surface area of 9 square feet or less will not be deducted from surface areas measured for payment.

Structures will be measured in accordance with the neat lines shown in the Contract Documents

Items that are measured by the linear foot will be measured parallel to the base or foundation upon which they are placed.

Allowance will not be made for surfaces placed over an area greater than that shown in the Contract Documents or for any Material moved from outside the area of the cross-section and lines shown in the Contract Documents.

When standard manufactured items are specified and are identified by weights or dimensions, such identification will be considered nominal. Unless more stringently controlled by tolerances in the Contract Documents, manufacturing tolerances established by the industries involved will be accepted.

(a) **Measurement by Weight**: Materials that are measured or proportioned by weight shall be weighted on accurate scales as specified in this Section. When material is paid for on a tonnage basis, personnel performing the weighing shall be certified by the Department and shall be bonded to the Commonwealth of Virginia in the amount of $10,000 for the faithful observance and performance of the duties of the weighperson required herein. The bond shall be executed on a form having the exact wording as the Weighpersons Surety Bond Form furnished by the Department and shall be submitted to the Department prior to the furnishing of the tonnage material.

The Design-Builder shall have the weighperson perform the following:

1. Furnish a signed weigh ticket for each load that shows the date, load number, plant name, size and type of material, project number, schedule or purchase order number, and the weights specified herein.

2. Maintain sufficient documentation so that the accumulative tonnage and distribution of each lot of material, by contract, can be readily identified.

3. Submit by the end of the next working day a summary of the number of loads and total weights for each type of material by contract.

Trucks used to haul Material being paid for by weight shall display the truck uniform identification number and legal gross and legal net weight limits. These markings shall be no less than 2 inches high and permanently stenciled on each side of the truck with contrasting color and located as to be clearly visible when the vehicle is positioned on the scales and observed from normal position of the weigh Person at the scale house.

The truck to be used in the weighing operation shall be the weight of the empty truck determined with full tank(s) of fuel and the operator seated in the cab. The tare weight of trucks shall be recorded to the nearest 20 pounds. At the option of the Design-Builder, a new tare may be determined for each load. When a new tare is obtained for each load, the requirement for full tank(s) of fuel will be waived.

Net rail shipment weights may be used for pay quantities when evidenced by railroad bills of lading. However, such weights will not be accepted for pay quantities of Materials that subsequently pass through a stationary mixing plant.

Scales shall conform to the requirements for accuracy and sensitivity as set forth in the *National Institute of Standards and Technology Handbook No. 44 for Specification Tolerances and Requirements for Commercial and Weighing Devices*. Scales used in the weighing of Materials paid for on a tonnage basis shall be approved and sealed in accordance with the requirements of the policies of the Bureau of Weights and Measures of the Department of Agriculture and Consumer Services, or other approved agencies, at least once every six months and upon being moved. Hopper and truck scales shall be serviced and tested by a scale service representative at least once every six months. Hopper scales shall be checked with a

minimum 500 pounds of test weights and truck scales shall be checked with a minimum 20,000 pounds of test weights.

Copies of scale test reports shall be maintained on file at the scale location for at least 18 months, and copies of all scale service representative test reports shall be forwarded to the Department.

The quantity of Materials paid for on a tonnage basis shall be determined on scales equipped with an automatic printer. Truck scale printers shall print the net weight and either the gross or tare weight of each load. Hopper scale printers shall print the net weight of each load. The weigh ticket shall also show the legal gross weight for Material weighed on truck scales and the legal net weight for Material weighed on hopper scales.

If the automatic printer becomes inoperative, the weighing operation may continue for 48 hours provided satisfactory visual verification of weights can be made. The written permission of the District Materials Engineer shall be required for the operation of scales after 48 hours.

If significant discrepancies are discovered in the printed weight, the ultimate weight for payment will be calculated on volume measurements of the Materials in place and unit weights determined by the Department or by other methods deemed appropriate to protect the interests of the Commonwealth.

(b) **Measurement by Cubic Yard**: Material that is measured by the cubic yard, loose measurement or vehicular measurement, shall be hauled in approved vehicles and measured therein at the point of delivery. Material measured in vehicles, except streambed gravel, will be allowed at the rate of 2/3 the volume of the vehicle. The full volume of the vehicle will be allowed for streambed gravel. Such vehicles may be of any size or type acceptable to the Department provided the body is of such shape that the actual contents can be readily and accurately determined. Unless all approved vehicles are of uniform capacity, each vehicle shall bear a plainly legible identification mark indicating the specific approved capacity. Each vehicle shall be loaded to at least its water level capacity.

When approved by the Department in writing, Material specified to be measured by the cubic yard may be weighed and such weights converted to cubic yards for payment purposes. Factors for conversion from weight to volume measurement will be determined by the Department and shall be agreed to by the Design-Builder before they are used.

(c) **Measurement by Lump Sum**: When used as an item of payment, the term *lump sum* will mean full payment for completion of work described in the Contract. When a complete structure or structural unit is specified as a Pay Item, the unit of measurement will be lump sum, and shall include all necessary fittings and accessories. The quantities may be shown in the Contract Documents for items for which lump sum is the method of measurement. If shown, the quantities are approximate and are shown for estimating purposes only. Items that are to be measured as complete units will be counted by the Department in the presence of a representative of the Design-Builder.

(d) **Specific Items:**

1. **Concrete (Measured by Volume Measure):** Concrete will be measured and computed by dividing the work into simple geometrical figures and adding their volumes.

2. **Concrete (Measured by Square or Lineal Measure):** Concrete will be measured and computed by dividing the work into simple geometrical figures and adding their areas or measuring linearly along the item's surface.

3. **Excavation, Embankment, and Borrow**: In computing volumes of Excavation, Embankment, and Borrow, methods having general acceptance in the engineering profession will be used. When the measurement is based on the cross-sectional area, the average end area method will be used.

4. **Asphalt:** Asphalt will be measured by the gallon, volumetric measurement, based on a temperature of 60 degrees F using the following correction factors:

   a. 0.00035 per degree F for petroleum oils having a specific gravity 60/60 degrees F above 0.966

   b. 0.00040 per degree F for petroleum oils having a specific gravity 60/60 degrees F between 0.850 and 0.966

   c. 0.00025 per degree F for emulsified asphalt

Unless volume correction tables are available, the following formula shall be used in computing the volume of asphalt at temperatures other than 60 degrees F:

$$V^1 = V \times [1 - K(T - 60)]$$

Where:
V = volume of asphalt to be corrected;
V^1 = volume of asphalt at 60 degrees F;
K = correction factor (coefficient of expansion); and
T = temperature in degrees F of asphalt to be corrected.

When asphalt is delivered by weight, the volume at 60 degrees F will be determined by dividing the net weight by the weight per gallon at 60 degrees F.
Asphalt will be measured by weight. Net certified scale weights, or weights based on certified volumes in the case of rail shipments, will be used as a basis of measurement, subject to correction when asphalt has been lost from the car or the distributor, disposed of, or otherwise not incorporated in the work.

When asphalt is shipped by truck or transport, net certified weights or volumes subjected to correction for loss or foaming may be used to compute quantities.

Only the quantity of asphalt actually placed in the work and accepted will be considered in determining the amount due the Design-Builder.

5. **Timber**: Timber will be measured in units of 1,000 foot-board-measure actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

6. **Equipment rental**: Equipment rental will be measured by time in hours of actual working time and necessary traveling time of the Equipment within the limits of the Project or source of supply and the Project except when another method of measurement is specified.

109.02—Plan Quantities (Not Used)

109.03—Scope of Payment

Payments to the Design-Builder will be made for the Work in accordance with the Agreement.

The Design-Builder shall accept the compensation provided for in the Contract as full payment for the following:

(a) furnishing all Materials, labor, tools, Equipment, and incidentals necessary to complete the work

(b) performing all Work contemplated in the Contract

(c) all loss or damage arising from the nature of the Work or from action of the elements or any other unforeseen difficulties that may be encountered during prosecution of the Work and until its Final Acceptance

(d) all risks of every description connected with the prosecution of the Work

(e) all expenses incurred in consequence of the suspension of the Work as herein authorized

(f) any infringement of patent, trademark, or copyright

(g) the completion of the Work in accordance with the requirements of the Contract

The payment of any partial estimate prior to Final Acceptance of the Project as provided for in Section 108.09 shall in no way affect the obligation of the Design-Builder to repair or renew any defective parts of the construction or to be responsible for all damages attributable to such defects.

109.04—Compensation for Altered Quantities [Refer to Agreement (Article 6, Contract Price) and General Conditions (Article 9, Changes to Contract Price and Time)]

109.05—Contract Price Adjustments

Contract Price adjustments shall be made in conformance with the requirements of Article 9 of the General Conditions. In the event the Contract Price adjustment is to be made under Subparagraphs .3 or .4 of Section 9.4.1, or in the event of claims by Design-Builder under Article 10, then the rates for labor, Equipment, Materials and otherwise will be compensated in the following manner:

(a) **Labor:** Unless otherwise approved, the Design-Builder will receive the rate of wage or scale as set forth in his most recent payroll for each classification of laborers, forepersons, and superintendent(s) who are in direct charge of the specific operation. The time allowed for payment will be the number of hours such workers are actually engaged in the work. If overtime work is authorized, payment will be at the normal overtime rate set forth in the Design-Builder's most recent payroll. If workers performing the class of labor needed have not been employed on the Project, mutually agreed on rates will be established. However, the rates shall be not less than those predetermined for the Project, if applicable. An amount equal to 45 percent of the approved payroll will be included in the payment for labor to cover administrative costs, profit, and benefits or deductions normally paid by the Design-Builder.

(b) **Insurance and Tax:** The Design-Builder will receive an amount equal to 25 percent of the approved payroll exclusive of additives of administrative cost as full compensation for property damage and liability, workers' compensation insurance premiums, unemployment insurance contributions, and social security taxes.

