Proposal Submittal
Letter of Submittal and Attachments

A DESIGN-BUILD PROJECT

Odd Fellows Road Interchange at U.S. Route 29/460 and Road Improvements

Along U.S. Route 29/460
From: 0.6 Miles East of Candlers Mountain Road (Route 501 North)
To: 0.5 Miles West of Campbell Avenue (Business Route 460/501)

Along Odd Fellows Road
From: Top Ridge Road (Frontage Route 794)
To: Lynchburg Expressway (Business Route 29/501)

City of Lynchburg, Virginia

December 11, 2014
4.1 Letter of Submittal
December 11, 2014

Mr. Kevin Reichert, P.E.
Alternate Project Delivery Office
Virginia Department of Transportation (VDOT)
1401 East Broad Street
Richmond, Virginia 23219

Dear Mr. Reichert:

G.A. & F.C. Wagman, Inc. (Wagman) is pleased to submit our Letter of Submittal for this VDOT Design-Build Project for Odd Fellows Road Interchange at U.S. Route 29/460 and Road Improvements project.

In accordance with the Section 4.1 requirements of the Request for Proposal, we offer the following information for review, with additional information provided in the attachments.

4.1.2.1 Offerors’s Intent
Wagman intends to enter into a contract with VDOT for the Project in accordance with the terms of this RFP.

4.1.2.2 Offer’s Term
Wagman’s Letter of Submittal and Attachments will remain in full force and effect for one hundred twenty (120) days following the submission of this Technical Proposal to VDOT.

4.1.2.3 Point of Contact
Mr. David Lyle, V.P., Division Manager will serve as Point of Contact for Wagman. Mr. Lyle can be reached at 5911 Nena Grove Lane, Chester, VA 23831; T 804-778-4444 / F 804-778-4929 ; M 804-731-3707; dwlyle@wagman.com.

4.1.2.4 Principal Officer for the Offeror
Mr. Greg M. Andricos, PE, Executive V.P. will serve as the Principal Officer for Wagman. Mr. Andricos can be reached at 3290 N. Susquehanna Trail, York, PA 17406; T 717-764-8521 x292 / F 717-764-2799; M 717-825-8688 / gmandricos@wagman.com.

4.1.2.5 Final Completion Date
August 2, 2018

4.1.2.6 DBE Participation Goal
Wagman is committed to achieving a three percent (3%) DBE participation goal for the entire value of the contract.

4.1.3 Proposal Payment Agreement
An executed Proposal Payment Agreement form (Attachment 4.1.3(a)) is located in the Appendix portion of this proposal.
4.1.4 Debarment Forms
Team members have executed Certification Regarding Debarment Forms Attachment 11.8.6(a) and 11.8.6(b). All of these forms are in the Appendix portion of the proposal.

We thank you for the opportunity to submit our Letter of Submittal. We are confident that our DBT will deliver this project for VDOT and project stakeholders in a high quality, timely, and economical manner.

Very truly yours,

G.A. & F.C. WAGMAN, INC.

[Signature]

David W. Lyle, Vice President, Division Manager
4.2 Attachments to Letter of Submittal
4.2 Attachments to the Letter of Submittal

4.2.1 Accuracy of SOQ Submittal

The information contained in the Statement of Qualifications (SOQ) remain true and accurate in accordance with Section 11.4. No changes have been made to the organizational structure, Lead Contractor, Lead Designer, Key Personnel or other individuals identified in the SOQ.

4.2.2 Organizational Chart and Narrative

The DBT is led by qualified and capable professionals with local-area knowledge and strong DB experience. The DBT’s identified personnel have relevant experience on transportation projects (including DB) in roles similar to those proposed on this project team. The DBT structure employs best management practices, emphasizes intra-team communications, and empowers team members to solve issues at the most appropriate organizational level.

Our proposed key staff members consisting of a DBPM, Independent QAM, DM and CM who average nearly 20 years of design and construction knowledge including significant experience with VDOT, the Lynchburg District, and innovative project delivery methods. Our DBPM, Mr. David Lyle (Wagman), and DM, Mr. Rodney Hayzlett, PE (JMT), teamed to design and construct the $15.5M Route 61 Bridge Replacement over New River, Route 460 and Old Virginia Avenue DB for VDOT. Our proposed QAM, Dale Grigg, PE, with McDonough Bolyard Peck, Inc. (MBP) and CM, Mr. Paul Phillips (Wagman) have a previous working relationship in the Lynchburg District. Paul was the Project Superintendent on two of the Madison Heights Bypass projects that were in the VDOT Lynchburg District constructed from 1998 to 2001. At the time these projects were being built, Paul worked with Dale who was the Lynchburg District Construction Engineer for VDOT. Additionally, Dale worked at the Lynchburg District in various positions including District Material Engineer, District Construction Engineer, and as Acting District Administrator from 1987 to 2007.

*The Organizational Chart depicted on the following page contains the same personnel and subconsultant firms that were presented in the SOQ.*

It depicts the “chain of command” while identifying major functions to be performed by the DBT. The organizational chart also shows the reporting relationships of Key Personnel responsible for the management of design, construction, and QA/QC activities. The DBT has clearly defined roles and relationships.

Following the organizational chart is a narrative describing the functional relationships among participants for the organizational chart.
Odd Fellows Road Interchange at U.S. Route 29/460 and Roadway Improvements
A Design-Build Project RFQ No.: C00105515DB78

4.2 Attachments to the Letter of Submittal

Stakeholders
- City of Lynchburg
- Campbell County
- Liberty University
- Norfolk Southern RR
- Greater Lynchburg Transit Company
- Utilities
- Emergency Services
- Property Owners
- Local Businesses

Design Manager
- Rodney Hayzlett, PE

Design QA
- Robert Reed, PE
- Design QA Staff

Design QC
- Lee Prietas, PE
- Design QC Staff

Independent QC Team
- QCM: Tommy Hall
- QC: Staff Inspectors
- Lab./Testing: AMRL/CCRL Cert.

Independent QA Team
- QAM: Dale Grigg, PE
- QA: Staff Inspectors
- Lab./Testing: AMRL/CCRL Cert.

Public Relations
- Susan Sharp

Environmental Team
- Env. Mgr.: Ian Frost, AICP, CEP
- Permitting: Carter Teague, WPIT
- Env. Compl.: Doug Fraser, PG

Design Team
- Highways: Jeffrey Cronin, PE
- Structures: Trip Phaup, PE
- Water Res.: Robert Wassum, PE
- Traffic Engr.: Randy Boice, PE
- Amy Morris, PE, PTOE
- Utility: Dave Malinoski, PE
- ROW/Fee Appraisers: Glen “Lee” Cooper, SR/WA
- Richard Stuchell
- Review Appraisers: Philip Schwartz
- LA/Compl. Streets: Jon Conner, PLA, LEED AP
- Geotech.: Michael Leffler, PE
- Paul Zhang, PE
- Drilling: Michael Zrnuda, LS, PE

Construction Team
- Highway Superintendent: Brad McClung
- Utility Superintendent: Carl Tillotson
- Geotechnical Manager: Charles Carey, PE
- Grading Foreman: Walter Stinnett
- Traffic/MOT Manager and Railroad Coordinator: Ricky Allen

Key
- = Key Personnel
- = Johnson, Miriman & Thompson, Inc.
- = EEE Consulting, Inc.
- = Independent Construction QA/QC
- = Direct Reporting Line
- = Line of Communication
- = Holds DEQ RLD
- = Holds VDOT ESCCC
- = Holds VDOT Work Zone Traffic Control Intermediate and/or Advance Level

Odd Fellows Road Interchange at U.S. Route 29/460 and Roadway Improvements
A Design-Build Project RFQ No.: C00105515DB78

RFP | Page 4
### Organizational Chart Narrative

**Reporting Relationships of Key Personnel** - The DBT organization is optimized to present clear, logical, reporting relationships to manage the design and construction of the Odd Fellows Road Improvement projects, while maintaining distinct responsibilities and project controls. The project organization is structured to facilitate timely and effective communication among all personnel, regardless of position. Practical lines of communication running between design, construction, and the independent QA/QC support staff, along with direct reporting to the DBPM allows all levels to function as a team. Our organizational structure is a successful model implemented by Wagman and JMT on similar DB projects.

The organizational chart further depicts that the main production staff interfaces with the DBPM will be comprised of the **Design Manager (DM)**, the **Independent Quality Assurance Manager (QAM)** and the **Construction Manager (CM)** allowing effective communication among the Key Personnel. The DM, the CM, and the QAM will support the DBPM in their respective areas of expertise. The DBPM will rely on the DM, the CM, and the QAM to effectively coordinate their individual Team elements and will use these Key Personnel to communicate to all Team members during design and construction.

**DBPM** - The DBT organizational chart starts with VDOT at the pinnacle of the hierarchy. The DBT recognizes that all final decisions rest with VDOT. The DBT’s primary interface with VDOT will be through the **DBPM, Mr. David Lyle**. In accordance with sound management practices and VDOT guidance, the DBPM serves in the most crucial role, one that defines success for all aspects of the project. The DBPM is the principal conduit for communication with VDOT, and exercises direct control over the design, construction, quality assurance and public outreach functions.

One feature of the DBT proposal is the independence of the key support staff and specialty professionals whose roles are to assure that the highest levels of quality and safety are maintained throughout design and construction phases of the project. DBT members have years of experience with integrated quality and safety programs that have been refined and incorporated in best management practices for delivering innovative and award-winning DB projects including the $112.5M Fairfax County Parkway Extension.

**Independent QAM** - McDonough Bolyard Peck, Inc. (MBP) is the Team’s Independent Construction QA firm for this project. MBP commits **Mr. Dale Grigg, PE to serve as the Independent QAM**. He will report directly to the DBPM and attend all project meetings. Mr. Grigg will oversee a QA staff that will include a lead senior inspector, project inspectors, and a records administrator. Additionally, he will oversee the activities of the independent AMRL/CCRL certified off-site materials sampling and testing laboratory, **ECS Mid-Atlantic, LLC (ECS)**. The QAM will have the authority to suspend field activities in the event QA tasks or issues are not complete or construction work is found to be non-conforming.

**DM** - The DBT organizational chart clearly defines that all design disciplines for the project will report to the **DM, Mr. Rodney Hayzlett, PE**. The approach to staffing these disciplines hinges on the concept of matching the requirements of this project to the experience and depth of knowledge of staff best suited to fulfill these specific requirements. While the majority of the disciplines will be covered by JMT professionals, the Design Team does include several specialty subconsultants who will augment JMT and report directly to the DM. The DM will report directly to the DBPM. During the design phase of the project, the DM will interface directly with each of the discipline leaders, whether that individual is a JMT staff member or a subconsultant contracted with JMT. Rodney will also establish and oversee the QA/QC program for design. The responsibilities of the Design QA/QC Team will be separated between QA & QC.

**CM** – **Mr. Paul Phillips** is the CM for the project who will oversee all major construction activities and will manage the Construction Quality Control (CQC) program. The Superintendents, Traffic/MOT Manager, and Construction Quality Control Manager (QCM) from NXL Construction Services, Inc. will all report directly to the CM. His responsibilities will include CPM schedule development and updating, resource planning and...
allocation (materials, labor, and equipment), budgetary and cost control, subcontractor scheduling, MOT, ESC, and shop drawing review. The CM will report directly to the DBPM. The CM will also be responsible for Construction QC activities including CQC testing and off-site materials sampling and testing performed by Hurt & Proffitt, Inc. The Independent Construction QCM will report directly to the CM. Paul is a VA certified ESCCC and RLD.

