STATEMENT OF QUALIFICATIONS

ROUTE 659
(BELMONT RIDGE ROAD) --
RECONSTRUCT TO 4-LANES

FROM: ROUTE 642 (HAY ROAD)
TO: ROUTE 2150 (GLOUCESTER PARKWAY)

STATE PROJECT NO.: 0659-053-262, R204, C504, B670, B671
CONTRACT ID NO.: C00076244DB76

JULY 22, 2014
July 22, 2014

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

RE: Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes
   State Project No.: 0659-053-262, R204, C504, B670, B671
   Contract ID Number: C00076244DB76

Dear Mr. Reichert:

The Lane Construction Corporation (LANE) is pleased to present this Statement of Qualifications for the above referenced project to the Virginia Department of Transportation (VDOT). LANE is nationally ranked as the #1 Highway Contractor by Engineering News-Record and specializes in high quality roadway, bridge, and mass-transit construction. LANE has a long and successful history of project completion in the Commonwealth of Virginia managed from our regional office in Chantilly.

As a leader in the Design-Build method (nationally ranked as the 43rd Top Design-Build Firm by Engineering News-Record), we appreciate the importance of partnering and have constructed more than $3 billion in Design-Build projects during the last decade. LANE’s teaming and leadership experience enable us to deliver the innovative and technically sound results that VDOT and Virginia residents deserve.

LANE is the Offeror and will be the overall authority on the project as well as the Lead Contractor. We have teamed with Johnson, Mirmiran, and Thompson, Inc. (JMT) as the Lead Designer. Together, we provide VDOT with a reputable team capable of completing projects of any size and scope on time and on budget.

LANE and JMT, in conjunction with hand-selected specialty firms experienced with VDOT processes and procedures, will provide design and construction for the Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes Project. We are confident in our team structure and experience, and have elaborated on our distinctive qualifications in the subsequent sections. The LANE Team has assembled committed personnel with proven delivery of VDOT’s requirements to meet the quality, safety, and schedule demands of this Project.

3.2.2 Offeror’s Point of Contact Information: Mr. Richard A. McDonough is the authorized representative and point of contact for the LANE Team for all matters associated with this qualifications submittal.

Richard A. McDonough, Senior National Pursuit Manager
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (703) 222-5670  Fax: (703) 222-5960
Email: RAMcdonough@laneconstruct.com
3.2.3 Offeror's Principal Officer Information: Mr. Mark A. Schiller is a principal officer of The Lane Construction Corporation and the legal entity with whom a Design-Build contract with VDOT will be written. Mark A. Schiller, Senior Vice President 14500 Avion Parkway, Suite 200 Chantilly, VA 20151 Tel: (703) 222-5670 Fax: (703) 222-5960 Email: MASchiller@laneconstruct.com

3.2.4 Offeror's Corporate Structure: LANE was founded in 1890 and was incorporated in the State of Connecticut on April 5, 1902. LANE will undertake the financial responsibility for the Project and has no known liability limitations. LANE's pre-qualification status/capabilities with VDOT are well in excess of the requirements of this project. The co-sureties will furnish a single 100% performance bond and a single 100% payment bond.

3.2.5 Lead Contractor and Lead Designer: The full legal name of the Offeror is: The Lane Construction Corporation. LANE will serve as the prime/general contractor responsible for overall construction of the project and will serve as the legal entity who will execute the contract with VDOT. The full legal name of the Lead Designer is: Johnson, Mirmiran, and Thompson, Inc. (JMT). JMT will serve as the lead design firm responsible for the overall design of this Project under contract to Lane.

3.2.6 Affiliated/Subsidiary Companies: LANE's parent company is Lane Industries, Inc. A complete list of affiliates and subsidiary companies may be found in the Appendix.

3.2.7 Debarment Forms: Certifications for Debarment for both Primary and Lower Tier Covered Transactions have been completed and executed for the Offeror and all subconsultants, subcontractors, and other entities as identified as members of the LANE Team and may be found in the Appendix.

3.2.8 Offeror's VDOT Prequalification Evidence: Evidence from VDOT's online Prequalified List (L002/Active) is included in the Appendix and verifies that LANE is prequalified for this SOQ submission.

3.2.9 Letter of Surety: A surety letter from the bonding companies is included in the Appendix, confirming their willingness to provide any and all bonds for this Project.

3.2.10 Professional Services Evidence: The matrix in the Appendix delineates the respective state registrations and licensures of the LANE Team. The Offeror and all team members are eligible at the time of the SOQ submittal, under the law and relevant regulations, to offer and to provide any services proposed or related to the Project. Respective copies of licenses may be found in the Appendix.

3.2.11 DBE Statement: The LANE Team supports the Disadvantaged Business Enterprise (DBE) program and is committed to meeting the 13% goal for the design and construction of this Project utilizing Virginia certified DBE companies. The LANE Team will take all necessary and reasonable steps to ensure that DBE firms have the maximum opportunity to compete for and perform services on this design-build contract.

As evidenced by our proven performance, our team will deliver this Project on time and within budget. We appreciate the opportunity to present our qualifications and look forward to working with VDOT on this important project.

Respectfully submitted,

Richard A. McDonough
Senior National Pursuit Manager
3.3 Offeror’s Team Structure
3.3 | OFFEROR’S TEAM STRUCTURE

We have carefully chosen a group of the most highly skilled team members, both firms and individuals, to create a team structure that advantageously utilizes the design-build (D-B) process and capitalizes on the strongest attributes of each team member’s respective capabilities. LANE’s role will include managing the project, supervising construction, and self-performing the major work elements. JMT will provide overall project management for all design activities. Together, we are the foundation of the LANE Team.

**LANE** The Lane Construction Corporation (LANE) will serve as the Lead Contractor of the D-B team for the Route 659 Belmont Ridge Road – Reconstruct to 4-Lanes (Belmont Ridge Road) project. LANE is currently nationally ranked as the #1 Highway Contractor and ranked #43 in Top D-B Firms by Engineering News-Record (ENR). Our proven heavy civil experience in bridge, roadway, and airport related construction and more than 70 D-B projects ranging in scope and value from $13M to $1.5B demonstrates LANE’s ability to tackle the region’s most challenging infrastructure projects. We typically self-perform 75% of the critical work items, which includes earthwork, excavation, paving, site development, foundations and structures.

**JMT** Johnson, Mirmiran, and Thompson, Inc. (JMT) is the Lead Designer and known for providing value-added solutions and innovations in their approach to D-B projects for 15+ years. JMT is a multidisciplinary employee owned design consulting firm specializing in engineering solutions for a variety of needs. JMT serves public agencies throughout the eastern United States with a broad range of design and construction management services. JMT is nationally ranked #94 in Top 500 Design Firms (Mid-Atlantic Ranking #6) and nationally ranked #18 in Highway Firms by ENR. JMT has the resources of nearly 1,000 employees and 42 years of experience providing a broad range of roadway, and bridge improvements with Virginia offices located in Herndon, Richmond, and Virginia Beach.

**Construction Subconsultants**

Additionally under subcontract to LANE are the following highly qualified subconsultants:

**Quinn Consulting Services (QCS), a Virginia certified DBE/SWaM firm** will provide the Quality Assurance Manager (QAM) and will be under subcontract to LANE. The QAM, Mr. John Vicinski, PE will be assisted by the full-time QA Inspector, Mr. Ahmed Elamin. QCS has provided similar specialized consulting and quality assurance management on numerous D-B projects in Northern Virginia such as the Route 50 Traffic Calming near Gilberts Corner, and the I-495 Express Lanes, Fairfax County Parkway (Phase III), Waxpool Road, Battlefield Parkway, and Dulles Metrorail Extension (Phase 1 and 2).

**Sharp & Company (Sharp & Co.), a Virginia certified DBE/SWaM firm** will provide Public Relation services. Sharp & Co. has significant experience providing project communications and public relations services for urban transportation projects with multiple stakeholders from diverse socioeconomic backgrounds. The firm has provided outreach and public engagement services for the Route 7 (VA) Corridor Study, Fairfax Connector Route Expansion, Silver Line project, VDOT I-66 Inside the Beltway Multimodal Study, Long Bridge Railroad Bridge Study, South Capitol Street SFEIS process, Chesterfield County (VA) Comprehensive Plan, and James County (VA) Mooretown Road Extension Study.

**Seismic Surveys, Inc. (SSI)**, will provide vibration and sound monitoring services. SSI offers a full range of services in blasting and vibration monitoring and control related to the construction industry and recently provided similar services to LANE on the VDOT Jones Point Park project in Alexandria, VA.
Design Subconsultants

Under subcontract to JMT and directly reporting to the Design Manager, Mr. Bob Reed, PE, are the following subconsultants:

**EEE Consulting, Inc. (EEE), a Virginia certified SWaM firm** will provide environmental permitting and noise studies. EEE specializes in environmental permitting and compliance, environmental engineering, local government planning and environmental education. EEE has helped local government, and state and federal transportation agencies with natural resources, wetlands, hazardous materials, air quality, noise studies, environmental compliance, and NEPA documents, including Environmental Impact Statements, Environmental Assessments, Categorical Exclusions, and State Environmental Review Process Requirements. They have provided similar services to JMT on numerous recently completed projects including the Fairfax County Parkway D-B Project Phases I/II & IV and Mark Center Short and Mid-Term Improvement projects.

**Endesco, Inc. (Endesco), a Virginia certified DBE/SWaM firm** will provide drainage and stormwater management services. They offer a wide range of services in the areas of water resources, civil engineering, highways, pedestrian and bicycle facilities including utility relocation and design and project management. Endesco has worked with LANE and JMT for numerous years including an On-Call H/H Review Services Contract, Statewide with JMT and is currently working with LANE on the I-95 Express Lanes D-B project.

**DMY Engineering Consultants, Inc. (DMY), a Virginia certified DBE/SWaM firm** will provide drilling (for design) and independent QC testing (for construction). DMY specializes in geotechnical engineering, subsurface investigations, soils and concrete laboratory testing, and CEI (QA/QC) services. They have in-house AASHTO/AMRL certified soil and concrete laboratories, as well as in-house full size drill rigs to meet demanding project schedules with quality work while having other local drillers as a backup. DMY is currently working with JMT on an On-Call A-E Services Contract with the Town of Herndon and is performing geotechnical engineering for LANE on the PWC D-B Route 1 Improvements project.

### 3.3.1 Qualifications of Key Personnel

We consider VDOT management and staff true project partners, working alongside the LANE Team members. Our relationships are effective, functional, and benefit from a common goal—to safely and expeditiously design and construct the project with the highest level of quality. The LANE Team is led by highly qualified and capable professionals with local roots and strong D-B experience. All of the proposed Key Personnel have noteworthy experience on transportation projects similar to the roles they will serve on the Belmont Ridge Road project. Information regarding their experience can be found in Attachment 3.3.1 in the Appendix.

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<tr>
<th>Name/ Position</th>
<th>Responsibilities on the Belmont Ridge Road Project</th>
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<tr>
<td>Ken Prince, PE (LANE) D-B Project Manager</td>
<td>Overall project design, construction quality management, and contract administration for the project.</td>
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<tr>
<td>John Viciniski, PE (QCS) Quality Assurance Manager</td>
<td>QA inspection and testing of all materials used and work performed including monitoring of LANE’s QC program. Ensures that the construction quality meets or exceeds the <em>VDOT Minimum Quality Control and Quality Assurance Requirements for D-B and PPTA Projects</em>, dated January 2012.</td>
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<tr>
<td>Bob Reed, PE (JMT) Design Manager</td>
<td>Coordinating individual design disciplines and ensuring the overall project design is in conformance with the contract documents. Responsible for establishing and overseeing the QA/QC program for all pertinent design disciplines.</td>
</tr>
<tr>
<td>Barry Bernstein, PE (LANE) Construction Manager</td>
<td>On-site for the duration of construction operations. Managing the construction process, to include all QC activities to ensure the materials used and work performed meet contract requirements and the “approved for construction” plans and specifications.</td>
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3.3.2 Organizational Chart

The LANE Team organization has a straightforward chain of command, with individual tasks, responsibilities, and functional relationships clearly identified. The following Organizational Chart depicts VDOT, third party stakeholders, key personnel, and their respective relationships and functions.

Reporting Relationships of Key Personnel

D-B Project Manager (DBPM), Mr. Ken Prince, PE (LANE) will report to VDOT and serves as VDOT’s central point of contact. He will facilitate communication among team partners and adjacent projects, monitor design efforts to proactively eliminate potential constructability issues prior to breaking ground, and delegate...
resources to deliver the project on time. It will be his responsibility to work with the Team to ensure that the design complies with the owner’s specifications. Mr. Prince’s management from design through construction will include weekly design and construction meetings to discuss how the Team will construct the project. Additionally, he is responsible for construction quality management and contract administration.

**Quality Assurance Manager (QAM), Mr. John Vicinski, PE (QCS) will report directly to the DBPM on all quality issues.** Any item of work failing to meet minimum standards will be rejected and corrected immediately. Construction personnel have no authority over QA inspection staff, and issues raised by construction personnel will be resolved by Mr. Vicinski and the DBPM. Mr. Vicinski will keep VDOT informed on the status of quality of construction and issues/solutions through weekly reports and progress meetings. As QAM, Mr. Vicinski holds the authority to shut down the job if quality issues warrant. **Quality Assurance Inspector, Mr. Ahmed Elamin (QCS), will report directly to the QAM, and will be assigned to the project on a full-time basis for the duration of the project. Specialized Engineering will report to QCS and will perform independent QA testing.**

**Design Manager, Mr. Bob Reed, PE (JMT) will report directly to the DBPM.** Mr. Reed will maintain close communication with the DBPM and will ensure the Project is completed in accordance with the requirements of the contract documents. He is responsible for coordinating all design disciplines and ensuring the overall project design is in conformance with project documents; all design disciplines report directly to Mr. Reed. He will provide VDOT with design plans for review and approval to confirm that the design work is constructable and complies with the requirements of the Contract Documents. Mr. Reed is also responsible for establishing oversight of the QA/QC program for all design disciplines of the project and communicating with the CM. He will be supported by Mr. Bill Schaub, PE who will provide the independent design QA audit. The design QC will be coordinated by Mr. Lee Priestas, PE and will be performed at the office where the work is conducted by a qualified independent staff person.

