



APRIL 13, 2015

PRICE PROPOSAL

ROUTE 7 WIDENING AND BRIDGE REHABILITATION OVER DULLES TOLL ROAD AND AIRPORT ACCESS HIGHWAY

STATE PROJECT NO.: 0007-029-139, P101, R201,
C501, B617, B618
FEDERAL PROJECT NO.: BR-5401 (738)
CONTRACT ID NO.: C00082135DB77



PREPARED FOR:



SUBMITTED BY:





April 13, 2015

Mr. Stephen D. Kindy, P.E.
Alternative Project Delivery Office
Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219

**RE: Route 7 Widening and Bridge Rehabilitation over Dulles Toll Road and Airport
Access Highway**
State Project No. 0007-029-139, P101, R201, C501, B617, B618
Federal Project No.: FPN BR-5401 (738)
Contract ID Number: C00082135DB77

Dear Mr. Kindy:

The Lane Construction Corporation (LANE) is pleased to submit our Price Proposal for the above referenced design-build project with the Virginia Department of Transportation (VDOT). Our response contains all information requested in the RFP dated September 19, 2014 and Addendum Numbers 1 through 4. Also, we are providing a revised Schedule with Narrative to reflect the new completion date established by Addendum 4.

The LANE/JMT team appreciates the opportunity to propose on this critically important project. We look forward to partnering with the Department to make the Route7 Widening and Bridge Rehabilitation project a landmark success for the citizens of Virginia.

Should you have any additional questions, I can be contacted by phone at (703) 222-5670 or e-mail at RAMcDonough@laneconstruct.com.

Respectfully submitted,

Richard A. McDonough
Senior National Pursuits Manager
The Lane Construction Corporation

ATTACHMENT 3.6**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFP NO. C00082135DB77
 PROJECT NO.: 0007-029-139, P101, R201, C501, B617, B618

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 3.6, 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 September 19, 2014 – RFP
(Date)
2. Cover letter of February 13, 2015 – Addendum #1
(Date)
3. Cover letter of March 3, 2015 – Addendum #2
(Date)
4. Cover letter of March 5, 2015 – Addendum #3
(Date)
5. Cover letter of April 7, 2015 – Addendum #4
(Date)

 _____	<u>April 13, 2015</u> _____
SIGNATURE	DATE
<u>R. A. McDonough</u> _____	<u>Sr. District Manager</u> _____
PRINTED NAME	TITLE

ATTACHMENT 4.0.1.2
Addendum#1 – February 13, 2015
DESIGN-BUILD PRICE PROPOSAL
CHECKLIST

Project Name: Route 7 Widening and Bridge Rehabilitation over Dulles Toll Road and Airport Access Highway

Contract ID Number: C00082135DB77

➤ **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 4.3.2, 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 4.3.3**
 - 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 4.3.6(a) and 4.3.6(b))**
 - DBE Requirements Forms (C-111, C-49 and C-112) as applicable (Attachments 4.3.7(a), 4.3.7(b) and 4.3.7(c))**
 - Revised CPM Schedule per email dated March 23, 2015 from Mr. Kindy to all proposers**
 - CD-ROM containing the entire Price Proposal in a single cohesive Adobe PDF file**
-

4.2.4 PROPOSAL SCHEDULE

4.2.4 Proposal Schedule and Narrative – <REVISED for Addendum #4 May 8, 2018 Completion date>

The LANE Team has thoroughly evaluated the RFP documents, performed numerous site visits, attended the pre-proposal meeting, participated in proprietary meeting discussions, and held numerous working sessions amongst our design and construction teams in order to plan the most safe and efficient method for completing this important project. Through this progression, we have developed a solution to deliver the Project as outlined on or ahead of schedule. This narrative explains how we will deliver a highly successful Project to VDOT and to the satisfaction of all stakeholders.

4.2.4.1 Proposal Schedule

The Proposal Schedule is located at the end of this section.

4.2.4.2 Proposal Schedule Narrative

The LANE Team has developed the Proposal Schedule narrative illustrating our overall plan to successfully execute the work in accordance with the contract documents. The narrative provides an overall description of the key milestones, including the design and construction activities as well as construction phasing and sequencing. The Critical Path and relative assumptions are also discussed.

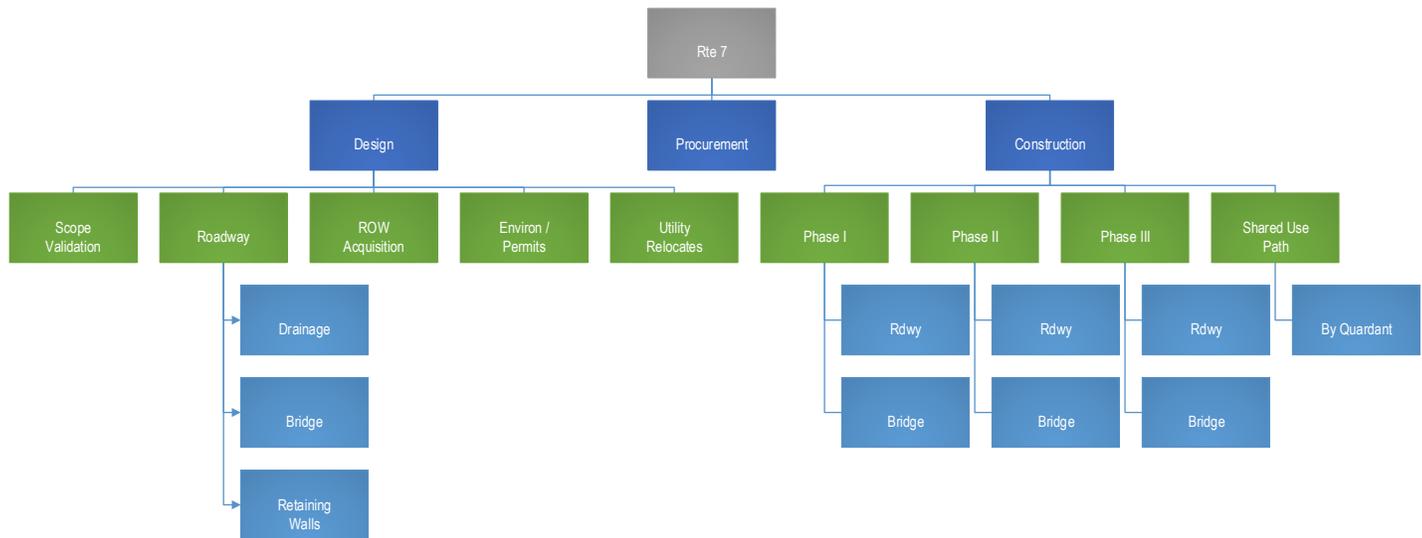
KEY MILESTONES

The LANE Team is committed to a completion date of May 7, 2018. The table below identifies Key Milestone dates, which in order to be met, will require coordination between the Design Build Team, VDOT, other reviewing agencies (WMATA, MWAA) as well as the entire Tysons community. Post Project award, the LANE Team, comprised of experienced team members, will implement our assertive design-build approach and local experience and relationships to potentially improve these dates.

Key Milestone	Milestone Date
Notice of Intent to Award	April 20, 2015
CTB Approval / Notice of Award	May 20, 2015
Design-Build Contract Execution	June 18, 2015
Notice to Proceed	June 25, 2015
Scope Validation Period Complete	October 22, 2015
Start of Construction	November 4, 2015
Final Completion Date	May 7, 2018

WORK BREAKDOWN STRUCTURE (WBS)

The WBS is a multi-level, hierarchical arrangement of the Work to be performed on the Project. The LANE Team has laid out the WBS to break down the major phases of the Project by design area, type of work, and phasing.



The WBS Areas for the Project have been developed as a collaborative effort between the design and construction teams by looking at the Project as a whole, including the Type of Work along the alignment(s), in addition to design considerations and management of the construction efforts. Levels 2 and 3 of the WBS depicted in the Proposal Schedule include the following items:

- **Scope Validation Period:** includes the Scope Validation Period activity for the Project.
- **Environmental/Permitting:** comprises the activities required to obtain the necessary environmental permits such as Water Quality, stormwater monitoring, and noise evaluations.
- **ROW Acquisition:** details the acquisition process for the ROW required including title research, appraisals, appraisal reviews, offers, and negotiations.
- **Design:** includes preliminary engineering services, plan development, QA/QC review, VDOT, MWAA and WMATA review and approval of the plans. This section includes additional levels to the WBS - grouping the design activities by type of design submission packages including Geotechnical, Structures, and Roadway.
- **Utility Coordination and Relocations:** includes the activities for UFI meetings, preparation of preliminary engineering (PE) estimates, approval of PE estimates, utility relocation design by utility owners, approval of the utility design, and relocation of utilities for construction.
- **Construction:** includes all the components of the roadway and bridge construction, including but not limited to MOT, erosion & sediment controls, QA/QC, stormwater management, signals, drainage, lighting, and bridge and roadway improvements. This section has been further subdivided into construction phases.

CALENDARS

Six (6) project calendars are used in the Schedule and include:

1. **“7-Day”** – Based on seven days per week and is used for review periods and milestones.
2. **“5-Day Holidays”** – Based on five working days per week and includes holiday restrictions. Used for design activities and work not impacted by adverse weather.
3. **“5-Day Weather & Holidays”** – Based on five working days per week, holiday restrictions, and anticipated weather days. Used for construction activities.

4. **“5-Day Concrete”** – Based on five working days per week, holiday restrictions, anticipated weather with non-working periods from December through February.
5. **“5-Day Base & Interim Asphalt”** – Based on the 5-Day Weather & Holidays calendar with non-working periods from December through February.
6. **“5-Day Surface Asphalt”** – Based on the 5-Day Weather & Holidays calendar with non-working periods from November through March.

ACTIVITY IDENTIFICATION

The Proposal Schedule activity identification number is based on a ‘smart’ activity identification in which a unique alphanumeric is utilized. Each activity identification is broken down into four parts identifying Location, Phase, Work Element, and a unique identifier, described in detail below.

An example is 000-MS-9020:

- A. *Location* - The first digit in the activity identification number pertains to the location with the abbreviation and order as follows:

- 0 - Route 7 Widening
- D - Design Engineering
- Q - Quality Assurance/Quality Control
- 1 - Phase 1 Construction
- 2 - Phase 2 Construction
- 3 - Phase 3 Construction
- S - Shared Use Path Construction

- B. *Work Element* - Letters second and third in the activity identification number pertain to the types of work with the abbreviations as follows:

- MS - Milestone
- P - Procurement (Shop Drawings / Fabrication / Delivery)
- RW - Right-of-Way
- EV - Environmental
- GD - Geotechnical Design
- RD - Roadway Design
- SD - Structures Design
- PI - Public Involvement
- UT - Utility Relocation
- IT - QA/QC Inspection & Testing
- R - Roadway Construction
- B - Bridge Construction
- NW - Northwest Quadrant
- NE - Northeast Quadrant
- SW - Southwest Quadrant
- SE - Southeast Quadrant

- C. *Unique Identifier* -The last four digits in the activity identification structure are numeric increments starting with ten, and incremented in steps of ten. This is done to leave ample room between activities so that additional activities may be inserted as necessary.

PLAN AND STRATEGY

DESIGN

The design phase includes plan(s) preparation, QA/QC reviews, and submission of Intermediate, Final, and Ready for Construction (RFC) design stages of the Project. Included are the 21-day periods for VDOT, Fairfax County, MWA, and FHWA review and approval as well as a 30-day period for WMATA reviews. Survey coordination and mapping and utility designations are included to support the plan preparation. Additional activities are included for geotechnical investigations, reports, and a 21-day period for VDOT's review of the geotechnical reports prior to our submission of the final roadway packages. Hold Points such as environmental permit approvals and subsequent release by the VDOT Project Manager have been built into the design schedule. The LANE Team has made the decision to begin design immediately upon Notice of Intent to Award to begin advancing the concept plans to the intermediate stage. Design efforts for the respective project elements are on the critical path.

Environmental Permitting

Our baseline schedule will contain all necessary environmental and permitting activities as required. All permitted construction activities will be a *hold point* to ensure no work is performed without the appropriate permits in place. Additional hold points will also exist for ROW Authorization (EQ-201) and our Stormwater Pollution and Prevention Plan (SWPPP) approval for coverage under the Virginia Pollution Discharge Elimination System (VPDES) General Construction Permit.