(c) **Materials:** The Design-Builder will receive the actual cost of Materials accepted by the Department that are delivered and used for the work including taxes, transportation, and handling charges paid by the Design-Builder, not including labor and Equipment rentals as herein set forth, to which 15 percent of the cost will be added for administration and profit. The Design-Builder shall make every reasonable effort to take advantage of trade discounts offered by Material suppliers. Any discount received shall pass through to the Department. Salvageable temporary construction Materials will be retained by the Department, or their appropriate salvage value shall be credited to the Commonwealth, as agreed on by the Department.

(d) **Equipment:** The Design-Builder shall provide the Department a list of all Equipment to be used in the work. For each piece of Equipment, the list shall include the serial number; date of manufacture; location from which Equipment will be transported; and for rental Equipment, the rental rate and name of the company from which it is rented. The Design-Builder will be paid rental rates for pieces of machinery, Equipment, and attachments necessary for prosecution of the work that are approved for use by the Department. Equipment rental will be measured by time in hours of actual time engaged in

the performance of the work and necessary traveling time of the Equipment within the limits of the Project or source of supply and the Project. Hourly rates will not exceed 1/176 of the monthly rates of the schedule shown in the *Rental Rate Blue Book* modified in accordance with the *Rental Rate Blue Book* rate adjustment tables that are current at the time the extra work is performed. Adjustment factors or rate modifications indicated in the *Rental Rate Blue Book* will not be considered when acceptable rates are determined. Hourly rates for Equipment on standby will be at 50 percent of the rate paid for Equipment performing work**.** Operating costs shall not be included in the standby rate. For the purposes herein "standby time" is defined as the period of time Equipment ordered to the jobsite by the Department is available on-site for the work but is idle for reasons not the fault of the Design-Builder or normally associated with the efficient and necessary use of that Equipment in the overall operation of the work at hand.

Payment will be made for the total hours the Equipment is performing work. When Equipment is performing work less than 40 hours for any given week and is on standby, payment for standby time will be allowed for up to 40 hours, minus hours performing work. Payment will not be made for the time that Equipment is on the Project in excess of 24 hours prior to its actual performance in the work. An amount equal to the *Rental Rate Blue Book* estimated operating cost per hour will be paid for all hours the Equipment is performing work. This operating cost shall be full compensation for fuel, lubricants, repairs, greasing, fueling, oiling, small tools, and other incidentals. No compensation will be paid for the use of machinery or equipment not authorized by the Department.

The Design-Builder will be paid freight cost covering the moving of Equipment to and from the specific work operation provided such cost is supported by an invoice showing the actual cost to the Design-Builder. However, such payment will be limited to transportation from the nearest source of available equipment. If Equipment is not returned to the nearest equipment storage lot but is moved to another location, the freight cost paid will not exceed the cost of return to the nearest storage lot.

The rates for Equipment not listed in the *Rental Rate Blue Book* schedule shall not exceed the hourly rate being paid for such Equipment by the Design-Builder at the time of the performance of the extra work. In the absence of such rates, prevailing rates being paid in the area where the authorized work is to be performed shall be used.

If the Design-Builder does not possess or have readily available Equipment necessary for performing the extra work and such Equipment is rented from a source other than a company that is an Affiliate, payment will be based on actual invoice rates, to which 15 percent of the invoice cost will be added for administrative cost and profit. If the invoice rate does not include the furnishing of fuel, lubricants, repairs, and servicing, the invoice rate will be converted to an hourly rate, and an amount equal to the *Rental Rate Blue Book* estimated operating cost per hour will be added for each hour the Equipment is performing work.

(e) **Miscellaneous:** No additional allowance will be made for attachments that are common accessories for Equipment as defined in the *Rental Rate Blue Book*, general superintendents, timekeepers, secretaries, the use of small hand held tools or other costs for which no specific allowance is herein provided. The Design-Builder will receive compensation equal to the cost of the bond, special railroad insurance premiums, and other additional costs necessary for the specific work as determined by the Department. The Design-Builder shall supply documented evidence of such costs.

(f) **Compensation:** The compensation as set forth in this Section shall be accepted by the Design-Builder as payment in full for work performed on the basis described in this Section 109.05. At the end of each day, the Design-Builder's Representative and the Inspector shall compare and reconcile records of the hours of work and Equipment, labor, and Materials used in such work. Such accounting may not include actual costs or labor rates where these are not available but shall be used to verify quantities, types of Materials or labor, and number and types of Equipment.
If all or a portion of the work is performed by an approved Subcontractor, the Design-Builder will be paid 10 percent of the subcontract net costs to cover the Design-Builder's profit and administrative

cost. The amount resulting will not be subject to any further additives. The itemized statements of costs as required below shall be submitted on a form that separates the subcontracted portions of the labor, Materials, and Equipment from the other costs.

(g) **Statements:** Payments will not be made for work performed on the basis described in this Section 109.05 until the Design-Builder has furnished the Department duplicate itemized statements of the cost of such work detailed as follows:

1. payroll indicating name, classification, date, daily hours, total hours, rate, and extension of each laborer, foreperson, and Superintendent

2. designation, dates, daily hours, total hours, rental rate, and extension for each unit of Equipment

3. quantities of Materials, prices, and extensions

4. transportation of Materials

Statements shall be accompanied and supported by invoices for all Materials used and transportation charges. However, if Materials used are not specifically purchased for such work but are taken from the Design-Builder's stock, then in lieu of the invoices, the Design-Builder shall furnish an affidavit certifying that such Materials were taken from his stock; that the quantity claimed was actually used; and that the price, transportation, and handling claimed represented his actual cost.

109.06—Common Carrier Rates (Not Used)

109.07—Eliminated Items

The Department shall have the right to delete any item of Work in the Contract. In such case, the Department shall notify Contractor of such deletion and the parties shall proceed in accordance with Article 9 of the General Conditions.

109.08—Partial Payments

(a) General

Payment will be made in accordance with the Agreement and the General Conditions of the Contract.

(b) Payment To Subcontractors (Not Used)

Payment to Subcontractors will be made in accordance with the Agreement and the General Conditions of the Contract.

(c) Retainage (Not Used)

Retainage will be in accordance with the Agreement and the General Conditions of the Contract.

109.09—Payment for Material on Hand

When requested in writing by the Design-Builder, payment allowances may be made for material secured for use on the project. Such material payments will be for only those actual quantities identified in the contract, approved work orders, or otherwise **authorized and** documented **by the Department** as required to complete the project and shall be in accordance with the following terms and conditions:

(a) **Structural Steel or Reinforcing Steel:** An allowance of 100 percent of the cost to the Design-Builder for structural steel **or reinforcing steel** materials secured for fabrication not to exceed 60 percent of the

contract price may be made when such material is delivered to the fabricator and has been adequately identified for exclusive use on the project. **The provisions of this section for steel reinforcement will only apply where the quantity of steel reinforcement is identified as a separate and distinct bid item for payment.** An allowance of 100 percent of the cost to the Design-Builder for superstructure units and reinforcing steel, not to exceed 90 percent of the contract price, may be made when fabrication is complete. Prior to the granting of such allowances, the materials and fabricated units shall have been tested or certified and found acceptable to the Department and shall have been stored in accordance with the requirements specified herein. Allowances will be based on invoices, bills, or the estimated value as approved by the Department. **For the purposes of this section fabrication is defined as any manufacturing process such as bending, forming, welding, cutting or coating with paint or anti-corrosive materials which alters, converts, or changes raw material for its use in the permanent finished work.**

(b) **Other Materials**: For aggregate, pipe, guardrail, signs and sign assemblies, and other nonperishable material, an allowance of 100 percent of the cost to the Design-Builder for materials, not to exceed 90 percent of the contract price, may be made when such material is delivered **to the project** and stockpiled or stored in accordance with the requirements specified herein. Prior to the granting of such allowances, the material shall have been tested and found acceptable to the Department. Allowances will be based on invoices, bills, or the estimated value of the material as approved by the Department.

(c) **Excluded Items:** No allowance will be made for fuels, form lumber, falsework, temporary structures, or other work that will not become an integral part of the finished construction. **Additionally, no allowance will be made for perishable material such as cement, seed, plants, or fertilizer.**

(d) **Storage:** Material for which payment allowance is requested shall be stored in an approved manner in areas where damage is not likely to occur. If any of the stored materials are lost or become damaged, the Design-Builder shall repair or replace them **at no additional cost to the Department**. **Repair or replacement of such material will not be considered the basis for any extension of contract time.** If payment allowance has been made prior to such damage or loss, the amount so allowed or a proportionate part thereof will be deducted from the next progress estimate payment and withheld until satisfactory repairs or replacement has been made.

When it is determined to be impractical to store materials within the limits of the project, the Department may approve storage on private property or, for structural units and reinforcing steel, on the manufacturer's or fabricator's yard. Requests for payment allowance for such **stored** material shall be accompanied by a release from the owner or tenant of such property or yard agreeing to permit the removal of the materials from the property without cost to the Commonwealth.

(e) **Materials Inventory:** If the Design-Builder requests a payment allowance for properly stored Material, he shall submit a certified and itemized inventory statement to the Department no earlier than five days and no later than two days prior to the progress estimate date. The statement shall be submitted on forms furnished by the Department and shall be accompanied by invoices or other documents that will verify the Material's cost. Following the initial submission, the Design-Builder shall submit to the Department a monthly-certified update of the itemized inventory statement within the same time frame. The updated inventory statement shall show additional Materials received and stored with invoices or other documents and shall list Materials removed from storage since the last certified inventory statement, with appropriate cost data reflecting the change in the inventory. If the Design-Builder fails to submit the monthly-certified update within the specified time frame, the Department will deduct the full amount of the previous statement from the progress estimate.

At the conclusion of the Project, the cost of Material remaining in storage for which payment allowance has been made will be deducted from the progress estimate.

109.10—Final Payment

Payment will be made in accordance with the Agreement and the General Conditions of Contract.