**Construction Manager, Mr. Barry Bernstein, PE (LANE) will report directly to the DBPM and will be on-site full-time for the duration of the project.** His daily duties include: safety, coordination of all project personnel including subcontractors, and execution of the construction QC program. He holds ultimate responsibility for managing the construction schedule with his staff engineers and to coordinate daily with the adjacent projects underway. He will coordinate daily meetings with the QAM, QA Lead Inspector, and QC Manager to discuss all ongoing construction activities. He will also review all construction QC reports and lab results. Anything that is not meeting standards will be addressed immediately with corrective actions mandated that same day. Mr. Bernstein is currently working on the I-95 Express Lanes project and will be available immediately upon receipt of Intent of Notice of Award. Mr. Bernstein currently holds a DEQ RLD Certification and a VDOT ESCCC.

**Other Functional Relationships**

The LANE Team also includes the following recognized specialists whom we deem critical to this Project, albeit non-key personnel as defined by the RFQ; their qualifications are provided below.

**Design QA – Mr. Bill Schaub, PE (JMT) and Design QC – Mr. Lee Priestas, PE (JMT) will report directly to Mr. Reed, the Design Manager.** With more than 35 years’ experience apiece, they are both thoroughly familiar with VDOT QA/QC Guidelines and the complete design process related to transportation projects, including public involvement policy and environmental document preparation, along with roadway, hydraulics, geotechnical and bridge design. Mr. Schaub has been JMT’s Design Manager on several D-B projects throughout the Mid-Atlantic region has performed Design QA services on 11th Street Corridor (D-B) in Washington, DC and U.S. 113 Dualization (D-B) projects on the Eastern Shore of Maryland. Mr. Priestas previously served as the Director of Public Works/County Engineer for Henrico County in charge of design quality for all projects. At JMT, Mr. Priestas has provided QA/QC on several transportation infrastructure state and county projects to include the Route 7 (Leesburg Pike) project in Fairfax County, VA.

**Quality Assurance Inspector – Mr. Ahmed Elamin (QCS) will report directly to Mr. Vicinski, the QAM, and will be assigned to the project on a full-time basis for the duration of the project.** Mr. Elamin has
experience in the inspection of all aspects of highway and bridge construction. He has overseen compliance with VDOT specifications, standards, plans, contracts, and special provisions on numerous D-B projects. He is responsible for maintaining daily records of all activities on the job site; including field drawings, calculations, invoices, materials, summaries, etc. Mr. Elamin is experience with VDOT D-B projects and is extremely well-versed with the VDOT QA/QC Guidelines.

Public Relations Manager – Ms. Susan Sharp (Sharp & Co.), will report directly to the DBPM. Ms. Sharp has over 35 years of professional experience in strategic planning, electronic and print information, communication and marketing, creation and implementation of effective communication strategies, marketing communications, and public involvement. She will provide public involvement/relations and assist the Team with stakeholder coordination and public participation activities. She and the DBPM will work at the direction of VDOT to develop and implement a public relations program. Her local public relations experience includes: Route 7 (VA) Corridor Study, Fairfax Connector Route Expansion, the Silver Line Metro project, and the VDOT I-66 Inside the Beltway Multimodal Study.

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<tr>
<th>Other pertinent construction disciplines that will report directly to Mr. Reed, PE (DM) include:</th>
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<tr>
<td><strong>Rodney Hayzlett, PE</strong> Roadway</td>
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<tr>
<td>20 yrs. experience in the management and design of advanced technical urban and rural roadway projects in VA; ranging from minor improvements to reconstruction and widening of interstate-type roadways including major drainage improvements. PM on Route 7 and North Area Roads, and Project Engineer on Fairfax County Parkway D-B.</td>
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<tr>
<td><strong>Trip Phaup, PE</strong> Structures</td>
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<tr>
<td>25 yrs. experience in the analysis, design, and preparation of preliminary and final plans, special provisions, and construction cost estimates for a variety of highway, railway, and miscellaneous structures. PM on Route 61 Bridge Replacement D-B and Structural QA/QC on the Fairfax County Parkway D-B.</td>
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<tr>
<td><strong>Mike Leffler, PE</strong> Geotechnical</td>
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<tr>
<td>34 yrs. experience in geotechnical engineering and CI and testing services including test boring and pits, soil and rock testing programs, engineering analysis and preparation of reports. Geotechnical on D-B projects including DDOT’s 11th St. Corridor and Fairfax County Pkwy Design Build Projects.</td>
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<tr>
<td><strong>Dave Malinoski, PE</strong> Utilities</td>
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<tr>
<td>34 yrs. experience in management and design of utility, transportation, and infrastructure projects applying VDOT’s Utility Manual. Experience includes utility conflict analysis, scheduling and in-plan design deliverables for numerous utilities and utility relocations. Worked on LANE’s I-495 Express Lanes &amp; PWC Route 1 Improvements, Route 3 Widening, I-295/Meadowville Interchange D-B projects.</td>
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<tr>
<td><strong>Scott Rasmussen, PLA</strong> Bicycle/Pedestrian</td>
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<td>22 yrs. experience in recreational planning and design, shared use path planning and design specific to transportation facilities (e.g., 11th St. Corridor D-B, MD 924 Streetscape D-B, Wheaton Pedestrian Connection, Jones Falls Trail, Long Branch Trail and Route 7 projects).</td>
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<tr>
<td><strong>Randy Boice, PE</strong> Traffic/TMP</td>
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<td>22 yrs. experience in traffic engineering, highway and traffic signal system design, TMP analysis/design, and the design of communications systems. Sr. Traffic Engineer on high profile projects including Route 7, North Area Roads, and Fairfax County Parkway D-B. Holds ATTSA-VDOT Advanced Work Zone Safety Certification.</td>
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<tr>
<th>Other pertinent construction disciplines that will report directly to Mr. Bernstein, PE (CM) include:</th>
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<tr>
<td><strong>Dennis Rodkey</strong> Roadway Superintendent</td>
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<tr>
<td>33 yrs. experience transportation related projects. Roadway Superintendent on numerous VDOT jobs including I-95 Express Lanes. Worked with DBPM on Dulles Metrorail and North Area Roads and is experienced with roadway construction in Loudoun County.</td>
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<td><strong>Ben McKenna</strong> Structures Superintendent</td>
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<td>41 yrs. of experience in the construction industry. Responsible for the construction of bridges, retaining walls, noise walls and miscellaneous structure work. Worked with DBPM on North Area Roads project as a Structural Superintendent and CM on I-95 Express Lanes.</td>
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<tr>
<td><strong>Wayne Lindsay</strong> Utility Manager</td>
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<tr>
<td>30 yrs. experience in utility construction. Coordinates with utility companies, ensures strict compliance of all SCC regulations, and handles utility relocations. Utility Manager on I-95 Express Lanes and I-495 Express Lanes, Sudley Manor/Linton Hall D-B Projects.</td>
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<tr>
<td><strong>Tom Alexander</strong> SUP Superintendent</td>
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<td>35 yrs. of experience in the construction industry. Responsible for the hands-on, day-to-day construction of the shared use paths, pedestrian tunnels, and all associated components. Superintendent on I-95 Express Lanes, I-495 Express Lanes, Woodrow Wilson Bridge, and WMATA Blue Line Extension D-B Projects.</td>
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<tr>
<td><strong>David Miller, PG</strong> Blasting/Vibration Consultant</td>
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<td>26 yrs. experience in engineering geology, specializing in seismic monitoring of blast and construction vibrations. Worked as a blasting/vibration consultant on numerous projects throughout the Mid-Atlantic, including LANE’s VDOT Jones Point Park project.</td>
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3.4 | EXPERIENCE OF OFFEROR’S TEAM

LANE and JMT are among the nation’s top ranked firms in their respective disciplines. Together and individually, we have designed, built and maintained some of our country’s most important infrastructure. Each firm has achieved a widely recognized level of success by paying specific attention to detail in controlling, managing, and executing their work. Bringing this team together for the Belmont Ridge Road project unifies the abilities of each to perform in a complimentary manner based on our past performance together. The blend of similar projects that we have worked on individually and/or collectively in the region and with the agencies involved confirms our qualifications to successfully deliver all elements of the Belmont Ridge Road project.

LANE has a well-known commitment to VDOT and the Commonwealth of Virginia. We have maintained a regional office in Northern Virginia for over 40 years; employ a full time workforce in excess of 900 craftsmen in Northern Virginia alone; and own and operate asphalt plants in Loudoun County, Chantilly, Alexandria, Occoquan, and Stafford. Our construction group has successfully completed a wide variety of D-B projects for VDOT and other owners to include most recently the highly acclaimed VDOT I-495 D-B Express Lanes project.

Similarly, JMT has a strong relationship with VDOT. They routinely employ a proactive approach to D-B projects providing an interactive design process of collaboration with the contractor and VDOT to assure engineering excellence. Their successful proactive approach is evident in the numerous D-B projects that JMT has worked on in Virginia including: Fairfax County Parkway Extension; Route 460 and Old Virginia Avenue Bridge Replacement; Route 3 Widening; and Route 15/460 Approaches and Bridge over Buffalo Creek.

LANE and JMT Together. LANE and JMT developed a working relationship over a decade ago and have personnel that have worked together on a number of projects. JMT has also completed the design/engineering for numerous LANE projects including the MWAA North Area Roads project. And recently, LANE was awarded the $38M West Carson Street Viaduct project in Pennsylvania which also was designed by JMT. Whether it’s a D-B or a D-B-B project, LANE and JMT continue to maintain a reciprocal relationship throughout design and construction phases which enhances constructability, saves time, and increases quality.

The chart below demonstrates our Team’s experience working with each other on numerous projects throughout the Mid-Atlantic.

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<th>LANE</th>
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3.4.1 Work History Forms

Work History Forms (Attachments 3.4.1(a) and (b)) as required for LANE (Lead Contractor) and JMT (Lead Designer) are included in the Appendix.
3.5 | PROJECT RISKS

LANE Team Risk Management Process: To aide in the management and mitigation of risks, LANE employs the following eight (8) step process. Throughout the life of the project, we review our list of risks to assess whether the risk still exists, additional ones have arisen, and/or if additional or alternative mitigation measures could be implemented. The eight step process (below) is repeated every time the list of risks is reviewed and helps the LANE Team take a proactive approach to risks and risk mitigation.

The LANE Team has carefully considered the key elements of work for the Belmont Ridge Road project to determine what we, the Offeror, consider the three most relevant and critical Project Risks for our Team to mitigate for the success of this Project. In making our assessment, we considered numerous potential risks to the project including: geotechnical/rock, utilities, bridge construction, maintenance of traffic (MOT), noise control, traffic management (TMP), agency/stakeholder coordination, SWM, W&OD trail, and Right of Way (ROW) acquisition. Each of these risk items will have a major impact on the project if not properly assessed and mitigated. However, since the project is phased with the ability to maintain two lanes of traffic without excessive detours, MOT and TMP should be less critical; the bridge work is complicated by working over live traffic and pedestrian movements but is manageable with proper off peak hours of work, and ROW is less complicated due to no total takes; we view these as the least critical of the group. We have concluded that the W&OD Trail, Rock Excavation, and Utilities are the most critical to the success of this project.

RISK NO. 1 – WASHINGTON & OLD DOMINION (W&OD) TRAIL

Risk Identification: A key component of this project includes the roadway’s crossing of the Washington & Old Dominion (W&OD) Trail. The 45-mile long W&OD Trail serves as a heavily-used alternative-mode commuter and recreational facility. The Trail is owned and operated by the Northern Virginia Regional Park
Authority (NVRPA) whom understandably considers the facility as their superhighway and will not allow interference to its operations during normal hours. It has many types of users including bicycle commuters and casual riders, walkers, joggers, equestrians, rollerbladers, and hikers. Maintaining Trail operations for these varied users during construction is key to meeting user needs and expectations.

The environmental Categorical Exclusion (CE) for the Belmont Ridge Road Project has identified the Trail as a 4(f) and Section 106 property due to its recreational use and its eligibility for listing on the National Register of Historic Places. FHWA intends to make a de minimus finding, allowing the project to proceed, if identified mitigation measures are met during final design and construction. This tentative agreement has required a substantial amount of coordination effort and, if reopened due to design changes would significantly delay the schedule for the Project. Non-compliance with the promised mitigation measures would put VDOT, the D-B Team and the entire Project in jeopardy.

Why this Risk is Critical and an Impact on the Project: The W&OD Trail’s design and construction is crucial for overall function and acceptance of the Project and presents several elements of risk, primarily:

- **Project Implementation:** Mitigation measures must be incorporated in order to obtain an actual de minimus agreement from FHWA and allow the project to move forward.
- **NVRPA:** The Park Authority will not tolerate impacts to their trail users. We must accommodate the users of the facility with our design, phasing and methods of construction. We must protect the trail user from both the construction adjacent to and overhead at all times. Work will not proceed over or adjacent to NVRPA right of way without a design and construction plan that meets their needs.
- **Design:** Several aspects of the W&OD Trail design will require additional design development beyond the RFQ concept plans. Cost-effective and constructable solutions for the bridges and parking must be refined to provide access for the many types of users including equestrians and trailer parking and handicapped users. Adequate drainage of low points in the Trail must be provided. Features such as signing, fences, accommodations for natural lighting for the Trail underpass, landscaping or walls may be needed to direct users safely along the trail system through the project. Context Sensitive Design coupled with Design Waivers should be considered to add practicality to the refined final design. Designing safety into the ultimate project and during construction is of paramount importance; the users of the trail vary in experience based on their ages and level of competence on bikes, roller-blades, horses, or even hiking. Public outreach to keep the Trail users aware of conditions during construction will be a vital component of the Project construction plan.
- **Constructability:** While there is nothing inherently complex regarding the construction of these types of bridges over the Trail, working above live pedestrian, bicycle, and equestrian traffic and in close proximity to live vehicular traffic and under high voltage transmission lines adds a level of risk. The work will involve large pieces of heavy equipment and materials adjacent to and over the Trail; ingress/egress of large trucks and cranes, all of which will require careful and precise planning, with safety being paramount. Separation of the work zone from the recreational Trail must be carefully planned and executed. This type of close proximity work always brings an inherent risk with it and these types of roadside activities tend to serve as a distraction to pedestrians and drivers.