ROW Acquisition

There are only minor Right-of-Way acquisitions and easements planned for this project which have been included; these are not expected to affect the schedule since the majority of the Project construction is contained in existing Right-of-Way.

Utility Relocations

To advance the relocation of utilities as seamlessly as possible, the LANE Team will meet early on with all affected utility owners to develop and confirm our understanding of how both the Project and utility owner goals will align with the Project schedule. We will conduct early coordination with all utility owners including completion of UT9 Forms, defining right-of-way, "prior rights", and establishing the relocation/reconstruction expectations and costs. We have identified key milestones including meeting with the VDOT Regional Utility Manager, the required Utility Field Inspection meeting, and sequenced utility relocations to match the required work operations for the Project in the Project schedule. Due to the extent of utility relocations and the fast-pace construction schedule, we will have some concurrent construction and utility relocation work within the same proximity. The LANE Team will at all times adhere to the Utility Manual of Instructions; Utility Relocation Policies & Procedures Manual (Utility Manual). In addition, it will be the DB's responsibility to coordinate the utility relocation with MWA for utilities that may be attached to the rehabilitated bridge.

QA/QC Inspection & Testing

QA/QC activities will be performed as required in the contract documents and relevant tasks are included in our proposal schedule:

1. QA/QC Plan Submittal
2. QA/QC Plan Presentation
3. QA/QC review of design packages
4. Preparatory Inspection Meetings
5. Witness and Hold Points
6. VDOT Inspections

CONSTRUCTION

The Route 7 Widening Project will improve the structurally deficient twin bridges spanning the Dulles Toll Road and Airport Access Highway and provide for safe pedestrian access through the corridor. The project will ensure the bridges and new Shared Use Path meet the current design standards.

WORK

The construction scope of work includes the complete replacement of the existing westbound bridge including substructure, and the replacement of superstructure and modifications/widening of existing substructure of the eastbound bridge, the roadway connecting to the bridges, the construction of the Shared Used Path, and a pedestrian bridge in the South East quadrant.

Bridge Construction: The LANE Team has optimized the construction sequence and phasing of this work in order to lessen impacts to motorists and pedestrians during construction while allowing for a more efficient work environment. LANE will complete the bridge work in 3 phases:

Phase I:

LANE will partially construct the new westbound bridge, while leaving the existing westbound bridge undisturbed. The substructure work will commence upon the completion of VDOT submittal approval and DEQ permitting process. The superstructure work will commence upon the delivery of the girders. The LANE Team will construct both permanent roadway (including drainage, guardrail, lighting, etc.) for the future roadway alignment as well as temporary roadway for the Phase II construction traffic pattern. Drainage work will progress with corresponding traffic phasing.

The major utility relocation in Phase I is the transfer of the communication lines from the existing bridges to the new westbound bridge. The LANE Team will construct the conduits for the new communication lines (Activity ID: 1-B-0230) at the start of deck work of the new westbound bridge. While superstructure work continues, the utility owners can pull cables through the conduits, splice the communication lines, and complete the relocation of the communication lines (Activity ID: 1-B-0480).

Phase II:

Westbound Rt. 7 traffic will be switched onto the newly constructed (partial) westbound bridge, while the eastbound traffic will be switched onto the existing westbound bridge. The LANE team will then demolish the existing eastbound bridge according to the Bridge Modification and Rehabilitation Plan. The modification of the existing substructures will commence upon the completion of the demolition, and the construction of the new eastbound bridge superstructure will follow the substructure work. The LANE team will construct both permanent roadway for the future roadway alignment as well as any temporary roadway for Phase III construction traffic pattern. Drainage work will progress with corresponding traffic phasing.

Phase III:

Westbound traffic will remain in the same alignment on the new westbound bridge, while the eastbound traffic will be switched onto the new eastbound bridge. The LANE Team will demolish the existing westbound bridge, which will allow the Project to construct the remaining portion of the westbound bridge. The LANE Team will construct the remaining roadways. Upon the completion of the roadway and the bridges, the traffic pattern will switch into its permanent alignment, and all remaining temporary roadways will be demolished. The LANE Team will perform the asphalt milling and overlay and any new surface paving of the entire work zone at the end of Project.

Shared Used Path Construction: The LANE Team will commence the construction upon the approval of the RFC plan for the Share Use Path. In the Proposal schedule, the Work is organized into 4 quadrants: Northwest, Northeast, Southwest, and Southeast.

Northwest Quadrant:

The Work includes 3 Shared Used Path tunnels underneath Ramp I, Ramp H, Ramp F, and associated ramp restoration as well as excavation for the paths. The LANE Team will construct each tunnel using a typical cut-and-cover approach. The basic construction sequence is as follows:

1. Construct temporary ramp roadway and switch the existing traffic onto the temporary alignment.
2. Installation of Support of Excavation (“SOE”).
3. Excavation for the tunnel.
4. Install precast tunnel sections.
5. Backfill and install retaining walls and/or end walls.
6. Remove SOE.
7. Grade and pave over the tunnel.
8. Switch traffic back to original alignment.
9. Complete retaining walls and finish grading.

Northeast Quadrant:

The LANE Team will commence the construction upon the acquisition of the corresponding ROW packages. The Work includes the construction of the tunnel underneath Ramps B and C, the retaining walls leading down into the tunnel, and ramp restoration. The LANE Team will construct the tunnel using the aforementioned cut-and-cover approach.

Southwest Quadrant:

The LANE Team will commence construction in the area after the completion of the Northeast and Northwest quadrants. The Work includes Shared Use Path construction and the installation of traffic signalization system and the on-grade roadways.

Southeast Quadrant:

The LANE team will commence construction in the area after the completion of the Southwest quadrant. The Work includes the construction of a pedestrian bridge over Ramps A, D and E, the paths connecting to the pedestrian bridge, and the access road to the radio tower.

Critical Path

To ensure the Project is completed by the contractual deadline of May 8, 2018 the critical path for the project is as follows:

- Development and Approval of the Stage I TS&L Preliminary Bridge Design. The LANE Team will proceed with design at risk following Notice of Intend to Award and develop the Stage 1 preliminary bridge design and the span arrangement and pier layout packages. The LANE Team anticipates that the Reviewing Agencies will review and approve the preliminary design packages within 21 calendar days of submission (a 30-day period for WMATA reviews).

- Submission and Approval of Structural Steel Shop Drawings. The LANE Team will prepare the shop drawings for the steel girders in 30 calendar days. The LANE Team also anticipates the 21 calendar days for the review and approval process, and will start procurement of the steel girders upon approval.
- Fabrications and Delivery of Structural Steel Girders. The LANE Team anticipates girder fabrication time of 210 calendar days.
- Construction of Phase I – Westbound Superstructure (partial). The completion of the Phase I construction is driven by the delivery and erection of steel girders, which is followed by the construction of the bridge deck (partial).
- Construction of Phase II – Eastbound Structure – Phase II is driven by the demolition of the existing Eastbound bridge, construction of Abutments A & B, the steel girder erections, and the bridge deck.
- Construction of Phase III – Completion of the westbound bridge structure. In the final phase of the Project, the LANE Team will complete demolition of the existing Westbound Bridge and construction of then new Westbound Bridge. In the near critical path, the LANE Team will complete the remaining roadway, the final paving of surface asphalt, the mill-and-overlay asphalt paving for the entire project, and the final punch list items. In the revised schedule, the roadway paving work of Phase III will be restricted by the winter calendar, which extends the overall duration of roadway work. As a result, the roadway construction sequence contains only 3 days of float.

KEY ASSUMPTIONS

The LANE Team has made the following key assumptions upon which the Proposal Schedule is based:

Interaction and Interface with the Owner

Timely and effective communication between LANE, VDOT, MWAA and WMATA as well as all other stakeholders is integral to the success of the Project throughout design and construction. Co-location of key team members and a structured system of coordination meetings will enhance the ability of the team to make rapid decisions in coordination with VDOT and identification of issues early through open communication. Because of multiple agency reviews, extensive coordination will be required to gain submittal approvals in a timely manner.

Work Hours, Overtime Work, and Additional Shifts

The LANE Team will work both single and multiple shifts as necessary for various construction activities. As per the RFP, we do not have extended ramp or lane closures built into our schedule.

SCHEDULE MANAGEMENT

Through our experience gained by successfully delivering challenging design-build roadway projects on-time, the LANE Team has developed scheduling protocols to govern the development, implementation, updating, and recovery of the CPM schedule through each of the Project's phases. These methods have proven effective as evidenced by the fact that every design-build project by our team has finished either on-time or ahead of schedule.

Open and honest communication leads to effective coordination. The Project Schedule is the primary means for the LANE Team to communicate the design and construction plan to the Team, VDOT, and stakeholders. It includes planned means and methods, sequencing, resource utilization, and timing. The schedule provides the framework for planning and scheduling the day-to-day work. The schedule is the critical tool used to monitor and measure progress for the Project.

Development

For any design-build project, it is imperative that the project team develops a detailed CPM schedule that considers the interrelationships among all of the design-build disciplines. The LANE Team has developed this Proposal Schedule that includes a WBS to clearly delineate the respective tasks of each discipline manager, including design, environmental permitting, right-of-way, utilities, and construction.

In order to prepare the Baseline Schedule, each discipline team will be responsible for producing a schedule to govern their own respective work elements and provide insight into how their schedule activities affect and are affected by activities in other areas of the Project. The Design-Build Project Manager (DBPM) will hold schedule development meetings attended by all disciplines, including the Design Manager (DM) and Construction Manager (CM) to review the individual discipline schedules and integrate them into the overall Proposal Schedule. These meetings ensure that:

- The work packages for the Project are comprehensive enough to define the work with all activities delineated.
- The work packages are integrated within the Project and among each of the disciplines to generate a clearly defined critical path, confirm that the critical path is both logical as well as feasible, and that the schedule shows that the Project will complete on-time or ahead of schedule.
- Each discipline manager understands the schedule(s) of their counterparts and how their work inter-relates with the other project elements.
- Each discipline manager understands how their respective work affects the overall critical path of the Project and the priorities of the DBPM and other discipline managers.
- The schedule meets the requirements of the Contract.

These meetings enable the LANE Team to create a Proposal Schedule that has been jointly prepared and agreed to by all of the discipline managers, providing realistic expectations of the schedule of work to be completed by all team members and third parties during the course of concurrent activities on the Project.

Implementation

The Proposal Schedule will be updated and submitted to VDOT within 15 days of Notice to Proceed as our Preliminary Schedule. The Baseline Schedule will be finalized and submitted to VDOT within 90 calendar days of Notice to Proceed. The Baseline Schedule will include cost and resource loading, all submittals required by the Contract Documents as well as a definitive critical path. Key personnel representing all disciplines (design, construction, safety, quality, controls, and procurement) will engage and actively begin in-depth planning of the project activities and refinement(s) to the schedule.

Throughout the design phase of the Project, as more detailed plans are developed and utility conflicts are verified, schedule meetings will continue to be held in order to further develop the Baseline Schedule. This schedule will be utilized by all Team members to plan and track the progress of their work. It will be submitted to VDOT for review and approval, and implemented during the planning phases for utilities, right-of-way, design, and subcontractor/supplier scope and purchasing.

A three (3) week look ahead schedule will be prepared and weekly meetings conducted with participation from all disciplines to track progress as well as determine areas of work where modifications or re-sequencing needs to be developed. Specific milestones dates from the schedule will be written into subcontracts and purchase orders, making these entities contractually responsible for meeting schedule deadlines.

Updating Process

Each month starting with the month following Notice to Proceed, the Preliminary Schedule will be updated as the LANE Team prepares, submits, and receives approval on the Baseline Schedule. Once the Baseline Schedule is approved, it will be updated and submitted to VDOT for approval monthly until Final Completion of the Project. Each update will be accompanied with a narrative report and tables as prescribed in the Design-Build Project Schedule special provision. The updated schedule and narrative will reflect:

- Activities started or completed during the period
- Actual start and finish dates
- Activities on-going during the period
- Remaining duration for on-going activities
- Modified relationships to correct out-of-sequence progress

- Modified relationships to reflect the LANE Team’s plan to complete the remaining work
- Change Orders
- Relief Events
- Compensation Events

The Scheduling Engineer under the guidance of the DBPM will coordinate the progress updates each month. Updates will be provided by the discipline managers (engineering, utility coordinator, procurement, permit, quality, and construction managers) inclusive of input from the staff engineers. Progress performance will be reviewed and monitored by our DBPM (and VDOT), to identify current or potential schedule issues and recommended mitigation measures.