109.11—Exhibits

The following exhibits, as well as any other exhibits specifically set forth in Exhibit 1 (Project Specific Terms), are made part of, and incorporated into these Division I Amendments to the Standard Specifications. (Exhibits to Part 5 are included in the RFP):

EXHIBIT 1 to PART 3 -- PROJECT SPECIFIC TERMS

EXHIBIT 102.05(g.1) -- SPECIAL PROVISION FOR USE OF DOMESTIC MATERIAL

EXHIBIT 102.05(g.2) -- FHWA–1273, REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

EXHIBIT 102.05(g.3) -- NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

EXHIBIT 107.13 -- PREDETERMINED MINIMUM WAGE RATES

EXHIBIT 107.15 -- SPECIAL PROVISION FOR SECTION 107.15

END OF PART 5
DIVISION I AMENDMENTS TO THE STANDARD SPECIFICATIONS

Exhibit 102.05(g.1)

S102CF2-0813

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
USE OF DOMESTIC MATERIAL

July 26, 2013

SECTION 102.05 PREPARATION OF BID of the Specifications is amended to include the following:

In accordance with the provisions of Section 635.410(b) of Title 23 CFR, hereinafter referred to as "Buy America", except as otherwise specified, all iron and steel products (including miscellaneous steel items such as fasteners, nuts, bolts and washers) to be permanently incorporated for use on federal aid projects shall be produced in the United States of America regardless of the percentage they exist in the manufactured product or final form they take. Therefore, "Domestically produced in the United States of America" means all manufacturing processes must occur in the United States of America, to mean, in one of the 50 States, the District of Columbia, Puerto Rico or in the territories and possessions of the United States. Manufacturing processes are defined as any process which alters or modifies the chemical content, physical size or shape or final finish of iron or steel material) such as rolling, extruding, bending, machining, fabrication, grinding, drilling, finishing, or coating whereby a raw material or a reduced iron ore material is changed, altered or transformed into a steel or iron item or product which, because of the process, is different from the original material. For the purposes of satisfying this requirement "coating" is defined as the application of epoxy, galvanizing, painting or any other such process that protects or enhances the value of the material. Materials used in the coating process need not be domestic materials.

For the purposes herein the manufacturing process is considered complete when the resultant product is ready for use as an item in the project (e.g. fencing, posts, girders, pipe, manhole covers, etc.) or is incorporated as a component of a more complex product by means of further manufacturing. Final assembly of a product may occur outside of the United States of America provided no further manufacturing process takes place.

Raw materials such as iron ore, pig iron, processed, pelletized and reduced iron ore, waste products (including scrap, that is, steel or iron no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, or the like and steel trimmings from mills or product manufacturing) and other raw materials used in the production of steel and\or iron products may, however, be imported. Extracting, handling, or crushing the raw materials which are inherent to the transporting the materials for later use in the manufacturing process are exempt from Buy America. The use of foreign source steel or iron billet is not acceptable under the provisions of Buy America. For the purposes of this provision all steel or iron material not meeting the criteria as domestically produced in the United States of America will be considered as "foreign" material. All iron and steel items will be classified hereinafter as "domestic" or "foreign", identified by and subject to the provisions herein.

Domestically produced iron or steel ingots or billets shipped outside the United States of America for any manufacturing process and returned for permanent use in a project would not comply with "Buy America" requirements.

Buy America provisions do not apply to iron or steel products used temporarily in the construction of a project such as temporary sheet piling, temporary bridges, steel scaffolding, falsework or such temporary material or product or material that remains in place for the Contractor's convenience.

Section 635.410(b) of Title 23 CFR permits a minimal amount of steel or iron material to be incorporated in the permanent work on a federal-aid contract. The cost of such materials or products must not exceed one-tenth of one percent of the contract amount or $2500, whichever is greater. The cost of the foreign iron or steel material is defined as its monetary value delivered to the job site and supported by invoices or bill of sale to the Contractor. This delivered to site cost must include transportation, assembly, installation and testing.

In the event the total cost of all "foreign" iron and steel product or material does not exceed one-tenth of one percent of the total contract cost or $2,500, whichever is greater, the use of such material meeting the limitations herein will not be restricted by the domestic requirements herein. However, by signing the bid, the Bidder certifies that such cost does not exceed the limits established herein.

Waivers:

With prior concurrence from Federal Highway Administration (FHWA) headquarters, the Federal Highway Division Administrator may grant a waiver to specific projects provided it can be demonstrated:

1 that the use of domestic steel or iron materials would be inconsistent with the public interest; or

2. materials or products requested for use are not produced in the United States in sufficient or reasonably available quantities and are of satisfactory quality for use in the permanent work.

The waiver request shall be submitted with supportive information to include:

1. Project number\description, project cost, waiver item, item cost, country of origin for the product, reason for the waiver, and

2. Analysis of redesign of the project using alternative or approved equal domestic products

In order to grant such a waiver the request for the waiver must be published in the Federal Register for a period not less than 15 days or greater than 60 days prior to waiving such requirement. An initial 15 day comment period to the waiver will be available to the public by means of the FHWA website: http://www.fhwa.dot.gov/construction/contracts/waivers.cfm. Following that initial 15 day period of review and comment the request for waiver will be published by the FHWA in the Federal Register. The effective date of the FHWA finding, either to approve or deny the waiver request, will be 15 days following publication in the Federal Register.

Only the FHWA Administrator may grant nationwide waivers which still are subject to the public rulemaking and review process.

Alternative Bidding Procedures:

An alternative bidding procedure may be employed to justify the use of foreign iron and\or steel. To qualify under this procedure the total project is bid using two alternatives, one based on the use of domestic products and the other, the use of corresponding foreign source steel and\or iron materials.

In accordance with the provisions of Section 103.02 the Contract will be awarded to the lowest responsive and responsible bidder who submits the lowest total bid based on furnishing domestic iron or steel unless such total exceeds the lowest total bid based on furnishing foreign iron and\or steel by more than 25 percent, in which case the award will be made to the lowest responsive and responsible

bidder furnishing foreign iron and\or steel based upon furnishing verifiable supportive data. The bidder shall submit a bid based on permanently incorporating only domestic iron and\or steel in the construction of the project. The bidder may also submit a bid for the same proposed contract based on being allowed to permanently incorporate corresponding foreign iron and\or steel materials meeting the other contract requirements into the work on the contract. If he chooses to submit such a bid, that alternate bid shall clearly indicate which foreign iron and\or steel items will be permanently installed in the work as well as contain prices for all other items listed in the corresponding domestic proposal to complete a total “Foreign” bid.

In the event the contract is awarded to the bidder furnishing foreign iron and\or steel materials or items the provision for price adjustment of steel items will be permitted, however, price fluctuations shall use the U.S. index as stated in the Special Provision for Price Adjustment For Steel. The Contractor must indicate which corresponding eligible steel items he chooses price adjustment to apply. In the event the contract is awarded to a bidder furnishing foreign iron and\or steel items and during the life of that contract the Contractor discovers he can not furnish foreign iron and\or steel material as originally anticipated and agreed upon, he shall be responsible to honor the total bid price and furnish such iron and\or steel materials meeting the contract requirements from other sources as necessary to complete the work.

In the event the Contractor proposes to furnish "foreign" iron and steel and can verify a savings in excess of 25 percent of the overall project cost if bid using domestic materials, the Contractor shall submit a second complete paper bid proposal clearly marked “Foreign” including Form C-7 and supportive data supplement on all sheets. Supportive data shall list, but not be limited to, origin of material, best price offer, quantity and complete description of material, mill analysis, evidence or certification of conformance to contract requirements, etc. The “Foreign” bid shall be completed using the best price offer for each corresponding bid item supplying foreign material in the alternative bid and submit the same with the Contractor’s “Domestic” bid. The Contractor shall write the word “Foreign” by the bid total shown on Form C-7 as well as last page of Schedule of Items showing the total bid amount. The bidder shall also contact the State Contract Engineer to inform him that he is also submitting an alternate “Foreign” paper bid..

The information listed on the supportive data sheet(s) will be used to provide the basis for verification of the required cost savings. In the event comparison of the prices given, or corrected as provided in Section 103.01 of the Specifications, shows that use of "foreign" iron and steel items does not represent a cost savings exceeding the aforementioned 25 percent, "domestic" iron and\or steel and prices given there for shall be used and the "100 percent Domestic Items Total" shall be the Contractor's bid.

Certification of Compliance:

Where domestic material is supplied, prior to incorporation into the Work, the Contractor shall furnish to the Department a certificate of compliance (such as may be furnished by steel mill test reports) that all steel and\or iron products supplied to the project except as may be permitted (one-tenth of one percent of the total contract cost or $2,500, whichever is greater) and permanently incorporated into the work satisfies the domestic requirements herein. This certification shall contain a definitive statement about the origin of all products covered under the provisions of Buy America as stated herein.

In lieu of the Contractor providing personal certification, the Contractor may furnish a stepped certification in which each handler of the product, such as supplier, fabricator, manufacturer, processor, etc. furnishes an individual certification that their step in the process was domestically performed.

Exhibit 102.05(g.3)

SF030AF-0708 Reissued July 2008

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals for female and minority participation, expressed in percentage terms of the Contractor's aggregate work force in each trade on all construction works in the covered area, are as follows:

   Females- 6.9%
   Minorities - See Attachment "A"

   The goals are applicable to all the Contractor's construction work performed in the covered area, whether or not it is Federal or federally assisted. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

   The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications, set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established herein. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executives Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs <u>within 10 workings days</u> the award of any construction subcontract in excess of $10,000 at any tier for construction works under this contract. The notification shall list the name, address and telephone number of the subcontractor, employer identification number, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the contract is to be performed.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As, used in this provision:

   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors and Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the coverer area. Covered construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, shall assign two or more women to each construction project. The Contractor shall specifically ensure that all foreman, superintendents and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites in such facilities.

   b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

   c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union, or if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

   d. Provide immediate written notification to the Director when the union or unions which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

   e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.

   f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper or annual report; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

   g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents and General Foremen prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.

   h. Disseminate the Contractor's EEO policy externally by including in any news media advertisement that the Contractor is "An Equal Opportunity Employer" for minority and female, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Directs its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used m the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for such opportunities through appropriate training or other means.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. Goals for women have been established. However, the Contractor IS required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner, that is even thought the Contractor has achieved its goals for women, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or nation origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246. as amended.