Assisting the DBT is a hand-picked group of highly-qualified support personnel that are experts in their field of expertise. Please see the table below for a brief description of the qualifications and experience:

<table>
<thead>
<tr>
<th>Project Role</th>
<th>Support Personnel</th>
<th>Reporting Role to:</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Resource Group</td>
<td>Greg Andricos, PE (Wagman)</td>
<td>DB Project Manager</td>
<td>22+ years of experience in design and construction serving as DBPM on four DB projects ($190M) in Northern VA and DC with JMT.</td>
</tr>
<tr>
<td></td>
<td>Timothy Nunn (Wagman)</td>
<td></td>
<td>36+ years of experience in the construction of projects. He has completed projects statewide with over 20 years of experience in the Lynchburg District. Additionally, he has worked on previous DB projects with JMT.</td>
</tr>
<tr>
<td></td>
<td>Bill Schaub, PE (JMT)</td>
<td></td>
<td>34+ years of experience including as Design Manager on numerous DB projects in Northern VA, DC and MD.</td>
</tr>
<tr>
<td>Public Relations</td>
<td>Susan Sharp (S&amp;CO)</td>
<td>Constr. Manager</td>
<td>35+ years of experience developing and implementing public participation programs.</td>
</tr>
<tr>
<td>Independ. QCM</td>
<td>Tommy Hall (NXL)</td>
<td></td>
<td>18+ years of experience working in the construction field including QA and QC on a variety of projects.</td>
</tr>
<tr>
<td>Geotechnical Manager</td>
<td>Charles Carey, PE (Wagman)</td>
<td>Design Manager</td>
<td>40+ years of experience inclusive of DB projects with earth retention or support of railroad structures.</td>
</tr>
<tr>
<td>Environ. Manager</td>
<td>Ian Frost, AICP, CEP, CE (EEE)</td>
<td></td>
<td>35+ years of experience representing VA on statewide and regional programs. He has a long standing relationship with JMT and members of Wagman’s staff.</td>
</tr>
<tr>
<td>Highway Engineer</td>
<td>Jeff Cronin, PE (JMT)</td>
<td></td>
<td>17+ years of experience in all aspects of roadway design projects in VA.</td>
</tr>
<tr>
<td>Structural Engineer</td>
<td>Trip Phaup, PE (JMT)</td>
<td>Design Manager</td>
<td>25+ years of structural engineering experience (railroad bridges). Trip and our DBPM David Lyle first crossed paths at VA Tech and have worked together since 1988.</td>
</tr>
<tr>
<td>LA/Compl. Streets</td>
<td>Jon Conner, PLA, LEED AP (JMT)</td>
<td></td>
<td>28+ years of experience in landscape architecture and is a member and part of the National Speaker’s Bureau of the National Complete Streets Coalition (NCSC).</td>
</tr>
<tr>
<td>Utilities</td>
<td>David Malinoski, PE (JMT)</td>
<td></td>
<td>34+ years of experience in the management and design of utility, transportation and site improvement projects.</td>
</tr>
<tr>
<td>Geotech. Engr</td>
<td>Mike Leffler, PE (JMT)</td>
<td></td>
<td>34+ years of experience in geotechnical engineering, construction materials testing, and constr. management.</td>
</tr>
<tr>
<td>Traffic Engr.</td>
<td>Randy Boice, PE (JMT)</td>
<td></td>
<td>22+ years of experience in traffic engineering including transportation mgmt. plans and traffic control devices.</td>
</tr>
</tbody>
</table>

All of JMT’s Design Team members are registered professionals in their areas of expertise in VA and have decades of transportation infrastructure experience including innovative project delivery methods. JMT is a VDOT Prequalified ROW Acquisition firm and employees of our specialty subconsultants; Mr. Richard Stuchell of Bowman Consulting is VDOT Prequalified to perform appraisal services and Mr. Philip Schwartz of Appraisal Review is VDOT Prequalified to perform appraisal review services.
4.2.3 Offeror’s Design Concept

The Project is located along US Route 29/460 and Odd Fellows Road in the City of Lynchburg, Virginia. Along US Route 29/460, the Project extends from approximately 0.6 miles east of Candlers Mountain Road (Rte. 501 North) to 0.5 miles west of Campbell Avenue (Business Route 460 / Business Route 501). Along Odd Fellows Road, the Project extends from Top Ridge Road (Frontage Route 794) to Lynchburg Expressway (Business Route 29/501). The Project length along US Route 29/460 is approximately 1.0 miles and the Project length along Odd Fellows Road is approximately 1.3 miles. The proposed improvements include the following three (3) segments, designated as Segment A, Segment B1, and Segment B2:

- Segment A improvements include the extension of Odd Fellows Road, a new interchange at US Route 29/460, improvements to Route 29/460, and a roundabout at the intersection of Odd Fellows Road and Top Ridge Road.
- Segment B1 improvements include reconstruction of Odd Fellows Road from the construction limits of Segment A to Mayflower Drive. A new roundabout is proposed at the intersection of Odd Fellows Road and Mayflower Drive and the typical section on Odd Fellows Road consists of three lanes with curb and gutter, a sidewalk, and a shared use path. The total length for Segment B1 is approximately 0.7 miles.
- Segment B2 (Design Plans Only) improvements include reconstruction of Odd Fellows Road from Mayflower Drive to Lynchburg Expressway and replacement of the bridge over Norfolk Southern Railway (NSR). A new roundabout is proposed at the intersection of Odd Fellows Road and Albert Lankford Road / Murray Place and the typical section on Odd Fellows Road consists of three lanes with curb and gutter, a sidewalk, and a shared use path. The new bridge over NSR will accommodate the future addition of a third mainline track and an adjacent maintenance roadway under the bridge.

The Wagman Team is providing the Base Scope plus Scope Alternative 1 and Scope Alternative 2 as identified below:

The Base Scope of the Project includes the following:

- All improvements for Segment A.
- All improvements for Segment B1 except those identified in Scope Alternative 1.
- Right of way acquisition and utility relocation shall be provided for the ultimate build out of Segment B1.

Scope Alternative 1 includes the following:

- Construction of a shared use path for Segment B1.

Scope Alternative 2 includes design of the entire Segment B2 scope of work (including all components of Scope Alternative 3, 4, and 5 not included in the Offeror’s proposal), including development of final construction plans and specifications for Segment B2 capable of being used as the basis for attaining construction unit prices from third parties under a design bid-build contract, if necessary. This would include the development of stand-alone Plans, Specifications and Estimate Package, excluding third-party construction unit prices for the Segment B2 scope of work.
4.2 Attachments to the Letter of Submittal

Conceptual Roadway Plans

The Wagman Team has made frequent site visits to the project site and have attended all planned VDOT meetings on the project and have contacted the affected utility owners to address impacts to their facilities as a result of this project. The concept presented in our Letter of Submittal fully complies with, and meets or exceeds, the Roadway Design Criteria included as Attachments to the RFP Technical Requirements (Part 2), and all other requirements of this RFP, the Addendum, and other related technical communications from VDOT.

The Wagman Team concept has been developed to provide benefits in safety and operations both during construction and over the long term. The Wagman Team certifies that the proposed limits of construction, including the stormwater management facilities, are located within the right-of-way (ROW) limits shown on the RFP plans or Addendum with the exception of permanent and temporary easements. Our concept does not require Design Exceptions and/or Design Waivers unless they are identified or included in the RFP or Addendum. Volume II of our Technical Proposal contains the 11”x17” Conceptual Project Plans.

The Wagman Team has included Conceptual Plans that include the Base Scope of the Project, Scope Alternative 1, and Scope Alternative 2 that meets or exceeds all of the criteria identified in the Design Criteria Table included in the RFP Technical Requirements (Part 2) in Attachment 2.2 as shown below.

The Wagman concept will design and construct drainage as directed in the RFP and in the VDOT Drainage Manual. Our concept will accommodate a 25-year storm for most components and a 10-year storm for identified lesser streets.

The Wagman Team reviewed the proposed major drainage design as shown on the RFP plans and developed a preliminary roadway drainage concept based on our roadway concept. The drainage concept generally consists of a combination of open and closed storm drain system to convey the runoff through the project site. In addition, the drainage system will include cross culverts, ditch inlets and bridge deck assemblies and structures. Drainage structure locations provide ease of access for maintenance and provide an outlet with...
adequate freeboard for under-drain outfalls. Storm drain systems consider, to the extent practicable, the existing conveyance pattern of runoff and convey runoff to proposed Stormwater Management (SWM) Best Management Practices (BMPs).

**Conceptual Structural Plans (B628, Interchange Bridge)**

**General**
The Team proposes to span the interchange with a 2-span structure with lengths of 140’-140’. This span layout is identical to the RFP configuration and satisfies the Department’s requirement to maintain the full 30’ clear zone at each outside lane as specified in the Design Criteria Table. The use of a single pier in the center of the existing median locates the pier outside of the future widening footprint of US 29/460 and all required clear zones. As proposed, the minimum vertical clearance over US 29/460 is 17’-0”.

**Superstructure**
The bridge will be designed in accordance with the AASHTO LRFD Bridge Design Specifications, 6th Edition; Interim Specifications and VDOT Modifications (VDOT IIM-S&B-80.4) and the Additional Foundation Criteria. Future wearing surface and construction tolerance loads will be assigned in accordance with VDOT IIM-S&B-80. VDOT standards, design aids and typical details will be used to the greatest extent possible without modification.

The primary members will be Bulb-T prestressed concrete beams (PCBT-61) made continuous for live load. Bulb-T beams will be fabricated using Class A5 concrete (f’c = 9000 psi) and Class I CRR reinforcement where specified by VDOT IIM-S&B-81.5. The cross-section will consist of the following (from left to right, looking upstation):

- BR27C rail, with Rustic Brick architectural treatment on each face
- 17’-6” Shared Use Path
- 27’-0” Roadway (southbound lanes)
- 4’-0” Raised Median
- 29’-0” Roadway (northbound lanes)
- BR27C rail, with Rustic Brick architectural treatment on each face
- The deck will constructed of Class A4 concrete and will be 8.5” thick.
- Pedestrian fencing will be detailed along the deck exterior adjacent to the shared use path.

The superstructure will be constructed in conformance with the Department’s jointless philosophy. The proposed structure will utilize low permeability concrete in accordance with the Specification for Low Permeability Concrete for Design-Build Projects. Corrosion Resistant Reinforcing (CRR) steel will be specified in accordance with VDOT IIM-S&B-81, and epoxy-coated reinforcing will not be permitted. Where CRR is not required to satisfy the appropriate I&IM, the reinforcing steel will be specified as ASTM A615, Grade 60.

**Substructure**
Falling within the allowable span and skew limits provided in Volume V – Part 2, Chapter 17, the abutments will both be designed as fully integral founded on driven steel h-piles. The piles will be HP12x53 and will be isolated with sleeves of corrugated metal pipe filled with sand. In front of each abutment, an MSE wall will be constructed parallel to Route 460. The wall will be extended away from the edge of superstructure for a distance of 3’ beyond the face of guardrail, then fall with the side slope at 2H:1V until it encounters existing ground at Abutment A and the newly-placed fill at Abutment B. The MSE wall panels will be colored to match the architectural treatment on the parapets (Federal Color No. 23617).
The pier located in the median of Route 460 will be constructed as a multi-column pier on a strip footing. Preliminary sizing of the footing was based on the preliminary recommendations contained in the Major Structures Geotechnical Report (Rev 1, dated 2013-10-09). Requirements of Section 401 (Structure Excavation) of the 2007 Road and Bridge Specifications shall be satisfied for the use of a spread footing. The continuity diaphragm at the pier will be detailed with sleeves so as to permit jacking of the superstructure for future bearing replacement.