Risk Mitigation Strategy: The W&OD Trail risk will be mitigated using several strategies:

- **Providing All Planned 4(f) Mitigation Measures:** The following project components will be designed and constructed:
  - Bridges will pass over the Trail (and under the electric power transmission lines).
  - Restrict Trail impacts to 0.36 acres of permanent maintenance easement and 0.45 acres of temporary easements.
  - Provide a dedicated W&OD Trail parking area with direct access to the Trail.
  - Provide a natural light well between the two parallel bridges.
  - Connect shared use paths along Belmont Ridge Road to the W&OD Trail.
  - Provide other, yet unidentified, features if included in the de minimus agreement.
Public Outreach: Conduct design and construction coordination meetings on a regular schedule with NVRPA, their planners, and potential users to obtain detailed input and assure public acceptance of the final design. Key stakeholders such as community associations and the Friends of the W&OD Trail will be contacted. The LANE Team has engaged the Public Relations firm of Sharp & Co. to oversee this key role.

Bike and Pedestrian Trail Design Experts: JMT designers possess unique expertise and qualifications to design and optimize the Trail and its’ components. Mr. Scott Rasmussen and Mr. Jon Conner (both JMT staff) are recognized experts in the design and implementation of successful pedestrian and bicycle systems. Mr. Rasmussen is designing the multi-use trails along Route 7 from Tysons to Reston as part of the JMT design to widen Route 7. Mr. Conner and Mr. Reed (JMT) are leading the design for the Jones Branch Connector across the Beltway in Tysons – this link will provide bike, pedestrian, HOV, bus circulator, and vehicular access from the core Tysons area to the new rail transit station along Route 123. Mr. Reed has helped VDOT design crossings of the W&OD Trail for Plaza Street, Battlefield Parkway, and the Route 7/15 Bypass in Leesburg and also for Pacific Boulevard in Loudoun County – he has designed and helped construct numerous shared paths and equestrian trails in Northern Virginia. This high level of expertise meets a critical need to fully coordinate the technical aspects of the trail with NVRPA.

Design-Build Innovation: The D-B procurement for this project will promote innovation and cost-effectiveness into the final project. The LANE Team excels at meeting the client’s functional requirements by introducing innovative solutions that fulfill the basic needs of the project. Our ideas would consider detailed means and methods to construct the bridges and walls while maintaining all modes of traffic and provide cost effective techniques to funnel bike and pedestrian traffic onto the trail system and away from vehicular construction traffic.

Context Sensitive Design and Design Waivers: The VDOT Chief Engineer, Mr. Garrett Moore, recently encouraged the NOVA engineering community to increase its use of Design Exceptions and Design Waivers. The LANE Team will research how these tools may be employed here to aid in our design. A recent example of how JMT did this was the approval of a design waiver on the Jones Branch Connector Project to reduce the 10’ buffer between the curb and edge of shared use path to reduce ROW takes and avoid Utility Conflicts.

Constructability: Constructing a bridge to carry Belmont Ridge Road over the W&OD Trail will necessitate accommodations to avoid disrupting trail traffic during normal operating hours (dawn to dusk). The LANE Team will utilize protective barriers along the trail to keep trail users out of the construction zones. Temporary shoring will be installed where necessary to avoid impacting ROW. Flagmen will be positioned along the Trail during working hours to alert the construction crews when users are nearby and to control traffic. Major construction activities such as erecting the bridge beams will be performed when the Trail is closed to avoid altogether the possibility of trail users being impacted or injured. Our Traffic Control Plan will be coupled with the Public Communication Plan in order elevate motorist and trail user awareness and to efficiently notify and update all stakeholders of upcoming traffic shifts or patterns, major construction events, temporary closures, etc.

Role of VDOT and Other Agencies: We request that VDOT participate in coordination meetings and to review and approve recommended Design Exceptions, Waivers and the ultimate design. We request reviews and approvals from VDOT and FHWA for the de minimus agreement so that the Project may proceed in a timely manner. NVRPA will be kept informed of all design and construction operations affecting the Trail; we will request that they participate in regular coordination meetings similar to what we have successfully conducted on previous D-B projects (e.g., I-495 Express Lanes, Gilberts Corner and Fairfax County Parkway).
**Risk No. 2 – Rock Excavation**

**Risk Identification:** Based on our team’s local experience, geological maps and nearby geotechnical data reports, the proposed alignment lies mainly within the Thermally Metamorphosed Rock (JTRtm)“Hornfels” bedrock formation, which is expected to be encountered anywhere from 3’ to 15’ below the existing ground surfaces. Also, the Diabase Rock (Jdh) formation may be encountered in the area of the site near Luck Stone’s quarry. Despite not having borings at this time or a project specific geotechnical data report, it is known to our Team that the bedrock along the project alignment is pervasive and can extend to near the surface. Project risks exist due to the likelihood of encountering the bedrock near the surface and within utility trenches and stormwater management ponds. Rock excavation is very expensive, particularly with shallow cuts with minimal overburden. The potential for damages to occur to nearby utilities, structures and homes during rock excavation techniques (i.e. – blasting and/or hoe-ramming) from vibrations or flying rock fragments is a real situation that cannot be overlooked. Rock excavation is much slower than conventional earthwork and will have an impact to the schedule if not properly accounted for in the proposal.

**Why this Risk is Critical and an Impact on the Project:** Depending on the proposed roadway profile and grades, bridge foundation depths, SWM facility size and depths, and utility profiles, rock excavation is anticipated to be required during most construction activities. The unconfirmed subsurface conditions and associated potential ancillary impacts to structures and utilities due to the rock excavation places financial and schedule risk on the D-B team and the project, accordingly the LANE Team considers Rock Excavation a critical risk.

Furthermore, there exists three major domestic water transmission lines originating from the Loudoun Water treatment plant which is located adjacent to the project that may potentially be impacted by the rock excavation. Feeding to the north from the treatment plant along Belmont Ridge Road alignment is a 20” ductile iron pipe that was installed in 1972; to the south, is a 24” pre-stressed concrete cylinder pipe, circa 1962 and a 30” ductile iron pipe installed in 1992. There exists a high probability that the water lines could sustain significant damage due to rock excavation and resulting shock waves and/or vibrations transferring through the rock and into the lines. These major transmission lines serve many of the residents and businesses in the area and it is imperative that service not be interrupted. Loudoun Water has confirmed the lines run at or near capacity year round and cannot be taken out of service during the peak summer months.

In addition to possible damage to the water transmission lines, the potential exists for damaging other structures (i.e. homes, businesses Loudoun Water’s plant) and other utilities (i.e. – fiber optic lines, gas and sewer mains) from shock waves and/or vibrations, if the rock excavation methods are not properly managed and executed and the approved Blasting Plan is not adhered to.

**Risk Mitigation Strategy:** The LANE Team has engaged a specialty consultant, Seismic Surveys, Inc.to assist us in mitigating the rock excavation risk. To alleviate the potential adverse impact of excavations in bedrock, the LANE Team will focus on delineating these shallow bedrock areas with a combination of test pits, test borings, air-track drilling probes, and geophysical methods such as seismic refraction surveys in expected cut areas and along utility lines. Early identification of these areas reduces the risk to the critical path of the project.

**Rock Excavation.** LANE’s nearby Dulles Greenway project required the excavation and placement of over 2,900,000 cy of material to construct the new roadway. LANE self-performed all of this work which included the drilling and blasting of over 1,400,000 cy of solid rock ledge. All of the rock not used in the fills was hauled to our portable on site crusher where it was processed for use as DOT approved roadway stone base material, rip rap for ditch linings and erosion control.
project due to delays that could result in mobilizing the appropriate specialized earthwork or drilling and blasting equipment.

Using the data from our early exploration activities, the LANE Team, working alongside our vibration and blasting consultant, Seismic Surveys, Inc., will develop a Blasting Plan and will seek VDOT’s and all utility owners input on the plan. The Blasting Plan and associated permits will ultimately be approved by Loudoun County’s Department of Fire-Rescue and Emergency Management in accordance with the Fire Marshal’s Office of Explosive and Blasting Permit Requirements. Our blasting plans are normally divided into 3 sections, the blasting plan itself, the seismic monitoring plan and the site specific Safety Plan. The blasting plan will clearly state blasting parameters such as minimum distances to nearest structures, blast loading plan, public notice and pre-blast survey information, traffic handling procedures, explosive storage and matting/protection information, shot monitoring plan and any special conditions such as nearby schools, underground mines etc. The seismic monitoring plan will detail notification requirements, blasting hours, pre-blast permits and/or permissions that are necessary, number of seismographs needed for each blast and location of such, as well as vibration limits. The Safety Plan details required employee training, equipment requirements, drilling and blasting procedures, acceptable products to be used and emergency contact information. Strict adherence to this plan will ensure a safe working environment for our workforce, inspection team, nearby communities and schools as well as motorists. Other mitigations for this risk are listed below:

- Independent review of contractor’s blasting plan by Certified Professional Geologist specializing in Blasting Seismology.
- Pre-blast building condition surveys of adjacent properties by independent qualified company who specializes in this field.
- Seismic monitoring of ground vibration and air overpressures for all blasting by independent qualified company who specializes in this field.
- Community outreach and notification of blasting in accordance with Loudoun County requirements.
- Avoid blasting during overcast days or other adverse atmospheric conditions to minimize the risk of air overpressure effects being trapped close to the ground.
- Conduct a test blasting program at the start of blasting operations to allow for site specific prediction of vibration and overpressure effects for future production blasting.
- Make adjustments to optimize as blasting progresses based on prior blast performance and seismic measurements.

Our Team will utilize our Public Relations firm, Sharp & Co., to communicate our blasting plan and schedule to local residents and businesses. Our work plan will both minimize disruptive, negative impacts while allowing for an efficient overall completion schedule. LANE understands that open communication will minimize unhappy residents and stakeholders. Pre-blast surveys will be performed to document the condition of structures within the affected areas to minimize/eliminate unwarranted damage complaints and claims.

The LANE Team will investigate early construction of the permanent noise walls so that residents benefit from it throughout the remainder of construction activities. Whenever possible, quieter working methods and technologies will be used. The LANE Team will coordinate with Loudoun Water to develop and put in place fully contingent and redundant backup work plans, including having in inventory of the necessary resources to immediately employ if there were a water main or other utility failure event.

**Role of VDOT and Other Agencies:** The LANE Team will manage all risks associated with the rock excavation. VDOT will be advised of our blasting/rock removal plans and invited to comment during plan development; as well as participate in coordination meetings with NVRPA, W&OD Trail Associations, Loudoun Water, the Loudoun County Fire Marshal, Dominion Virginia Power, Washington Gas (WGL), Verizon, Loudoun County Sanitation Authority and local residents and Homeowners Associations.
**Risk No. 3 – Utilities**

**Risk Identification:** VDOT preliminary plans dated May 2014 identify four (4) utility owners with facilities within the project footprint; Dominion Virginia Power (Dominion), Loudoun Water, WGL, and Verizon. Historically speaking and from our own team’s experience, when working on a re-alignment and widening of a major collector road such as Belmont Ridge Road where major utilities are present, we know there exists a high potential for negative impacts to occur if this risk is not planned for and managed properly.

After significant research we have identified numerous utilities that may be impacted by the widening of Belmont Ridge Road; three (3) water transmission lines originating from the Loudoun Water treatment plant (20”, 24” & 30”), 8” WGL gas main, Verizon communication lines, Dominion power distribution and transmission towers/lines, and Loudoun County sanitary sewer main. We have identified several of these facilities as “critical”, simply meaning any impacts to the facility could have enormous, immeasurable negative consequences for the utility owner and customers. Impacts to these critical utilities can in turn cause negative consequences for other areas of the project such as project schedule, budget and public perception.

**Why this Risk is Critical and an Impact on the Project:** As mentioned above, we have identified several of the utilities within the corridor as being critical: the three water transmission lines originating from the Loudoun Water treatment plant (20”, 24” & 30”), the 8” gas main, and the Dominion electrical transmission lines.

The three (3) large water mains supply water to entire communities, both residences and businesses, and in the hot months, the plant is running at or near capacity. In the colder months it runs around 75% capacity, so, obviously an impact to just one of these water supply lines will be detrimental. Regarding the 24” main, it is a pre-stressed PCCP installed in the early 1960’s. Because the outside diameter of this type of pipe tends to be different from today’s common pipe (and fitting) sizes, it is sometimes difficult to obtain and keep an inventory of “contingency” repair couplings, sleeves and fittings if and when an emergency repair is needed. Another area of concern when working on these older pipes is that often the outer surface has become so pitted or irregular over time that the surface will not accept a repair sleeve or other gasket in order to form a proper seal and you end up “chasing” the pipe until an acceptable surface is found.

Similar to the water supply, the 8” WGL main supplies gas to a large number of residences and businesses. An impact to this facility at any time of the year would obviously cause safety concerns as well as major inconveniences but as opposed to the water mains, the winter months are when this facility is most critical. WGL will not allow work on this line from October through May due to high demand.