13. The Contractor, in fulfilling its obligations under these specifications shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from Its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director will proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate and make known to the Department a responsible official as the EEO Officer to monitor all employment related activity, to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors will not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

ATTACHMENT A

Economic Area	Goal (Percent)
Virginia:	
021 Roanoke-Lynchburg, VA	
SMSA Counties:	
4640 Lynchburg, VA	19.3
VA Amherst; VA Appomattox; VA Campbell; VA Lynchburg	
6800 Roanoke, VA	10.2
VA Botetourt; VA Craig; VA Roanoke; VA Roanoke City; VA Salem	
Non-SMSA Counties	12.0
VA Alleghany; VA Augusta; VA Bath; VA Bedford; VA Bland; VA Carroll; VA Floyd; VA Franklin; VA Giles; VA Grayson; VA Henry; VA Highland; VA Montgomery; VA Nelson; VA Patrick; VA Pittsylvania; VA Pulaski; VA Rockbridge; VA Rockingham; VA Wythe; VA Bedford City; VA Buena Vista: VA Clifton Forge; VA Covington; VA Danville; VA Galax; VA Harrisonburg;	

VA Lexington; VA Martinsville; VA Radford; VA Staunton; VA Waynesboro; WV Pendleton.

022 Richmond, VA

SMSA Counties:

6140 Petersburg - Colonial Heights - Hopewell, VA 30.6
VA Dinwiddie; VA Prince George; VA Colonial Heights; VA Hopewell; VA Petersburg.

6760 Richmond, VA 24.9
VA Charles City; VA Chesterfield; VA Goochland, VA Hanover; VA Henrico; VA New Kent; VA Powhatan; VA Richmond.

Non-SMSA Counties 27.9
VA Albemarle; VA Amelia; VA Brunswick; VA Buckingham, VA Caroline; VA Charlotte; VA Cumberland; VA Essex; VA Fluvanna; VA Greene; VA Greensville; VA Halifax; VA King and Queen; VA King William; VA Lancaster; VA Louisa; VA Lunenburg; VA Madison; VA Mecklenburg; VA Northumberland; VA Nottoway; VA Orange; VA Prince Edward; VA Richmond VA Sussex; VA Charlottesville; VA Emporia; VA South Boston

023 Norfolk - Virginia Beach - Newport News VA:

SMSA Counties:

5680 Newport News- Hampton, VA 27.1
VA Gloucester; VA James City; VA York; VA Hampton; VA Newport News; VA Williamsburg.

5720 Norfolk - Virginia Beach - Portsmouth, VA - NC 26.6
NC Currituck; VA Chesapeake; VA Norfolk; VA Portsmouth; VA Suffolk; VA Virginia Beach.

Non-SMSA Counties 29.7
NC Bertie; NC Camden; NC Chowan; NC Gates; NC Hertford; NC Pasquotank; NC Perquimans; VA lsle of Wight; VA Matthews; VA Middlesex; VA Southampton; VA Surry; VA Franklin.

Washington, DC:

020 Washington, DC.

SMSA Counties:

8840 Washington, DC - MD - VA 28.0
DC District of Columbia; MD Charles; MD Montgomery MD Prince Georges; VA Arlington; VA Fairfax; VA Loudoun; VA Prince William VA Alexandria; VA Fairfax City; VA Falls Church.

Non- SMSA Counties 25.2
MD Calvert; MD Frederick; MD St. Marys: MD Washington; VA Clarke; VA Culpeper; VA Fauquier; VA Frederick; VA King George; VA Page; VA Rappahannock; VA Shenandoah; VA Spotsylvania; VA Stafford; VA Warren: VA Westmoreland; VA Fredericksburg; VA Winchester WV Berkeley; WV Grant; WV Hampshire; WV Hardy; WV Jefferson; WV Morgan.

Tennessee:

052 Johnson City - Kingsport - Bristol, TN - VA

SMSA Counties:

3630 Johnson City - Kingsport -Bristol, TN-VA 2.6
TN Carter; TN Hawkins; TN Sullivan; TN Washington; VA Scott: VA Washington; VA Bristol.

Non-SMSA Counties 3.2
TN Greene; TN Johnson; VA Buchanan; VA Dickenson; VA Lee; VA Russell; VA Smyth; VA Tazewell; VA Wise; VA Norton; WV McDowell; WV Mercer.

Maryland:

019 Baltimore MD

Non-SMSA Counties 23.6

MD Caroline; MD Dorchester; MD Kent; MD Queen Annes; MD Somerset; MD Talbot; MD Wicomico; MD Worchester; VA Accomack; VA Northampton.

Exhibit 102.05(g.2)

SF010DF-0712

May 1, 2012
FHWA-1273 (Electronic Version)

The following Form **FHWA-1273** titled **REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS** shall apply to this contract:

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FHWA-1273 – Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

   The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

   Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The

design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to

conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

   a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

   b. The contractor will accept as its operating policy the following statement:

      "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

   a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

   b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

   c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and

hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such

information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5

"Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(I) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(II) The classification is utilized in the area by the construction industry; and

(II) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued

payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a

violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(I) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(II) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(III) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than

permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.
In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. **Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. **Certification of eligibility.**

    a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

    b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

    c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. **Violation; liability for unpaid wages; liquidated damages**. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages

required by the clause set forth in paragraph (1.) of this section.

3. **Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

   a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

      (1) the prime contractor maintains control over the supervision of the day-today activities of the leased employees;

      (2) the prime contractor remains responsible for the quality of the work of the leased employees;

      (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

      (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction

safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

> "Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or
>
> Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or
>
> Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;
> Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that,

should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for

commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier

Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in

this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

   a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

   b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

Exhibit 107.13

SF001AF-0708

Reissued July 2008

PREDETERMINED MINIMUM WAGE RATES

U.S. DEPARTMENT OF LABOR
OFFICE OF THE SECRETARY
WASHINGTON
DECISION OF THE SECRETARY

This case is before the Department of Labor pursuant to a request for a wage predetermination as required by law applicable to the work described.

A study has been made of wage conditions in the locality and based on information available to the Department of Labor the wage rates and fringe payments listed are hereby determined by the Secretary of Labor as prevailing for the described classes for labor in accordance with applicable law.

This wage determination decision and any modifications thereof during the period prior to the stated expiration date shall be made a part of every contract for performance of the described work as provided by applicable law and regulations of the Secretary of Labor, and the wage rates and fringe payments contained in this decision, including modifications, shall be the minimums to be paid under any such contract and subcontractors on the work.

The contracting officer shall require that any class of laborers and mechanics which is not listed in the wage determination and which is to be employed under the contract, shall be classified or reclassified conformably to the wage determination, and a report of the action taken shall be sent by the Federal agency to the Secretary of Labor. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question accompanied by the recommendation of the contracting officer shall be referred to the Secretary for determination.

Before using apprentices on the job the contractor shall present to the contracting officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U.S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U.S. Bureau of Apprenticeship and Training.

The contractor shall submit to the contracting officer written evidence of the established apprentice-journeyman ratios and wage in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

Fringe payments include medical and hospital care, compensation for injuries or illness resulting from occupational activity, unemployment benefits, life insurance, disability and sickness insurance, accident insurance (all designated as health and welfare), pensions, vacation and holiday pay, apprenticeship or other similar programs and other bona fide fringe benefits.

By direction of the Secretary of Labor

E. Irving Manger, Associate Administrator
Division of Wage Determinations
Wage and Labor Standards Administration

Exhibit 107.15

S107HF1-0211

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 107.15

December 10, 2010

Section 107.15 of the Specifications is replaced by the following:

Section 107.15—Use of Disadvantaged Business Enterprises (DBEs)

A. Disadvantaged Business Enterprise (DBE) Program Requirements

Any Contractor, subcontractor, supplier, DBE firm, and contract surety involved in the performance of work on a federal-aid contract shall comply with the terms and conditions of the United States Department of Transportation (USDOT) DBE Program as the terms appear in Part 26 of the Code of Federal Regulations (49 CFR as amended), the USDOT DBE Program regulations; and the Virginia Department of Transportation's (VDOT or the Department) Road and Bridge Specifications and DBE Program rules and regulations.

For the purposes of this provision, Contractor is defined as the Prime Contractor of the contract; and sub-contractor is defined as any DBE supplier, manufacturer, or subcontractor performing work or furnishing material, supplies or services to the contract. The Contractor shall physically include this same contract provision in every supply or work/service subcontract that it makes or executes with a subcontractor having work for which it intends to claim credit.

In accordance with 49 CFR Part 26 and VDOT's DBE Program requirements, the Contractor, for itself and for its subcontractors and suppliers, whether certified DBE firms or not, shall commit to complying fully with the auditing, record keeping, confidentiality, cooperation, and anti-intimidation or retaliation provisions contained in those federal and state DBE Program regulations. By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations and to bind the Contractor's subcontractors contractually to the same at the Contractor's expense.

The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein. Appeal requirements, processes, and procedures shall be in accordance with guidelines stated herein and current at the time of the proceedings. Where applicable, the Department will notify the Contractor of any changes to the appeal requirements, processes, and procedures after receiving notification of the Contractor's desire to appeal.

All time frames referenced in this provision are expressed in business days unless otherwise indicated. Should the expiration of any deadline fall on a weekend or holiday, such deadline will automatically be extended to the next normal business day.