Structural approach slabs and sleeper pads will be provided at each end of the bridge.

**Post-Design**
The Team will assign a Professional Engineer with a current Virginia license to review and approve working/shop drawings as required. Upon approval of the drawings, the Team will submit to the Department three approved sets for each bridge structure.

The Team will submit Estimated Quantities along with the associated unit costs for all standard and non-standard items in the final bridge plan submittal. This submittal will take place within 90 days of the Department’s approval of the construction plan submittal.

An As-Built load rating will be performed in accordance with VDOT IIM-S&B-86.

**Conceptual Structural Plans (No B number, Bridge over Norfolk-Southern Railway)**

**General**
The Team proposes to design the bridge over the railroad as part of the Scope Alternative 2 design plans for Segment B2 to cross Norfolk-Southern Railway tracks with a single span structure with length of 108’. This span length provides 25’ horizontal clearance from a future track located on either side of the existing tracks, as located in accordance with the RFP. This permits the addition of the future track and maintenance road in whatever configuration that the railroad opts to pursue. As proposed, the minimum vertical clearance over Norfolk-Southern is 30’-1”.

**Superstructure**
The bridge will be designed in accordance with the AASHTO LRFD Bridge Design Specifications, 6th Edition; Interim Specifications and VDOT Modifications (VDOT IIM-S&B-80.4) and the Additional Foundation Criteria. Future wearing surface and construction tolerance loads will be assigned in accordance with VDOT IIM-S&B-80. VDOT standards, design aids and typical details will be used to the greatest extent possible without modification.

The primary members will be Bulb-T prestressed concrete beams (PCBT-53). Bulb-T beams will be fabricated using Class A5 concrete (f’c = 9000 psi) and Class I CRR reinforcement where specified by VDOT IIM-S&B-81.5. The cross-section will consist of the following (from left to right, looking upstation):

- BR27C rail
- 17’-6” Shared Use Path
- 40’-0” Roadway
- 6’-0” Raised Sidewalk
- BR27C rail

The deck will be constructed of Class A4 concrete and will be 8.5” thick.

Pedestrian fencing will be detailed at each deck exterior.

The superstructure will be designed in conformance with the Department’s jointless philosophy.
The proposed structure will utilize low permeability concrete in accordance with the Specification for Low Permeability Concrete for Design-Build Projects. Corrosion Resistant Reinforcing (CRR) steel will be specified in accordance with VDOT IIM-S&B-81, and epoxy-coated reinforcing will not be permitted. Where CRR is not required to satisfy the appropriate I&IM, the reinforcing steel will be specified as ASTM A615, Grade 60.

Substructure
Falling within the allowable span and skew limits provided in Volume V – Part 2, Chapter 17, the abutments will both be designed as fully integral founded on driven steel h-piles. The piles will be HP12x53 and will be isolated with sleeves of corrugated metal pipe filled with sand. In front of each abutment, a wrap-around (U-back) MSE wall will be constructed.

Correspondence with Norfolk-Southern Railway confirms that they have no specific policy on the use of MSE walls on their right-of-way and will consider each on a case-by-case basis.

Structural approach slabs and sleeper pads will be provided at each end of the bridge.

Post-Design
If construction of this bridge is to take place under a future contract, then the Team will develop plans, specifications and an estimate of sufficient detail such they are capable of being used as the basis for attaining construction unit prices from third parties under a separate design-bid-build contract.

4.2.3.1 Conceptual Roadway Plans
The DBT has provided a general Project layout which includes the following as required by the Request for Proposal:

a) general geometry including the number and widths of lanes;
b) horizontal alignments;
c) maximum grade for all segments and connectors;
d) typical sections of the roadway segments to include sidewalks, shared use path, retaining walls and bridge structures;
e) conceptual hydraulic and stormwater management design;
f) proposed Right of Way limits (i.e. shown as an overlay of the Offeror’s
  g) proposed Right of Way limits and VDOT’s RFP Conceptual Right of Way limits, highlighting
  h) the differences between the two);
i) proposed utility impacts; and
j) any other key Project features

Full size 11x17 Include 11” x 17” graphics illustrating the Conceptual Project Plans are located in Volume II of our Proposal.

4.2.3.2 Conceptual Structural Plans
The DBT have provided a general Project layout which includes the following as required by the Request for Proposal:

a) Plan views indicating the number of lanes specified in the RFP Information Package.
b) Typical sections for the proposed improvements.
4.2 Attachments to the Letter of Submittal

Full size 11”x 17” renderings of an elevation view, transverse section and abutment configurations for each proposed structure type are located in Volume II of our Proposal.

4.2.4 Proposal Schedule and Narrative
The DBT has provided a Proposal Schedule and Proposal Narrative demonstrating our understanding of the complexities and interrelationships of the technical elements of the Project.

PDF copies of the Proposal Schedule and narrative as well as a back-up copy of the Proposal Schedule’s source document have been provided on a CD-ROM.

4.2.4.1 Proposal Schedule
The DBT has developed a Proposal Schedule and it is located in Volume II of our Proposal. This Proposal Schedule depicts that the DBT proposes to deliver the Base Bid plus Scope Alternative 1 and Scope Alternative 2.

Our Proposal Schedule takes into account the internal plan reviews, VDOT plan reviews and approvals, environmental permitting and constraints, right of way acquisition, utility relocation, construction activities and QA/QC inspection and testing. The Substantial Completion and Final Completion Dates are shown to be no later than the dates listed in Section 2.3.1 of the Request for Proposal.

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

4.2.4.2 Proposal Narrative
The DBT has developed a proposal schedule narrative that demonstrates an understanding of the complexities and interrelationships of the technical elements of the Project. The narrative also describes the DBT’s plan to accomplish the Work including, but not limited to the overall sequencing, a description and explanation of the Critical Path, proposed means and methods, and other key assumptions on which the Proposal Schedule is based.

Schedule Development
The Wagman Team has reviewed in detail the scope and schedule requirements outlined in the RFP documents. Numerous site visits, team meetings, attendance of pre-proposal meetings, proprietary meeting discussions and a development of a schedule task force were performed to build a comprehensive schedule for the Odd Fellows Road Interchange at US Route 29/460 and Road Improvements. In the development of the schedule, particular attention was paid to the overall traffic volume and the impacts that traffic restrictions will place on existing traffic. The attached project schedule reflects the attention to the impacts and the solution to these impacts on The Wagman Team’s schedule.

The Wagman Team is committed to providing the Department a completed Project by August 2, 2018.
4.2 Attachments to the Letter of Submittal

Project Milestones

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Name</th>
<th>Planned Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>C00105515DB78</td>
<td>Odd Fellows Road Interchange at US Route 29/460</td>
<td>902.0d</td>
<td>18-Feb-15</td>
<td>02-Aug-18</td>
</tr>
</tbody>
</table>

Work Breakdown Structure

The following Work Breakdown Structure provided by The Wagman Team integrates all pre-construction aspects as well as construction activities for the Odd Fellows Road Interchange at US Route 29/460 and Road Improvements into the schedule. The structure follows the RFP and Virginia Work Area Protection Manual (VWAPM), the Manual of Uniform Traffic Control Devices (MUTCD), as well as, incorporating “out of the box” thinking to provide for scheduled construction completion. The following is a summary overview of the Phases of Construction succeeded by the complete WBS layout.

Approach to Design and Construction

The Wagman Team has divided the construction of the project into two segments (Segment A and Segment B-1) along with Milestones/General Conditions and Preconstruction activities to organize the WBS. This allows greater traffic flow, safer traffic conditions and a precise following of the VWAPM. To progress the project schedule and to utilize the numerous resources that The Wagman Team possesses, we will start work in multiple segments. This allows for maximum resource utilization, maximum schedule flexibility, and early project completion. The following is a summary overview of the Phases of Construction succeeded by the complete WBS layout.

Milestones/General Conditions and Preconstruction activities: These sections contain all non-construction related activities that are pertinent to the project. The following ten categories represent these sections:

- Milestones: These are major project dates to achieve project completion for milestones.
- General Conditions: Project management, punch list and closeout documentation required for the project are considered general conditions.
- Scope Validation Period: This period is set aside for the discussion between VDOT and The Wagman Team for validation and approval of project scope.
- Design: This period is set aside for the preliminary, right of way/roadway design, and final design of the project. The Wagman Team has broken the design into two phases to facilitate VDOT reviews and approvals to advance the start of construction. Certain permits required for construction can be obtained in advance to release The Wagman forces for construction earlier. In the schedule itself, there is an allowance for two review cycles, The Wagman Team plans on working with VDOT during the design,
using over the shoulder reviews, and providing comment resolution with all submissions to reduce the second review cycle, therefore shortening design.

**Permitting:** This timeframe is set aside for the various permits associated with the entire project.

**ROW Acquisition:** This encompasses the necessary activities for the procurement of public and private property for the use as right of way.

**Utility Relocations:** Relocation of utilities provides for the necessary design, procurement, and construction of utilities that may be affected by construction.

**Submittals:** The Wagman Team will give VDOT required submittals for review and approval.

**Acquisition:** This period allows for long lead time materials and known hard-to-procure items.

**Quality Control:** This is for preparatory meeting necessary for information to be passed among stakeholders.

### Sequence of Construction

The project has been designed and set up in two separate components identified as Segment A and Segment B1. Segment A begins where existing Odd Fellows Road currently ends and extends to the South, crossing over State Route 460, and ultimately terminating at a location that will be the future intersection of Odd Fellows Road and Top Ridge Road. Included in Segment A are four ramps (Ramp A, Ramp B, Ramp C, & Ramp D), two of which are on-ramps carrying traffic from Odd Fellows Road onto Route 460 while the other two are off-ramps carrying traffic from Route 460 onto the new Odd Fellows Road segment. Segment A has been further broken down into three separate areas of activity, the new construction North of Route 460, the new construction South of Route 460, and the shoulder work along existing Route 460.

Segment B1 is the reconstruction of existing Odd Fellows Road as it is currently configured starting 300’ north of the existing intersection with Mayflower Drive and extending south to the existing termination point adjacent to the Route 460 right-of-way. Due to the existing traffic and large number of businesses currently utilizing Odd Fellows Road, Segment B1 will have to be constructed in two separate phases to allow constant flow of traffic in both directions. Safety of the traveling public and maintaining access to the stakeholders are what drive the two phase construction sequencing for this Segment. Coordination with property owners and communication with the traveling public will be the key to the success of this Segment.

Prior to any work beginning, the temporary construction signs will be installed along Route 460 as well as on Odd Fellows Road and the surrounding roadways. Due to the large number of utilities that parallel existing Odd Fellows Road, construction activities will begin in Segment A North of Route 460 while the relocation of these utilities takes place in Segment B1. The first of these activities will be the installation of the perimeter erosion control measures which will then be immediately followed by clearing and grubbing. As the clearing progresses, the locations for the three sediment basins will be targeted so that construction of these basins can take place as soon as the clearing has been completed in those specific areas. Upon completion of the clearing and grubbing on the north side of Route 460, the clearing crew will then move to the Segment A work south of Route 460 and the process will begin just as it did before. The initial erosion controls measures will have been installed at this location prior to the clearing crew mobilization and clearing will start immediately.

As the clearing continues south of Route 460, the grading work will begin on the north side starting with topsoil stripping and identification of undercut areas. After the topsoil has been stripped and any areas requiring undercut have been addressed, the bottom of the fills will be based in with suitable fill material and the bulk borrow placement will begin. Storm drain pipe placement will also start at this time and continue throughout the borrow placement process as required grades are met. Once the fills are based in, access to
4.2 Attachments to the Letter of Submittal

the Abutment A side of the bridge will be established and bridge work can begin. Work on the MSE walls as well as pile installation will begin simultaneously and the bridge work will continue all of the way through pouring the Abutment A backwall.