The Dominion 230kv overhead transmission lines are directly above the proposed bridge over W&OD trail, their proximity to the worksite will require precise crane positioning in order to maintain a safe working distance to avoid electrical arching.

Right of Way must be cleared and utilities must be relocated prior to starting construction in many areas of the project relocations and replacements for utilities could easily reveal themselves to be on the critical path of the project schedule and not under absolute control of the D-B team. Many of the decisions regarding relocation and/or replacement will be made by the utility owners whose obligations to the project may at times be in conflict with other projects in the area placing their attention to this project beyond the control of the D-B team and VDOT. As discussed at length in Risk #2, the vibrations and shock waves from the hard rock excavation, if not managed and executed properly, could easily impact these utilities as well.

**Risk Mitigation Strategy:** The LANE Team will meet early on with all affected utility owners in order to plan and develop a clear understanding of how project goals and utility owner goals align. This effort will be led by our in-house Utility Manager, Mr. Wayne Lindsey, who possesses extensive utility relocation and mitigation experience, including the $112M Dulles Metrorail Utility Relocation Project, on which our proposed DBPM, Mr. Ken Prince held the same position. This first step will then allow the D-B Team to move forward with their tasks which are broadly outlined below:
• Conduct early coordination with all utility owners including completion of UT9 Forms, defining right-of-way, “prior rights”, and establishing the relocation/reconstruction expectations and costs. At this time the required Utility Field Inspection meeting would also occur.

• Locate and designate precise locations of all existing utilities including service feeds by augmenting any previously provided location data utilizing JMT’s in-house Subsurface Utility Engineering capabilities to generate supplemental utility location plans.

• Investigate alternative roadway designs to avoid or minimize impacts to existing utilities.

• Investigate a common utility duct bank for all underground utilities to condense utility locations.

• Determine appropriate locations and alignments for both underground and aerial facilities to accommodate the planned future widening of Belmont Ridge Road.

• Continue coordination with utility owners throughout the D-B process exploring methods to both control costs and improve and expedite utility related design and construction.

• The LANE Team will at all times adhere to the Utility Manual of Instructions; Utility Relocation Policies & Procedures Manual (Utility Manual).

Regarding the possible relocation of utilities to track the new road alignment, LANE will undertake an extensive test hole locating program early on. This data will be analyzed by our designer JMT to allow for optimum profiles. This data will also be provided to all utility companies for their use as well. LANE plans to partner with all utility companies in order to expedite their work and progress the project. Activities for utility relocation work will be included in the baseline schedule. Acquisition of right of way and easements will be prioritized to allow for relocation of utilities as early as possible. The new alignment portions of the roadway will be available soon after right of way is acquired and we will work closely with the utility companies in these areas to help expedite their work. LANE will also maintain clear markings of all utility lines throughout the construction period. All utilities will undergo extensive design and constructability reviews and along with input from the utility owners, the LANE Team will determine optimum design for the widening so as to minimize or eliminate any negative utility impacts.

Specifically regarding the 24” PCCP water main, LANE will coordinate closely with Loudoun Water to develop and implement a redundant contingency plan throughout the construction period that will include provisions for trained, Loudoun Water approved workers and the proper repair materials to be immediately available if emergency repairs are needed. In such an event, our crews, at the direction of Loudoun Water, will be familiar with the facility and proficient with all repair procedures for this type of line. The Team’s capabilities of working with this type of pipe and pre-construction preparations will help mitigate the impact to Loudoun Water and its customers should an emergency repair be required.

**Role of VDOT and Other Agencies:** We do not anticipate VDOT having any role beyond providing the LANE Team with previously collected utility information pertinent to the project and providing approvals. The Team will coordinate directly with the utility companies; however, in the event that unforeseen circumstances arise or if the utility companies fail to participate to the necessary level, we would request oversight and assistance from VDOT to gain the necessary cooperation.
ATTACHMENT 3.1.2
SOQ CHECKLIST
## ATTACHMENT 3.1.2

**Project:** 0659-053-262, R204, C504, B670, B671

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

<table>
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<tr>
<th>Statement of Qualifications Component</th>
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**DBE statement within Letter of Submittal** confirming Offeror is committed to achieving the required DBE goal

| | | | yes | 2 |

**Offeror’s Team Structure**

| | | | yes | 4/ Attachments 3.3.1 |
| Identity of and qualifications of Key Personnel | NA | Section 3.3.1 | yes | Appendix Attachment 3.3.1 |
| Key Personnel Resume – DB Project Manager | Attachment 3.3.1 | Section 3.3.1.1 | no | Appendix Attachment 3.3.1 |
| Key Personnel Resume – Quality Assurance Manager | Attachment 3.3.1 | Section 3.3.1.2 | no | Appendix Attachment 3.3.1 |
| Key Personnel Resume – Design Manager | Attachment 3.3.1 | Section 3.3.1.3 | no | Appendix Attachment 3.3.1 |
## ATTACHMENT 3.1.2

**Project:** 0659-053-262, R204, C504, B670, B671  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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### Experience of Offeror’s Team

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### Project Risk

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3 of 3
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00076244DB76
PROJECT NO.: 0659-053-262, R204, CS04, B670, B671

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

By signing this Attachment 2.10, the Offeror acknowledges receipt of the RFQ and/or following revisions and/or addenda to the RFQ for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of RFQ 05/29/2014 (Date)
2. Cover letter of Addendum No. 1 – 06/23/2014 (Date)
3. Cover letter of (Date)

[Signature] July 21, 2014 DATE
ATTACHMENT 3.2.6
AFFLIATED AND SUBSIDIARY COMPANIES
OF THE OFFEROR
ATTACHMENT 3.2.6
State Project No. 0659-053-262, R204, C504, B670, B671

Affiliated and Subsidiary Companies of the Offeror

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

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

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<th>Address</th>
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<td>90 Fieldstone Court Cheshire CT 06410</td>
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<td>Lane Worldwide Infrastructure, Inc.</td>
<td>90 Fieldstone Court Cheshire CT 06410</td>
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<td>Prins Bernhardplein 200 1097 JB Amsterdam, the Netherlands</td>
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<td>AFFILIATE</td>
<td>Lane Mideast Contracting, LLC</td>
<td>P.O. Box 35243 Abu Dhabi, UAE Makeen Tower Corner of 9th and 10th Streets</td>
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<td>AFFILIATE</td>
<td>Lane Mideast, Qatar, LLC</td>
<td>Grand Hamad Street Bin Al Sheikh Bldg. 3rd Floor Doha, Qatar</td>
</tr>
<tr>
<td>SUBSIDIARY</td>
<td>Lanecon Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>JOINT VENTURE (51% PARTNER)</td>
<td>Virginia Guardrail Partners</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>JOINT VENTURE (35% PARTNER)</td>
<td>Fluor-Lane 95, LLC</td>
<td>6700 Las Colinas Blvd. Irving, TX 75039</td>
</tr>
<tr>
<td>JOINT VENTURE (20% PARTNER)</td>
<td>AGL Constructors</td>
<td>929 West Adams Street Chicago, IL 60607</td>
</tr>
</tbody>
</table>

1 of 2
<table>
<thead>
<tr>
<th>JOINT VENTURE (25% PARTNER)</th>
<th>Gemma-Lane Liberty Partners</th>
<th>769 Hebron Avenue Glastonbury, CT 06033</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOINT VENTURE (25% PARTNER)</td>
<td>Gemma-Lane Patriot Partners</td>
<td>769 Hebron Avenue Glastonbury, CT 06033</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Civil Wall Solutions, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Cold River Materials, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Prestress of the Carolinas, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Senate Asphalt, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Sunquip, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Sunrise Materials, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Virginia Paving Company, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Virginia Sign and Lighting Company, Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>Wardwell Contracting, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td>TRADE NAME</td>
<td>White Brothers, A Division of The Lane Construction Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
</tbody>
</table>
ATTACHMENT 3.2.7(a)
DEBARMENT FORM- PRIMARY COVERED TRANSACTIONS
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0659-053-262

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: [Signature]  Date: July 21, 2014  Title: Senior National Pursuit Manager

The Lane Construction Corporation

Name of Firm
ATTACHMENT 3.2.7(b)
DEBARMENT FORM- LOWER TIER COVERED TRANSACTIONS
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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] July 7, 2014 [Managing Partner]
Signature Date Title

[Appraisal Review Specialists, LLC]
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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: [Signature] 6/25/2014  Vice President
Date: [Date] Title

DMY Engineering Consultants Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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] June 23, 2014 [President]
[Date] [Title]

EEE Consulting, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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] 7/4/2014 [President] [Title]

[Endesco Inc.] [Name of Firm]
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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]
June 12, 2014
Vice President

[Signature]
June 12, 2014
Vice President

[Signature]
June 12, 2014
Vice President

[Signature]
June 12, 2014
Vice President

Johnson Mirmiran and Thompson, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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  June 17, 2014  President

Date  Title

Quinn Consulting Services, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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: 7/14/14

Title: __________________________

Name of Firm: Sharp & Company
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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: 6-14-11] [Title: President]

Specialized Engineering

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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] 7-8-2014 [Appraiser]

[Date] [Title]

[V. Lynn Kelsey]

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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]

Scismic Surveys, Inc.

Name of Firm
ATTACHMENT 3.2.8
VDOT PREQUALIFIED SUPPORTING DOCUMENTATION
L002
THE LANE CONSTRUCTION CORPORATION
PREQ. EXP : 08/31/2014

--PREQ ADDRESS -------------- WORK CLASSES (LISTED BUT NOT LIMITED TO)
90 FIELDSTONE COURT 002 - GRADING
CHESHIRE, CT 06410-1212 003 - MAJOR STRUCTURES
PHONE : 203-235-3351 004 - ASPHALT CONCRETE PAVING
FAX : 203-237-4260 006 - PORTLAND CEMENT CONCRETE PAVING
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES

BUSINESS CONTACT: CAIOLA, VINCENT JAMES
EMAIL: VAPREQUAL@LANECONSTRUCT.COM

-------DBE INFORMATION------

DBE TYPE : N/A
DBE CONTACT: N/A
ATTACHMENT 3.2.9
SURETY LETTER
June 20, 2014

Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: The Lane Construction Corporation
Request for Qualifications
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes; From: Route 642 (Hay Road), To: Route 2150 (Gloucester Parkway), Loudoun County, Virginia - Contract ID Number: C00076244DB76
State Project No.: 0659-053-262, R204, CS04, B670, B671
Estimated Value of Project: $59,800,000.00

To Whom It May Concern:

This letter will serve to confirm that The Lane Construction Corporation is a highly regarded and valued client of Aon Risk Services Northeast and the sureties, Zurich American Insurance Company (A.M. Best Financial Strength Rating of A+/Superior and Financial Size Category XV), Fidelity and Deposit Company of Maryland (A.M. Best Financial Strength Rating of A+/Superior and Financial Size Category XV) and Liberty Mutual Insurance Company (A.M. Best Financial Strength Rating of A/Excellent and Financial Size Category XV), the 'co-sureties'. Each surety company is licensed to conduct surety business in the state of Virginia, and each surety company holds a Certificate of Authority as listed in the Department of the Treasury's Listing of Approved Sureties (Department Circular 570) dated July 1, 2013.

The Lane Construction Corporation has developed a strong track record of completing complex construction projects on time and within the available budget. In the recent past, the co-sureties have executed bonds on behalf of The Lane Construction Corporation for individual projects with contract values approaching $350,000,000 and corresponding backlogs approaching $2,000,000,000. At this time, The Lane Construction Corporation is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

Naturally, as is customary within the surety industry, the issuance of any bonds is contingent upon a favorable underwriting review of project specifics including, but not limited to, the contract terms, conditions, documents, bond forms and confirmation of complete project financing by both The Lane Construction Corporation and its co-sureties at the time a request for bonds is made. We assume no liability to third parties or to you by issuance of this letter, should bid or final bonds not be issued.

Should you need additional assurance regarding the technical ability or bonding capacity of The Lane Construction Corporation, please do not hesitate to contact this office.

Sincerely,

Zurich American Insurance Company
Fidelity and Deposit Company of Maryland
Liberty Mutual Insurance Company

[Signature]

Therese E. Rowedder
Attorney-in-Fact
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

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

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

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

ATTEST:

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

By: ____________
Assistant Secretary
Eric D. Barnes

By: ____________
Vice President
Thomas O. McClellan

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

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

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

POA-F 063-0474
EXTRACT FROM BY-LAWS OF THE COMPANIES

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

CERTIFICATE

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 10th day of June, 2014.

[Seals]

Geoffrey Delisio, Vice President
POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Brian Driscoll; Bryan Huff; Jane Gilson; Jean Correia; Jeffrey Hendrick; Kevin A. White; Maria Chaves; Mark P. Herendeen; Theresan E. Rowadder, all of the city of Boston, state of MA, each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge, and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they had been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of September, 2013.

By: ____________________________

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

Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss
COUNTY OF KING

On this 11th day of September, 2013, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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

By: ____________________________

KD Riley, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies the 20th day of June, 2014.

By: ____________________________

David M. Carey, Assistant Secretary
ATTACHMENT 3.2.10
SCC AND DPOR INFORMATION
ATTACHMENT 3.2.10
State Project No. 0659-053-262

SCC and DPOR Information

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 3.2.10 and that all businesses and individuals listed are active and in good standing.