B. DBE Certification

The only DBE firms eligible to perform work on a federal-aid contract for DBE contract goal credit are firms certified as Disadvantaged Business Enterprises by the Virginia Department of Minority Business Enterprise (DMBE) or the Metropolitan Washington Airports Authority (MWAA) in accordance with federal and VDOT guidelines. DBE firms must be certified in the specific work listed for DBE contract goal credit. A directory listing of certified DBE firms can be obtained from the Virginia Department of Minority Business Enterprise and the Metropolitan Washington Airports Authority Internet websites: *http://www.dmbe.virginia.gov/ ; http://mwaa.com/362.htm*

C. Bank Services

The Contractor and each subcontractor are encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals. Such banking services and the fees charged for services typically will not be eligible for DBE Program contract goal credit. Such information is available from the VDOT's Internet Civil Rights Division website:
http://insidevdot/C7/Civil%20Rights/default.aspx

D. DBE Program-Related Certifications Made by Bidders\Contractors

By submitting a bid and by entering into any contract on the basis of that bid, the bidder/Contractor certifies to each of the following DBE Program-related conditions and assurances:

1. That the management and bidding officers of its firm agree to comply with the bidding and project construction and administration obligations of the USDOT DBE Program requirements and regulations of 49 CFR Part 26 as amended, and VDOT's Road and Bridge Specifications and DBE Program requirements and regulations.

2. Under penalty of perjury and other applicable penal law that it has complied with the DBE Program requirements in submitting the bid, and shall comply fully with these requirements in the bidding, award, and execution of the contract.

3. To ensure that DBE firms have been given full and fair opportunity to participate in the performance of the contract. The bidder certifies that all reasonable steps were, and will be, taken to ensure that DBE firms had, and will have, an opportunity to compete for and perform work on the contract. The bidder further certifies that the bidder shall not discriminate on the basis of race, color, age, national origin, or sex in the performance of the contract or in the award of any subcontract. Any agreement between a bidder and a DBE whereby the DBE promises not to provide quotations for performance of work to other bidders is prohibited.

4. As a bidder, good faith efforts were made to obtain DBE participation in the proposed contract at or above the goal for DBE participation established by VDOT. It has submitted as a part of its bid true, accurate, complete, and detailed documentation of the good faith efforts it performed to meet the contract goal for DBE participation. The bidder, by signing and submitting its bid, certifies the DBE participation information submitted within the stated time thereafter is true, correct, and complete, and that the information provided includes the names of all DBE firms that will participate in the contract, the specific line item(s) that each listed DBE firm will perform, and the creditable dollar

amounts of the participation of each listed DBE. The specific line item must reference the VDOT line number and item number contained in the proposal.

5. The bidder further certifies, by signing its bid, it has committed to use each DBE firm listed for the specific work item shown to meet the contract goal for DBE participation. Award of the contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents. By signing the bid, the bidder certifies on work that it proposes to sublet; it has made good faith efforts to seek out and consider DBEs as potential subcontractors. The bidder shall contact DBEs to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain on file proper documentation to substantiate its good faith efforts. Award of the contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents.

6. Once awarded the contract, the Contractor shall make good faith efforts to utilize DBE firms to perform work designated to be performed by DBEs at or above the amount or percentage of the dollar value specified in the bidding documents. Further, the Contractor understands it shall not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract in whole or in part with another DBE, any non-DBE firm, or with the Contractor's own forces or those of an affiliate of the Contractor without the prior written consent of VDOT as set out within the requirements of this provision.

7. Once awarded the contract, the Contractor shall designate and make known to the Department a liaison officer who is assigned the responsibility of administering and promoting an active and inclusive DBE program as required by 49 CFR Part 26 for DBEs. The designation and identity of this officer need be submitted only once by the Contractor during any twelve (12) month period at the preconstruction conference for the first contract the Contractor has been awarded during that reporting period. The Department will post such information for informational and administrative purposes at VDOT's Internet Civil Rights Division website.

8. Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each DBE firm participating in the contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract regulations and\or requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the contract in the event of such a contract breach.

9. In the event a bond surety assumes the completion of work, if for any reason VDOT has terminated the prime Contractor, the surety shall be obligated to meet the same DBE contract terms and requirements as were required of the original prime Contractor in accordance with the requirements of this specification.

E. Disqualification of Bidder

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the contract specifications, and VDOT Road and Bridge Specifications.

F. Bidding Procedures

The following bidding procedures shall apply to the contract for DBE Program compliance purposes:

1. **Contract Goal, Good Faith Efforts Specified:** All bidders evidencing the attainment of DBE goal commitment equal to or greater than the required DBE goal established for the project must submit completed Form C-111, Minimum DBE Requirements, and Form C-48, Subcontractor/Supplier Solicitation and Utilization, as a part of the bid documents.

   Form C-111 may be submitted electronically or may be faxed to the Department, but in no case shall the bidder's Form C-111 be received later than 10:00 a.m. the next business day after the time stated in the bid proposal for the receipt of bids. Form C-48 must be received within ten (10) business days after the bid opening.

   If, at the time of submitting its bid, the bidder knowingly cannot meet or exceed the required DBE contract goal, it shall submit Form C-111 exhibiting the DBE participation it commits to attain as a part of its bid documents. The bidder shall then submit Form C-49, DBE Good Faith Efforts Documentation, within two (2) business days after the bid opening.

   The lowest responsive and responsible bidder must submit its properly executed Form C-112, Certification of Binding Agreement, within three (3) business days after the bids are received. DBEs bidding as prime contractors are not required to submit Form C-112 unless they are utilizing other DBEs as subcontractors.

   If, after review of the apparent lowest bid, VDOT determines the DBE requirements have not been met, the apparent lowest successful bidder must submit Form C-49, DBE Good Faith Efforts Documentation, which must be received by the Contract Engineer within two (2) business days after official notification of such failure to meet the aforementioned DBE requirements.

   Forms C-48, C-49, C-111, and C-112 can be obtained from the VDOT website at:
   http://vdotforms.vdot.virginia.gov/

   Instructions for submitting Form C-111 can be obtained from the VDOT website at:
   http://www.virginiadot.org/business/resources/const/Exp_DBE_Commitments.pdf

2. **Bid Rejection:** The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may be cause for rejection of that bidder's bid.

   If the lowest bidder is rejected for failure to submit the required documentation in the specified time frames, the Department may award the work to the next lowest bidder, or re-advertise the proposed work at a later date or proceed otherwise as determined by the Commonwealth.

3. **Good Faith Efforts Described:** In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were made actively and aggressively to meet the DBE requirements. Efforts to obtain DBE participation are not good faith efforts if they could not reasonably be expected to

produce a level of DBE participation sufficient to meet the DBE Program and contract goal requirements.

Good faith efforts may be determined through use of the following list of the types of actions the bidder may make to obtain DBE participation. This is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts of similar intent may be relevant in appropriate cases:

(a) Soliciting through reasonable and available means, such as but not limited to, attendance at pre-bid meetings, advertising, and written notices to DBEs who have the capability to perform the work of the contract. Examples include: advertising in at least one daily/weekly/monthly newspaper of general circulation, as applicable; phone contact with a completely documented telephone log, including the date and time called, contact person, or voice mail status; and internet contacts with supporting documentation, including dates advertised. The bidder shall solicit this interest no less than five (5) business days before the bids are due so that the solicited DBEs have enough time to reasonably respond to the solicitation. The bidder shall determine with certainty if the DBEs are interested by taking reasonable steps to follow up initial solicitations as evidenced by documenting such efforts as requested on Form C-49, DBE Good Faith Efforts Documentation.

(b) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to completely perform all portions of this work in its entirety or use its own forces;

(c) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner, which will assist the DBEs in responding to a solicitation;

(d) Negotiating for participation in good faith with interested DBEs;

1. Evidence of such negotiation shall include the names, addresses, and telephone numbers of DBEs that were considered; dates DBEs were contacted; a description of the information provided regarding the plans, specifications, and requirements of the contract for the work selected for subcontracting; and, if insufficient DBE participation seems likely, evidence as to why additional agreements could not be reached for DBEs to perform the work;

2. A bidder using good business judgment should consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and should take a firm's price, qualifications, and capabilities, as well as contract goals, into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not sufficient reason for a bidder's failure to meet the contract goal for DBE participation, as long as such costs are reasonable and comparable to costs customarily appropriate to the type of work under consideration. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make diligent good faith efforts. Bidders are not, however, required to accept higher quotes from DBEs if the price difference can be shown by the bidder to be excessive, unreasonable, or greater than would normally be expected by industry standards;

(e) A bidder cannot reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities. The DBE's standing within its industry, membership in specific groups, organizations, associations, and political or social affiliations, and union vs. non-union employee status are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal for DBE participation;

(f) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by VDOT or by the bidder/Contractor;

(g) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services subject to the restrictions contained in these provisions;

(h) Effectively using the services of appropriate personnel from VDOT and from DMBE; available minority/women community or minority organizations; contractors' groups; local, state, and Federal minority/ women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and utilization of qualified DBEs.

G. Documentation and Administrative Reconsideration of Good Faith Efforts

During Bidding: As described in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision, the bidder must provide Form C-49, DBE Good Faith Efforts Documentation, of its efforts made to meet the DBE contract goal as proposed by VDOT within the time frame specified in this provision. The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. The bidder shall attach additional pages to the certification, if necessary, in order to fully detail specific good faith efforts made to obtain the DBE firms participation in the proposed contract work.

However, regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed forms C-111, C-112, C-48, and C-49, as aforementioned, or face potential bid rejection.

If a bidder does not submit its completed and executed forms C-111, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected.

Where the Department upon initial review of the bid results determines the apparent low bidder has failed or appears to have failed to meet the requirements of the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision and has failed to adequately document that it made a good faith effort to achieve sufficient DBE participation as specified in the bid proposal, that firm upon notification of the Department's initial determination will be offered the opportunity for administrative reconsideration before VDOT rejects that bid as non-responsive. The bidder shall address such request for reconsideration in writing to the Contract Engineer within five (5) business days of receipt of notification by the Department and shall be given the opportunity to discuss the issue and present its evidence in person to the Administrative Reconsideration Panel. The Administrative Reconsideration Panel will be made up of VDOT Division Administrators or their designees, none of who took part in the initial determination that the bidder failed to make the goal or make adequate good faith efforts to do so. After reconsideration, VDOT shall notify the bidder in writing of its decision

and explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.