The Schedule will be constantly reviewed and maintained as part of the monthly updating process. Systems used to manage the design and construction sequencing will be clear and concise including:

- Weekly design/construction scheduling and coordination meetings during the design phases
- Utility relocation tracking sheets during both the design and construction phases, ROW progress tracking sheets during both the design and construction phases
- Weekly construction scheduling and coordination meetings during the construction phases
- Show drawing status tracking sheets
- Material submittal and delivery schedules
- Non-conformance logs by QC and QA for both design and construction
- RFI logs
- Regular coordination meetings with our DBPM, DM, CM and discipline leaders
- Monthly internal project review meetings by the LANE Team’s Executive Review Committee
- Monthly progress/partnering meetings with the major stakeholders.

Weekly Planning/Coordination Meetings

In addition to the monthly updates, the LANE Team, at a minimum, will hold weekly Design Scheduling/Coordination Meetings that are run by the DBPM and attended by both the design and construction team managers. Design Scheduling/Coordination Meetings have been a core tool on our design-build projects to facilitate face-to-face communication between the design and construction managers. For each meeting, the DBPM will review the CPM schedule and identify all activities that were scheduled for completion the previous week or planned for the next two weeks. During these meetings, the Project Team discusses the progress since the last meeting with actual dates for completed activities; critical completion dates for future activities; the addition or deletion of schedule activities as the design evolves; the impact of revised schedule dates on other activities and disciplines; identification of ways to advance the schedule ahead of the planned completion or to mitigate schedule impacts; and general design review, constructability, and determination of means and methods.

After each weekly meeting, the Schedule Engineer will update the CPM schedule and forward copies of an updated “look-ahead” schedule to the DBPM, DM, CM, and each of the discipline managers identifying the critical dates agreed to during the weekly coordination meeting. This process continues throughout the design period to ensure there is no slippage in the start of utility relocation and construction phases of the Project.

During the utility relocation and construction phases of the Project, the DBPM, CM, DM, Schedule Engineer, QA Manager, QC Manager, and VDOT will continue to meet weekly for a Construction Scheduling/Coordinating Meeting to coordinate necessary QA, QC, Independent Assurance, and Independent Verification inspections. At each meeting, the CM will review the work performed during the previous week and outline the schedule activities that will be performed during the forthcoming two weeks.

At the internal weekly meetings, issues/concerns will be identified utilizing the tracking aids previously mentioned. Action items will be identified and assigned to the responsible party who can resolve it. Three-week “look-ahead schedules” will be prepared and discussed to analyze schedule and quantity impacts.

Similar information will be discussed and action items assigned at the Monthly Progress/Partnering meetings with key stakeholders. Other stakeholders may be invited as required for anticipated issues during the upcoming schedule activities.

Schedule Recovery Process

If during the course of the Project, changes or unforeseen circumstances arise that impact the project schedule, the LANE Team will immediately notify VDOT (and other appropriate stakeholders) and complete a Time Impact Analysis (TIA) and prepare a schedule recovery plan to recover lost time. This plan may include increasing work shifts, adding crews and resources to construct critical path activities concurrently, changing MOT schemes and/or modifying the design to remove activities from the critical path. Schedule recovery may require adjustments by any or all of the discipline managers including: design, permitting, right-of-way, utility relocation, and construction. In the event all other design-build disciplines have completed their tasks, re-sequencing the construction schedule by the Construction Manager will be the primary focus to mitigate impacts.

SUMMARY

The LANE Team has developed a Proposal Schedule and Narrative that demonstrates our understanding of the complexities and interrelationships of both the technical elements and specific needs of the Project. Additionally, our Proposal Schedule takes into account internal plan reviews, VDOT, MWAA and WMATA plan reviews and approvals, environmental permitting, ROW acquisitions, utility relocations, and construction activities.

The LANE Team is committed to continuously improve the enclosed Proposal Schedule to better serve VDOT, associated stakeholders, and the traveling public. Upon issuance of NTP, all team members will actively work to make this Project a success for VDOT and the citizens of Virginia.

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015												2016												2017												2018																							
						Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun																				
Route 7 Widening & Bridge Rehab over Dulles Toll Rd						07-May-18																																																											
0-MS-0010	Submission of Letter of Submittal - March 9, 2015	0	09-Mar-15		21	◆ Submission of Letter of Submittal - March 9, 2015																																																											
0-MS-0020	Submission of Price Proposal - April 9, 2015	0	09-Apr-15*		20	◆ Submission of Price Proposal - April 9, 2015																																																											
0-MS-0030	Open Price Proposal - April 13, 2015	0	13-Apr-15*		20	◆ Open Price Proposal - April 13, 2015																																																											
0-MS-0040	Notice of Intent to Award - April 20, 2015	0	20-Apr-15*		16	◆ Notice of Intent to Award - April 20, 2015																																																											
0-MS-0050	CTB Approval / Notice of Award - May 20, 2015	0	20-May-15*		79	◆ CTB Approval / Notice of Award - May 20, 2015																																																											
0-MS-0060	Design-Build Contract Execution - June 18, 2015	0	18-Jun-15		79	◆ Design-Build Contract Execution - June 18, 2015																																																											
0-MS-0070	Notice To Proceed - June 25, 2015	0	25-Jun-15*		77	◆ Notice To Proceed - June 25, 2015																																																											
0-MS-0080	Final Completion - May 8, 2018	0		07-May-18*	0	◆ Final Co																																																											
Design						07-May-18																																																											
Quality Assurance / Quality Control						29-Jun-15, Quality Assurance / Quality Control																																																											
Q-IT-0010	Prepare QA/QC Plan	10	20-Apr-15	01-May-15	14	■ Prepare QA/QC Plan																																																											
Q-IT-0020	Submit QA/QC Plan - Presentation to VDOT	1	11-May-15	11-May-15	14	■ Submit QA/QC Plan - Presentation to VDOT																																																											
Q-IT-0030	VDOT Review of QA/QC	21	12-May-15	01-Jun-15	21	■ VDOT Review of QA/QC																																																											
Q-IT-0040	Revise and Resubmit QA/QC Plan	5	02-Jun-15	08-Jun-15	233	■ Revise and Resubmit QA/QC Plan																																																											
Q-IT-0050	QA/QC Plan Approval	21	09-Jun-15	29-Jun-15	332	■ QA/QC Plan Approval																																																											
Scope Validation						12-Nov-15, Scope Validation																																																											
D-GN-0010	Scope Validation Investigations and Findings Report Submittal 120 Days fr	120	25-Jun-15	22-Oct-15	218	■ Scope Validation Investigations and Findings Report Submittal 120 Days from NTP																																																											
D-GN-0020	Scope Validation Review by VDOT and Discussions	21	23-Oct-15	12-Nov-15	349	■ Scope Validation Review by VDOT and Discussions																																																											
Line & Grade / Limit of Disturbance						07-Jul-15, Line & Grade / Limit of Disturbance																																																											
D-GN-0030	Develop and Set Line & Grade and Limits of Disturbance Plans	30	27-Apr-15	08-Jun-15	10	■ Develop and Set Line & Grade and Limits of Disturbance Plans																																																											
D-GN-0035	Develop & Submit Abutment A&B E&S Control Plans Phase I	50	27-Apr-15	07-Jul-15	144	■ Develop & Submit Abutment A&B E&S Control Plans Phase I																																																											
Design Exceptions & Waivers						04-Aug-15, Design Exceptions & Waivers																																																											
D-GN-0040	Complete Exception/Waiver Application & Submit	15	18-May-15	08-Jun-15	213	■ Complete Exception/Waiver Application & Submit																																																											
D-GN-0050	Agency Review and Meeting if Required	21	09-Jun-15	29-Jun-15	304	■ Agency Review and Meeting if Required																																																											
D-GN-0060	Update and Resubmit Exception/Waiver	10	30-Jun-15	14-Jul-15	213	■ Update and Resubmit Exception/Waiver																																																											
D-GN-0070	Agency Review and Approval of Exception/Waiver	21	15-Jul-15	04-Aug-15	303	■ Agency Review and Approval of Exception/Waiver																																																											
Supplemental Field Surveys						25-Jan-18, Supplemental F																																																											
D-GN-0080	Prepare Property Owner Notification Letters for Survey	1	23-Jun-15	23-Jun-15	156	■ Prepare Property Owner Notification Letters for Survey																																																											
D-GN-0090	Supplemental Field Surveys	20	09-Jul-15	05-Aug-15	156	■ Supplemental Field Surveys																																																											
D-GN-0100	Stake Geotechnical Boring Locations	5	09-Jul-15	15-Jul-15	156	■ Stake Geotechnical Boring Locations																																																											
D-GN-0110	Prepare Updated Survey File	10	16-Jul-15	29-Jul-15	171	■ Prepare Updated Survey File																																																											
D-GN-0120	Set ROW Monumentation after Substantial Completion	20	28-Dec-17	25-Jan-18	72	■ Set ROW Monumentation a																																																											
Utilities - Delineation, SUE						20-Oct-15, Utilities - Delineation, SUE																																																											
D-UT-0010	Prepare Property Owner Notification Letters for Subsurface Utility Enginee	1	30-Jun-15	30-Jun-15	177	■ Prepare Property Owner Notification Letters for Subsurface Utility Engineering (SUE)																																																											
D-UT-0020	Perform SUE Designations and Test Holes	20	09-Jul-15	05-Aug-15	177	■ Perform SUE Designations and Test Holes																																																											
D-UT-0030	Prepare Test Hole Data Sheets, UT 9's	15	16-Jul-15	05-Aug-15	177	■ Prepare Test Hole Data Sheets, UT 9's																																																											
D-UT-0040	Meet with VDOT Regional Utility Manager 45 days after NTP	1	10-Aug-15	10-Aug-15	169	■ Meet with VDOT Regional Utility Manager 45 days after NTP																																																											
D-UT-0050	Utility Field Inspection (UFI)/ Meeting with Utility Owners	5	18-Aug-15	24-Aug-15	169	■ Utility Field Inspection (UFI)/ Meeting with Utility Owners																																																											
D-UT-0060	Determine Prior Rights, update UT9's	15	25-Aug-15	15-Sep-15	169	■ Determine Prior Rights, update UT9's																																																											
D-UT-0070	Prepare Preliminary Utility Status Report due 120 days after NTP	10	16-Sep-15	29-Sep-15	204	■ Prepare Preliminary Utility Status Report due 120 days after NTP																																																											
D-UT-0080	Prepare and Submit Updated Subsurface Utility Information, UT9's	15	30-Sep-15	20-Oct-15	204	■ Prepare and Submit Updated Subsurface Utility Information, UT9's																																																											
Existing Drainage Culverts						17-Aug-15, Existing Drainage Culverts																																																											
D-RD-0010	Visual/Video Inspection of Existing Culverts - By Lane	5	29-Jun-15	06-Jul-15	200	■ Visual/Video Inspection of Existing Culverts - By Lane																																																											
D-RD-0020	Assess Structural Condition of Existing Culverts, Prepare & Submit Report	15	07-Jul-15	27-Jul-15	200	■ Assess Structural Condition of Existing Culverts, Prepare & Submit Report																																																											
D-RD-0030	VDOT Review & Approve Existing Drainage Culverts Report	21	28-Jul-15	17-Aug-15	284	■ VDOT Review & Approve Existing Drainage Culverts Report																																																											
Utility Design						06-Jan-16, Utility Design																																																											
D-UT-0090	Dominion Virginia Power Plan and Estimate	60	16-Sep-15	09-Dec-15	169	■ Dominion Virginia Power Plan and Estimate																																																											
D-UT-0100	Washington Gas Plan & Estimate	60	16-Sep-15	09-Dec-15	169	■ Washington Gas Plan & Estimate																																																											
D-UT-0110	Fiberlight Plan and Estimate	60	16-Sep-15	09-Dec-15	169	■ Fiberlight Plan and Estimate																																																											
D-UT-0120	Verizon Plan and Estimate	60	16-Sep-15	09-Dec-15	169	■ Verizon Plan and Estimate																																																											
D-UT-0130	Verizon Business (MCI) Plan and Estimate	60	16-Sep-15	09-Dec-15	169	■ Verizon Business (MCI) Plan and Estimate																																																											
D-UT-0140	Century Link Plan and Estimate	60	16-Sep-15	09-Dec-15	169	■ Century Link Plan and Estimate																																																											
D-UT-0150	Fairfax County Public Works Plan and Estimate	60	16-Sep-15	09-Dec-15	169	■ Fairfax County Public Works Plan and Estimate																																																											
D-UT-0160	Review Utility P & E and Issue Letter of No Conflict with Proposed Design	5	10-Dec-15	16-Dec-15	169	■ Review Utility P & E and Issue Letter of No Conflict with Proposed Design																																																											
D-UT-0170	DB Team Receive Written Approval from VDOT to Commence Relocations	21	17-Dec-15	06-Jan-16	243	■ DB Team Receive Written Approval from VDOT to Commence Relocations																																																											
Noise Evaluation						07-Jan-16, Noise Evaluation																																																											
D-NE-0010	Evaluate Existing TNM Models	10	25-Jun-15	09-Jul-15	594	■ Evaluate Existing TNM Models																																																											
D-NE-0020	Incorporate Proposed Alignments in Noise Model and Evaluate	20	10-Jul-15	06-Aug-15	594	■ Incorporate Proposed Alignments in Noise Model and Evaluate																																																											