The work on Segment A south of Route 460 will continue in the same sequence as that on the north side. Upon completion of the borrow placement on the north side, that crew will then move to the south side and begin stripping topsoil, addressing necessary undercut areas, and basing in of the fills. Once the fills are based in, the Abutment B side of the bridge will then be accessible and that bridge work can begin. As activities are completed on Abutment A, the corresponding work will begin on Abutment B. For example, once the MSE wall work is finished on Abutment A, that crew will then move to Abutment B and begin. The same holds true for driving piles and the concrete work that follows all of the way through the pouring of the backwall. As the activities on Abutment B are completed, the corresponding work for the Pier will follow just as it did for the abutments. The substructure work will progress from Abutment B to Pier 1 and the same sequence of work will take place through pouring of the pier cap. Once the pier cap is complete, the superstructure work will then begin and continue all of the way through completion of the bridge.

As the different grading activities on Segment A south of Route 460 are completed, the corresponding work on the shoulders of Route 460 eastbound and westbound will begin. Many of the activities associated with the work on Route 460 will have to be accomplished by utilizing lane closures at night and over weekends. Work zones will be limited to lengths that can have the existing shoulder removed, unsuitable soils addressed, the required borrow/excavation activities performed, and the placement of aggregate for the required 6:1 wedge alongside the travel lane completed prior to removal of the lane closure. Work will continually be pursued in this manner until the exposure to the existing roadway due to excavations is completed. Work on Route 460 will continue all of the way through paving and placement of guardrail in order to minimize the risk to the traveling public and provide a safer working environment for those involved.

Once started, the work on all areas of Segment A will continue all of the way through the intermediate layer of asphalt placement and guardrail installation. Placement of surface asphalt and pavement markings will not be done until the entire project is complete and ready for traffic.

As mentioned previously, work on Segment B1 cannot begin until the utility relocation process is complete. There are a number of utility conflicts that have to be resolved before any construction work can be performed. The construction of Segment B1 will have to be performed in two phases in order to maintain traffic flow at all times. The existing roadway will have to be temporarily widened on one side and traffic switched such that one lane utilizes the new temporary pavement and the other utilizes part of the existing roadway. This will then allow demolition of the remaining roadway and construction of enough new roadway to allow for two lanes of traffic in the second phase. This first phase of construction will include erosion control measures, water, sewer, storm drainage, curb and gutter, underdrain, stone, asphalt (up to but not including the final surface layer), and the pedestrian path associated with Alternate #1.

Access to the existing properties will be maintained at all times and traffic flaggers will be utilized as needed. As was the case with the work on Route 460, initial work zones will have lengths that will allow the placement of the required 6:1 wedge after the completion of the each work shift. As the work in the first phase is completed, the new roadway will be temporarily striped and traffic will then be switched over. Once traffic is switched, the remaining existing roadway and temporary pavement will be demolished and construction of the remaining new roadway will be completed up to but not including the final surface layer of asphalt,
inclusive of Alternate #1 sidewalk. Prior to placement of the final surface asphalt, the landscaping for Alternate #1 will be completed and all areas permanently seeded. Immediately following the landscaping will be placement of surface asphalt and permanent striping.

All work associated with Segment B1 will be performed independently of the Segment A work. The schedule for this is specifically driven by the utility relocations as mentioned above and will begin as soon as those utility relocations are completed. The work associated with the intersection of Mayflower Drive will be performed utilizing the allowed closure of Mayflower Drive and associated detour of 90 days. Traffic flow will be maintained for Odd Fellows Road during the roundabout construction at all times as specified. Once completed, traffic on Segment B1 will be shifted onto the new alignment.
## Project Work Breakdown Structure

<table>
<thead>
<tr>
<th>WBS Code</th>
<th>WBS Name</th>
</tr>
</thead>
</table>
4.2 Attachments to the Letter of Submittal

Calendars

The Wagman Team has incorporated four calendars into the project schedule. Each calendar takes into account State Holidays as well as the Wagman Team Holidays.

*Work week Weather:* This calendar is the base calendar for construction activities. It incorporates a standard work week, including weather days. The Wagman Team derived an average number of days per month for weather related occurrences and incorporated time into the schedule for this. This information was calculated from historical records for the last three years from the National Weather Service NOAA Office Lynchburg, Virginia.

*7 Day:* This calendar holds every day as a working day. This calendar is only attached to non-production activities, such as cure time. This calendar also holds true for Design activities.

*Paving:* This calendar is present for applications that are constrained by temperature restrictions by The Department. Additionally, paving operations are further affected by asphalt lay down temperature restrictions and material availability interruptions due to subcontractor plant shut downs. This calendar runs from the end of November to the beginning of March.

*Grading:* This calendar is present for construction activities related to earthwork. The end of November through the beginning of February are normally difficult months to perform any earthwork related activities. If weather allows, Wagman forces will continue during this calendar period with construction activities. The schedule will be adjusted as necessary during these months to reflect actual progress.

Design

The Wagman Team will advance the design from the current RFP documents and incorporate new design elements into final design and construction documents. Design activities will include surveying, roadway design, bridge design, traffic control devices, maintenance of traffic plans, signs, guardrail, pavement markings, drainage design, design of stormwater management facilities, geotechnical investigation including borings and analysis, materials analysis, hydraulic design and pavement design. The project will be delivered by completing two phases of design – preliminary design (right of way/roadway design), and final design – followed by the construction phase. Design related activities to be performed during each phase are as follows:

Preliminary design activities will focus on expanding the RFP documents and preparing a set of preliminary plans and reports for submission to VDOT for review and approval. The Wagman Team will perform a number of independent studies of the information contained in the RFP documents to confirm that the
4.2 Attachments to the Letter of Submittal

information provided to date is correct and suitable for use in designing the project. The additional studies will include performing supplemental field surveying to confirm horizontal and vertical control of key project features verifying type and location of existing subsurface utilities; performing legal research to confirm existing right of way and property limits; and performing a thorough geotechnical field investigation to confirm geotechnical conditions for the bridge foundation and roadway design. Emphasis will be placed on the environmental aspect of the design in this phase in order that an early release package can be submitted to allow the environmental permitting process to start prior to the final plan development stage. The findings of these additional studies will be summarized in a series of reports and, if discrepancies occur between the information in the RFP documents and The Wagman Team studies, these results will be presented to VDOT for review and evaluation as outlined in the Scope Validation process for the project. Preliminary roadway plans will be developed including performing geometric design; preparing cross sections and defining limits of construction; completing stormwater management and erosion and sediment control design; preparing plans for traffic control devices as well as a Transportation Management Plan; and completing the preliminary bridge plans working closely with the geotechnical engineers. Required right of way limits will be evaluated and depicted on the plans and preliminary utility relocation plans will be prepared.

Right of way/roadway design submittal will occur after receiving preliminary plan approval from VDOT. The right of way, environmental coordination and approval, and utility relocation plan activities will be separated and developed for individual submissions to VDOT and other regulatory agencies for review and approval. The preliminary bridge and roadway plans will be fully detailed and ready for construction. A Geotechnical Report based on the geotechnical recommendations for the project will also be completed during the right of way/roadway design phase.

Final design submittal will occur after receiving right of way/roadway design plan approval from VDOT. The Wagman Team will then submit the final design plans and reports to VDOT for review and approval.

Critical Path

The critical path for the project begins with the preparation of ROW/Roadway plans which sets the property owner relocation process in motion. The relocation needs to occur in Segment A for earthwork activities to commence. The path then runs through the area north of 460 where earthwork activities will begin. The area south of 460 then becomes critical for earthwork activities as well. The path ends with final road finishes and closeout/demobilization.
### Critical Path Breakdown

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Name</th>
<th>Planned Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Milestones and General Conditions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1000</td>
<td>Notice to Proceed</td>
<td>0.0d</td>
<td>18-Feb-15</td>
<td>02-Aug-18</td>
</tr>
<tr>
<td>A11240</td>
<td>Construction Start</td>
<td>0.0d</td>
<td>07-Nov-15</td>
<td></td>
</tr>
<tr>
<td>A11250</td>
<td>Substantial Completion of Road &amp; Paving</td>
<td>0.0d</td>
<td>23-Mar-18</td>
<td></td>
</tr>
<tr>
<td>A11270</td>
<td>Final Completion (Contract = 03-AUG-2018)</td>
<td>0.0d</td>
<td>02-Aug-18</td>
<td></td>
</tr>
<tr>
<td>A1250</td>
<td>Final Punchlist/Demobilization</td>
<td>92.00</td>
<td>03-May-18</td>
<td>02-Aug-18</td>
</tr>
<tr>
<td></td>
<td><strong>Preconstruction</strong></td>
<td>188.00</td>
<td>18-Feb-15</td>
<td>06-Nov-15</td>
</tr>
<tr>
<td>A10710</td>
<td>Relocation</td>
<td>120.00</td>
<td>10-Jul-15</td>
<td>06-Nov-15</td>
</tr>
<tr>
<td>DW10100</td>
<td>Prepare ROW/Roadway Plans 400 (ROW)</td>
<td>100.00</td>
<td>18-Feb-15</td>
<td>28-May-15</td>
</tr>
<tr>
<td>DW10110</td>
<td>Drainage</td>
<td>100.00</td>
<td>18-Feb-15</td>
<td>28-May-15</td>
</tr>
<tr>
<td>DW1120</td>
<td>Prepare Roadway Plans for Submission</td>
<td>7.00</td>
<td>12-Jun-15</td>
<td>18-Jun-15</td>
</tr>
<tr>
<td>DW1150</td>
<td>VDOT/FHWA Review/Comment Roadway</td>
<td>21.00</td>
<td>19-Jun-15</td>
<td>09-Jul-15</td>
</tr>
<tr>
<td></td>
<td><strong>Construction</strong></td>
<td>648.00</td>
<td>07-Nov-15</td>
<td>02-May-18</td>
</tr>
<tr>
<td>A11300</td>
<td>Strip Topsoil</td>
<td>10.00</td>
<td>07-Oct-15</td>
<td>21-Oct-15</td>
</tr>
<tr>
<td>A11305</td>
<td>Remove Unsuitable</td>
<td>7.00</td>
<td>24-Oct-16</td>
<td>01-Mar-17</td>
</tr>
<tr>
<td>A11308</td>
<td>Base in Fills</td>
<td>10.00</td>
<td>02-Mar-17</td>
<td>15-Mar-17</td>
</tr>
<tr>
<td>A11311</td>
<td>Borrow</td>
<td>37.00</td>
<td>16-Mar-17</td>
<td>05-May-17</td>
</tr>
<tr>
<td>A11320</td>
<td>Rough Grade</td>
<td>50.00</td>
<td>08-May-17</td>
<td>18-Jul-17</td>
</tr>
<tr>
<td>A11330</td>
<td>Fine Grade</td>
<td>15.00</td>
<td>19-Jul-17</td>
<td>08-Aug-17</td>
</tr>
<tr>
<td>A11358</td>
<td>Curb and Gutter</td>
<td>10.00</td>
<td>30-Aug-17</td>
<td>13-Sep-17</td>
</tr>
<tr>
<td>A11360</td>
<td>Subbase</td>
<td>15.00</td>
<td>09-Aug-17</td>
<td>29-Aug-17</td>
</tr>
<tr>
<td>A11370</td>
<td>Base</td>
<td>15.00</td>
<td>14-Sep-17</td>
<td>04-Oct-17</td>
</tr>
<tr>
<td>A11380</td>
<td>Intermediate</td>
<td>15.00</td>
<td>05-Oct-17</td>
<td>26-Oct-17</td>
</tr>
<tr>
<td>A11390</td>
<td>Surface</td>
<td>15.00</td>
<td>27-Oct-17</td>
<td>17-Nov-17</td>
</tr>
<tr>
<td>A11410</td>
<td>Dress Shoulder</td>
<td>15.00</td>
<td>20-Nov-17</td>
<td>09-Feb-18</td>
</tr>
<tr>
<td>A11415</td>
<td>Topsoil</td>
<td>10.00</td>
<td>12-Feb-18</td>
<td>23-Feb-18</td>
</tr>
<tr>
<td>A11420</td>
<td>Seed</td>
<td>10.00</td>
<td>26-Feb-18</td>
<td>09-Mar-18</td>
</tr>
<tr>
<td>A11430</td>
<td>Guardrail</td>
<td>10.00</td>
<td>12-Mar-18</td>
<td>23-Mar-18</td>
</tr>
<tr>
<td>A6550</td>
<td>Permanent Signs</td>
<td>20.00</td>
<td>26-Mar-18</td>
<td>18-Apr-18</td>
</tr>
<tr>
<td>A6650</td>
<td>Guardrail Adjustments</td>
<td>5.00</td>
<td>19-Apr-18</td>
<td>25-Apr-18</td>
</tr>
<tr>
<td>A6570</td>
<td>Final Pavement Markings</td>
<td>5.00</td>
<td>26-Apr-18</td>
<td>02-May-18</td>
</tr>
<tr>
<td>A6550</td>
<td>E/S</td>
<td>10.00</td>
<td>07-Nov-15</td>
<td>20-Nov-15</td>
</tr>
<tr>
<td>A6660</td>
<td>Clear Grub</td>
<td>30.00</td>
<td>07-Nov-15</td>
<td>18-Dec-15</td>
</tr>
<tr>
<td>A6670</td>
<td>Strip Topsoil</td>
<td>5.00</td>
<td>01-Mar-15</td>
<td>07-Mar-16</td>
</tr>
<tr>
<td>A6671</td>
<td>Remove Unsuitable</td>
<td>10.00</td>
<td>08-Mar-16</td>
<td>21-Mar-16</td>
</tr>
<tr>
<td>A6673</td>
<td>Base in Fills</td>
<td>20.00</td>
<td>22-Mar-16</td>
<td>18-Apr-15</td>
</tr>
<tr>
<td>A6674</td>
<td>Borrow</td>
<td>120.00</td>
<td>19-Apr-16</td>
<td>06-Oct-16</td>
</tr>
</tbody>
</table>