If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected.

If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is still encouraged to seek additional DBE participation during the life of the contract.

However, such action will not relieve the Contractor of its responsibility for complying with the reduced DBE requirement during the life of the contract or any administrative sanctions as may be appropriate.

During the Contract: If a DBE, through no fault of the Contractor, is unable or unwilling to fulfill his agreement with the Contractor, the Contractor shall immediately notify the Department and provide all relevant facts. If a Contractor relieves a DBE subcontractor of the responsibility to perform work under their subcontract, the Contractor is encouraged to take the appropriate steps to obtain a DBE to perform an equal dollar value of the remaining subcontracted work. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the performance of the contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, and the Contractor has not taken the preceding actions, the Contractor and any aforementioned affiliates may be subject to disallowance of DBE credit until such time as conformance with the schedule of DBE participation is achieved.

Project Completion: If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects for a period of 90 days.

Prior to enjoinment from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s), elimination of items subcontracted to DBEs, or to circumstances beyond their control, and that all feasible means have been used to obtain the required participation. The State Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. If the decision is made to enjoin the Contractor from bidding on other VDOT work as described herein, the enjoinment period will

begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

H. DBE Participation for Contract Goal Credit

DBE participation on the contract will count toward meeting the DBE contract goal in accordance with the following criteria:

1. Cost-plus subcontracts will not be considered to be in accordance with normal industry practice and will not normally be allowed for credit.

2. The applicable percentage of the total dollar value of the contract or subcontract awarded to the DBE will be counted toward meeting the contract goal for DBE participation in accordance with the **DBE Program-Related Certifications Made by Bidders\Contractors** section of this Special Provision for the value of the work, goods, or services that are actually performed or provided by the DBE firm itself or subcontracted by the DBE to other DBE firms.

3. When a DBE performs work as a participant in a joint venture with a non-DBE firm, the Contractor may count toward the DBE goal only that portion of the total dollar value of the contract equal to the distinctly defined portion of the contract work that the DBE has performed with the DBE's own forces or in accordance with the provisions of this Section. The Department shall be contacted in advance regarding any joint venture involving both a DBE firm and a non-DBE firm to coordinate Department review and approval of the joint venture's organizational structure and proposed operation where the Contractor seeks to claim the DBE's credit toward the DBE contract goal.

4. When a DBE subcontracts part of the work of the contract to another firm, the value of that subcontracted work may be counted toward the DBE contract goal only if the DBE's subcontractor at a lower tier is a certified DBE. Work that a DBE subcontracts to either a non-DBE firm or to a non-certified DBE firm will not count toward the DBE contract goal. The cost of supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or the prime's affiliated firms will not count toward the contract goal for DBE participation.

5. The Contractor may count expenditures to a DBE subcontractor toward the DBE contract goal only if the DBE performs a Commercially Useful Function (CUF) on that contract.

6. A Contractor may not count the participation of a DBE subcontractor toward the Contractor's final compliance with the DBE contract goal obligations until the amount being counted has actually been paid to the DBE. A Contractor may count sixty (60) percent of its expenditures actually paid for materials and supplies obtained from a DBE certified as a regular dealer, and one hundred (100) percent of such expenditures actually paid for materials and supplies obtained from a certified DBE manufacturer.

   (a) For the purposes of this Special Provision, a regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required and used under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the DBE firm shall be an established business that regularly engages, as its principal business and under its own name, in the purchase and sale or lease of the products or equipment in question. Packagers, brokers,

manufacturers' representatives, or other persons who arrange or expedite transactions will not be considered regular dealers.

(b) A DBE firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business where it keeps such items in stock if the DBE both owns and operates distribution equipment for the products it sells and provides for the contract work. Any supplementation of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis to be eligible for credit to meet the DBE contract goal.

(c) If a DBE regular dealer is used for DBE contract goal credit, no additional credit will be given for hauling or delivery to the project site goods or materials sold by that DBE regular dealer. Those delivery costs shall be deemed included in the price charged for the goods or materials by the DBE regular dealer, who shall be responsible for their distribution.

(d) For the purposes of this Special Provision, a manufacturer will be defined as a firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the contract and of the general character described by the project specifications. A manufacturer shall include firms that produce finished goods or products from raw or unfinished material, or purchase and substantially alter goods and materials to make them suitable for construction use before reselling them.

(g) A Contractor may count toward the DBE contract goal the following expenditures to DBE firms that are not regular dealers or manufacturers for DBE program purposes:

1. The entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of the federal-aid contract, if the fee is reasonable and not excessive or greater than would normally be expected by industry standards for the same or similar services.

2. The entire amount of that portion of the construction contract that is performed by the DBE's own forces and equipment under the DBE's supervision. This includes the cost of supplies and materials ordered and paid for by the DBE for contract work, including supplies purchased or equipment leased by the DBE, except supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or its affiliates.

(h) A Contractor may count toward the DBE contract goal one hundred (100) percent of the fees paid to a DBE trucker or hauler for the delivery of material and supplies required on the project job site, but not for the cost of those materials or supplies themselves, provided that the trucking or hauling fee is determined by VDOT to be reasonable, as compared with fees customarily charged by non-DBE firms for similar services. A Contractor shall not count costs for the removal or relocation of excess material from or on the job site when the DBE trucking company is not the manufacturer of or a regular dealer in those materials and supplies. The DBE trucking firm shall also perform a Commercially Useful Function (CUF) on the project and not operate merely as a pass through for the purposes of gaining credit toward the DBE contract goal. Prior to submitting a bid, the Contractor shall determine, or

contact the VDOT Civil Rights Division or its district Offices for assistance in determining, whether a DBE trucking firm will meet the criteria for performing a CUF on the project. See section on **Miscellaneous DBE Program Requirements; Factors used to Determine if a DBE Trucking Firm is Performing a CUF**.

(i) The Contractor will receive DBE contract goal credit for the fees or commissions charged by and paid to a DBE broker who arranges or expedites sales, leases, or other project work or service arrangements provided that those fees are determined by VDOT to be reasonable and not excessive as compared with fees customarily charged by non-DBE firms for similar services. For the purposes of this Special Provision, a broker is defined as a person or firm that regularly engages in arranging for delivery of material, supplies, and equipment, or regularly arranges for the providing of project services as a course of routine business but does not own or operate the delivery equipment necessary to transport materials, supplies, or equipment to or from a job site.

I. Performing a Commercially Useful Function (CUF)

No credit toward the DBE contract goal will be allowed for contract payments or expenditures to a DBE firm if that DBE firm does not perform a CUF on that contract. A DBE performs a CUF when the DBE is solely responsible for execution of a distinct element of the contract work and the DBE actually performs, manages, and supervises the work involved with the firm's own forces or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. To perform a CUF the DBE alone shall be responsible and bear the risk for the material and supplies used on the contract, selecting a supplier or dealer from those available, negotiating price, determining quality and quantity, ordering the material and supplies, installing those materials with the DBE's own forces and equipment, and paying for those materials and supplies. The amount the DBE firm is to be paid under the contract shall be commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance.

Monitoring CUF Performance: It shall be the Contractor's responsibility to ensure that all DBE firms selected for subcontract work on the contract, for which he seeks to claim credit toward the contract goal, perform a CUF. Further, the Contractor is responsible for and shall ensure that each DBE firm fully performs the DBE's designated tasks with the DBE's own forces and equipment under the DBE's own direct supervision and management or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. For the purposes of this provision the DBE's equipment will mean either equipment directly owned by the DBE as evidenced by title, bill of sale or other such documentation, or leased by the DBE, and over which the DBE has control as evidenced by the leasing agreement from a firm not owned in whole or part by the prime Contractor or an affiliate of the Contractor under this contract.

VDOT will monitor the Contractor's DBE involvement during the performance of the contract. However, VDOT is under no obligation to warn the Contractor that a DBE's participation will not count toward the goal.

DBEs Must Perform a Useful and Necessary Role in Contract Completion: A DBE does not perform a commercially useful function if the DBE's role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

DBEs Must Perform The Contract Work With Their Own Workforces: If a DBE does not perform and exercise responsibility for at least thirty (30) percent of the total cost of the DBE's contract with the DBE's own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involve, VDOT will presume that the DBE is not performing a CUF and such participation will not be counted toward the contract goal.

VDOT Makes Final Determination On Whether a CUF Is Performed: VDOT has the final authority to determine whether a DBE firm has performed a CUF on a federal-aid contract. To determine whether a DBE is performing or has performed a CUF, VDOT will evaluate the amount of work subcontracted by that DBE firm or performed by other firms and the extent of the involvement of other firms' forces and equipment. Any DBE work performed by the Contractor or by employees or equipment of the Contractor shall be subject to disallowance under the DBE Program, unless the independent validity and need for such an arrangement and work is demonstrated.

J. Verification of DBE Participation and Imposed Damages

Within fourteen days after contract execution, the Contractor shall submit to the Responsible Engineer, with a copy to the District Civil Rights Office (DCRO), a fully executed subcontract agreement for each DBE used to claim credit in accordance with the requirements stated on Form C-112. The subcontract agreement shall be executed by both parties stating the work to be performed, the details or specifics concerning such work, and the price which will be paid to the DBE subcontractor. Because of the commercial damage that the Contractor and its DBE subcontractor could suffer if their subcontract pricing, terms, and conditions were known to competitors, the Department staff will treat subcontract agreements as proprietary Contractor trade secrets with regard to Freedom of Information Act requests. In lieu of subcontract agreements, purchase orders may be submitted for haulers, suppliers, and manufacturers. These too, will be treated confidentially and protected. Such purchase orders must contain, as a minimum, the following information: authorized signatures of both parties; description of the scope of work to include contract item numbers, quantities, and prices; and required federal contract provisions.