█ Remaining Level of Effort
 █ Actual Work
 █ Critical Remaining Work
 ▼ Summary
█ Actual Level of Effort
 █ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015												2016												2017												2018																							
						Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun																				
Traffic Engineering						10-Nov-15, Traffic Engineering																																																											
D-TE-0110	Develop Photometric Lighting Analysis and Calculations and Submit to VDOT	103	16-Jun-15	10-Nov-15	235	Develop Photometric Lighting Analysis and Calculations and Submit to VDOT																																																											
D-TE-0120	VDOT & Others Review & Approval of Photometric Lighting Analysis and C	21	30-Jun-15	29-Jul-15	262	VDOT & Others Review & Approval of Photometric Lighting Analysis and Calculations																																																											
D-TE-0130	Determination of Solar Power Sufficiency for Lighting Level & Obtain VDOT	10	30-Jun-15	14-Jul-15	267	Determination of Solar Power Sufficiency for Lighting Level & Obtain VDOT Concurrence if Insufficient																																																											
D-TE-0140	Signing, Pavement Marking & Lighting-Preliminary Submittal	20	21-Jul-15	17-Aug-15	263	Signing, Pavement Marking & Lighting-Preliminary Submittal																																																											
D-TE-0150	VDOT & Others Review Preliminary Signing, Pavement Marking, Lighting,	21	18-Aug-15	07-Sep-15	377	VDOT & Others Review Preliminary Signing, Pavement Marking, Lighting, Signal Design, ITS, MOT Plans and Draft TMP Plans																																																											
D-TE-0160	WMATA Review Prelim. Signing, Pavement Marking, Lighting, Signal Desig	30	18-Aug-15	16-Sep-15	377	WMATA Review Prelim. Signing, Pavement Marking, Lighting, Signal Design, ITS, MOT Plans and Draft TMP Plans																																																											
D-TE-0170	Address Preliminary Review Comments & Submit Final Signing, Pavement	30	18-Aug-15	29-Sep-15	263	Address Preliminary Review Comments & Submit Final Signing, Pavement Marking & Lighting																																																											
D-TE-0180	VDOT 7 Others Review Final Signing, Pavement Marking & Lighting Desig	21	30-Sep-15	20-Oct-15	377	VDOT 7 Others Review Final Signing, Pavement Marking & Lighting Design																																																											
D-TE-0190	WMATA Review Final Signing, Pavement Marking & Lighting Design	30	30-Sep-15	29-Oct-15	377	WMATA Review Final Signing, Pavement Marking & Lighting Design																																																											
D-TE-0200	Address Final Review Comments and Receive VDOT approval on RFC S	30	30-Sep-15	10-Nov-15	263	Address Final Review Comments and Receive VDOT approval on RFC Signing, Pavement Marking & Lighting Design																																																											
Landscaping						03-Mar-16, Landscaping																																																											
D-LS-0010	Develop Preliminary Landscaping Design and Submit to VDOT	104	18-Sep-15	03-Mar-16	168	Develop Preliminary Landscaping Design and Submit to VDOT																																																											
D-LS-0020	Receive VDOT & Others Review Preliminary Landscaping Design	15	09-Oct-15	29-Oct-15	208	Receive VDOT & Others Review Preliminary Landscaping Design																																																											
D-LS-0030	Receive WMATA Review Preliminary Landscaping Design	21	09-Oct-15	07-Nov-15	299	Receive WMATA Review Preliminary Landscaping Design																																																											
D-LS-0040	Develop Final Landscaping Design, Review by CPTED Professional and S	30	09-Oct-15	07-Nov-15	299	Develop Final Landscaping Design, Review by CPTED Professional and Submit to VDOT																																																											
D-LS-0050	VDOT & Others Review Final Landscaping Design	15	14-Dec-15	05-Jan-16	185	VDOT & Others Review Final Landscaping Design																																																											
D-LS-0060	WMATA Review Final Landscaping Design	21	06-Jan-16	26-Jan-16	272	WMATA Review Final Landscaping Design																																																											
D-LS-0070	Released for Construction (RFC) Landscaping Design Approved	30	06-Jan-16	04-Feb-16	263	Released for Construction (RFC) Landscaping Design Approved																																																											
D-LS-0070	Released for Construction (RFC) Landscaping Design Approved	20	05-Feb-16	03-Mar-16	184	Released for Construction (RFC) Landscaping Design Approved																																																											
Right of Way						24-Mar-16, Right of Way																																																											
D-RW-0010	Complete ROW Plan and Profile, D#s, Right of Way Data Sheet Per form	189	09-Jun-15	24-Mar-16	477	Complete ROW Plan and Profile, D#s, Right of Way Data Sheet Per form RW-301 Checklist, Plats and Metes & Bounds																																																											
D-RW-0030	Prepare and Submit Acquisition and Relocation Plan including Proposed Ap	20	25-Jun-15	23-Jul-15	239	Prepare and Submit Acquisition and Relocation Plan including Proposed Appraisers & Reviewers																																																											
D-RW-0020	Receive ROW Plan Approval for Perm & Temp Easements, Utility Easeme	21	08-Jul-15	28-Jul-15	358	Receive ROW Plan Approval for Perm & Temp Easements, Utility Easements from VDOT																																																											
D-RW-0040	VDOT Review and Approve Acquisition and Relocation Plan - Hold Point	21	24-Jul-15	13-Aug-15	342	VDOT Review and Approve Acquisition and Relocation Plan - Hold Point																																																											
D-RW-0050	VDOT Issue Notice to Proceed for ROW Acquisitions- Hold Point	0	14-Aug-15	14-Aug-15	238	VDOT Issue Notice to Proceed for ROW Acquisitions- Hold Point																																																											
D-RW-0060	Title Exam, Appraisals, Appraisal Reviews, Titles, Report	30	14-Aug-15	25-Sep-15	238	Title Exam, Appraisals, Appraisal Reviews, Titles, Report																																																											
D-RW-0070	Post Appraisal & Appraisal Reviews to RUMS	30	14-Sep-15	23-Oct-15	238	Post Appraisal & Appraisal Reviews to RUMS																																																											
D-RW-0080	VDOT Review & Approval Appraisal Packages, Just Compensation, Reloc	30	13-Oct-15	23-Nov-15	238	VDOT Review & Approval Appraisal Packages, Just Compensation, Relocation Benefits and Administrative Settlements-Acquisi																																																											
D-RW-0090	Initiate ROW/Easements Negotiations, Acquisition incl. RW24's	30	20-Oct-15	01-Dec-15	238	Initiate ROW/Easements Negotiations, Acquisition incl. RW24's																																																											
D-RW-0100	Make Offers to Property Owners	30	18-Nov-15	31-Dec-15	238	Make Offers to Property Owners																																																											
D-RW-0120	Request Right of Entry-As Necessary	20	25-Nov-15	23-Dec-15	589	Request Right of Entry-As Necessary																																																											
D-RW-0110	Property Owner Accepts Offer	30	18-Dec-15	01-Feb-16	238	Property Owner Accepts Offer																																																											
D-RW-0150	VDOT Issue Certificate of Take and Files in Court, if Impasse is Reached	60	18-Dec-15	14-Mar-16	548	VDOT Issue Certificate of Take and Files in Court, if Impasse is Reached																																																											
D-RW-0160	VDOT Process Vouchers and Issue State Warrants for Payments to Cont	21	18-Dec-15	07-Jan-16	341	VDOT Process Vouchers and Issue State Warrants for Payments to Contractor for Acquisitions																																																											
D-RW-0170	Closing and Settlement Payment Disbursement and Indefensible Title to VI	45	23-Dec-15	25-Feb-16	237	Closing and Settlement Payment Disbursement and Indefensible Title to VDOT-Acquisitions																																																											
D-RW-0130	Property Owner Accepts ROE	21	24-Dec-15	13-Jan-16	845	Property Owner Accepts ROE																																																											
D-RW-0140	VDOT Concurrence on ROE-As Necessary	21	24-Dec-15	13-Jan-16	845	VDOT Concurrence on ROE-As Necessary																																																											
D-RW-0180	VDOT/FHWA Issue Clearance for Construction - Acquisitions-Hold Point	21	04-Mar-16	24-Mar-16	341	VDOT/FHWA Issue Clearance for Construction - Acquisitions-Hold Point																																																											
Shop Drawings / Fabrication / Delivery						25-Jan-17, Shop Drawings / Fabrication / Delivery																																																											
0-P-0050	Prepare & Submit Shop Drawings - Bearing Pads	408	20-Apr-15	25-Jan-17	169	Prepare & Submit Shop Drawings - Bearing Pads																																																											
0-P-0060	Review / Approval Shop Drawings - Bearing Pads	30	20-Apr-15	01-Jun-15	156	Review / Approval Shop Drawings - Bearing Pads																																																											
0-P-0090	Prepare & Submit Shop Drawings - Precast Arches (Ped Tunnel)	21	25-Jun-15	15-Jul-15	202	Prepare & Submit Shop Drawings - Precast Arches (Ped Tunnel)																																																											
0-P-0010	Prepare & Submit Shop Drawings - Girders	30	25-Jun-15	06-Aug-15	239	Prepare & Submit Shop Drawings - Girders																																																											
0-P-0070	Fabrication of Bearing Pads	30	14-Jul-15	24-Aug-15	11	Fabrication of Bearing Pads																																																											
0-P-0100	Review / Approval Shop Drawings - Precast Arches (Ped Tunnel)	120	16-Jul-15	05-Jan-16	140	Review / Approval Shop Drawings - Precast Arches (Ped Tunnel)																																																											
0-P-0020	Review / Approval Shop Drawings - Girders	21	07-Aug-15	27-Aug-15	343	Review / Approval Shop Drawings - Girders																																																											
0-P-0110	Fabrication of Precast Arches (Ped Tunnel)	21	25-Aug-15	14-Sep-15	16	Fabrication of Precast Arches (Ped Tunnel)																																																											
0-P-0030	Fabrication of Girders	60	28-Aug-15	20-Nov-15	239	Fabrication of Girders																																																											
0-P-0120	Delivery of Precast Arches (Ped Tunnel)	210	15-Sep-15	11-Jul-16	12	Delivery of Precast Arches (Ped Tunnel)																																																											
0-P-0130	Prepare & Submit Shop Drawings - Ped Bridge	5	23-Nov-15	30-Nov-15	239	Prepare & Submit Shop Drawings - Ped Bridge																																																											
0-P-0080	Delivery of Bearing Pads	90	07-Dec-15	12-Apr-16	190	Delivery of Bearing Pads																																																											
0-P-0140	Review / Approval Shop Drawings - Ped Bridge	5	06-Jan-16	12-Jan-16	140	Review / Approval Shop Drawings - Ped Bridge																																																											
0-P-0150	Fabrication of Ped Bridge	21	13-Apr-16	03-May-16	274	Fabrication of Ped Bridge																																																											
0-P-0040	Delivery of Girders	180	04-May-16	18-Jan-17	190	Delivery of Girders																																																											
0-P-0160	Delivery of Ped Bridge	5	12-Jul-16	18-Jul-16	12	Delivery of Ped Bridge																																																											
0-P-0160	Delivery of Ped Bridge	5	19-Jan-17	25-Jan-17	190	Delivery of Ped Bridge																																																											
Construction						04-May-18																																																											
Phase I - Westbound Lanes						12-Dec-16, Phase I - Westbound Lanes																																																											
Roadway						31-May-16, Roadway																																																											
1-R-0010	Roadway Drainage: Phase I - WB	127	09-Nov-15	31-May-16	129	Roadway Drainage: Phase I - WB																																																											
1-R-0010	Roadway Drainage: Phase I - WB	40	09-Nov-15	14-Jan-16	135	Roadway Drainage: Phase I - WB																																																											