#### Environmental Coordination and Approvals

Preliminary environmental activities will begin soon after receiving Notice to Proceed and will include a thorough environmental evaluation and confirmation of the information provided in the RFP.
4.2 Attachments to the Letter of Submittal

documents. The Wagman Team will prepare a comprehensive environmental management plan that includes a matrix of environmental commitments and compliance requirements; identifies milestone dates and integrates those into the project schedule; identifies the responsible party; and summarizes requirements. The Wagman Team will provide VDOT with the results of the preliminary environmental design efforts in order to obtain an early release package for the permitting process.

Final environmental activities will begin immediately after receiving preliminary plan approval from VDOT. At this point in the design, the “footprint” for the project will be firmly established and The Wagman Team will identify the final environmental impacts required to construct the project in its entirety. The Wagman Team will make every effort to avoid and minimize environmental impacts. A Stormwater Pollution Prevention Plan (SWPPP) will be developed and the registration statement for the Virginia Stormwater Management Permit will be submitted immediately following the SWPPP development.

The Wagman Team will assist VDOT during the Document Re-evaluations for Right of way Authorization and the preparation of the Environmental Certification/Commitments Checklist. The Wagman Team will also conduct compliance monitoring and reporting during the construction as required by VDOT and the DCR. Avoidance and minimization efforts will continue through construction. All monitoring reports will be submitted to VDOT.

Right of Way

After preliminary designs have been performed for the roadway, bridge, drainage, and utilities, The Wagman Team will evaluate the proposed ROW, permanent easements, and temporary easements as shown on the plans. If changes are required, either due to a change in the required ROW or a change based on the results of legal research, the Team will prepare updated preliminary ROW plans and a ROW data sheet and will submit to VDOT for review and approval. Preliminary ROW activities will begin soon after receiving Notice to Proceed. The Wagman Team will begin performing the legal research for the identified parcels on the preliminary plans at the same time that our survey crew is validating the survey information provided in the RFP package. As we advance our design effort, we will continue to look for opportunities to reduce right of way acquisitions.

Schedule & Project Management

The schedule is the most important tool in the construction process. It is the way to communicate the intended sequence and progress of the project to the construction team as well as the project stakeholders. The schedule is used to monitor the progress of the project and help identify potential deficiencies and problem areas before they develop into a critical impact.

The project management team will continually review and monitor the schedule and use the information gathered to develop mitigation strategies for any activities that are identified as potential impacts. This proactive approach will ensure that the project continues to move forward and that any potential delays are addressed immediately. A number of different tools will be put in place to assist with this process and some are as follows:

- Weekly schedule and task force meetings between the engineering and construction team members during the design phase
- Weekly construction scheduling meetings throughout the duration of the construction process with the construction team (including management)
- Monthly progress meetings to include all project stakeholders, project team members, and subcontractors
4.2 Attachments to the Letter of Submittal

- Three week look ahead schedules
- RFI logs
- Submittal logs
- Subcontract/purchase order logs
- Shop drawing tracking logs
- Weekly manpower & equipment reviews

All of the above referenced tools will be utilized simultaneously to provide a current and realistic picture of the progress and status at any given time. Information will be presented at meetings to all who are involved for the opportunity to discuss and address any concerns in front of all that are affected. This keeps the line of communication open and allows resolutions and recovery strategies to be developed at an early stage, therefore preventing any further conflict.

Schedule Recovery

Unexpected issues and unforeseen conditions will occur throughout the construction process. The Wagman Team includes a number of experienced and well respected members in the design-build field who have the ability to recognize and react to these unforeseen issues. The Wagman Team will aggressively manage the project and mitigate any issues that affect the construction schedule. A schedule recovery strategy will be developed in these cases and immediately implemented. These recovery strategies will be closely monitored and followed until the situation has been successfully resolved.

Subcontractor Scheduling

Subcontractors are a critical part of the project schedule. The Wagman Team will closely evaluate each subcontractor based on quality, performance, and reputation. Starting with the initial subcontract paperwork, each subcontractor will be intimately involved with every aspect of the project schedule and their input will be vital. This includes progress meetings, weekly look-ahead schedules, material submittals, and recovery strategies if needed. Accountability is the key to effective subcontractor management and it will be perfectly clear that they will be accountable for all aspects of their work from quality to schedule. Should a situation occur where subcontractor performance is deemed unacceptable, measures will already be in place to remedy the situation and prevent any schedule impacts.
Appendices
## Technical Proposal Checklist and Contents

Offerors shall furnish a copy of this Technical Proposal Checklist, with the page references added, with the Technical Proposal.

<table>
<thead>
<tr>
<th>Technical Proposal Component</th>
<th>Form (if any)</th>
<th>RFP Part 1 Cross Reference</th>
<th>Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Proposal Checklist and Contents</td>
<td>Attachment 4.0.1.1</td>
<td>Section 4.0.1.1</td>
<td>Appendices Section 4.0.1.1 Tab</td>
</tr>
<tr>
<td>Acknowledgement of RFP, Revisions, and/or Addenda</td>
<td>Attachment 3.6 (Form C-78-RFP)</td>
<td>Sections 3.6, 4.0.1.1</td>
<td>Appendices Attachment 3.6 Tab</td>
</tr>
<tr>
<td>Letter of Submittal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter of Submittal on Offeror’s letterhead</td>
<td>NA</td>
<td>Sections 4.1</td>
<td>1-2</td>
</tr>
<tr>
<td>Offeror’s official representative information</td>
<td>NA</td>
<td>Section 4.1.1</td>
<td>1</td>
</tr>
<tr>
<td>Authorized representative’s original signature</td>
<td>NA</td>
<td>Section 4.1.1</td>
<td>2</td>
</tr>
<tr>
<td>Declaration of intent</td>
<td>NA</td>
<td>Section 4.1.2.1</td>
<td>1</td>
</tr>
<tr>
<td>120 day declaration</td>
<td>NA</td>
<td>Section 4.1.2.2</td>
<td>1</td>
</tr>
<tr>
<td>Point of Contact information</td>
<td>NA</td>
<td>Section 4.1.2.3</td>
<td>1</td>
</tr>
<tr>
<td>Principal Officer information</td>
<td>NA</td>
<td>Section 4.1.2.4</td>
<td>1</td>
</tr>
<tr>
<td>Final Completion Date</td>
<td>NA</td>
<td>Section 4.1.2.5</td>
<td>1</td>
</tr>
<tr>
<td>Written statement of percent DBE participation</td>
<td>NA</td>
<td>Section 4.1.2.6</td>
<td>1</td>
</tr>
<tr>
<td>Proposal Payment Agreement or Waiver of Proposal Payment</td>
<td>Attachment 4.1.3(a) or 4.1.3(b)</td>
<td>Section 4.1.3</td>
<td>1; Appendices Attachment 4.1.3(a) Tab</td>
</tr>
</tbody>
</table>
## ATTACHMENT 4.0.1.1
ODD FELLOWS ROAD INTERCHANGE AT US ROUTE 29/460 AND ROAD IMPROVEMENTS
TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

<table>
<thead>
<tr>
<th>Technical Proposal Component</th>
<th>Form (if any)</th>
<th>RFP Part 1 Cross Reference</th>
<th>Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification Regarding Debarment Forms</td>
<td>Attachment 11.8.6(a) Attachment 11.8.6(b)</td>
<td>Section 4.1.4</td>
<td>2; Appendices</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Attachment 11.8.6(a) and 11.8.6(b) Tab</td>
</tr>
<tr>
<td><strong>Attachments to the Letter of Submittal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmation that the information provided in the SOQ submittal remains true and accurate</td>
<td>NA</td>
<td>Section 4.2.1</td>
<td>3</td>
</tr>
<tr>
<td>Organizational chart with any updates since the SOQ submittal clearly identified</td>
<td>NA</td>
<td>Section 4.2.2</td>
<td>3-4</td>
</tr>
<tr>
<td>Revised narrative when organizational chart includes updates since the SOQ submittal</td>
<td>NA</td>
<td>Section 4.2.2</td>
<td>5-6</td>
</tr>
<tr>
<td>Conceptual Roadway Plans – Plan View</td>
<td>NA</td>
<td>Section 4.2.3</td>
<td>7-9;11 Volume II Section 4.2.3.1 Tab</td>
</tr>
<tr>
<td>Conceptual Roadway Plans – Typical Sections</td>
<td>NA</td>
<td>Section 4.2.3</td>
<td>7-9;11 Volume II Section 4.2.3.1 Tab</td>
</tr>
<tr>
<td>Conceptual Structural Plans – Elevation View</td>
<td>NA</td>
<td>Section 4.2.3</td>
<td>9-12</td>
</tr>
<tr>
<td>Conceptual Structural Plans – Transverse Section</td>
<td>NA</td>
<td>Section 4.2.3</td>
<td>9-12</td>
</tr>
<tr>
<td>Proposal Schedule</td>
<td>NA</td>
<td>Section 4.2.4</td>
<td>12; Volume II Section 4.2.4.1 Tab</td>
</tr>
</tbody>
</table>
## Technical Proposal Component Checklist

<table>
<thead>
<tr>
<th>Technical Proposal Component</th>
<th>Form (if any)</th>
<th>RFP Part 1 Cross Reference</th>
<th>Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal Schedule Narrative</td>
<td>NA</td>
<td>Section 4.2.4</td>
<td>12-23</td>
</tr>
<tr>
<td>Proposal Schedule in electronic format (CD or DVD-Rom)</td>
<td>NA</td>
<td>Section 4.2.4</td>
<td>CD</td>
</tr>
</tbody>
</table>

3 of 3
ATTACHMENT 3.6

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. C00105515DB78
PROJECT NO.: 9999-118-240

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 18, 2014 – RFP  
   (Date)

2. Cover letter of November 25, 2014 – Addendum #1  
   (Date)

3. Cover letter of  
   (Date)

______________________________
SIGNATURE

DATE: Dec 10, 2014

______________________________
PRINTED NAME

______________________________
TITLE
ATTACHMENT 4.1.3(a)
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this “Agreement”) is made and entered into as of this 17th day of December, 2014, by and between the Virginia Department of Transportation (“VDOT”), and

G.A. & F.C. Wagman, Inc. (“Offeror”).