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Lane Construction Corporation</td>
<td>F0254476</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
<td>Contractor Class A</td>
<td>2701011871</td>
<td>01/31/2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Business Entity Registration</td>
<td>0407002174</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>Johnson, Mirmiran &amp; Thompson, Inc.</td>
<td>F1499013</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>72 Loveton Circle Sparks, MD 21152</td>
<td>Business Entity Registration</td>
<td>0407001314</td>
<td>12/31/2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13921 Park Center Road Suite 140 Herndon, VA 20171</td>
<td>Business Entity Branch Office Registration</td>
<td>0411000441</td>
<td>02/29/2016</td>
</tr>
<tr>
<td>Appraisal Review Specialists, LLC</td>
<td>T0490682</td>
<td>Foreign Limited Liability Company</td>
<td>Active</td>
<td>3058 Mount Vernon Road Suite 12 Hurricane, WV 25523</td>
<td>Appraisal Business Registration</td>
<td>4008001735</td>
<td>04/30/2016</td>
</tr>
<tr>
<td>DMY Engineering Consultants Inc.</td>
<td>07688955</td>
<td>Corporation</td>
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<td>45662 Terminal Drive Suite 110 Dulles, VA 20166</td>
<td>Business Entity Registration</td>
<td>0407005631</td>
<td>12/31/2015</td>
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<tr>
<td>EEE Consulting Inc.</td>
<td>05049416</td>
<td>Corporation</td>
<td>Active</td>
<td>8525 Bell Creek Road Mechanicsville, VA 23116</td>
<td>Business Entity Registration</td>
<td>0407003798</td>
<td>12/31/2015</td>
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<tr>
<td>ENDESCO, INC.</td>
<td>F1337361</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>438 N Frederick Avenue Suite 455 Gaithersburg, MD 20877</td>
<td>Business Entity Registration</td>
<td>0407005431</td>
<td>12/31/2015</td>
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<tr>
<td>Quinn Consulting Services Inc.</td>
<td>04925517</td>
<td>Corporation</td>
<td>Active</td>
<td>14160 Newbrook Drive Suite 220 Chantilly, VA 20151</td>
<td>Business Entity Registration</td>
<td>0407003733</td>
<td>12/31/2015</td>
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</tbody>
</table>
## ATTACHMENT 3.2.10

### State Project No. 0659-053-262

**SCC and DPOR Information**

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seismic Surveys, Incorporated</td>
<td>David K. Miller</td>
<td>604 Solarex Ct, Frederick, MD 21703</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>08/31/2015</td>
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<tr>
<td>Sharp &amp; Company Incorporated</td>
<td></td>
<td>794 Nelson Streeet Rockville, MD 20850</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>DIW Group, Inc. DBA: Specialized Engineering</td>
<td></td>
<td>4845 International Blvd. #104 Frederick, MD 21703</td>
<td>Business Entity Registration</td>
<td>0407004748</td>
<td>12/31/2015</td>
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</tr>
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</table>

### DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Lane Construction Corporation</td>
<td>Kenneth K. Prince</td>
<td>14500 Avion Parkway Suite 200 Chantilly, VA 20151</td>
<td>Bristow, VA</td>
<td>Professional Engineer License</td>
<td>0402044906</td>
<td>01/31/2015</td>
</tr>
<tr>
<td>Johnson Mirmiran and Thompson Inc</td>
<td>Robert G Reed</td>
<td>13921 Park Center Road Suite 140 Herndon, VA 20171</td>
<td>Haymarket, VA</td>
<td>Professional Engineer License</td>
<td>0402048550</td>
<td>04/30/2015</td>
</tr>
<tr>
<td>Quinn Consulting Services, Inc.</td>
<td>John K. Vicinski</td>
<td>14160 Newbrook Drive Suite 220 Chantilly, VA 20151</td>
<td>Chantilly, VA</td>
<td>Professional Engineer License</td>
<td>0402026380</td>
<td>08/31/2015</td>
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<tr>
<td>Seismic Surveys, Incorporated</td>
<td>David K. Miller</td>
<td>604 Solarex Ct, Frederick, MD 21703</td>
<td>Frederick, MD</td>
<td>Certified Professional Geologist</td>
<td>280100921</td>
<td>08/31/2015</td>
</tr>
<tr>
<td>V. Lynn Kelsey</td>
<td>Valerie Lynn Kelsey</td>
<td>13511 Buglenote Way Spotsylvania, VA 22553</td>
<td>Spotsylvania, VA</td>
<td>Real Estate Appraiser</td>
<td>4001010298</td>
<td>11/30/2015</td>
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</tbody>
</table>
THE LANE CONSTRUCTION CORPORATION

General

SCC ID: F0254476
Entity Type: Foreign Corporation
Jurisdiction of Formation: CT
Date of Formation/Registration: 7/24/1972
Status: Active
Shares Authorized: 11700

Principal Office

90 FIELDSTONE COURT
CHESIRE CT06410

Johnson, Mirmiran & Thompson, Inc.

General

SCC ID: F1498013
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 10/17/2005
Status: Active
Shares Authorized: 1000

Principal Office

72 LOVETON CIRCLE
SPARKS MD21152
Appraisal Review Specialists, LLC

General

SCC ID: T0400682  
Entity Type: Foreign Limited Liability Company  
Jurisdiction of Formation: WV  
Date of Formation/Registration: 2/3/2012  
Status: Active

Principal Office

3058 MOUNT VERNON RD  
HURRICANE WV25526

DMY ENGINEERING CONSULTANTS INC.

General

SCC ID: 07688955  
Entity Type: Corporation  
Jurisdiction of Formation: VA  
Date of Formation/Registration: 9/6/2013  
Status: Active  
Shares Authorized: 10000
EEE Consulting, Inc.

General

SCC ID: 05049416
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 0/23/1998
Status: Active
Shares Authorized: 233000

Principal Office

8525 BELL CREEK RD
MECHANICSVILLE VA23116

ENDESCO, INC.

General

SCC ID: F1337361
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 5/7/1998
Status: Active
Shares Authorized: 100000

Principal Office

438 N FREDERICK AVE STE 455
GAITHERSBURG MD20877
QUINN CONSULTING SERVICES INCORPORATED

General

SCC ID: 04925917
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 10/24/1997
Status: Active
Shares Authorized: 5000

Principal Office

14160 NEWBROOK DRIVE
SUITE 220
CHANTILLY VA 20151

SEISMIC SURVEYS, INCORPORATED

General

SCC ID: F1509746
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 5/8/2002
Status: Active
Shares Authorized: 5000

Principal Office

604 SOLAREX CT
SUITE 103
FREDERICK MD 21703
SHARP & COMPANY INCORPORATED

General

SCC ID: F1761412
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 7/23/2008
Status: Active
Shares Authorized: 10000

Principal Office

794 NELSON ST
ROCKVILLE MD20850

DIW GROUP, INC.

General

SCC ID: F1281908
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 1/30/1997
Status: Active
Shares Authorized: 2000000

Principal Office

4840 INTERNATIONAL BLVD.
#104
FREDERICK MD21703
ATTACHMENT 3.2.10.2
DPOR SUPPORTING DOCUMENTATION
FOR EACH OFFICE
Details of license number 2701011871

- **Name:**
- **Doing Business As:** THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
  VA PAVING COMPANY / VA SIGN AND LIGHTING COMPANY
- **License Number:** 2701011871
- **License Description:** Contractor Class A
- **Class Definitions:**
  - **Business Type:** Corporation
  - **Address:** 90 FIELDESTONE COURT
    CHESHIRE, CT 06410
- **Specialties/Classifications:**
  - **Classification Definitions:** Building (BLD)
  - **Specialty Definitions:** Highway / Heavy (H/H)
- **Initial Certification Date:** 1972-10-12
- **Expiration Date:** 2016-01-31

Details of license number 0407002174

- **Name:**
- **License Number:** THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
  0407002174
- **License Description:** Business Entity Registration
- **Business Type:** CORP
- **Address:** 90 FIELDESTONE COURT
  CHESHIRE, CT 06410
- **Initial Certification Date:** 1985-09-30
- **Expiration Date:** 2015-12-31
Details of license number 0407001314

Name: JOHNSON MIRMAN & THOMPSON INC
License Number: 0407001314
License Description: Business Entity Registration
Address: 72 LOVETON CIRCLE
SPARKS, MD 21152
Initial Certification Date: 1982-08-30
Expiration Date: 2015-12-31

Details of license number 0411000441

Name: JOHNSON MIRMAN & THOMPSON INC
License Number: 0411000441
License Description: Business Entity Branch Office Registration
Business Name: JOHNSON MIRMAN & THOMPSON INC
Address: 13921 PARK CENTER RD SUITE 140
HERNDON, VA 20171
Initial Certification Date: 2006-03-06
Expiration Date: 2016-02-29
Details of license number 4008001735

Name: APRAISAL REVIEW SPECIALISTS LLC
License Number: 4008001735
License Description: Appraisal Business Registration LLC
Business Type: Address: 305B MOUNT VERNON ROAD SUITE 12 HURRICANE, WV 25523
Initial Certification Date: 2012-04-05
Expiration Date: 2016-04-30

Details of license number 0407005631

Name: DMY ENGINEERING CONSULTANTS INC
License Number: 0407005631
License Description: Business Entity Registration CORP
Business Type: Address: 45662 TERMINAL DRIVE SUITE 110 DULLES, VA 20166
Initial Certification Date: 2010-03-10
Expiration Date: 2015-12-31
Details of license number 0407005431

Name: ENDESCO INC.
License Number: 0407005431
License Description: Business Entity Registration
Business Type: CORP
Address: 438 N FREDERICK AVE SUITE 455
          GAITHERSBURG, MD 20877
Initial Certification Date: 2009-05-05
Expiration Date: 2015-12-31

Details of license number 0407003798

Name: EEE CONSULTING INC
License Number: 0407003798
License Description: Business Entity Registration
Business Type: CORP
Address: 8525 BELL CREEK RD
          MECHANICSVILLE, VA 23116
Initial Certification Date: 1998-08-24
Expiration Date: 2015-12-31
Details of license number 0407003733

Name: QUINN CONSULTING SERVICES INC
License Number: 0407003733
License Description: Business Entity Registration
Address: 14160 NEWBROOK DR STE 220
CHANTILLY, VA 20151
Initial Certification Date: 1998-03-05
Expiration Date: 2015-12-31

Details of license number 0407004748

Name: DIW GROUP INC
Doing Business As: SPECIALIZED ENGINEERING
License Number: 0407004748
License Description: Business Entity Registration
Business Type: CORP
Address: 4845 INTERNATIONAL BLVD #104
FREDERICK, MD 21703
Initial Certification Date: 2005-11-01
Expiration Date: 2015-12-31
ATTACHMENT 3.2.10.3
DPOR SUPPORTING DOCUMENTATION
FOR KEY PERSONNEL
### Details of license number 0402044906

- **Name:** PRINCE, KENNETH KWAME
- **License Number:** 0402044906
- **License Description:** Professional Engineer License
- **Address:** BRISTOW, VA, 20136
- **Initial Certification Date:** 2009-01-05
- **Expiration Date:** 2015-01-31

### Details of license number 0402018550

- **Name:** REED, ROBERT G
- **License Number:** 0402018550
- **License Description:** Professional Engineer License
- **Address:** HAYMARKET, VA, 20169
- **Initial Certification Date:** 1988-06-17
- **Expiration Date:** 2015-04-30

### Details of license number 0402026380

- **Name:** VICINSKI, JOHN KEVIN
- **License Number:** 0402026380
- **License Description:** Professional Engineer License
- **Address:** CHANTILLY, VA, 20151
- **Initial Certification Date:** 1995-08-10
- **Expiration Date:** 2015-08-31
### Details of license number 2801000921

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<thead>
<tr>
<th>Name:</th>
<th>MILLER, DAVID KARL</th>
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<tbody>
<tr>
<td>License Number:</td>
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<tr>
<td>License Description:</td>
<td>Certified Professional Geologist</td>
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<tr>
<td>Address:</td>
<td>FREDERICK MD, 21702</td>
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<tr>
<td>Initial Certification Date:</td>
<td>1993-05-06</td>
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ATTACHMENT 3.2.10.4
DPOR SUPPORTING DOCUMENTATION
FOR NON-APELSCIDLA REGULATED SERVICES
<table>
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<th>Details of license number 4001010298</th>
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<tr>
<td>Name: KELSEY, VALERIE LYNN</td>
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<tr>
<td>License Number: 4001010298</td>
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<tr>
<td>License Status: Active</td>
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<tr>
<td>License Description: Certified General RE Appraiser</td>
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<tr>
<td>Rank:</td>
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<tr>
<td>Address: SPOTSYLVANIA VA, 22553</td>
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<td>Initial Certification Date: 2005-11-28</td>
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<td>Expiration Date: 2015-11-30</td>
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<tr>
<td>Continuing Education: Click here to view continuing education.</td>
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</table>
ATTACHMENT 3.3.1
KEY PERSONNEL RESUMES
ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: KENNETH PRINCE, PE, DISTRICT MANAGER

b. Project Assignment: DESIGN BUILD PROJECT MANAGER

c. Name of Firm with which you are now associated: THE LANE CONSTRUCTION CORPORATION

d. Years’ experience: With this Firm 11 Years, With other Firms 7 Years.

Please list chronologically your employment history, position general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

The Lane Construction Corporation, 2011–Present, District Manager. Mr. Prince, a registered licensed PE in Virginia, serves as the District Manager for LANE for various D-B projects in the Mid-Atlantic ranging from $7M to $725M. He is responsible for overall management of the design, construction, quality, and contract administration on these projects. He provides strategic planning and execution for projects, leads a team of project and construction managers, and works with design and construction teams on innovative techniques and means and methods to execute projects. He organizes and assigns equipment, personnel, and subcontractor resources to execute each project. He leads and implements safety initiatives, establishes project objectives, policies, procedures and performance standards, sets and monitors budgets, and assures that a quality management system is in place. The Lane Construction Corporation, 2003–2010, Project Manager/Engineer. As PM, Mr. Prince was responsible for the operation of all transportation construction operations, safety, QC/QA programs for LANE’s Mid-Atlantic region. He supervised work crews and subcontractors on projects for interstate construction, utility relocation, major concrete paving, bridges, earthwork, and environmental controls.