█ Remaining Level of Effort
 █ Actual Work
 █ Critical Remaining Work
 ▶ Summary
█ Actual Level of Effort
 █ Remaining Work
 ◆ Milestone

4.3.1 COST BREAKDOWN SUMMARY

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	\$ <u>4,250,000.00</u>
Construction Services (exclude QA/QC), LS	\$ <u>34,037,000.00</u>
Quality Assurance (QA) (Construction), LS	\$ <u>1,400,000.00</u>
Quality Control (QC) (Construction), LS	\$ <u>1,200,000.00</u>

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): FORTY MILLION EIGHT HUNDRED EIGHTY SEVEN THOUSAND DOLLARS (\$ 40,897,000.00)

Signature:  Date: April 13, 2015

Design-Builder: The LANE Construction Corporation

Vendor No.: L 002

4.3.2 SCHEDULE OF ITEMS

Attachment 4.3.2

The Lane Construction Corporation		Route 7 Widening & Bridge Rehaulitaton over Dulles Toll							
90 Fieldstone Court		Road and Airport Access Highway							
Cheshire, CT 06410		Project No. 007-029-139, P101, R201, C501, B617, B618							
		Bid Date April 21, 2014			Schedule of Items (ver. 4-15-2014)				
This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measures that are consistent with VDOT's list of standard and non-standard item codes. The Schedule of Items shall be used to cost-load the project schedule, which will serve as the basis for progress payments. Any pay items considered for price adjustment shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.									
Sequence No.	VDOT Item Code	Description	Approximate Quantity	Units	Unit Price	Budgeted Cost (\$)	Adjustment Item		
							Asphalt	Fuel	
9000	100	MOBILIZATION	1	LS	\$ 2,000,000.00	\$ 2,000,000.00			
9100	85130	PERFORMANCE & PAYMENT BOND	1	LS	\$ 375,000.00	\$ 375,000.00			
9200	85135*	PROJECT INSURANCE	1	LS	\$ 250,000.00	\$ 250,000.00			
10000	104	PROJECT DESIGN	1	LS	\$ 4,250,000.00	\$ 4,250,000.00			
10100	25595	QUALITY CONTROL	1	LS	\$ 1,200,000.00	\$ 1,200,000.00			
10200	25593	QUALITY ASSURANCE	1	LS	\$ 1,400,000.00	\$ 1,400,000.00			
10300	49013	NS DRY UTILITY RELOCATION COSTS	1	LS	\$ 125,000.00	\$ 125,000.00			
10400	49014*	NS WET UTILITY RELOCATION COSTS	1	LS	\$ 30,000.00	\$ 30,000.00			
10500	49012	NS TEST PITS FOR UTILITY CONFLICTS	1	LS	\$ 150,000.00	\$ 150,000.00			
10700	108	NS ENVIRONMENTAL MONITORING	1	LS	\$ 60,000.00	\$ 60,000.00			
10800	25507	MODIFIED FIELD OFFICE TYPE I	30	MON	\$ 8,000.00	\$ 240,000.00			
10900	101	CONSTRUCTION SURVEYING (CONSTR.)	1	LS	\$ 460,000.00	\$ 460,000.00			
11000	110	CLEARING AND GRUBBING	1	LS	\$ 100,000.00	\$ 100,000.00			
11200	128	NS EXCAVATION UNDERCUT	500	CY	\$ 60.00	\$ 30,000.00		Yes	
11300	120	REGULAR EXCAVATION	49,788	CY	\$ 28.00	\$ 1,394,064.00		Yes	
11400	355	GEOTEXTILE (SUBGRADE STAB.)	750	SY	\$ 2.00	\$ 1,500.00			
11500	529	FLOWABLE BACKFILL	100	CY	\$ 375.00	\$ 37,500.00			
11600	580	NS MODIFIED UNDERDRAIN UD-2	634	LF	\$ 26.00	\$ 16,484.00			
11650	587	UNDERDRAIN UD-3	-	LF	\$ -	\$ -			
11700	588	UNDERDRAIN UD-4	2,875	LF	\$ 7.00	\$ 20,125.00			
11800	591	COMB. UNDERDRAIN CD-2	252	LF	\$ 14.00	\$ 3,528.00			
11900	595	OUTLET PIPE	40	LF	\$ 10.00	\$ 400.00			
11910	596	EW-12	4	EA	\$ 900.00	\$ 3,600.00			
12000	700	POST INSTALLATION INSPECTION	4,641	LF	\$ 2.00	\$ 9,282.00			
12100	1150	15" PIPE	1,157	LF	\$ 160.00	\$ 185,120.00			
12200	1180	18" PIPE	2,005	LF	\$ 180.00	\$ 360,900.00			
12400	1240	24" PIPE	444	LF	\$ 225.00	\$ 99,900.00			
12600	1360	36" PIPE	645	LF	\$ 240.00	\$ 154,800.00			
13200	6600	CLEAN STORM PIPE	4,251	LF	\$ 5.00	\$ 21,255.00			
13500	6151	15" END SECTION ES-1	11	EA	\$ 500.00	\$ 5,500.00			
13600	6181	18" END SECTION ES-1	2	EA	\$ 650.00	\$ 1,300.00			
13700	6241	24" END SECTION ES-1	2	EA	\$ 800.00	\$ 1,600.00			
13900	6361	36" END SECTION ES-1	1	EA	\$ 1,600.00	\$ 1,600.00			
14300	6700	DROP INLETS DI-3B	20	EA	\$ 5,500.00	\$ 110,000.00			
14400	7506	DROP INLET DI-5	1	EA	\$ 4,500.00	\$ 4,500.00			
14402	6750	DROP INLET DI-2B	3	EA	\$ 5,500.00	\$ 16,500.00			
14404	6767	DROP INLET DI-2C	1	EA	\$ 5,700.00	\$ 5,700.00			
14406	6815	DROP INLET DI-3A	2	EA	\$ 4,000.00	\$ 8,000.00			

Attachment 4.3.2

The Lane Construction Corporation			Route 7 Widening & Bridge Rehaulitaton over Dulles Toll						
90 Fieldstone Court			Road and Airport Access Highway						
Cheshire, CT 06410			Project No. 007-029-139, P101, R201, C501, B617, B618						
			Bid Date April 21, 2014		Schedule of Items (ver. 4-15-2014)				
<p>This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measures that are consistent with VDOT's list of standard and non-standard item codes. The Schedule of Items shall be used to cost-load the project schedule, which will serve as the basis for progress payments. Any pay items considered for price adjustment shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.</p>									
Sequence No.	VDOT Item Code	Description	Approximate Quantity	Units	Unit Price	Budgeted Cost (\$)	Adjustment Item		
							Asphalt	Fuel	
14408	6829	DROP INLET DI-3BB	1	EA	\$ 8,500.00	\$ 8,500.00			
14410	6837	DROP INLET DI-3C	3	EA	\$ 4,300.00	\$ 12,900.00			
14412	7508	DROP INLETDI-7	2	EA	\$ 4,800.00	\$ 9,600.00			
14414	8253	DROP INLET DI-10K	1	EA	\$ 5,500.00	\$ 5,500.00			
14416	8906	DROP INLET DI-12	3	EA	\$ 3,600.00	\$ 10,800.00			
14418	8918	DROP INLET DI-12A	2	EA	\$ 5,400.00	\$ 10,800.00			
14420	6740	DROP INLET DI-1	1	EA	\$ 4,500.00	\$ 4,500.00			
14422	6742	DROP INLET DI-1A	1	EA	\$ 5,500.00	\$ 5,500.00			
14500	27550	SWM-1 STRUCTURE	1	EA	\$ 13,500.00	\$ 13,500.00			
14800	9056	MANHOLE MH-2	11	EA	\$ 4,800.00	\$ 52,800.00			
14900	9057	FRAME & COVER MH-1	11	EA	\$ 950.00	\$ 10,450.00			
15000	42772*	ADJUST SANITARY SEWER COVERS	1	EA	\$ 500.00	\$ 500.00			
15200	9148	EROS.CONTR.STONE CL.I EC-1	60	TON	\$ 75.00	\$ 4,500.00		Yes	
15400	10128	AGGR. BASE MATL. TY. I NO. 21B	5,882	TON	\$ 40.00	\$ 235,280.00		Yes	
15500	10610	ASPHALT CONCRETE TY. IM-19.0A	2,717	TON	\$ 110.00	\$ 298,870.00	Yes	Yes	
15700	10628	FLEXIBLE PAVE.PLANING 2"	20,276	SYI	\$ 4.00	\$ 81,104.00		Yes	
15800	10635	ASPHALT CONCRETE TY. SM-9.5A SUP	618	TON	\$ 125.00	\$ 77,250.00	Yes	Yes	
15900	10636	ASPHALT CONCRETE TY. SM-9.5D	2,717	TON	\$ 130.00	\$ 353,210.00	Yes	Yes	
16000	10642	ASPHALT CONCRETE TY. BM-25.0A	6,001	TON	\$ 105.00	\$ 630,105.00	Yes	Yes	
16100	11070	NS SAW-CUT ASPH CONC FULL DEPTH	5,482	LF	\$ 1.50	\$ 8,223.00			
16200	10525	MOT ASPHALT & WIDENING INCIDENTALS	1	LS	\$ 275,000.00	\$ 275,000.00			
16300	12020	STD. CURB CG-2	120	LF	\$ 16.00	\$ 1,920.00			
16400	12022	RAD. CURB CG-2	180	LF	\$ 18.00	\$ 3,240.00			
16420	12030	STD. CURB CG-3	41	LF	\$ 16.00	\$ 656.00			
16440	12032	RAD. CURB CG-3	153	LF	\$ 18.00	\$ 2,754.00			
16500	12600	STD. COMB. CURB & GUTTER CG-6	1,074	LF	\$ 18.00	\$ 19,332.00			
16600	12610	RAD. COMB. CURB & GUTTER CG-6	1,310	LF	\$ 19.00	\$ 24,890.00			
16620	12700	STD. COMB. CURB & GUTTER CG-7	441	LF	\$ 18.00	\$ 7,938.00			
16640	12710	RAD. COMB. CURB & GUTTER CG-7	332	LF	\$ 19.00	\$ 6,308.00			
16800	13108	CG-12 DETECTABLE WARNING SURFACE	157	SY	\$ 300.00	\$ 47,100.00			
17150	13315	GUARDRAIL GR-11	10	EA	\$ 800.00	\$ 8,000.00			
17200	13320	GUARDRAIL GR-2	254	LF	\$ 18.00	\$ 4,572.00			
17300	13331	RADIAL GUARDRAIL GR-2	236	LF	\$ 24.00	\$ 5,664.00			
17400	13345	ALT.BREAKAWAY CABLE TERM.(GR-9)	12	EA	\$ 2,300.00	\$ 27,600.00			
17420	13383	FIXED OBJ. ATTACH. GR-FOA-1, TY. 1	8	EA	\$ 1,900.00	\$ 15,200.00			
17440	13384	FIXED OBJ. ATTACH. GR-FOA-1, TY. II	8	EA	\$ 500.00	\$ 4,000.00			
17550	13460	MEDIAN BARRIER MB-7D	103	LF	\$ 175.00	\$ 18,025.00			
17570	13461	MEDIAN BARRIER MB-7E	270	LF	\$ 180.00	\$ 48,600.00			