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications (“SOQs”) pursuant to VDOT’s June 30, 2014 Request for Qualifications (“RFQ”) and was invited to submit proposals in response to a Request for Proposals (“RFP”) for the Odd Fellows Road Interchange at US Route 29/460 and Road Improvements, Project No. 9999-118-240 (“Project”), under a design-build contract with VDOT (“Design-Build Contract”); and

WHEREAS, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally and in writing during proprietary meetings or interviews; and (b) contained in, related to or associated with Offeror’s proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids (collectively “Offeror’s Intellectual Property”); and

WHEREAS, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror’s Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP (“Offeror’s Proposal”), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

WHEREAS, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:
1. **VDOT’s Rights in Offeror’s Intellectual Property.** Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror’s Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror’s Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror’s Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror’s Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT’s rights, title and interest in Offeror’s Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT’s ability to use Offeror’s Intellectual Property without the obligation to notify or seek permission from Offeror.

2. **Exclusions from Offeror’s Intellectual Property.** Notwithstanding Section 1 above, it is understood and agreed that Offeror’s Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. **Proposal Payment.** VDOT agrees to pay Offeror the lump sum amount of thirty thousand and 00/100 Dollars ($30,000.00) ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror’s Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror’s Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. **Payment Due Date.** Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. **Effective Date of this Agreement.** The rights and obligations of VDOT and Offeror under this Agreement, including VDOT’s ownership rights in Offeror’s Intellectual Property, vests upon the date that Offeror’s Proposal is submitted to VDOT. Notwithstanding the above, if Offeror’s Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.
6. **Indemnity.** Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity ("Claims") of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror’s obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. **Assignment.** Offeror shall not assign this Agreement, without VDOT’s prior written consent, which consent may be given or withheld in VDOT’s sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. **Authority to Enter into this Agreement.** By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror’s Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror’s Intellectual Property, free and clear of all liens, claims and encumbrances.

9. **Miscellaneous.**

   a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

   b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

   c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

   d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

   e. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.
IN WITNESS WHEREOF, this Agreement has been executed and delivered as of the day and year first above written.

VIRGINIA DEPARTMENT OF TRANSPORTATION

By: ____________________________

Name: __________________________

Title: __________________________

[Insert Offeror's Name]

By: ____________________________

Name: __________________________

Title: __________________________
ATTACHMENT NO. 11.8.6(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

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

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

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

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

[Signature]
[Date]
[Title]

[Name of Firm]
Attachment 11.8.6 (a)
Attachment 11.8.6 (b)
Certification Regarding Debarment Forms
ATTACHMENT NO. 11.8.6(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

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

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

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

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

[Signature] [Date] [Title]

Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature]
[Date]

Senior Vice President
Title

Johnson Mirmiran and Thompson, Inc.

Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature]
December 2, 2014

[Signature]
Date

Branch Manager

[Signature]
Title

MBP

Name of Firm
ATTACHMENT NO. 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature] 11/25/14 [President and CEO]
[Date] [Title]

DMY Engineering Consultants Inc.
Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

_____________________________  11/25/2014  
Signature                      Date

_____________________________  _______________________
Chief Engineer                Title
VICE President

ECS Mid-Atlantic, LLC

Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature] 11-26-19 [Date] [President]
[Title]

T3 Design Corporation
Name of Firm
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature] [Date] [Title]

NXL Construction Services, Inc.
Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

Signature                      Date

November 25, 2014

President                          Title

EEE Consulting, Inc.

Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature] 11-25-14  [CEO / President]
Signature Date Title

Hurt & Proffitt, Inc.
Name of Firm
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature]

[Date] 11.25.14

[Title] EXECUTIVE VICE PRESIDENT

[Name of Firm] Bowman Consulting Group, Ltd.
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

Signature 10-04-14  President
Date
Title

Name of Firm

Sharp & Company, Inc.
ATTACHMENT NO. 11.8.6(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project: 9999-118-240
Contract ID: C00105515DB78

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

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

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

[Signature] 11/26/2014  
Managing Partner  
Date

Appraisal Review Specialists, LLC  
Name of Firm
Odd Fellows Road Interchange at US Route 29/460 and Road Improvements

Along US Route 29/460
From: 0.6 Miles East of Candler's Mountain Road (Route 501North)
To: 0.5 Miles West of Campbell Avenue and
Along Odd Fellows Road
From: Top Ridge Road (Frontage Route 794)
To: Lynchburg Expressway (Business Route 29/501)

December 11, 2014
State Project No.: 9999-118-240
Federal Project No.: NH-5118(209)
Contract ID Number: C00105515DB78
City of Lynchburg, Virginia
4.2.3.1 Conceptual Roadway Plans
4.2.3.2 Conceptual Structural Plans
ABUTMENT SECTION BETWEEN BEAMS

ABUTMENT SECTION AT BEAMS
TRANSVERSE SECTION

Note:
Adjoining stations in Segment B2 run opposite of Segment A. This view is drawn looking north to mimic the presentation of the bridge typical section in Segment A.

DRIP DETAIL
ABUTMENT SECTION BETWEEN BEAMS

ABUTMENT SECTION AT BEAMS

Preliminary Plans

These plans not to be used for construction.

Note:

All chamfers shall be 3/4".

Class A3 concrete and reinforcing steel included with substructure quantities.

Extreme care must be taken when placing concrete, to eliminate any voids under beam flanges.

Cost of dowels, anchor bolts, plates, washers and temporary supports shall be included in the bid price for prestressed.

Cost of concrete, asphalt, and bedding for MSE wall and abutment shall be included in other bid items.

Revisions

Note:

TYPICAL ABUTMENT SECTIONS
4.2.4.1 Proposal Schedule
C00105515DB78 Odd Fellows Road Interchange at US Route 29/460 and Road Improvements-ALT 2

**Milestones and General Conditions**

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Start</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice to Proceed</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>NTP ROW Acquisition</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Construction Start</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Substantial Completion of Design</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Substantial Completion of Road &amp; Paving</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Final Completion (Contract = 03-AUG-2018)</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Notice to Proceed</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>NTP ROW Acquisition</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Construction Start</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Substantial Completion of Design</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Substantial Completion of Road &amp; Paving</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Final Completion (Contract = 03-AUG-2018)</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
</tbody>
</table>

**Preconstruction**

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Start</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope Validation Period</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
</tbody>
</table>

**Design**

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Start</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Design</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
</tbody>
</table>

**Roadway**

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Start</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare ROW/Roadway Plans 460 (ROW)</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Drainage</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Storm Water Management</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Signing, Striping</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Underground Utility Locating</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Survey Coordination/Mapping</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Maintain of Traffic/TPM</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Design QA/QC Review Roadway Plans</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Design QA/QC Review Plans for Submission</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
</tbody>
</table>

**Segment A**

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Start</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Allocation Segment A</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Prepare ROW/Roadway Plans Odd Fellows, (ROW) B-1</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Drainage B-1</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Storm Water Management</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Signing, Striping B-1</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Underground Utility Locating B-1</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Maintain of Traffic/TPM B-1</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Design QA/QC Review Plans B-1</td>
<td>02-Aug-18</td>
<td>902.0d</td>
</tr>
<tr>
<td>Activity ID</td>
<td>Activity Name</td>
<td>Planned Duration</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Segment A</td>
<td></td>
<td>58.0d</td>
</tr>
<tr>
<td>DRW1130</td>
<td>Preliminary Type, Size, and Locations Plan 460</td>
<td>60.0d</td>
</tr>
<tr>
<td>DRW1140</td>
<td>VDOT Plan Review 460</td>
<td>21.0d</td>
</tr>
<tr>
<td>Geotechnical Research</td>
<td>42.0d</td>
<td>18-Feb-15</td>
</tr>
<tr>
<td>DRW1081</td>
<td>Prepare Work Plan</td>
<td>7.0d</td>
</tr>
<tr>
<td>DRW1092</td>
<td>VDOT Approval Work Plan</td>
<td>21.0d</td>
</tr>
<tr>
<td>DRW1070</td>
<td>Drilling</td>
<td>30.0d</td>
</tr>
<tr>
<td>Survey</td>
<td>Prepare Roadway Plans Odd Fellows (Final)</td>
<td>7.0d</td>
</tr>
<tr>
<td>Entire Project</td>
<td>Survey Control</td>
<td>10.0d</td>
</tr>
<tr>
<td>A8005</td>
<td>Survey Notification Letters</td>
<td>20.0d</td>
</tr>
<tr>
<td>A8105</td>
<td>Field Survey/Utility Survey</td>
<td>30.0d</td>
</tr>
<tr>
<td>A8205</td>
<td>Office Time Field Utility Survey</td>
<td>14.0d</td>
</tr>
<tr>
<td>A8305</td>
<td>Topo Verification</td>
<td>10.0d</td>
</tr>
<tr>
<td>A8405</td>
<td>DTM Preparation</td>
<td>15.0d</td>
</tr>
<tr>
<td>Final Design</td>
<td>Preliminary Type, Size, and Locations Plans (460)</td>
<td>7.0d</td>
</tr>
<tr>
<td>Segment B-1</td>
<td>Prepare Roadway Plans Odd Fellows (Final)</td>
<td>10.0d</td>
</tr>
<tr>
<td>DFC2020</td>
<td>Final Plans for Review (460)</td>
<td>90.0d</td>
</tr>
<tr>
<td>DFC2030</td>
<td>Drainage</td>
<td>90.0d</td>
</tr>
<tr>
<td>DFC2040</td>
<td>Signs, Striping</td>
<td>90.0d</td>
</tr>
<tr>
<td>DFC2050</td>
<td>Utility Relocation Design</td>
<td>90.0d</td>
</tr>
<tr>
<td>DFC2120</td>
<td>VDOT/FHWA/Review/Comment Roadway</td>
<td>21.0d</td>
</tr>
<tr>
<td>Bridge</td>
<td>Final Plans for Review (460)</td>
<td>90.0d</td>
</tr>
<tr>
<td>DF2150</td>
<td>Final Plans for Review (460)</td>
<td>90.0d</td>
</tr>
<tr>
<td>DF2160</td>
<td>VDOT Final Plan Review (460)</td>
<td>21.0d</td>
</tr>
<tr>
<td>DFC2120</td>
<td>Final Plans for Review (460)</td>
<td>30.0d</td>
</tr>
<tr>
<td>Geotechnical Research</td>
<td>67.0d</td>
<td>17-Apr-15</td>
</tr>
<tr>
<td>DRW1081</td>
<td>Lab Testing</td>
<td>30.0d</td>
</tr>
<tr>
<td>DRW1092</td>
<td>VDOT Review Geo-tech</td>
<td>21.0d</td>
</tr>
<tr>
<td>DRW1098</td>
<td>Final Geotech Report</td>
<td>14.0d</td>
</tr>
</tbody>
</table>
### Scope Alternative #2
**SA21000**
- **Design Scope Alternative #3**
  - **Start**: 18-Apr-16
  - **End**: 09-Oct-17
  - **Duration**: 180.0d
- **Design Scope Alternative #4**
  - **Start**: 18-May-16
  - **End**: 19-Aug-16
  - **Duration**: 60.0d
- **Design Scope Alternative #5**
  - **Start**: 18-May-16
  - **End**: 19-Aug-16
  - **Duration**: 60.0d