The Contractor shall also furnish, and shall require each subcontractor to furnish, information relative to all DBE involvement on the project for each quarter during the life of the contract in which participation occurs and verification is available. The information shall be indicated on Form C-63, DBE and SWAM Payment Compliance Report. The department reserves the right to request proof of payment via copies of cancelled checks with appropriate identifying notations. Failure to provide Form C-63 to the District Civil Rights Office (DCRO) within five (5) business days after the reporting period may result in delay of approval of the Contractor's monthly progress estimate for payment. The names and certification numbers of DBE firms provided by the Contractor on the various forms indicated in this Special Provision shall be exactly as shown on the DMBE's or MWAA's latest list of certified DBEs. Signatures on all forms indicated herein shall be those of authorized representatives of the Contractor as shown on the Prequalification Application, Form C-32 or the Prequalification/Certification Renewal Application, Form C-32A, or authorized by letter from the Contractor. If DBE firms are used which have not been previously documented with the Contractor's bid and for which the Contractor now desires to claim credit toward the project goal, the Contractor shall be responsible for submitting necessary documentation in accordance with the procedures stipulated in this Special Provision to cover such work prior to the DBE beginning work.

Form C-63 can be obtained from the VDOT website at: *http://vdotforms.vdot.virginia.gov/*

The Contractor shall submit to the Responsible Engineer its progress schedule with a copy to the DCRO, as required by Section 108.03 of the Specifications or other such specific contract scheduling specification that may include contractual milestones, i.e., monthly or VDOT requested updates. The Contractor shall include a narrative of applicable DBE activities relative to work activities of the Contractor's progress schedule, including the approximate start times and durations of all DBE participation to be claimed for credit that shall result in full achievement of the DBE goal required in the contract.

On contracts awarded on the basis of good faith efforts, narratives or other agreeable format of schedule information requirements and subsequent progress determination shall be based on the commitment information shown on the latest Form C-111 as compared with the appropriate Form C-63.

Prior to beginning any major component or quarter of the work, as applicable, in which DBE work is to be performed, the Contractor shall furnish a revised Form C-111 showing the name(s) and certification number(s) of any current DBEs not previously submitted who will perform the work during that major component or quarter for which the Contractor seeks to claim credit toward the contract DBE goal. The Contractor shall obtain the prior approval of the Department for any assistance it may provide to the DBE beyond its existing resources in executing its commitment to the work in accordance with the requirements listed in the **Good Faith Efforts Described** section of this Special Provision. If the Contractor is aware of any assistance beyond a DBE's existing resources that the Contractor, or another subcontractor, may be contemplating or may deem necessary and that have not been previously approved, the Contractor shall submit a new or revised narrative statement for VDOT's approval prior to assistance being rendered.

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received VDOT. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received.

K. Documentation Required for Semi-final Payment

On those projects nearing completion, the Contractor must submit Form C-63 marked "Semi-Final" within twenty (20) days after the submission of the last regular monthly progress estimate to the DCRO. The form must include each DBE used on the contract work and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the accepted creditable work on the contract. The form shall be certified under penalty of perjury, or other applicable law, to be accurate and complete. VDOT will use this certification and other information available to determine applicable DBE credit allowed to date by VDOT and the extent to which the DBEs were fully paid for that work. The Contractor shall acknowledge by the act of filing the form that the information is supplied to obtain payment regarding a federal participation contract. A letter of certification, signed by both the prime Contractor and appropriate DBEs, will accompany the form, indicating the amount, including any retainage, if present, that remains to be paid to the DBE(s).

L. Documentation Required for Final Payment

On those projects that are complete, the Contractor shall submit a final Form C-63 marked "Final" to the DCRO, within thirty (30) days of the final estimate. The form must include each

DBE used on the contract and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the creditable work on the contract. VDOT will use this form and other information available to determine if the Contractor and DBEs have satisfied the DBE contract goal percentage specified in the contract and the extent to which credit was allowed. The Contractor shall acknowledge by the act of signing and filing the form that the information is supplied to obtain payment regarding a federal participation contract.

M. Prompt Payment Requirements

The Contractor shall make prompt and full payment to the subcontractor(s) of any retainage held by the prime Contractor after the subcontractor's work is satisfactorily completed.

For purposes of this Special Provision, a subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted as required by the contract documents by VDOT. When VDOT has made partial acceptance of a portion of the prime contract, the Department will consider the work of any subcontractor covered by that partial acceptance to be satisfactorily completed. Payment will be made in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

Upon VDOT's payment of the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor for that portion of the work satisfactorily completed and accepted by the Department. For the purposes of this Special Provision, payment of the subcontractor's portion of the work shall mean the Contractor has issued payment in full, less agreed upon retainage, if any, to the subcontractor for that portion of the subcontractor's work that VDOT paid to the Contractor on the monthly progress estimate.

The Contractor shall make payment of the subcontractor's portion of the work within seven (7) days of the receipt of payment from VDOT in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

If the Contractor fails to make payment for the subcontractor's portion of the work within the time frame specified herein, the subcontractor shall contact the Responsible Engineer and the Contractor's bonding company in writing. The bonding company and VDOT will investigate the cause for non-payment and, barring mitigating circumstances that would make the subcontractor ineligible for payment, ensure payment in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations, and to bind the Contractor's subcontractors contractually to those prompt payment requirements.

Nothing contained herein shall preclude the Contractor from withholding payment to the subcontractor in accordance with the terms of the subcontract in order to protect the Contractor from loss or cost of damage due to a breach of agreement by the subcontractor.

N. Miscellaneous DBE Program Requirements

Loss of DBE Eligibility: When a DBE firm has been removed from eligibility as a certified DBE firm, the following actions will be taken:

1. When a Bidder/Contractor has made a commitment to use a DBE firm that is not currently certified, thereby making the Contractor ineligible to receive DBE participation credit for work performed, and a subcontract has not been executed, the ineligible DBE firm does not count toward either the contract goal or overall goal. The Contractor shall meet the contract goal with a DBE firm that is eligible to receive DBE credit for work performed, or must demonstrate to the Contract Engineer that it has made good faith efforts to do so.

2. When a Bidder/Contractor has executed a subcontract with a certified DBE firm prior to official notification of the DBE firm's loss of eligibility, the Contractor may continue to use the firm on the contract and shall continue to receive DBE credit toward its DBE goal for the subcontractor's work.

3. When VDOT has executed a prime contract with a DBE firm that is certified at the time of contract execution but that is later ruled ineligible, the portion of the ineligible firm's performance on the contract before VDOT has issued the notice of its ineligibility shall count toward the contract goal.

Termination of DBE: If a certified DBE subcontractor is terminated, or fails, refuses, or is unable to complete the work on the contract for any reason, the Contractor must promptly request approval to substitute or replace that firm in accordance with this section of this Special Provision.

The Contractor, as aforementioned in **DBE Program-Related Certifications Made by Bidders/Contractors**, shall notify VDOT in writing before terminating and/or replacing the DBE that was committed as a condition of contract award or that is otherwise being used or represented to fulfill DBE contract obligations during the contract performance period. Written consent from the Department for terminating the performance of any DBE shall be granted only when the Contractor can demonstrate that the DBE is unable, unwilling, or ineligible to perform its obligations for which the Contractor sought credit toward the contract DBE goal. Such written consent by the Department to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE with another DBE. Consent to terminate a DBE shall not be based on the Contractor's ability to negotiate a more advantageous contract with another subcontractor whether that subcontractor is, or is not, a certified DBE.

1. All Contractor requests to terminate, substitute, or replace a certified DBE shall be in writing, and shall include the following information:

   (a) The date the Contractor determined the DBE to be unwilling, unable, or ineligible to perform.

   (b) The projected date that the Contractor shall require a substitution or replacement DBE to commence work if consent is granted to the request.

   (c) A brief statement of facts describing and citing specific actions or inaction by the DBE giving rise to the Contractor's assertion that the DBE is unwilling, unable, or ineligible to perform;

   (d) A brief statement of the affected DBE's capacity and ability to perform the work as determined by the Contractor;

(e) A brief statement of facts regarding actions taken by the Contractor which are believed to constitute good faith efforts toward enabling the DBE to perform;

(f) The current percentage of work completed on each bid item by the DBE;

(g) The total dollar amount currently paid per bid item for work performed by the DBE;

(h) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and with which the Contractor has no dispute;

(i) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and over which the Contractor and/or the DBE have a dispute.

2. Contractor's Written Notice to DBE of Pending Request to Terminate and Substitute with another DBE.

The Contractor shall send a copy of the "request to terminate and substitute" letter to the affected committed DBE firm, in conjunction with submitting the request to the DCRO. The affected DBE firm may submit a response letter to the Department within two (2) business days of receiving the notice to terminate from the Contractor. The affected DBE firm shall explain its position concerning performance on the committed work. The Department will consider both the Contractor's request and the DBE's response and explanation before approving the Contractor's termination and substitution request, or determining if any action should be taken against the Contractor.

If, after making its best efforts to deliver a copy of the "request to terminate and substitute" letter, the Contractor is unsuccessful in notifying the affected DBE firm, the Department will verify that the affected, committed DBE firm is unable or unwilling to continue the contract. The Department will immediately approve the Contractor's request for a substitution.

3. Proposed Substitution of Another Certified DBE

Upon termination of a DBE, the Contractor shall use reasonable good faith efforts to replace the terminated DBE. The termination of such DBE shall not relieve the Contractor of its obligations pursuant to this section, and the unpaid portion of the terminated DBE's contract will not be counted toward the contract goal.

When a DBE substitution is necessary, the Contractor shall submit an amended Form C-111 with the name of another DBE firm, the proposed work to be performed by that firm, and the dollar amount of the work to replace the unfulfilled portion of the work of the originally committed DBE firm. The Contractor shall furnish all pertinent information including the contract I.D. number, project number, bid item, item description, bid unit and bid quantity, unit price, and total price. In addition, the Contractor shall submit documentation for the requested substitute DBE as described in this section of this Special Provision.