Attachment 4.3.2

The Lane Construction Corporation		Route 7 Widening & Bridge Rehaulitation over Dulles Toll							
90 Fieldstone Court		Road and Airport Access Highway							
Cheshire, CT 06410		Project No. 007-029-139, P101, R201, C501, B617, B618							
		Bid Date April 21, 2014				Schedule of Items (ver. 4-15-2014)			
<p>This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measures that are consistent with VDOT's list of standard and non-standard item codes. The Schedule of Items shall be used to cost-load the project schedule, which will serve as the basis for progress payments. Any pay items considered for price adjustment shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.</p>									
Sequence No.	VDOT Item Code	Description	Approximate Quantity	Units	Unit Price	Budgeted Cost (\$)	Adjustment Item		
							Asphalt	Fuel	
17600	13462	MEDIAN BARRIER MB-7F	353	LF	\$ 180.00	\$ 63,540.00			
17700	13515	PEDESTRIAN TUNNELS	250	LF	\$ 6,300.00	\$ 1,575,000.00			
17750		RETAINING WALLS @ RAMP B/C TUNNEL	1	LS	\$ 2,400,000.00	\$ 2,400,000.00			
17850		PEDESTRIAN BRIDGE	3,892	LF	\$ 325.00	\$ 1,264,900.00			
18000	13755	SOUND BARRIER WALL	6,800	SF	\$ 50.00	\$ 340,000.00			
18100	13810	MSE WALLS	9,036	SF	\$ 80.00	\$ 722,880.00			
18300	21215	MEDIAN STRIP MS-2	1,983	LF	\$ 34.00	\$ 67,422.00			
18400	22643	FENCE FE-CL	575	LF	\$ 13.00	\$ 7,475.00			
18500	22653	LINE BRACE UNIT FE-CL	1	EA	\$ 175.00	\$ 175.00			
18600	22663	CORNER BRACE UNIT FE-CL	8	EA	\$ 175.00	\$ 1,400.00			
18700	22677	GATE FE-CL L=14'	1	EA	\$ 950.00	\$ 950.00			
18800	24100	ALLAYING DUST	24	MO	\$ 3,500.00	\$ 84,000.00			
18900	85154	STREET SWEEPING OR VACUUMING	24	MO	\$ 4,900.00	\$ 117,600.00			
19000	24152	TYPE III BARRICADE 8'	14	EA	\$ 150.00	\$ 2,100.00			
19100	24160	CONSTRUCTION SIGNS	1,856	SF	\$ 15.00	\$ 27,840.00			
19300	24278	GROUP 2 CHANNELIZING DEVICES	45,170	DAY	\$ 0.50	\$ 22,585.00			
19400	24279	PORT.CHANGEABLE MESS. SIGN	12	EA	\$ 19,500.00	\$ 234,000.00			
19500	24281	ELECTRONIC ARROW	2,312	HR	\$ 4.00	\$ 9,248.00			
19900	24290	TRAF. BARR. SER. CONC. DOUBLE FACE	4,291	LF	\$ 40.00	\$ 171,640.00			
20000	13604	TEMP IMPACT ATTENUATOR SERVICE	9	EA	\$ 17,000.00	\$ 153,000.00			
20200	50009	MOT SERVICE CREW	30	MO	\$ 26,000.00	\$ 780,000.00			
20400	24430	DEMO. OF PAVEMENT (FLEXIBLE)	6,829	SY	\$ 13.00	\$ 88,777.00			
20700	24600	REMOVE EXISTING GUARDRAIL	893	LF	\$ 3.00	\$ 2,679.00			
20800	27013	TOPSOIL CLASS A	2,540	CY	\$ 20.00	\$ 50,800.00			
20900	27102	REGULAR SEED	1,023	LB	\$ 25.00	\$ 25,575.00			
21000	27103	OVERSEEDING	110	LB	\$ 12.00	\$ 1,320.00			
21100	27215	FERTILIZER(15-30-15)	1	TON	\$ 1,400.00	\$ 1,960.00			
21200	27250	LIME	19	TON	\$ 325.00	\$ 6,045.00			
21300	27290*	TEMP SEEDING	512	LB	\$ 50.00	\$ 25,600.00			
21800	13170*	CONSTRUCTION ENTRANCES	8	EA	\$ 2,600.00	\$ 20,800.00			
21920	27415	CHECK DAM, ROCK TY. II	31	EA	\$ 150.00	\$ 4,650.00			
22300	27451	INLET PROTECTION , TYPE A	11	EA	\$ 300.00	\$ 3,300.00			
22320	27461	INLET PROTECTION, TYPE B	30	EA	\$ 175.00	\$ 5,250.00			
22400	27505	TEMP. SILT FENCE	8,142	LF	\$ 6.00	\$ 48,852.00			
22800	27580	TEMP. SEDIMENT BASIN EXCAVATION	1	CY	\$ 12.00	\$ 12.00			
23000	38953	LANDSCAPING	1	LS	\$ 150,000.00	\$ 150,000.00			
23100	50108	SIGN PANEL	1,459	SF	\$ 32.00	\$ 46,688.00			
23400	50432	SIGN POST STP-1, 2-3/16"	138	LF	\$ 14.00	\$ 1,932.00			

Attachment 4.3.2

The Lane Construction Corporation		Route 7 Widening & Bridge Rehaulition over Dulles Toll							
90 Fieldstone Court		Road and Airport Access Highway							
Cheshire, CT 06410		Project No. 007-029-139, P101, R201, C501, B617, B618							
		Bid Date April 21, 2014		Schedule of Items (ver. 4-15-2014)					
This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measures that are consistent with VDOT's list of standard and non-standard item codes. The Schedule of Items shall be used to cost-load the project schedule, which will serve as the basis for progress payments. Any pay items considered for price adjustment shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.									
Sequence No.	VDOT Item Code	Description	Approximate Quantity	Units	Unit Price	Budgeted Cost (\$)	Adjustment Item		
							Asphalt	Fuel	
23500	50434	SIGN POST STP-1, 2-1/2"	276	LF	\$ 36.00	\$ 9,936.00			
23600	50490	CONCRETE FOUNDATION STP-1	23	EA	\$ 250.00	\$ 5,750.00			
23800	50575	CONC. FOUND. O/H SIGN STRUCTURE	140	CY	\$ 1,500.00	\$ 210,000.00			
23820	50690	REM. SAL. O/H STR. & LGTS. TY. DP-1	2	EA	\$ 12,000.00	\$ 24,000.00			
23825	50702	REM. SAL. O/H STR. & LGTS. TY. CS-1	2	EA	\$ 4,500.00	\$ 9,000.00			
23840	50707	REM. SAL. O/H STR. & LGTS. TY. BM	3	EA	\$ 3,000.00	\$ 9,000.00			
23860	50759	RELOC. EXIST. SIGN PANEL TY. SP-1	17	EA	\$ 225.00	\$ 3,825.00			
23880	50863	REM. DISPOSE SIGN STR. TY. V A	15	EA	\$ 33.00	\$ 495.00			
23900	50901	O/H SIGN STRUCTURE LOC. NO. 1	1	EA	\$ 90,000.00	\$ 90,000.00			
24000	50902	O/H SIGN STRUCTURE LOC. NO. 2	1	EA	\$ 80,000.00	\$ 80,000.00			
24100	50903	O/H SIGN STRUCTURE LOC. NO. 3	1	EA	\$ 140,000.00	\$ 140,000.00			
24120	50904	O/H SIGN STRUCTURE LOC. NO. 4	1	EA	\$ 65,000.00	\$ 65,000.00			
24140	50905	O/H SIGN STRUCTURE LOC. NO. 5	1	EA	\$ 125,000.00	\$ 125,000.00			
24600	51137	INSTALL CONTROLLER	2	EA	\$ 1,600.00	\$ 3,200.00			
24700	51170	ELECTRICAL SERVICE SE-5	2	EA	\$ 1,900.00	\$ 3,800.00			
24800	51184	TRAF. SIG. HEAD SEC 12" LED	53	EA	\$ 250.00	\$ 13,250.00			
24900	51198	PEDESTRIAN ACTUATION PA-2	2	EA	\$ 175.00	\$ 350.00			
25000	51212	PEDESTAL POLE PF-2 12'	2	EA	\$ 600.00	\$ 1,200.00			
25100	51238	CONC. FOUND. SIGNAL POLE PF-8	54	CY	\$ 1,300.00	\$ 70,200.00			
25200	51240	CONC. FOUNDATION PF-2	2	EA	\$ 450.00	\$ 900.00			
25300	51247	CONCRETE FOUND. CF-3	2	EA	\$ 3,200.00	\$ 6,400.00			
25420	51317	SIG. POLE MP-1 20' ONE ARM 30'	1	EA	\$ 12,000.00	\$ 12,000.00			
25440	51327	SIG. POLE MP-1 20' ONE ARM 40'	1	EA	\$ 12,500.00	\$ 12,500.00			
25520	51337	SIG. POLE MP-1 20' ONE ARM 50'	1	EA	\$ 13,500.00	\$ 13,500.00			
25540	51341	SIG. POLE MP-1 20' ONE ARM 55'	1	EA	\$ 15,000.00	\$ 15,000.00			
25600	51347	SIG. POLE MP-1 20' ONE ARM 60'	1	EA	\$ 16,000.00	\$ 16,000.00			
25820	51368	SIG. POLE MP-1 20'TWO ARMS 50'&50'	1	EA	\$ 18,500.00	\$ 18,500.00			
25900	51540	LOOP DETECTOR AMPLIFIER	18	EA	\$ 250.00	\$ 4,500.00			
26100	51600	14/2 CONDUCTOR CABLE	540	LF	\$ 1.00	\$ 540.00			
26200	51607	14/7 CONDUCTOR CABLE	3,360	LF	\$ 2.00	\$ 6,720.00			
26300	51615	14/1 ENCLOSED COND. CABLE	8,478	LF	\$ 1.50	\$ 12,717.00			
26400	51700	14/2 CONDUCTOR CABLE SHIELDED	2,190	LF	\$ 1.00	\$ 2,190.00			
26900	51830	HANGER ASSEMBLY SM-3, ONE WAY	15	EA	\$ 250.00	\$ 3,750.00			
27000	51838	HANGER ASSM.SMB-3, ONE WAY	4	EA	\$ 175.00	\$ 700.00			
27100	51912	SAW CUT 3/8"	2,376	LF	\$ 10.00	\$ 23,760.00			
27200	51913	SAW CUT 5/8"	450	LF	\$ 11.00	\$ 4,950.00			
27300	51951	INSTALL SIGN	11	EA	\$ 625.00	\$ 6,875.00			
27400	51955	TEMPORARY TRAFFIC CONTROL SIGNAL	2	EA	\$ 50,000.00	\$ 100,000.00			