Dillingham Construction N.A., Inc., 1999–2000. Construction/Scheduling Engineer. Mr. Prince was responsible for CPM schedule (maintenance and updates), contract change orders (estimate and negotiate); and managed subcontractor activities.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

University of Michigan, Ann Arbor, MI / B.S. / 1996 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2009/PE/VA #0402044906

g. Document the extent and depth of experience and qualifications relevant to the Project.

1. Note your specific responsibilities and authorities for each project, not those of the firm.
2. Note whether experience is with current firm or with other firm.
3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)"On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

MWAA, NORTH AREA ROADS IMPROVEMENTS, Dulles, Virginia

Name of Firm: The Lane Construction Corporation Project Role: Project Manager
Beginning Date: 2004 End Date: 2007

Specific Responsibilities: Mr. Prince’s role as PM was similar to that required on the Belmont Ridge Road Project as he performed duties including contract administration, design/construction coordination, project oversight, and construction quality. He managed on-site staff to ensure a quality project was built on schedule, within budget and safely. He ensured that Contractor quality control was upheld in the field, managed and coordinated with the various specialty subcontractors and suppliers. He also performed field engineering duties for the installation of underground utilities, pavement demolition, and new pavement. He also worked closely with JMT (designer) on this project. (See Lead Contractor Work History for full details of this early delivery project.)

Project Relevance: The North Area Roads Project included the reconstruction and widening of a 4-lane roadway, bridge construction and widening, major drainage improvements, and road structures. Project included earthwork; storm drainage; water; electrical and communication utilities; asphalt; erosion and sediment control measures; demolition; retaining walls; traffic signals; and roadway lighting. Project required extensive coordination with third party stakeholders. Mr. Prince was responsible for the commencement, execution, and completion of this $20M construction project, which included the construction and coordination of heavy traffic, environmental controls; demolition; earthwork; storm drainage, water, electrical, communication utilities; asphalt and concrete pavement; roadway bridges; retaining walls; traffic signals; and roadway lighting.

MDSHA, MD 237 FROM PEPP ROAD TO MD 235, St. Mary’s County, MD (DESIGN-BUILD)

Name of Firm: The Lane Construction Corporation Project Role: Design Build Project Manager
Beginning Date: 2010 End Date: 2012

Specific Responsibilities: Mr. Prince’s role as DBPM was similar to the DBPM for Belmont Ridge Road. He was responsible for overall project design, construction quality management and administration for MD 237. He directed and managed project development and completion, goals and deliverables, collaborated with senior management and stakeholders, scheduled project
timelines and milestones, supervised team members, and developed best practices and tools for the project construction and management. Mr. Prince was authorized and responsible for administering all business issues such as procurement, planning, scheduling, safety, resources, and budgets.

**Project Relevance:** MD 237 Widening was a $36M, 3 mile D-B project which widened an aging 2-lane road. The road was replaced by a 4-lane closed-section divided roadway similar to that intended for Belmont Ridge Road. The project included the installation of a closed drainage system, SWM facilities, noise barriers, box culverts, landscaping, new signalized intersections, signing, lighting, sidewalks, and utility relocations. Using innovative planning, Mr. Prince kept the project on schedule, despite the need to maintain access to all 19 side streets and 65 residential driveways during construction. The fish ladder that LANE constructed on the downstream side of Jarboesville Run was celebrated by environmentalists all over the region; it is being used as a model for ongoing and imminent projects in the State of Maryland. (See Lead Contractor Work History for full details.)

### VDOT, I-64/I-264 PAVEMENT REHABILITATION, Norfolk, Virginia (DESIGN-BUILD)

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>The Lane Construction Corporation</th>
<th>Project Role:</th>
<th>District Manager/DBPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2014</td>
<td>End Date:</td>
<td>2015</td>
</tr>
</tbody>
</table>

**Specific Responsibilities:** Mr. Prince oversees the management of construction for this $30M D-B Project, including design, construction, quality management, safety program, and contract administration. He facilitates communication among team partners, efficiently designates resources to ensure timely delivery, and coordinates with personnel on adjacent projects. He verifies VDOT specifications are followed and participates in constructability reviews. Mr. Prince addresses issues directly with VDOT and has continuous interaction with the QAM to ensure Project compliance. He is available to perform the role of DBPM on the Belmont Ridge Road Project upon contract award.

**Project Relevance:** Mr. Prince’s role as DBPM for Belmont Ridge Road is identical to the role he currently holds on the I-64/I-264 D-B Project; he will bring this expertise to yield project success. I-64/I-264 Rehabilitation Project is 10.2 miles of Interstates 64 and 264 in Norfolk. This Project has many similar elements to Belmont Ridge Road: utility adjustments, MOT, SWM, public outreach, environmental and hydraulics; geotechnical challenges; extensive traffic devices and MOT; utility relocation efforts, review of design concepts against existing utilities, determination of mitigation measures, and ongoing coordination with utility companies. This Project has required comprehensive public relations with over 365 outreach meetings already conducted to date.

### VDOT, I-95 EXPRESS LANES, Fairfax County to Stafford County, Virginia (DESIGN-BUILD)

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>The Lane Construction Corporation</th>
<th>Project Role:</th>
<th>District Manager</th>
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<tbody>
<tr>
<td>Beginning Date:</td>
<td>2012</td>
<td>End Date:</td>
<td>2014</td>
</tr>
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</table>

**Specific Responsibilities:** Mr. Prince’s role as DBPM for Belmont Ridge Road is similar to his role on the I-95 Express Lanes D-B Project. Mr. Prince administers the contract, directs Project team, and oversees quality on this $725M D-B. He coordinates all resources necessary to execute I-95 Express Lanes; monitors progress of the design/construction deliverables, and ensures that safety and quality standards are upheld. He coordinates regularly with Project partners, including the designer, VDOT, NEC, and key stakeholders, and negotiates and resolves contract terms. He is responsible for overall project design, quality, safety, and contract administration. He oversees coordination with VRE and Norfolk Southern railroads.

**Project Relevance:** The 29 mile project includes nine new bridges and four new flyovers and includes extensive noise walls, asphalt mill and overlay, shoulder reconstruction, and structural bridge work. Major project segments include an 8.3 mile roadway extension involving major clearing, earthwork, and bridge flyovers. Like Belmont Ridge Road, I-95 includes roadway, survey, environmental and hydraulics; geotechnical challenges; extensive traffic devices and MOT; utility relocation efforts, review of design concepts against existing utilities, determination of mitigation measures, and ongoing coordination with utility companies. This Project has required comprehensive public relations with over 365 outreach meetings already conducted to date.

### MWAA, DULLES CORRIDOR METRORAIL PHASE 1, Dulles, Virginia (DESIGN-BUILD)

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>The Lane Construction Corporation</th>
<th>Project Role:</th>
<th>Project Manager/District Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2008</td>
<td>End Date:</td>
<td>2012</td>
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</tbody>
</table>

**Specific Responsibilities:** As PM/DM for this D-B project, Mr. Prince was responsible for overall construction, quality and safety administration on this $112M project. He ensured all requirements and specifications were delivered, was responsible for contract administration, directing and managing project development, and constructability reviews with the designers. Specifically, he defined project scope, goals and deliverables, collaborated with senior management and stakeholders, oversaw estimating resources, scheduled project timelines and milestones. As PM/DM, he supervised team members implementing best practices and tools for project execution/management. Mr. Prince’s role as PM/DM on this project was similar to the DBPM responsibilities required for the Belmont Ridge Road Project.

**Project Relevance:** This project involved over 17 miles of major utility relocation, support of excavation, environmental and E&S controls, maintenance of traffic along the 11 mile Phase 1 alignment of the Dulles Metrorail Silver Line. This included the construction and implementation of erosion and sediment control measures; demolition; earthwork; storm drainage; water; electrical and communication utilities; contaminated soil and hazardous material coordination and mitigation; asphalt and concrete pavement; roadway bridges; retaining walls; traffic signals; and roadway lighting. Utilities that were installed included Dominion Virginia Power electrical ductbank, Fairfax Water Authority waterline, City of Falls Church waterline, sanitary sewer, storm drain, traction power ductbank, and communication ductbank for more than 8 different communication companies. Additionally, Mr. Prince coordinated with the designer and multiple contractors working along the rail alignment and stations to oversee the installation of mechanical, electrical, and plumbing utilities for five Metro stations for the Silver Line.

*Project received LANE's "Safest Project of the Year" Award in 2010 & 2011 (IRR of 0.00).*

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. N/A. Mr. Prince is not required on-site full-time.
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

**Brief Resume of Key Personnel anticipated for the Project.**

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>JOHN K. VICINSKI, PE, DBIA, QUALITY ASSURANCE MANAGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>QUALITY ASSURANCE MANAGER</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>QUINN CONSULTING SERVICES, INC.</td>
</tr>
<tr>
<td>d. Years’ experience: With This Firm 6 Year, with other Firms 25 Years.</td>
<td></td>
</tr>
</tbody>
</table>

Please list chronologically your employment history, position general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

**Quinn Consulting Services, Inc., Quality Assurance Manager – 2008 to Present.** A registered licensed Professional Engineer in the Commonwealth of Virginia, Mr. Vicinski’s role as Quality Assurance Manager (QAM) is to work exclusively on VDOT D-B projects in the lead QA role. He is responsible for ensuring that the construction quality of the D-B projects meets or exceeds the current VDOT Minimum Quality Control and Quality Assurance Requirements for Design Build and PPTA Projects (QA & QC Guidelines) and verifies that all construction activities are in compliance with contract documents. He has overall responsibility for the development of and adherence to the specific project QA/QC Plan(s). He does not report to production forces and has no involvement with the construction operations of projects. He verifies that all Design Work Packages submitted for payment have been certified by the Design Manager as being in conformance with the contract documents and the Design QA/QC Plan.

**Alpha Corporation, Vice President and Director of Transportation Services – 1999 to 2008.** As Vice President and Director of Transportation Services in Virginia, Mr. Vicinski managed up to 25 contracts simultaneously primarily providing CEI services on D-B, district-wide, and specific projects for VDOT and other transportation clients throughout the Commonwealth.

<table>
<thead>
<tr>
<th>e. Education:</th>
<th>Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
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<tbody>
<tr>
<td>f. Active Registration:</td>
<td>Year First Registered/ Discipline/VA Registration #:</td>
</tr>
</tbody>
</table>

(Also registered PE in MD and PA)

<table>
<thead>
<tr>
<th>g. Document the extent and depth of experience and qualifications relevant to the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Note your specific responsibilities and authorities for each project, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
</tr>
</tbody>
</table>

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

<table>
<thead>
<tr>
<th>Beginning Date:</th>
<th>End Date:</th>
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</table>

**VDOT, ROUTE 50 WIDENING, Loudoun and Fairfax Counties, Virginia (DESIGN-BUILD)**

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>Quinn Consulting Services, Inc.</th>
</tr>
</thead>
</table>

**Specific Responsibilities:**

- As independent QAM, his responsibilities include oversight of the QA team that works closely with the contractor’s QC team. He ensures adherence to the project specific QA/QC Plan and VDOT’s QA & QC Guidelines and is responsible for QA inspection and testing of all materials used and work performed, including monitoring of contractor QC program. Mr. Vicinski assures all work and materials, testing and sampling are performed in conformance with contract requirements and “approved for construction” plans and specs. He is in charge of oversight of QA team responsible for scheduling and chairing activity preparatory meetings; performs required QA inspection and testing; monitors performance and documentation of QC team. He reviews and approves monthly pay estimates, develops project punch lists, and addresses non-conforming items with contractor QC personnel. Mr. Vicinski has specific authority to issue non-compliance reports and shut down all or portions of the work as necessary until the requirements of the project and its QA/QC plan are met.

**Project Relevance:**

- He has gained valuable experience delivering a $70M D-B project in VDOT’s Northern Virginia District under heavy traffic conditions of similar scope and complexity to Belmont Ridge Road. His role for this project is identical to Route 50 Widening. Route 50 includes a shared-use paths, traffic signalization, crosswalks with curb ramps and pedestrian signals, widening and upgrading bridges, and roadway widening from a congested four-lane divided highway to a six-lane divided highway.

| Beginning Date: | End Date: |

**VDOT, I-495 EXPRESS LANES, Northern Virginia (DESIGN-BUILD)**

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>Quinn Consulting Services, Inc.</th>
</tr>
</thead>
</table>

**Specific Responsibilities:**

- He has gained valuable experience delivering a $70M D-B project in VDOT’s Northern Virginia District under heavy traffic conditions of similar scope and complexity to Belmont Ridge Road. His role for this project is identical to Route 50 Widening. Route 50 includes a shared-use paths, traffic signalization, crosswalks with curb ramps and pedestrian signals, widening and upgrading bridges, and roadway widening from a congested four-lane divided highway to a six-lane divided highway.

| Beginning Date: | End Date: |
Specific Responsibilities: As Quality Control Resident Engineer on LANE’s $1.5B D-B project, Mr. Vicinski was responsible for managing teams of inspectors to provide quality control inspection and testing services in accordance with the project specific quality assurance/control plan and VDOT’s QA & QC Guidelines. His responsibilities also included interfacing with project design engineers on RFI’s, field design changes, and non-compliance reports (NCR’s). Mr. Vicinski was responsible for the QA inspection and testing of all materials used and work performed for I-495, including monitoring of LANE’s QC program. He ensured that all work and materials, testing and sampling were in conformance with contract requirements and “approved for construction” plans and specifications. He had daily coordination with QA and general engineering consultant (GEC) personnel and had specific authority to authority to issue non-compliance reports and deficiencies on the project.

Project Relevance: Mr. Vicinski will have many of the same duties as QAM on Belmont Ridge Road. The complex project added two-lanes in each beltway direction, replaced more than 50 bridges and overpasses, upgraded 10 interchanges, and improved bike and pedestrian access. The project also included close coordination with the NVRPA.