### Permitting
**SA22000**
- **Complete Wetland Delinations**
  - **Start**: 29-Mar-15
  - **End**: 31-May-16
  - **Duration**: 317.0d

### ROW Acquisition
**SA23000**
- **Order Titles**
  - **Start**: 29-May-15
  - **End**: 28-Jun-15
  - **Duration**: 20.0d
- **Title Certification**
  - **Start**: 28-Jun-15
  - **End**: 21-Nov-15
  - **Duration**: 93.0d

### Utility Relocations
**SA24000**
- **Utility Designation/Investigation/Test Pitting (App. Power)**
  - **Start**: 30-May-15
  - **End**: 20-Aug-15
  - **Duration**: 158.0d
- **Utility Relocation Plan and Estimate (App. Power)**
  - **Start**: 20-Aug-15
  - **End**: 09-Feb-16
  - **Duration**: 180.0d
- **Utility Relocation (App. Power)**
  - **Start**: 09-Feb-16
  - **End**: 08-Oct-16
  - **Duration**: 212.0d

### City of Lynchburg
**SA25000**
- **Utility Designation/Investigation/Test Pitting (City)**
  - **Start**: 28-May-15
  - **End**: 27-Jun-15
  - **Duration**: 50.0d
- **Utility Relocation Plan and Estimate (City)**
  - **Start**: 28-May-15
  - **End**: 27-Jun-15
  - **Duration**: 50.0d
- **Utility Relocation (City)**
  - **Start**: 28-May-15
  - **End**: 27-Jun-15
  - **Duration**: 50.0d
<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Name</th>
<th>Planned Duration</th>
<th>Start Date</th>
<th>Finish Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9720</td>
<td>Utility Relocation (City)</td>
<td>90.0d</td>
<td>26-Oct-15</td>
<td>25-Jan-16</td>
</tr>
<tr>
<td>Columbia Gas</td>
<td></td>
<td>90.0d</td>
<td>05-Nov-15</td>
<td>03-Jun-16</td>
</tr>
<tr>
<td>A9730</td>
<td>Utility Designation/Investigation/Test Pitting (Gas)</td>
<td>30.0d</td>
<td>03-Jun-15</td>
<td>29-May-15</td>
</tr>
<tr>
<td>A9740</td>
<td>UFI Meeting (Gas)</td>
<td>1.0d</td>
<td>28-Jun-15</td>
<td>28-Jun-15</td>
</tr>
<tr>
<td>A9750</td>
<td>Utility Relocation Plan and Estimate (Gas)</td>
<td>90.0d</td>
<td>05-Nov-15</td>
<td>03-Feb-16</td>
</tr>
<tr>
<td>A9760</td>
<td>QAQC Review of P&amp;E (Gas)</td>
<td>10.0d</td>
<td>27-Sep-15</td>
<td>06-Oct-15</td>
</tr>
<tr>
<td>A9780</td>
<td>Utility Relocation (Gas)</td>
<td>90.0d</td>
<td>02-Oct-15</td>
<td>25-Jan-16</td>
</tr>
<tr>
<td>Lumos Networks</td>
<td></td>
<td>235.0d</td>
<td>03-Jun-15</td>
<td>29-Aug-15</td>
</tr>
<tr>
<td>A9790</td>
<td>Utility Designation/Investigation/Test Pitting (Lumos)</td>
<td>30.0d</td>
<td>06-Oct-15</td>
<td>04-Nov-15</td>
</tr>
<tr>
<td>A9800</td>
<td>UFI Meeting (Lumos)</td>
<td>1.0d</td>
<td>05-Nov-15</td>
<td>05-Nov-15</td>
</tr>
<tr>
<td>A9810</td>
<td>Utility Relocation Plan and Estimate (Lumos)</td>
<td>90.0d</td>
<td>06-Nov-15</td>
<td>03-Feb-16</td>
</tr>
<tr>
<td>A9820</td>
<td>QAQC Review of P&amp;E (Lumos)</td>
<td>10.0d</td>
<td>04-Feb-16</td>
<td>13-Feb-16</td>
</tr>
<tr>
<td>A9830</td>
<td>VDOT Review of P&amp;E (Lumos)</td>
<td>21.0d</td>
<td>14-Feb-16</td>
<td>05-Mar-16</td>
</tr>
<tr>
<td>A9840</td>
<td>Utility Relocation (Lumos)</td>
<td>90.0d</td>
<td>01-Jun-15</td>
<td>29-Aug-15</td>
</tr>
<tr>
<td>Mid-Atlantic Broadband</td>
<td></td>
<td>174.5d</td>
<td>06-Oct-15</td>
<td>03-Jun-16</td>
</tr>
<tr>
<td>A9850</td>
<td>Utility Designation/Investigation/Test Pitting (MAB)</td>
<td>30.0d</td>
<td>06-Oct-15</td>
<td>04-Nov-15</td>
</tr>
<tr>
<td>A9860</td>
<td>UFI Meeting (MAB)</td>
<td>1.0d</td>
<td>05-Nov-15</td>
<td>05-Nov-15</td>
</tr>
<tr>
<td>A9870</td>
<td>Utility Relocation Plan and Estimate(MAB)</td>
<td>90.0d</td>
<td>06-Nov-15</td>
<td>03-Feb-16</td>
</tr>
<tr>
<td>A9880</td>
<td>QAQC Review of P&amp;E (MAB)</td>
<td>10.0d</td>
<td>04-Feb-16</td>
<td>13-Feb-16</td>
</tr>
<tr>
<td>A9890</td>
<td>VDOT Review of P&amp;E (MAB)</td>
<td>21.0d</td>
<td>14-Feb-16</td>
<td>05-Mar-16</td>
</tr>
<tr>
<td>A9900</td>
<td>Utility Relocation (MAB)</td>
<td>90.0d</td>
<td>06-Mar-16</td>
<td>02-Jun-16</td>
</tr>
<tr>
<td>Verizon</td>
<td></td>
<td>174.0d</td>
<td>06-Oct-15</td>
<td>03-Jun-16</td>
</tr>
<tr>
<td>A9910</td>
<td>Utility Designation/Investigation/Test Pitting (Verizon)</td>
<td>30.0d</td>
<td>06-Oct-15</td>
<td>04-Nov-15</td>
</tr>
<tr>
<td>A9920</td>
<td>UFI Meeting (Verizon)</td>
<td>1.0d</td>
<td>05-Nov-15</td>
<td>05-Nov-15</td>
</tr>
<tr>
<td>A9930</td>
<td>Utility Relocation Plan and Estimate (Verizon)</td>
<td>90.0d</td>
<td>06-Nov-15</td>
<td>03-Feb-16</td>
</tr>
<tr>
<td>A9940</td>
<td>QAQC Review of P&amp;E (Verizon)</td>
<td>10.0d</td>
<td>04-Feb-16</td>
<td>13-Feb-16</td>
</tr>
<tr>
<td>A9950</td>
<td>VDOT Review of P&amp;E(Verizon)</td>
<td>21.0d</td>
<td>14-Feb-16</td>
<td>05-Mar-16</td>
</tr>
<tr>
<td>A9960</td>
<td>Utility Relocation (Verizon)</td>
<td>90.0d</td>
<td>06-Mar-16</td>
<td>02-Jun-16</td>
</tr>
<tr>
<td>Windstream KDL</td>
<td></td>
<td>174.5d</td>
<td>06-Oct-15</td>
<td>03-Jun-16</td>
</tr>
<tr>
<td>A9970</td>
<td>Utility Designation/Investigation/Test Pitting (Windstream)</td>
<td>30.0d</td>
<td>06-Oct-15</td>
<td>04-Nov-15</td>
</tr>
<tr>
<td>A9980</td>
<td>UFI Meeting (Windstream)</td>
<td>1.0d</td>
<td>05-Nov-15</td>
<td>05-Nov-15</td>
</tr>
<tr>
<td>A9990</td>
<td>Utility Relocation Plan and Estimate (Windstream)</td>
<td>90.0d</td>
<td>06-Nov-15</td>
<td>03-Feb-16</td>
</tr>
<tr>
<td>A9991</td>
<td>QAQC Review of P&amp;E (Windstream)</td>
<td>10.0d</td>
<td>04-Feb-16</td>
<td>13-Feb-16</td>
</tr>
<tr>
<td>A9992</td>
<td>VDOT Review of P&amp;E (Windstream)</td>
<td>21.0d</td>
<td>14-Feb-16</td>
<td>05-Mar-16</td>
</tr>
<tr>
<td>A9993</td>
<td>Utility Relocation (Windstream)</td>
<td>90.0d</td>
<td>06-Mar-16</td>
<td>02-Jun-16</td>
</tr>
<tr>
<td>Submittals</td>
<td></td>
<td>155.0d</td>
<td>25-May-15</td>
<td>01-Jan-16</td>
</tr>
<tr>
<td>Roadways</td>
<td></td>
<td>83.0d</td>
<td>02-May-15</td>
<td>25-Aug-15</td>
</tr>
<tr>
<td>A8750</td>
<td>Submit Project Specific Safety Plan</td>
<td>20.0d</td>
<td>29-May-15</td>
<td>23-Jun-15</td>
</tr>
<tr>
<td>A8760</td>
<td>Submit QAQC Plan</td>
<td>20.0d</td>
<td>29-May-15</td>
<td>23-Jun-15</td>
</tr>
<tr>
<td>A8770</td>
<td>Submit Transportation Management Plan</td>
<td>20.0d</td>
<td>29-May-15</td>
<td>23-Jun-15</td>
</tr>
<tr>
<td>A8810</td>
<td>VDOT Review/Comment QAQC Plan</td>
<td>21.0d</td>
<td>24-Jun-15</td>
<td>23-Jul-15</td>
</tr>
<tr>
<td>A8850</td>
<td>Review Project Specific Safety Plan</td>
<td>5.0d</td>
<td>24-Jul-15</td>
<td>29-Jul-15</td>
</tr>
<tr>
<td>A8860</td>
<td>Review QAQC Plan</td>
<td>5.0d</td>
<td>24-Jul-15</td>
<td>29-Jul-15</td>
</tr>
</tbody>
</table>
Activity Name