Attachment 4.3.2

The Lane Construction Corporation		Route 7 Widening & Bridge Rehaulition over Dulles Toll							
90 Fieldstone Court		Road and Airport Access Highway							
Cheshire, CT 06410		Project No. 007-029-139, P101, R201, C501, B617, B618							
		Bid Date April 21, 2014			Schedule of Items (ver. 4-15-2014)				
This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measures that are consistent with VDOT's list of standard and non-standard item codes. The Schedule of Items shall be used to cost-load the project schedule, which will serve as the basis for progress payments. Any pay items considered for price adjustment shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.									
Sequence No.	VDOT Item Code	Description	Approximate Quantity	Units	Unit Price	Budgeted Cost (\$)	Adjustment Item		
							Asphalt	Fuel	
27700	52404	PEDESTRIAN SIGNAL HEAD SP-9	2	EA	\$ 550.00	\$ 1,100.00			
27800	55020	2 CONDUCTOR CABLE	25,000	LF	\$ 2.50	\$ 62,500.00			
27900	55060	6 CONDUCTOR CABLE	1,115	LF	\$ 1.40	\$ 1,561.00			
28105	55143	CONC. FOUND. HIGH MAST LIGHT. POLE	81	CY	\$ 1,400.00	\$ 113,400.00			
28110	55198	LIGHTING POLE LP-3 TYPE 4	9	EA	\$ 20,000.00	\$ 180,000.00			
28115	55348	ELECT. SERVICE SE-9 TYPE A	1	EA	\$ 12,000.00	\$ 12,000.00			
28120	55355	CONTROL CENTER CCW-1 TYPE H	1	EA	\$ 14,000.00	\$ 14,000.00			
28125	55516	LUMIN. 150 WATT H.P.S. UNDERBRIDGE	24	EA	\$ 2,400.00	\$ 57,600.00			
28130	55524	HIGH MAST LUM.ASSEM.3-750 WATT H.P.S.	3	EA	\$ 13,000.00	\$ 39,000.00			
28135	55525	HIGH MAST LUM.ASSEM.4-750 WATT H.P.S.	6	EA	\$ 14,500.00	\$ 87,000.00			
28600	55580	JUNCTION BOX JB-R1	15	EA	\$ 1,800.00	\$ 27,000.00			
28700	55581	JUNCTION BOX JB-R2	3	EA	\$ 2,000.00	\$ 6,000.00			
28800	55586	JUNCTION BOX JB-S1	5	EA	\$ 1,000.00	\$ 5,000.00			
28900	55587	JUNCTION BOX JB-S2	10	EA	\$ 1,400.00	\$ 14,000.00			
29000	55588	JUNCTION BOX JB-S3	2	EA	\$ 1,600.00	\$ 3,200.00			
29100	56014	ELECT. SER. GRD. ELECTRODE(10')	15	EA	\$ 150.00	\$ 2,250.00			
29150	56020	1" CONDUIT	20	LF	\$ 4.00	\$ 80.00			
29200	56022	1" METAL CONDUIT	260	LF	\$ 10.00	\$ 2,600.00			
29300	56026	1 1/4" METAL CONDUIT	60	LF	\$ 12.00	\$ 720.00			
29400	56030	2" CONDUIT	1,990	LF	\$ 4.50	\$ 8,955.00			
29500	56034	3" CONDUIT	200	LF	\$ 5.50	\$ 1,100.00			
29600	56038	4" CONDUIT	40	LF	\$ 6.00	\$ 240.00			
29650	56051	BORED CONDUIT 3"	3,600	LF	\$ 40.00	\$ 144,000.00			
29700	56052	BORED CONDUIT 4"	610	LF	\$ 65.00	\$ 39,650.00			
29800	56200	TRENCH EXCAVATION ECI-1	2,405	LF	\$ 7.00	\$ 16,835.00			
29900	56205	TEST BORE	22	EA	\$ 1,500.00	\$ 33,000.00			
29905	56210	UNINTERUPTABLE POWER SUPPLY	2	EA	\$ 7,000.00	\$ 14,000.00			
29910	56215	REMOVE EXISTING SIGNAL EQUIPMENT	2	EA	\$ 6,000.00	\$ 12,000.00			
29915	56220	PEDESTRIAN UNDERPASS LIGHTING	4	EA	\$ 15,000.00	\$ 60,000.00			
29920	56225	RELOCATE EXIST. CCTV CAMERA	1	EA	\$ 25,000.00	\$ 25,000.00			
29925	24160	CONSTRUCTION SIGNS	1,400	SF	\$ 32.00	\$ 44,800.00			
30000	54075	TY.B CL.VI PAVE. LINE MARK. 4"	8,455	LF	\$ 4.00	\$ 33,820.00			
30100	54079	TY.B CL.VI PAVE. LINE MARK. 4" CONTRAST	1,735	LF	\$ 7.00	\$ 12,145.00			
30200	54077	TY.B CL.VI PAVE. LINE MARK. 8"	2,441	LF	\$ 6.00	\$ 14,646.00			
30300	54072	TY.B CL.VI PAVE. LINE MARK. 8" CONTRAST	886	LF	\$ 10.00	\$ 8,860.00			
30400	54081	TY.B CL.VI PAVE. LINE MARK. 24"	1,665	LF	\$ 15.00	\$ 24,975.00			
30500	54083	TY.B CL.VI PAVE. LINE MARK. 24" CONTRAST	729	LF	\$ 18.00	\$ 13,122.00			
30600	54510	CONSTR.PAVE.MARK.(TY.D,CL.I)	33,004	LF	\$ 1.50	\$ 49,506.00			

Attachment 4.3.2

The Lane Construction Corporation		Route 7 Widening & Bridge Rehaulitation over Dulles Toll							
90 Fieldstone Court		Road and Airport Access Highway							
Cheshire, CT 06410		Project No. 007-029-139, P101, R201, C501, B617, B618							
		Bid Date April 21, 2014		Schedule of Items (ver. 4-15-2014)					
This Schedule of Items shall identify the total material quantities and costs of each proposed pay item, using item codes and units of measures that are consistent with VDOT's list of standard and non-standard item codes. The Schedule of Items shall be used to cost-load the project schedule, which will serve as the basis for progress payments. Any pay items considered for price adjustment shall be identified. The values and quantities shall be clearly supported by the escrowed pricing documents.									
Sequence No.	VDOT Item Code	Description	Approximate Quantity	Units	Unit Price	Budgeted Cost (\$)	Adjustment Item		
							Asphalt	Fuel	
30620	54466	CONSTR.PAVE.MARK.(TY.E)	33,004	LF	\$ 3.00	\$ 99,012.00			
30640	54550	CONSTR.PAVE.MARK.(TY.F CL.I)	13,276	LF	\$ 0.50	\$ 6,638.00			
30700	54240	TEMP RAISED PAVT MARKERS	756	EA	\$ 10.00	\$ 7,560.00			
30900	54217	SNOW PLOW. RAISED PAVE. MARK.ASPH.CONC.	206	EA	\$ 40.00	\$ 8,240.00			
30920	54218	SNOW PLOW. RAISED PAVE. MARK. HYD. CONC.	69	EA	\$ 40.00	\$ 2,760.00			
31000	54105	ERAD. OF EXIST.PAVE.MARKING	4,200	LF	\$ 1.00	\$ 4,200.00			
31100	54300	PAVE.MESS.MARK.ELONG.ARROW SIN	23	EA	\$ 225.00	\$ 5,175.00			
31200	54310	PAVE.MESS.MARK.ELONG.ARROW DOUBLE	1	EA	\$ 290.00	\$ 290.00			
31300	54400	PAVEMENT MESSAGE MARK. "ONLY"	2	EA	\$ 500.00	\$ 1,000.00			
31600	54402	NS PAVE. MESSAGE MARK. "EZPASS"	2	EA	\$ 3,000.00	\$ 6,000.00			
31800	55586	JUNCTION BOX JB-S1	1	EA	\$ 1,100.00	\$ 1,100.00			
31900	55588	JUNCTION BOX JB-S3	1	EA	\$ 1,400.00	\$ 1,400.00			
32000	60404	CONCRETE CLASS A4 SUPERSTR	2,018	CY	\$ 950.00	\$ 1,917,100.00		Yes	
32100	60450	CONC CL. A4 BRIDGE APPR SLAB	385	CY	\$ 650.00	\$ 250,250.00			
32200	60452	REINF STEEL BRIDGE APPR SLAB	63,650	LB	\$ 1.40	\$ 89,110.00			
32300	60490	BRIDGE DECK GROOVING	7,229	SY	\$ 4.00	\$ 28,916.00			
32400	61730	STRUCTURAL STEEL BEAMS	2,150,000	LB	\$ 1.80	\$ 3,870,000.00			
32500	61731	ERECT STRUCTURAL STEEL	1	LS	\$ 700,000.00	\$ 700,000.00			
32800	62046	BRIDGE RAILING BR-27C-13 4-RAIL	874	LF	\$ 550.00	\$ 480,700.00			
32900	62048	BRIDGE RAILING BR-27C-12 1-RAIL	874	LF	\$ 275.00	\$ 240,350.00			
33000	64011	STRUCTURE EXCAVATION	7,468	CY	\$ 40.00	\$ 298,720.00		Yes	
33100	13810	TEMPORARY SHEETING/SHORING	960	SF	\$ 70.00	\$ 67,200.00			
33200	64100	DYNAMIC PILE TEST	4	EA	\$ 2,300.00	\$ 9,200.00			
33300	64114	H-PILE 14x73 & 10x42	3,457	LF	\$ 55.00	\$ 190,135.00			
33400	64775	H-PILE 14"&10" POINTS	60	EA	\$ 225.00	\$ 13,500.00			
33450	64020	DRILLED SHAFTS - ROUTE 7 BRIDGES	1,155	LF	\$ 450.00	\$ 519,750.00			
33500	65013	CONCRETE CLASS A3 SUBSTR	794	CY	\$ 1,300.00	\$ 1,032,200.00		Yes	
33510	69500	CRACK REPAIRS BY EPOXY INJECTION	700	LF	\$ 35.00	\$ 24,500.00			
33520	69500	CONC SUBSTRUCTURE SURFACE REPAIR	300	SY	\$ 425.00	\$ 127,500.00			
33600	65200	REINF. STEEL (BLACK) - ALL PROJECT	426,800	LB	\$ 1.40	\$ 597,520.00			
33700	65204	CORR RESIST RESTEEL CL. I&3 ALL BRIDGE	474,800	LB	\$ 4.30	\$ 2,041,640.00			
34000	67090	NS PED FENCE - DECORATIVE STEEL WIRE 7'-GALVANIZED	874	LF	\$ 260.00	\$ 227,240.00			
34020	68013	NS MEDIAN BARRIER, 54" BPPS	1,339	LF	\$ 440.00	\$ 589,160.00			
34100	67900	DISM&REM EXIST STR NO. 189-08	1	LS	\$ 1,099,917.00	\$ 1,099,917.00			
		BID TOTAL				\$ 40,887,000.00			

4.3.3 PROPOSED MONTHLY PAYMENT SCHEDULE

The Lane Construction Corporation		Route 7 Widening & Bridge Rehaulitaton over Dulles Toll	
90 Fieldstone Court		Road and Airport Access Highway	
Cheshire, CT 06410		Proposed Monthly Payment Schedule	
		Project No. 007-029-139, P101, R201, C501, B617, B618	
Month	Year	Monthly Draw	Cumulative Draw
June	2015	\$ 1,263,000	\$ 1,263,000
July	2015	\$ 555,000	\$ 1,818,000
August	2015	\$ 585,000	\$ 2,403,000
September	2015	\$ 822,000	\$ 3,225,000
October	2015	\$ 906,000	\$ 4,131,000
November	2015	\$ 2,238,000	\$ 6,369,000
December	2015	\$ 1,647,000	\$ 8,016,000
January	2016	\$ 1,141,000	\$ 9,157,000
February	2016	\$ 532,000	\$ 9,689,000
March	2016	\$ 1,001,000	\$ 10,690,000
April	2016	\$ 790,000	\$ 11,480,000
May	2016	\$ 893,000	\$ 12,373,000
June	2016	\$ 1,314,000	\$ 13,687,000
July	2016	\$ 3,626,000	\$ 17,313,000
August	2016	\$ 1,395,000	\$ 18,708,000
September	2016	\$ 627,000	\$ 19,335,000
October	2016	\$ 1,009,000	\$ 20,344,000
November	2016	\$ 258,000	\$ 20,602,000
December	2016	\$ 661,000	\$ 21,263,000
January	2017	\$ 846,000	\$ 22,109,000
February	2017	\$ 390,000	\$ 22,499,000
March	2017	\$ 3,019,000	\$ 25,518,000
April	2017	\$ 1,128,000	\$ 26,646,000
May	2017	\$ 2,236,000	\$ 28,882,000
June	2017	\$ 2,025,000	\$ 30,907,000
July	2017	\$ 857,000	\$ 31,764,000
August	2017	\$ 1,197,000	\$ 32,961,000
September	2017	\$ 1,002,000	\$ 33,963,000
October	2017	\$ 1,364,000	\$ 35,327,000
November	2017	\$ 967,000	\$ 36,294,000
December	2017	\$ 926,000	\$ 37,220,000
January	2018	\$ 193,000	\$ 37,413,000
February	2018	\$ 164,000	\$ 37,577,000
March	2018	\$ 1,295,000	\$ 38,872,000
April	2018	\$ 1,861,000	\$ 40,733,000
May	2018	\$ 154,000	\$ 40,887,000

4.3.4 PRICE ADJUSTMENT INFORMATION

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:

$$A = Q \times \%AC \times IC$$

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)

$$7,500 \text{ Tons SM-12.5A} \times 6.1\% \times -\$15.00/\text{Ton} = -\$6,862.50 \text{ Adjustment Amount}$$

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)

$$10,000 \text{ Tons BM-25.0A} \times 5.2\% \times \$45.00/\text{Ton} = +\$23,400.00 \text{ Adjustment Amount}$$

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. Ruffilling	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 \$ N/A 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: N/A

SIGNATURE: N/A

N/A
(Firm or Corporation)

N/A
(Vendor No.)