FHWA / VDOT, FAIRFAX COUNTY PARKWAY WIDENING (PHASE III), Fairfax County, VA (DESIGN-BUILD)

Name of Firm: Quinn Consulting Services, Inc.  
Project Role: Quality Assurance Manager  
Beginning Date: 2010  
End Date: 2013

Specific Responsibilities: Mr. Vicinski was the independent QAM of the $30+M FHWA/VDOT D-B interchange and roadway project. His responsibilities included overseeing QA and QC staff to make certain that FCP Widening was completed in accordance with the contract documents and VDOT’s QA & QC Guideline. His responsibilities included facilitating preparatory meetings before new activities were begun, documenting asphalt and aggregate testing within the FHWA QL Pay System, and coordinating QA lab testing services as required. He was responsible for QA inspection and testing for all materials used and work performed on Phase III, including monitoring the contractor QC program. He ensured all work and materials, testing and sampling were performed in conformance with contract requirements, “approved for construction” plans, and specifications. He had specific authority to issue non-compliance reports and shut down all or portions of work as necessary until the requirements of the project QA/QC plan were met.

Project Relevance: FCP was a similar project in scope and complexity to Belmont Ridge Road including widening, SUPs, bridges, paving, MOT, TMP, utilities, environmental, hydraulics, ROW, and geotechnical.

VDOT, GILBERT’S CORNER ROUNDABOUT ROUTE 15/ROUTE 50, Loudoun County, Virginia (DESIGN-BUILD)

Name of Firm: Quinn Consulting Services Inc. /Alpha Corp.  
Project Role: Quality Assurance Manager  
Beginning Date: 2008  
End Date: 2008

Specific Responsibilities: Mr. Vicinski served as independent QAM and was responsible for overseeing all QA and QC activities and assuring that work was performed in accordance with the project specific QA/QC plan and VDOT’s QA & QC Guideline. In the project’s initial stages, he assisted in writing the QA/QC plan and assembled a team of QA inspectors and QC technicians with the required experience and certifications to implement the plan and track all project documentation. During the Project, he reviewed and signed monthly pay estimates after comparing pay requests with actual progress and compliance with minimum QA/QC technical standards. He was responsible for QA inspection and testing of all materials used and work performed on the Project, including monitoring LANE’s QC program. Mr. Vicinski ensured that all work and materials, testing and sampling were in conformance to contract requirements, plans, and specifications. Mr. Vicinski had specific authority to issue non-compliance reports and shut down all or portions of the work as necessary until the requirements of the Project QA/QC plan were met.

Project Relevance: Mr. Vicinski (as QAM) worked with LANE on delivering this successful $13M D-B project which included the construction of four new traffic calming circles near the intersection of Routes 15/50 in Loudoun County. Scope/Complexity elements: Roadway, survey, environmental, geotechnical, ROW, traffic control devices, utilities, 3rd parties and public involvement, QA/QC, engineering and inspection. This project also included close coordination with the NVRPA.

VDOT, ROUTE 27/244 INTERCHANGE, Arlington, VA (DESIGN-BUILD)

Name of Firm: Quinn Consulting Services, Inc.  
Project Role: Quality Assurance Manager  
Beginning Date: 2012  
End Date: 2015

Specific Responsibilities: Mr. Vicinski is the independent QAM on the VDOT interchange project in Arlington, VA. He is responsible for QA inspection and testing for $45M Route 27/244 D-B including monitoring contractor QC program. He certifies that all work and materials, testing and sampling are in conformance to contract requirements, plans, and specifications. Specific responsibilities on this project include overseeing all of the QA oversight and testing as well as monitoring the contractor QC program for compliance with the project specific QA/QC plan as well as VDOT’s QA & QC Guideline. Mr. Vicinski has specific authority to issue Non-compliance reports and shut down all or portions of the work as necessary until the requirements of the Project QA/QC plan are met.

Project Relevance: Mr. Vicinski performs an identical role as independent QAM on a project of similar scope and complexity as Belmont Ridge Road, including working on a heavily travelled interchange. The Project includes the replacement of the 1940’s Washington Blvd Bridge over Columbia Pike (27/244). A light well will separate westbound and eastbound lanes and an acceleration-deceleration lane will be added westbound between ramps to assist weaving. The Project includes roadway paving and widening, survey, bridge replacement & construction, MOT, TMP, lighting, landscaping, environmental, utilities, SUP’s, and improved pedestrian access.

For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. N/A. Mr. Vicinski is not required on-site full-time.
ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: ROBERT REED, PE, REGIONAL TRANSPORTATION MANAGER, V.P.

b. Project Assignment: DESIGN MANAGER

c. Name of Firm with which you are now associated: JOHNSON, MIRMIRAN & THOMPSON, INC.

d. Years’ experience: With this Firm 2 Years, with other Firms 39 Years.

Please list chronologically your employment history, position general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

JMT, Regional Transportation Manager; September 2012 - Present Mr. Reed, a registered licensed PE in Virginia since 1988, manages transportation design and planning projects within the Commonwealth of Virginia with a primary focus serving his long-established clients within Northern Virginia. He serves as transportation program manager for our Herndon office as well as project manager for major transportation design projects with full support from established staff from all JMT offices. He would be available for immediate assignment to this project.

Parsons, Senior Project Manager/Design Director; 1999 - 2012 Mr. Reed served as Senior Project Manager/Design Director leading all facets of the design of transportation projects for clients including VDOT, FHWA-EFLHD, Fairfax County DOT as well as other local Virginia counties and municipalities. He has managed complex design projects including numerous roadway widenings, intersection improvements, interchanges, and interchange modifications. Most projects involved the management of multiple disciplines such as surveys, mapping, and SUE; bridge and retaining designs; environmental studies and documentation; roadway, bicycle, pedestrian and street design; drainage, SWM and erosion and sediment control designs. He prepared preliminary plans, estimates, and bid documents for many local D-B projects for VDOT. In addition, he has prepared plans for the contractor on D-B Projects. He was responsible for all aspects of his projects including quality control, administration, risk assessment, safety, management of multiple disciplines, negotiation of contracts and subcontracts, as well as financial and schedule controls. Mr. Reed led roadway designs conforming to VDOT format using GEOPAK and MicroStation, designed complex maintenance of traffic plans, prepared signal plans, and coordinated geotechnical, structural and bridge designs.

Mr. Reed’s experience encompasses the planning and design of complex utility services, including communications (FO and cable), electrical distribution, water supplies, gas lines, steam heating systems, chilled water for cooling, solid waste pneumatic systems, medical gasses, fuel, and sanitary sewers including reuse of water for irrigation and combined stormwater/ sanitary sewer systems. He is well experienced in roadway construction including rock excavation based on past projects conducted in Loudoun County, and the Salem and Staunton VDOT Districts.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Rensselaer Polytechnic Institute (Troy, New York) / BS / 1972 / Civil Engineering
Rensselaer Polytechnic Institute (Troy, New York) / ME / 1973 / Civil Engineering (Transportation)

f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1988 / Professional Engineer / Virginia #0402-018550 (also PE in PA(1975), DE, NJ, NC, & MD)
2009 / ATTSA-VDOT Advanced Work Zone Traffic Control / Cert. # 121809011 (Renewal pending on July 24, 2014)
2006 / Parsons Certified Project Manager / 72903

g. Document the extent and depth of experience and qualifications relevant to the Project.
1. Note your specific responsibilities and authorities for each project, not those of the firm.
2. Note whether experience is with current firm or with other firm.
3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)*On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

VDOT, I-81 TRUCK CLIMBING LANE, Christiansburg, VA (DESIGN – BUILD)

Name of Firm: Parsons Transportation Group Inc. of VA
Project Role: Project Manager
Beginning Date: 2007
End Date: 2009

Specific Responsibilities: Mr. Reed was Project Manager for preliminary design of a $72M D-B project to provide a 9-mile truck climbing lane for southbound I-81 in Montgomery County with complex phasing to accommodate traffic during construction with heavy truck volumes. Led design of roadway widening, complex rock cuts, three bridges, development of storm water management system (SWM) with rock substrata, and conducted VDOT Risk Analysis and Value Engineering Workshops. He conducted Public Hearings and provided design QC. He supported and assisted VDOT in the preparation of D-B procurement.
**Project Relevance:** Similarities to Belmont Ridge Road include a major roadway designed in rock, bridge construction, and roadway widening involving a design phased to maintain bridge and roadway traffic. Project relevancy to Belmont Ridge Road includes design of roadway widening, structural engineering for three bridges, TMP, relocations of FO lines and overhead utilities, drainage and stormwater management design, and all associated project management functions. Extensive rock cut investigation (including helicopters to deliver drill rigs to otherwise inaccessible sites) and excavation plan drove the design of the widening concept. The value of experience Mr. Reed gained on a project of this magnitude will benefit Belmont Ridge Road with similar geological challenges.

**VDOT, ROUTES 7-15 WIDENING (LEESBURG BYPASS), Town Of Leesburg, VA**

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>Parsons Transportation Group Inc. of VA</th>
<th>Project Role:</th>
<th>Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2009</td>
<td>End Date:</td>
<td>2012</td>
</tr>
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</table>

**Specific Responsibilities:** Mr. Reed was Project Manager responsible for the widening of the southeast quadrant of the bypass around Leesburg, Virginia. He directed design efforts including roadway, trail and drainage design (including hydraulic modeling for stream crossings), configuration of bridges and retaining walls, and developed a full transportation management plan. He documented and conducted VDOT’s Risk Analysis Workshop. He was responsible for design QC and conducted Public Hearings and led development of Design-Build procurement documents for the Sycolin Road Overpass portion of the project.

**Project Relevance:** The $3.5M Leesburg Bypass design project included modifications to two crossings of Tuscarora Creek, two interchanges, provided a grade-separated overpass at the Sycolin Road intersection, and designed trail relocation and new connections for the crossing of the W&OD Trail. Project relevancy to Route 639 includes design of road widening on heavily-travelled highway, stream hydraulics, and relocation of water, sewer, and overhead utility lines, detour traffic analysis for road closures during construction, and all associated project management functions. Mr. Reed was key to coordination for W&OD Trail with NVRPA and Virginia Power underpass, utility relocations, bridges and retaining walls, noise walls, roadway widening, SWM. His expertise and knowledge of Loudoun County conditions (both geological and political), and the Belmont Ridge Road area will be crucial for successful completion of this project.

**VDOT, I-64, I-64/I-264 & I-264 PAVERMENT REHABILITATIONS, Norfolk & Virginia Beach, VA**

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>JMT</th>
<th>Project Role:</th>
<th>Design Task Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2014</td>
<td>End Date:</td>
<td>2014</td>
</tr>
</tbody>
</table>

**Specific Responsibilities:** Mr. Reed is the Design Task Manager leading design reviews, development of Design Exceptions, and document control for three simultaneous D-B projects providing major pavement rehabilitation for deteriorating interstates in the Hampton Roads District. His work involves serving as VDOT’s Location and Design Division representative on three projects overseeing designs of paving, traffic control devices, drainage modifications, concrete barrier and guardrail modifications and upgrades. He provides all Document Control services for the projects using CADAC system including compilation of documents for requesting design approvals from the Chief Engineer. He also assists in evaluation of change orders and contract modifications in consultation with all levels of VDOT staff. He is responsible for coordinating stringent maintenance of traffic requirements with VDOT and the contractors. Mr. Reed represents VDOT L&D at Contractor coordination meetings.

**Project Relevance:** These projects are examples of vital, complex, high-visibility, successful, D-B projects addressing many aspects of design policy and their relevance within the time-critical D-B environment. As part of the on-going partnering on these projects, Mr. Reed has been able to establish a professional working relationship with key members of the LANE Team helping to deliver these projects. The experience Mr. Reed is gaining on these projects will be highly advantageous to the Belmont Ridge Road Project design and construction.

**VDOT, ELIZABETH RIVER CROSSINGS, Norfolk & Portsmouth, VA**

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>Southeast Transportation Partners (JV including Parsons Transportation Group Inc. of VA)</th>
<th>Project Role:</th>
<th>Assistant PM/Design Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2010</td>
<td>End Date:</td>
<td>2012</td>
</tr>
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</table>

**Specific Responsibilities:** As Design Manager and Assistant Project Manager, Mr. Reed was responsible for augmenting VDOT in the development of this PPTA project to add a second tube to the Midtown Tunnel under the Elizabeth River, upgrade the Downtown Tunnel, and provide the Martin Luther King Expressway to connect the Midtown Tunnel to I-264. He managed an international team of expert, multi-disciplined subconsultants on this $44M contract. He was responsible for Providing QC and approval reviews of all design submittals including: geotechnical designs; alignments; maintenance of vehicular, marine, and rail traffic; establishment and enforcement of design criteria; utility relocations; right of way acquisitions, and review of design exceptions and waivers.

**Project Relevance:** Similar to the Elizabeth River Crossing project, Mr. Reed’s role for managing a multi-discipline team, coordinating with D-B contractors, roadway and bridge design will benefit the Belmont Ridge Road project. His breadth of knowledge and expertise acquired from the Downtown Tunnel project provide a distinct advantage to the Belmont Ridge Road design and construction. Project elements similar in scope to Route 659 include complex geotechnical considerations, trails, roadway design and planning, TMP, relocations of major and minor utilities, SWM, flood issues, design waivers and exceptions, structural engineering, and all associated project management functions.

h. **For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. N/A. Mr. Reed is not required on-site full-time.**
Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: BARRY M. BERNSTEIN, PE, PROJECT MANAGER

b. Project Assignment: CONSTRUCTION MANAGER

c. Name of Firm with which you are now associated: THE LANE CONSTRUCTION CORPORATION

d. Years’ experience: With this Firm 30 Years, With other Firms 0 Years.