Should the Contractor be unable to commit the remaining required dollar value to the substitute DBE, the Contractor shall provide written evidence of good faith efforts made to obtain the substitute value requirement. The Department will review the quality, thoroughness, and intensity of those efforts. Efforts that are viewed by VDOT as merely

superficial or pro-forma will not be considered good faith efforts to meet the contract goal for DBE participation. The Contractor must document the steps taken that demonstrated its good faith efforts to obtain participation as set forth in the **Good Faith Efforts Described** section of this Special Provision.

Factors Used to determine if a DBE Trucking Firm is performing a CUF:

The following factors will be used to determine whether a DBE trucking company is performing a CUF:

1. To perform a CUF the DBE trucking firm shall be completely responsible for the management and supervision of the entire trucking operation for which the DBE is responsible by subcontract on a particular contract. There shall not be a contrived arrangement, including, but not limited to, any arrangement that would not customarily and legally exist under regular construction project subcontracting practices for the purpose of meeting the DBE contract goal;

2. The DBE must own and operate at least one fully licensed, insured, and operational truck used in the performance of the contract work. This does not include a supervisor's pickup truck or a similar vehicle that is not suitable for and customarily used in hauling the necessary materials or supplies;

3. The DBE receives full contract goal credit for the total reasonable amount the DBE is paid for the transportation services provided on the contract using trucks the DBE owns, insures, and operates using drivers that the DBE employs and manages;

4. The DBE may lease trucks from another certified DBE firm, including from an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE will receive credit for the total fair market value actually paid for transportation services the lessee DBE firm provides on the contract;

5. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE lessees, *not to exceed the value of transportation services provided by DBE-owned trucks on the contract.* For additional participation by non-DBE lessees, the DBE will only receive credit for the fee or commission it receives as a result of the lease arrangement.

EXAMPLE

DBE Firm X uses two (2) of its own trucks on a contract. The firm leases two (2) trucks from DBE Firm Y and six (6) trucks from non-DBE Firm Z.

		Value of Trans. Serv. (For Illustrative Purposes Only**)**
Firm X		
Truck 1	Owned by DBE	$100 per day
Truck 2	Owned by DBE	$100 per day
Firm Y		
Truck 1	Leased from DBE	$110 per day
Truck 2	Leased from DBE	$110 per day

Firm Z		
Truck 1	Leased from Non DBE	$125 per day
Truck 2	Leased from Non DBE	$125 per day
Truck 3	Leased from Non DBE	$125 per day
Truck 4	Leased from Non DBE	$125 per day
Truck 5	Leased from Non DBE*	$125 per day
Truck 6	Leased from Non DBE*	$125 per day

DBE credit would be awarded for the total transportation services provided by DBE Firm X and DBE Firm Y, and may also be awarded for the total value of transportation services by four (4) of the six (6) trucks provided by non-DBE Firm Z (not to exceed the value of transportation services provided by DBE-owned trucks).

Credit = 8 Trucks
Total Value of Transportation Services = $820

In all, full DBE credit would be allowed for the participation of eight (8) trucks (twice the number of DBE trucks owned and leased) and the dollar value attributable to the Value of Transportation Services provided by the 8 trucks.

* With respect to the other two trucks provided by non-DBE Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks that DBE Firm X receives as a result of the lease with non-DBE Firm Z.

6. For purposes of this section, the lease must indicate that the DBE firm leasing the truck has exclusive use of and control over the truck. This will not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, provided the lease gives the DBE absolute priority for and control over the use of the leased truck. Leased trucks must display the name and identification number of the DBE firm that has leased the truck at all times during the life of the lease.

Data Collection: In accordance with 49CFR Section 26.11, all firms bidding on prime contracts and bidding or quoting subcontracts on federal-aid projects shall provide the following information to the Contract Engineer annually.

- Firm name
- Firm address
- Firm's status as a DBE or non-DBE
- The age of the firm and
- The annual gross receipts of the firm

The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. However, the above information can be submitted by means of the Annual Gross Receipts Survey as required in the Prequalification/Certification application.

All bidders, including DBE prime Contractor bidders, shall complete and submit to the Contract Engineer the Subcontractor/Supplier Solicitation and Utilization Form C-48 for each bid submitted; to be received within ten (10) business days after the bid opening. Failure of bidders to submit this form in the time frame specified may be cause for disqualification of the bidder and rejection of their bid in accordance with the requirements of this Special Provision, the contract specifications, and VDOT Road and Bridge specifications.

O. Suspect Evidence of Criminal Behavior

Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted, prosecution.

Suspected DBE Fraud

In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

P. Summary of Remedies for Non-Compliance with DBE Program Requirements

Failure of any bidder\Contractor to comply with the requirements of this Special Provision for Section 107.15 of the Virginia Road and Bridge Specifications, which is deemed to be a condition of bidding, or where a contract exists, is deemed to constitute a breach of contract shall be remedied in accordance with the following:

1. Disadvantaged Business Enterprise (DBE) Program Requirements

The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein.

2. DBE Program-Related Certifications Made by Bidders\Contractors

Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each certified DBE firm participating in the contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the contract in the event of such a contract breach.

3. Disqualification of Bidder

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the contract specifications, and VDOT Road and Bridge Specifications.

4. Bidding Procedures

The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may be cause for rejection of that bidder's bid. If the lowest bidder is rejected for failure to submit required documentation in the specified time frames, the Department may either award the work to the next lowest bidder, or re-advertise and construct the work under contract or otherwise as determined by the Commonwealth.

In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were to the extent a bidder actively and aggressively seeking to meet the requirements would make. Regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed Forms C-111, C-112, C-48, and Form C-49, as aforementioned, or face potential bid rejection. If a bidder does not submit it's completed and executed C-111, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected. If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected. If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith

efforts, the Department will award the contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is encouraged to seek additional participation during the life of the contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, the Contractor and any aforementioned affiliates may be enjoined from bidding for 60 days or until such time as conformance with the schedule of DBE participation is achieved. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the prosecution of the contract.

If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects for a period of 90 days.

Prior to enjoinment from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s) or elimination of items subcontracted to DBEs, and that all feasible means have been used to obtain the required participation. The State Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. The enjoinment period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

5. Verification of DBE Participation and Imposed Damages

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received by VDOT. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received.

In addition to the remedies described heretofore in this provision VDOT also exercises its rights with respect to the following remedies:

Suspect Evidence of Criminal Behavior

Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted prosecution.

In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

General Decision Number: VA120020 01/06/2012 VA20

Superseded General Decision Number: VA20100112

State: Virginia

Construction Type: Highway

Counties: Alexandria*, Arlington, Clarke, Culpeper, Fairfax, Fairfax*, Falls Church*, Fauquier, Fredericksburg*, King George, Loudoun, Manassas Park*, Manassas*, Prince William, Spotsylvania, Stafford and Warren Counties in Virginia.

*** INDEPENDENT CITIES**

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number	Publication Date
0	01/06/2012

*** SUVA2010-010 02/01/2011**

	Rates	Fringes
CARPENTER (STRUCTURE)	$ 18.55	
CEMENT MASON/CONCRETE FINISHER	$ 19.00	
ELECTRICIAN	$ 42.06	
FORM SETTER	$ 18.76	
IRONWORKER, REINFORCING	$ 34.18	
IRONWORKER, STRUCTURAL	$ 17.95	
LABORER		
Asphalt Raker	$ 15.85	
Blaster	$ 35.00	
Construction Worker I (Skilled Laborer)	$ 13.54	
Construction Worker II (Laborer)	$ 14.41	
Fence Erector	$ 10.60	
Flagger	$ 13.64	
Grade Checker	$ 14.00	
Guardrail Erector	$ 26.00	
Pipe Layer	$ 19.00	
Power Tool Operator	$ 15.00	
Sign Erector	$ 15.00	

PAINTER.....$ 16.13

POWER EQUIPMENT OPERATOR:

Air Compressor.....$ 15.18

Asphalt Distributor.....$ 17.50

Asphalt Paver.....$ 16.50

Backhoe.....$ 20.59

Boom/Auger.....$ 18.50

Bulldozer (Utility).....$ 17.00

Bulldozer.....$ 20.40

Concrete Finisher Machine...$ 18.35

Concrete Saw.....$ 15.00

Crane, Derrick, Dragline

(1 cm & under).....$ 24.00

Crane, Derrick, Dragline

(over 1 cm).....$ 20.00

Crusher Tender.....$ 22.99

Drill Operator.....$ 14.00

Excavator (Gradall).....$ 18.00

Front End Loader (2 cm &

under).....$ 19.00

Front End Loader (over 2

cm).....$ 20.42

Hydro Seeder.....$ 16.50

Mechanic.....$ 21.00

Mobile Mixer.....$ 17.00

Motor Grader (Fine Grade)...$ 27.25

Motor Grader (Rough Grade)..$ 24.82

Pavement Marking Operator...$ 17.00

Pavement Marking Truck

Operator.....$ 13.45

Pavement Planing Groundman..$ 19.75

Pavement Planing Operator...$ 25.00

Pile Driver Operator.....$ 16.00

Roller (Finish).....$ 17.94

Roller (Rough).....$ 17.06

Slip-Form Paver.....$ 21.00

Slurry Seal Paver Machine...$ 12.00

Stone-Spreader.....$ 16.23

Tractor, Crawlers.....$ 17.31

Trenching Machine.....$ 19.00

Vacuum Machine.....$ 16.64

TRAFFIC SIGNAL INSTALLER.....$ 21.16

TRUCK DRIVER

Fuel & Lubricant Service

Truck Driver.....$ 16.50

Truck Driver (Multi-Rear

Axle).....$ 18.00

Truck Driver (Single Rear

Axle).....$ 17.50

Truck Driver (Tandem Rear

Axle).....$ 15.97

Truck Driver, Heavy Duty

(7 c.y. & under).....$ 17.75

Truck Driver, Heavy Duty

(over 7 c.y.).....$ 19.00

Truck, Utility.....$ 11.80

WELDER.....$ 13.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular

rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007

5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

END OF GENERAL DECISION.