**EXHIBIT 6.3 (c)
ADJUSTMENT FOR FUEL**

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
OPTIONAL ADJUSTMENT FOR FUEL
DESIGN-BUILD PROJECTS**

June 30, 2011
(Revised) 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: April 13, 2015

Signature: 

Design-builder: The LANE Construction Corp.

Vendor No.: L 002

**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.

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:

$$A = B \times P \times Q$$

- 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

$$B = \$0.2816$$

$$P = (161.1 - 139.6) / 139.6 - 0.10 = 0.054$$

$$Q = 450,000 \text{ lb.}$$

$$A = 0.2816 \times 0.054 \times 450,000$$

$$A = \$6,842.88 \text{ pay adjustment to Design-Builder}$$

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:

$$A = B \times P \times Q$$

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

$$B = \$0.2816$$

$$P = (156.6 - 136.3)/156.6 - 0.10 = 0.030$$

$$Q = 450,000 \text{ lb.}$$

$$A = 0.2816 \times 0.030 \times 450,000$$

$$A = \$3,801.60 \text{ credit to Department}$$

MASTER LISTING

STANDARD BID ITEMS ELIGIBLE FOR STEEL PRICE ADJUSTMENT

March 18, 2009

BLS Series I. D.

ITEM NUMBER	ITEM DESCRIPTION	UNITS	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 ENCASUREMENT 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: April 13, 2015

Signature: 

Design-Builder: The LANE Construction Corporation

Vendor No.: L 002

4.3.5 PROPOSAL GUARANTY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSAL GUARANTY

KNOW ALL MEN BY THESE PRESENTS, THAT WE The Lane Construction Corporation As
principal, and Zurich American Insurance Company and Fidelity and Deposit
Company of Maryland and Liberty Mutual Insurance Company Surety, are held and firmly bound unto the
Commonwealth of Virginia as obligee, in the amount of FIVE PERCENT OF THE DOLLAR VALUE OF THE
BID, lawful money of the United States of America, for the payment of which, well and truly to be made, we
bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly
by these presents.

SIGNED, sealed and dated this 30th Day of March, 20 15

WHEREAS, the above said principal is herewith submitting its proposal for: Route 7 over Dulles Airport Toll
PROJECT NUMBER: 0007-029-139,C501 Road (UPC 82135), Fairfax
County, VA

NOW, THEREFORE, the condition of the above obligee is such, that if the aforesaid principal shall be
awarded the contract upon said proposal and shall within the time specified in the Specifications after the
notice of such award enter into a contract and give bond for the faithful performance of the contract, then this
obligation shall be null and void; otherwise to remain in full force and effect and the principal and surety will
pay unto the obligee the difference in money between the amount of the bid of the said principal and the
amount for which the obligee may legally contract with another party to perform the said work if the latter
amount be in excess of the former; but in no event shall the liability exceed the penal sum hereof.

The Lane Construction Corporation
(Principal*)

Zurich American Insurance Company and
Fidelity and Deposit Company of Maryland
(Surety Company)

By: Jim M Ferrell
(Officer, Partner or Owner) (Seal)

By: Theresan E. Rowedder
(Attorney-in-Fact**) (Seal)
Theresan E. Rowedder, Attorney-in-Fact

JIM M. FERRELL
EXEC VICE PRESIDENT
& CFO

One Federal Street, 20th Floor, Boston, MA 02110
(Address)

By: _____
(Officer, Partner or Owner) (Seal)

By: Liberty Mutual Insurance Company
(Surety Company)

(Principal*)

Theresan E. Rowedder
(Attorney-in-Fact**) (Seal)
Theresan E. Rowedder, Attorney-in-Fact

By: _____
(Officer, Partner or Owner) (Seal)

By: One Federal Street, 20th Floor, Boston, MA 02110
(Address)

*Note: If the principal is a *joint venture*, each party thereof must be named and execution made by same hereon. If there is more than
one surety to the bid bond, each surety must be named and execution shall be made by same hereon.

Electronic Bid Only: In lieu of completing the above section of the Contract Performance Bond, the Principal shall file an Electronic
Bid Bond when bidding electronically. By signing below the Principal is ensuring the identified electronic bid bond has been
executed and the Principal and Surety are firmly bound unto the Commonwealth of Virginia under the same conditions of the bid
bond as shown above.

Electronic Bid Bond ID# _____ Company/Bidder Name _____ Signature and Title _____

**Attach copy of Power of Attorney

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **THOMAS O. MCCLELLAN, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Kevin A. WHITE, Mark P. HERENDEEN, Jean CORREIA, Maria CHAVES, Theresan E. ROWEDDER, Bryan HUFT, Jeffrey HENDRICKS and Jane GILSON, all of Boston, Massachusetts, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 30th day of May, A.D. 2013.

ATTEST:

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



By: *Eric D. Barnes*
Assistant Secretary
Eric D. Barnes

Thomas O. McClellan
Vice President
Thomas O. McClellan

State of Maryland
City of Baltimore

On this 30th day of May, A.D. 2013, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **THOMAS O. MCCLELLAN, Vice President, and ERIC D. BARNES, Assistant Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Maria D. Adamski



Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2015

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 30TH day of MARIN, 2015.



Geoffrey Delisio

Geoffrey Delisio, Vice President

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 6520239

American Fire and Casualty Company
The Ohio Casualty Insurance Company

Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Brian Driscoll; Bryan Huft; Jane Gilson; Jean Correia; Jeffrey Hendricks; Kevin A. White; Maria Chaves; Mark P. Herendeen; Theresan E. Rowedder

all of the city of Boston, state of MA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 8th day of April, 2014.



American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 8th day of April, 2014, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Gregory W. Davenport, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 30th day of March, 2015.



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



90 Fieldstone Court
 Cheshire, CT 06410-1212
 203-235-3351
 203-237-4280 Fax
www.laneconstruct.com

Resolution unanimously approved by the Board of Directors of The Lane Construction Corporation effective January 1, 2015:

VOTED: That effective January 1, 2015, rescinding all previous authorizations, the following be and hereby are authorized to sign proposals and bid bonds on behalf of this Corporation:

- R. E. Alger, President & Chief Executive Officer
- D. P. Dobbs, Executive Vice President Administration & Secretary
- J. M. Ferrell, Executive Vice President & Chief Financial Officer
- K. D. Junco, Chief Operating Officer & Executive Vice President
- D. F. Benton, Executive Vice President Operational Services
- M. M. Cote, Executive Vice President & Chief Development Officer
- J. S. Cruickshank, Executive Vice President & General Counsel
- V. J. Caiola, Vice President, Treasurer & Assistant Secretary
- A. M. Falsey, Tax Director, Assistant Treasurer & Assistant Secretary
- J. P. Lark, Senior Vice President & Assistant Secretary
- D. J. Rankin, Senior Vice President & Assistant Secretary
- M. A. Schiller, Senior Vice President & Assistant Secretary
- T. R. Larson, Vice President Engineering
- M. J. Tomkalski, Vice President & Controller
- R. A. Bean, Senior District Manager
- M. R. Hindt, Senior District Manager
- J. O. Hughes, Senior District Manager
- D. A. Luzier, Senior District Manager
- R. A. McDonough, Senior District Manager
- R. L. Portley, Senior District Manager
- J. G. Brown, District Manager
- M. C. Cuilik, District Manager
- C. M. Curran, District Manager
- D. J. Eudy, District Manager
- G. A. Hassfurter, District Manager
- G. F. Jerabek, District Manager
- R. P. Lane, District Manager
- J. P. McLearn, District Manager
- D. B. O'Connor, District Manager
- D. J. Phillips, District Manager
- K. K. Prince, District Manager
- J. F. Roddy, District Manager
- W. H. Tomlinson, District Manager
- K. P. Cates, Assistant District Manager
- C. E. DuBois, Assistant District Manager
- K. D. Kennedy, Assistant District Manager
- J. E. Kristensen, Assistant District Manager
- T. C. Meador, Assistant District Manager
- E. G. Ritchie, Assistant District Manager
- J. A. Sherman, Assistant District Manager
- M. W. Wright, Assistant District Manager
- D. W. Grey, Senior National Pursuit Manager
- S. A. Leach, Director, Quality
- R. Burton, Senior Plant Manager
- R. W. Herzig, Senior Plant Manager
- D. M. Horton, Senior Plant Manager
- J. F. Rauer, Jr., Senior Plant Manager
- B. A. Regner, Senior Plant Manager

I hereby certify that the above is a true copy of the Resolution unanimously approved by the Board of Directors of The Lane Construction Corporation effective January 1, 2015, and that the above vote has not been rescinded and stands in full force and effect as of this date.

March 31, 2015
 Date

Ann M. Falsey
 Assistant Secretary, THE LANE CONSTRUCTION CORPORATION

State of Connecticut
 County of New Haven

march 31, 2015
 Date

Personally appeared before me, Ann M. Falsey, Assistant Secretary, and made oath that the above is a true copy of the December 4, 2014 meeting minutes of the Board of Directors of The Lane Construction Corporation.

An Equal Opportunity Employer M/F/D/V

Patricia A. Delekta
 Patricia A. Delekta, Notary Public
 My Commission Expires July 31, 2019

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

PROJECT: 0007-029-139, P101, R201, C501, B617, B618

FHWA: BR-5401 (738)

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 Fairfax County, VA, this 13th day of April, 20 15

County (City), STATE

The LANE Construction Corporation

(Name of Firm)

By: [Signature]

(Signature)

Sr. District Manager

Title (print)

STATE of Virginia

COUNTY (CITY) of Fairfax County

To-wit:

I Michael L. Howes, a Notary Public in and for the State and

County(City) aforesaid, hereby certify that this day R. A. McDonough

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 13th day of April, 20 15

[Signature]

My Commission expires May 31, 2016

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 _____

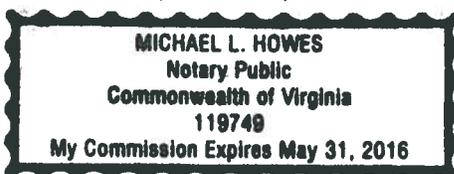
County (City), STATE

(Name of Firm)

By: _____

(Signature)

Title (print)



**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
AFFIDAVIT**

PROJECT No.: 0007-029-139, P101, R201, C501, B617, B618

FHWA Project No.: BR-5401 (738)

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
<u>VTCA</u>	<u>Richmond, VA</u>
<u>ARTBA</u>	<u>Washington, D.C.</u>
<u>AGC of America</u>	<u>Washington, D.C.</u>

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.:

Form C-105
page 2

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 Fairfax County, VA , this 13~~th~~ day of April , 20 15
County (City), STATE

The LANE Construction Corporation By: *[Signature]* Sr. District Manager
(Name of Firm) (Signature) Title (print)

STATE of Virginia COUNTY (CITY) of Fairfax County

To-wit:

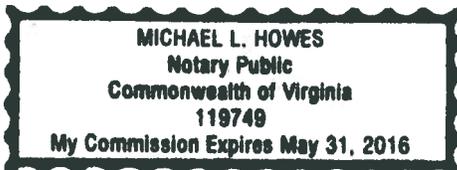
I Michael L. Howes , a Notary Public in and for the State and
County(City) aforesaid, hereby certify that this day R. A. McDonough

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 13th day of April , 20 15

[Signature] My Commission expires May 31, 2016

Notary Public



LANE

14500 AVION PARKWAY
SUITE 200
CHANTILLY, VA 20151
703.222.5670

www.laneconstruct.com