Erection Plan

Jul

Qtr 4, 2017

19-Dec-15

25.0d

Planned

09-Dec-15

Preparatory Meeting -Asphalt Pavement

1.0d

A

07-Jan-16

Final Submit Project Specific Safety Plan

N

02-Jan-16

02-Jan-16

02-Jan-16

1.0d

10.0d

Preparatory Meeting - Pipe

Qtr 1, 2018

A

02-Jan-16

5.0d

01-Jan-16

29-Jul-15

1.0d

10.0d

Preparatory Meeting - Erosion Control

21.0d

14.0d

08-Mar-16

30-Jul-15

1.0d

18-Feb-15

D

359.0d

21.0d

14.0d

09-Dec-15

N

06-Apr-16

10-Dec-15

D

Revise  Transportation Management Plan

18-Feb-15

QA/QC Review/Approve Girder Shop Drawings, Bearing

09-Dec-15

90.0d

Qtr 2, 2016

24-Jul-15

Fabrication/Delivery MSE Wall Panels

09-Dec-15

1.0d

14.0d

30-Jul-15

Q

Overhang Submittal

04-Jul-16

Fabrication/Delivery Superstructure Rebar

29-Jul-15

F

5.0d

26-Jun-16

J

Fabrication/Delivery Pile Abut B

Final Submit  QA/QC Plan

90.0d

Preparatory Meeting -Subgrade/Base

18-Dec-15

J

14.0d

30-Jul-15

J

01-Jan-16

F

Pile Shop Drawings, Wave Equation, Testing

18-Dec-15

J

14.0d

30-Jul-15

J

01-Jan-16

F

Preparatory Meeting - Clear & Grub

02-Jan-16

09-Dec-15

10-Dec-15

21-May-16

Acquire Dump Sites and Borrow Pits

18.0d

19-Dec-15

M

10.0d

21.0d

10-Dec-15

S

10-Dec-15

10-Dec-15

10-Dec-15

Fabrication/Delivery Signs and Structures

21.0d

30-Jul-15

J

01-Jan-16

F

Pile Shop Drawings, Wave Equation, Testing

18-Dec-15

J

14.0d

30-Jul-15

J

01-Jan-16

F

Preparatory Meeting -MOT

Preparatory Meeting -Pavement Markings

21-Jun-16

Preparatory Meeting -Bridge Deck

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -Bridge Substructure

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -Bridge Pile

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -MSE

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -MOE

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -Pavement Markings

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -Topical and Seeding

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -Signage

1.0d

02-Jan-16

02-Jan-16

Preparatory Meeting -Girder Erection

1.0d

02-Jan-16

02-Jan-16
<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Name</th>
<th>Start Date</th>
<th>Finish Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A10230</td>
<td>Clear/Grub #1</td>
<td>07-Nov-15</td>
<td>13-May-16</td>
</tr>
<tr>
<td>A10250</td>
<td>Construct Wall</td>
<td>14-May-16</td>
<td>13-Sep-16</td>
</tr>
<tr>
<td>A10270</td>
<td>SIP Deck Forms / Form Deck</td>
<td>18-Oct-16</td>
<td>10-Apr-17</td>
</tr>
<tr>
<td>A14010</td>
<td>Set Girders</td>
<td>19-Oct-16</td>
<td>22-Nov-16</td>
</tr>
<tr>
<td>A14020</td>
<td>Install Parapets</td>
<td>15-Mar-17</td>
<td>22-Nov-16</td>
</tr>
<tr>
<td>A14030</td>
<td>FRPS Column Pier 1</td>
<td>31-Aug-16</td>
<td>22-Nov-16</td>
</tr>
<tr>
<td>A14040</td>
<td>FRPS Cap Pier 1</td>
<td>15-Feb-16</td>
<td>13-Nov-15</td>
</tr>
<tr>
<td>A23020</td>
<td>Clear/Grub #2</td>
<td>16-Mar-16</td>
<td>24-Mar-16</td>
</tr>
<tr>
<td>A23030</td>
<td>Construct Basin #3</td>
<td>13-Apr-16</td>
<td>20-Apr-16</td>
</tr>
</tbody>
</table>

**Notes:**
- **Temporary Project Signage:** 10.0d, 23-May-16
- **Clear/Grub RW:** 111.0d, 30-Mar-16
- **FRPS Footer Pier 1:** 6.0d, 20-May-16
- **Sediment Basins:** 47.0d, 01-Mar-16

**Timeline:**
- **Segment A:**
  - Temporary Project Signage: 07-Nov-15 to 23-Mar-16
  - Clear/Grub #1: 10.0d, 10-Feb-17 to 07-Nov-15
  - Test Pile Pier 1: 27.0d, 01-Mar-16 to 08-Feb-17
  - Convert TSP to BMP #1: 6.0d, 20-Apr-16
  - FRPS Footer Pier 1: 6.0d, 20-May-16
  - Drive Piling Abutment A: 5.0d, 07-Nov-15
  - FRPS Backwall Abutment A: 6.0d, 23-Mar-16
  - FRPS Footer Abutment A: 11-Mar-16

- **Segment B:**
  - Temporary Project Signage: 07-Nov-15 to 08-Feb-17
  - Clear/Grub #2: 7.0d, 23-Jan-16
  - Restrike T est Pile Abut A: 07-Nov-15
  - FRPS Backwall Abutment B: 10.0d, 20-Apr-16
  - Drive Piling Abutment B: 5.0d, 02-May-18

- **Segment C:**
  - Temporary Project Signage: 07-Nov-15 to 08-Feb-17
  - Clear/Grub #3: 10.0d, 23-Jan-16
  - Restrike T est Pile Abut B: 07-Nov-15
  - FRPS Footer Pier 1: 6.0d, 23-Mar-16
  - Drive Piling Pier 1: 5.0d, 23-May-16

- **Segment D:**
  - Temporary Project Signage: 07-Nov-15 to 08-Feb-17
  - Clear/Grub #1: 7.0d, 23-Jan-16
  - Restrike T est Pile Abut B: 07-Nov-15
  - FRPS Footer Pier 1: 6.0d, 23-Mar-16
  - Drive Piling Pier 1: 5.0d, 23-May-16

- **Overall Timeline:**
  - Project Start: 07-Nov-15
  - Project Finish: 08-Feb-17

**Schedule Submission:**
- **Qtr 1, 2015:**
  - Restrike T est Pile Abut B
  - FRPS Footer Pier 1

- **Qtr 2, 2015:**
  - FRPS Column Pier 1

- **Qtr 3, 2015:**
  - FRPS Cap Pier 1

- **Qtr 4, 2015:**
  - FRPS Cap Pier 1

- **Qtr 1, 2016:**
  - FRPS Footer Pier 1

- **Qtr 2, 2016:**
  - FRPS Column Pier 1

- **Qtr 3, 2016:**
  - FRPS Cap Pier 1

- **Qtr 4, 2016:**
  - FRPS Footer Pier 1

- **Qtr 1, 2017:**
  - FRPS Column Pier 1

- **Qtr 2, 2017:**
  - FRPS Cap Pier 1

- **Qtr 3, 2017:**
  - FRPS Cap Pier 1

- **Qtr 4, 2017:**
  - FRPS Cap Pier 1

- **Qtr 1, 2018:**
  - FRPS Cap Pier 1

- **Qtr 2, 2018:**
  - FRPS Cap Pier 1

- **Qtr 3, 2018:**
  - FRPS Cap Pier 1

- **Qtr 4, 2018:**
  - FRPS Cap Pier 1

**Additional Notes:**
- **Abutments:** 77.0d, 14-May-16
- **Bridge 460  (Segment A):** 311.0d, 07-Nov-15 to 10-Apr-18
- **Bridge 460  (Segment B):** 222.0d, 07-Nov-15 to 13-Sep-16
- **Bridge 460  (Segment C):** 222.0d, 07-Nov-15 to 13-Sep-16
- **Bridge 460  (Segment D):** 222.0d, 07-Nov-15 to 13-Sep-16
<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Name</th>
<th>Planned Duration</th>
<th>Start Date</th>
<th>Finish Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A11430</td>
<td>Guardrail</td>
<td>10.0d</td>
<td>12-Mar-18</td>
<td>23-Mar-18</td>
</tr>
<tr>
<td>460 Respective</td>
<td>Grading</td>
<td>251.0d</td>
<td>24-Oct-18</td>
<td>31-Jul-17</td>
</tr>
<tr>
<td>A11490</td>
<td>Remove Unsuitable</td>
<td>5.0d</td>
<td>31-Oct-16</td>
<td>06-Mar-17</td>
</tr>
<tr>
<td>A11492</td>
<td>Borrow</td>
<td>10.0d</td>
<td>06-Mar-17</td>
<td>20-Mar-17</td>
</tr>
<tr>
<td>A11500</td>
<td>Rough Grade</td>
<td>40.0d</td>
<td>21-Mar-17</td>
<td>15-May-17</td>
</tr>
<tr>
<td>A11510</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11495</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11540</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11550</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11560</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11570</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11580</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11590</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11600</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11610</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11620</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11630</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11640</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11650</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11660</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11670</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11680</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11690</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11700</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11710</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11720</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11730</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11740</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11750</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11760</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11770</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11780</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11790</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11800</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11810</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11820</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11830</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11840</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11850</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11860</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11870</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11880</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11890</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11900</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11910</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11920</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11930</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11940</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11950</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11960</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11970</td>
<td>Fire Grade</td>
<td>10.0d</td>
<td>16-May-17</td>
<td>30-May-17</td>
</tr>
<tr>
<td>A11980</td>
<td>Borrow</td>
<td>20.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
<tr>
<td>A11990</td>
<td>Rough Grade</td>
<td>30.0d</td>
<td>24-Oct-16</td>
<td>10-Mar-17</td>
</tr>
</tbody>
</table>

**Total Duration:** 390.0d
<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Name</th>
<th>Planned Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>A11880</td>
<td>Stone place/Finegrade</td>
<td>20.0d</td>
<td>01-May-17</td>
<td>26-May-17</td>
</tr>
<tr>
<td>A11881</td>
<td>Curb and Gutter</td>
<td>40.0d</td>
<td>30-May-17</td>
<td>20-Jul-17</td>
</tr>
<tr>
<td>A11900</td>
<td>Base</td>
<td>10.0d</td>
<td>21-Jul-17</td>
<td>02-Aug-17</td>
</tr>
<tr>
<td>A11900</td>
<td>Intermediate</td>
<td>5.0d</td>
<td>04-Aug-17</td>
<td>10-Aug-17</td>
</tr>
<tr>
<td>A11910</td>
<td>Surfacing</td>
<td>10.0d</td>
<td>11-Aug-17</td>
<td>24-Aug-17</td>
</tr>
<tr>
<td>A11930</td>
<td>Dress Shoulder</td>
<td>20.0d</td>
<td>25-Aug-17</td>
<td>22-Sep-17</td>
</tr>
<tr>
<td>A11931</td>
<td>Topsoil</td>
<td>1.0d</td>
<td>25-Sep-17</td>
<td>23-Sep-17</td>
</tr>
<tr>
<td>A11940</td>
<td>Seed</td>
<td>5.0d</td>
<td>26-Sep-17</td>
<td>02-Oct-17</td>
</tr>
<tr>
<td>A11950</td>
<td>Guardrail</td>
<td>5.0d</td>
<td>03-Oct-17</td>
<td>10-Oct-17</td>
</tr>
<tr>
<td>SA1000</td>
<td>Sidewalk B-1</td>
<td>15.0d</td>
<td>30-May-17</td>
<td>15-Jun-17</td>
</tr>
<tr>
<td>SA2000</td>
<td>Shared Use Path B-1</td>
<td>15.0d</td>
<td>30-May-17</td>
<td>15-Jun-17</td>
</tr>
<tr>
<td>SA3000</td>
<td>Landscaping B-1</td>
<td>20.0d</td>
<td>25-Aug-17</td>
<td>21-Sep-17</td>
</tr>
<tr>
<td>A6550</td>
<td>Permanent Signs</td>
<td>20.0d</td>
<td>26-Mar-18</td>
<td>02-May-18</td>
</tr>
<tr>
<td>A6560</td>
<td>Guardrail Adjustments</td>
<td>5.0d</td>
<td>19-Apr-18</td>
<td>25-Apr-18</td>
</tr>
<tr>
<td>A6510</td>
<td>Paving Markings</td>
<td>5.0d</td>
<td>26-Apr-18</td>
<td>02-May-18</td>
</tr>
</tbody>
</table>