Please list chronologically your employment history, position general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

The Lane Construction Corporation, Project Manager, 1999 – Present: Mr. Bernstein has over 30 years of experience in the construction industry and is responsible for managing project construction efforts including quality control activities. His responsibilities include overseeing daily construction and ensuring all materials used and work performed are in compliance with specifications. He is responsible for project cost, staffing, subcontractors and scheduling. He has served as Project Manager and Construction Manager on several Design-Build, PPTA, and other projects in Northern Virginia and the greater Washington, D.C. metro area. He is familiar with bridge and roadway construction, utility relocations, shared-use paths, maintenance of traffic methods & regulations, signage and lighting, retaining walls, and other heavy civil construction elements. Mr. Bernstein currently holds a DEQ RLD Certification and a VDOT ESCCC.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
   Lehigh University, Bethlehem, PA/ B.S./1984/ Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
   1993 / Licensed Professional Engineer / Maryland #19991

g. Document the extent and depth of experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities for each project, not those of the firm.
   2. Note whether experience is with current firm or with other firm.
   3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.
   (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.) On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

PWC, SUDLEY MANOR DRIVE AND LINTON HALL ROAD, Prince William County, VA (DESIGN-BUILD)

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>The Lane Construction Corporation</th>
<th>Project Role: Construction Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2005</td>
<td>End Date: 2007</td>
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</tbody>
</table>

Specific Responsibilities: Mr. Bernstein was responsible for planning, directing, and coordination of all construction activities, including project budget control and management of all subcontractors. He directed and managed project development for duration of the project and coordinated with Lead Designer for all engineering and construction matters including constructability reviews. He reviewed project status reports and worked to ensure all designs adhered to contract specifications. He defined scope, goals, and deliverables and estimated resources (manpower and materials) needed to achieve project goals. As LANE’s CM, he was in charge of the overall project and weekly scheduling, means and methods of construction, and the coordination with PWC, VDOT and adjacent projects. Mr. Bernstein oversaw completion of single span steel girder twin bridges over existing Norfolk Southern Railroad and four mechanically stabilized earth (MSE) retaining walls. Mr. Bernstein’s role was identical to the requirements for CM for Belmont Ridge Road as he was full time/onsite for the duration of construction.

Project Relevancy: Mr. Bernstein managed the construction process for the $29M Sudley Manor /Linton Hall D-B for LANE contracted portions which included roadway construction and widening; asphalt paving and milling; utilities; bridges and structures over significant challenges, environmental, landscaping, drainage, grading, construction management, and engineering functions; earthwork, SWM, storm drain, water and sanitary sewer, and underdrain for the project. (See Lead Contractor Work History for full details.)

VDOT, I-95 EXPRESS LANES, Fairfax, Prince William, and Stafford Counties, VA (DESIGN-BUILD)

<table>
<thead>
<tr>
<th>Name of Firm:</th>
<th>The Lane Construction Corporation</th>
<th>Project Role: Construction Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Date:</td>
<td>2012</td>
<td>End Date: 2015 (March)</td>
</tr>
</tbody>
</table>

Specific Responsibilities: As CM for the I-95 Express Lanes D-B, Area 1 (Southern Section) Project (this section = $250M value), he is responsible for coordination and scheduling of contractors, oversight of crew and work conditions, VDOT coordination, safety and equipment, contract compliance and costing. He coordinates with Lead Designer for constructability reviews of numerous design packages and manages Project construction. He holds specific authorities to immediately halt any and or all portions of work deemed necessary, negotiate with VDOT regarding changes to the scope of work and other matters, subcontractor management and personnel changes. Project requires Mr. Bernstein to have extensive coordination with 3rd parties, including utilities, railroads, and several government agencies. As CM, Mr. Bernstein is on-site full time for the duration of construction which will be completed in time for him to be available as the CM for the Belmont Ridge Road Project.
**Project Relevancy:** Mr. Bernstein is responsible for managing the construction and quality of I-95 Express Lanes (south segment) which include asphalt paving and roadway construction, survey, geotechnical, structural bridge work, signage, MOT, drainage, and grading. The I-95 Express Lanes Project includes a nine-mile roadway extension with major clearing, earthwork, bridge flyovers, structural bridge work, extensive ITS and signing system, sound walls, asphalt mill and overlay, and shoulder reconstruction. His specific construction work includes seven new bridges, three bridge rehabilitations, sound walls, guard rails, earthwork, asphalt paving, overhead sign structures, overhead ITS toll gantries, miles of conduit and cable. SWM and environmental concerns were a challenge and included the successfully completed Swan’s Creek Revitalization. Mr. Bernstein has played an active role in the intensive PR Communications Plan and public outreach that has also been a requirement of this project. He manages and verifies that all work meets contract requirements and “approved for construction” plans and specs.

### VDOT/NATIONAL PARK SERVICE, JONES POINT NATIONAL PARK, Alexandria, VA

**Name of Firm:** The Lane Construction Corporation  
**Project Role:** Project Manager  
**Beginning Date:** 2010  
**End Date:** 2012

**Specific Responsibilities:** Mr. Bernstein had overall responsibility to ensure all aspects of this $15M project were executed safely and in accordance with contract requirements and specifications. He held specific responsibilities for QA/QC, project schedules, cost control, subcontractors, work plans, and specific means/methods for carrying out the work. He held specific authorities to immediately halt any and all portions of work deemed necessary, negotiate on LANE’s behalf with VDOT and the National Park Service (NPS) regarding changes to the scope of work and other matters, subcontractor management and personnel changes.

**Project Relevancy:** This $6M project included the widening of Dulles Toll Road and ramps leading to and from I-495. Work included ramp widening, cast in place and reinforced earth retaining walls, sheet piling, overhead and cantilever sign work, guardrail, storm drain modifications and hot mix asphalt paving. Relevant project elements included roadway widening, signage, drainage and grading, asphalt paving and milling, QA/QC, safety, traffic management and traffic control devices. Public involvement and PR communications were crucial to project success, as Dulles Toll Ramps are used as a direct access to Dulles Airport for travelers.

**h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.**

**Assignment: I-95 Express Lanes | Role: Construction Manager | Duration of Assignment: March 1, 2015 (Completion)
ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR WORK HISTORY FORMS
Structures:

- Normal flow was one foot in depth and it could swell to over eight feet during typical rain events.
- The structures also included state girder bridge, drainage improvements, and storm water management facilities.

Partnering:

- One of the key factors to the overall success of the project was the emphasis placed on cultivating a strong partnership among all members of the project team, including LANE, JMT, MWAA, and other stakeholders.
- Very fast coordination meetings were held to ensure that all stakeholders understood the impacts of the work activity.

Evidence of Performance:

- LANE excavated over 105,000 cy of rock during widening and construction of the access and CD roads/ramps.
- Means and methods included mechanical means of rock removal such as large dozer tractors ripping where possible.

Evidence:

- There was a successful early completion of the Project, which was a direct result of LANE, JMT, and MWAA working together for the common good of the project.
- The successful early completion of the Project was a result of LANE, JMT, and MWAA working together for the common good of the project.

LANE/MJT Working Together:

- LANE and JMT worked together to develop a phased, design/construction program.
- The successful early completion of the Project was a direct result of LANE, JMT, and MWAA working together for the common good of the project.

Rock Excavation:

- LANE excavated over 105,000 cy of rock during widening and construction of the access and CD roads/ramps.
- Means and methods included mechanical means of rock removal such as large dozer tractors ripping where possible.

Key Personnel for Route 659:

<table>
<thead>
<tr>
<th>Key Personnel</th>
<th>Route 659</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ken Prince, PE (LANE)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
<tr>
<td>Dennis Redsky (LANE)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
<tr>
<td>Jan McKensie (LANE)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
<tr>
<td>Doug Russell (LANE)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
<tr>
<td>Rodney Hayzlet, PE (JMT)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
<tr>
<td>Randy Beiles, PE (JMT)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
<tr>
<td>Paul Clement, PE (JMT)</td>
<td>Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.</td>
</tr>
</tbody>
</table>

LEAD CONTRACTOR - WORK HISTORY FORM

<table>
<thead>
<tr>
<th>LEAD CONTRACTOR</th>
<th>ATTACHMENT 3.4(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johnson, Mirmiran &amp; Thompson</td>
<td>NORTH AREA ROADS IMPROVEMENT Dulles, VA</td>
</tr>
<tr>
<td>Phone: 703.417.8647</td>
<td>Name of Client/Owner: MWAA</td>
</tr>
<tr>
<td>Project Manager: David Swennes</td>
<td>Phone: 703.417.8647</td>
</tr>
<tr>
<td>Email: <a href="mailto:david.swennes@mwaa.com">david.swennes@mwaa.com</a></td>
<td>308/2003</td>
</tr>
<tr>
<td>11/2007 (early delivery)</td>
<td>f. Contract Value (in thousands)</td>
</tr>
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<td>$27,199</td>
<td>Original Contract Value</td>
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The North Area Roads Improvement Project in Loudoun County focused on the Dulles International Airport Access Highway (AAH) and associated areas and included:

- The construction of a Collector-Distributor (C-D) road between Saarinen Circle and Route 28 (the new C-D Roadway).
- The reconstruction and widening of the AAH between Saarinen Circle and the runway expansion at Dulles Airport.
- The construction of the inbound AAH over Horsepen Run.
- The construction of a 140’ two-lane multi-span bridge with an integrated back wall and included short and medium span steel plate girder designs.
- Two retaining walls were included to allow the widening eastbound of the AAH and the construction of the inbound C-D roadways to pass under existing bridges without reconstructing those bridges.

LANE and JMT worked together on the phasing, design, and construction sequences. The successful early completion of the Project was a direct result of LANE, JMT, and MWAA working together for the common good of the project.

Evidence of Performance:

- LANE excavated over 105,000 cy of rock during widening and construction of the access and CD roads/ramps. Means and methods included mechanical means of rock removal such as large dozer tractors ripping where possible.

Evidence:

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<tr>
<td>Johnson, Mirmiran &amp; Thompson</td>
<td>NORTH AREA ROADS IMPROVEMENT Dulles, VA</td>
</tr>
<tr>
<td>Phone: 703.417.8647</td>
<td>Name of Client/Owner: MWAA</td>
</tr>
<tr>
<td>Project Manager: David Swennes</td>
<td>Phone: 703.417.8647</td>
</tr>
<tr>
<td>Email: <a href="mailto:david.swennes@mwaa.com">david.swennes@mwaa.com</a></td>
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<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
</table>
| MD 237 from Pegg Road to MD 235 St. Mary’s County, MD (DESIGN-BUILD) | Whitman, Requardt & Associates | Name of Client/Owner: Maryland State Highway Administration  
Phone: 410.802.9066  
Project Manager: Robert Murphy  
Email: RMurphy@sha.state.md.us | 05/2011 | 10/2011 | $36,000 | $36,000 |

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### RELEVANT PROJECT ELEMENTS

#### Mid-Atlantic Construction's Best of St. Mary's County, MD

**PROJECT SCOPE**

- Roadway Improvements: The purpose of the Project was to upgrade a substandard two lane roadway with numerous driveways and cross-streets to a four lane divided roadway with signalized controlled access at the intersections. Left turn crossing movements were reduced with the introduction of J-turns at uncontrolled median openings and U-turns at signalized intersections. Roadway improvements included 5’ bicycle lanes on MD 237 with accommodations for pedestrian facilities consisting of 5’ sidewalks, ADA compliance at intersections including Audible Pedestrian Signals and detector warning surfaces at cross-walks, improved roadway signing, pavement markings, and lighting. Improved horizontal and vertical geometrics were enacted to meet current design criteria including raising the roadway profile 12’ at a major stream crossing for replacement of undersized pipe culverts with a twin-cell reinforced box culvert and noise wall.

- Traffic engineering services included the installation of five new traffic signals, signal interconnects, relocation of school warning flashers, new signing and pavement markings and intersection street lighting.

**Evidence of Performance:**

- Mid-Atlantic Construction's Best of 2010 Award nominee

**Key Personnel on Project:**

- Ken Prince, PE (LANE)
- Chris Monahan (LANE)
- Doug Russell (LANE)

**Similar Scope Elements:**

- Geotechnical services included foundation design for the twin-cell box culvert and noise walls, geotechnical evaluation and design of roadway embankments and cuts, and pavement design including Falling Weight Deflectometer testing of existing pavement. The pavement section included a bank run gravel base, a material not commonly used by MD Sharma but local to Southern Maryland, resulting in significant savings to MDSHA in the bid price.

- Traffic Control Devices: Traffic engineering services included the installation of five new traffic signals, signal interconnects, relocation of school warning flashers, new signing and pavement markings, and new intersection lighting.

- Also, extensive maintenance of traffic plans were developed to maintain existing traffic along all roadways and access to driveways and entrance at all times during construction. Temporary cross-overs from newly constructed pavement to the existing pavement were necessary as each portion of the project was completed.

- Pedestrian and bicycle movements were designed into the maintenance of traffic plan.

- Mid-Atlantic Construction's Best of St. Mary's County, MD

- Evidence of Performance:

  - Mid-Atlantic Construction's Best of 2010 Award nominee

- Key Personnel on Project:

  - Ken Prince, PE (LANE)
  - Chris Monahan (LANE)
  - Doug Russell (LANE)

- Similar Scope Elements:

  - Design-Build
  - Right of Way
  - Utilities Coordination, Relocation and Construction
  - O&AQC

- Relevant Project Elements:

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- Sound Barrier/Noise Wall: A sound barrier wall system consisting of posts and panels was installed along two residential communities. Several drainage pipes and underground utilities crossed under the noise wall and were installed prior to the construction of the noise wall foundation. A well coordinated effort was necessary to avoid impacting the underground utilities. The noise wall required a brick pattern architectural treatment on the residential and highway side of the noise wall. This treatment was accomplished using a form liner on the highway side and a stamped treatment on the residential side. Both sides were stained on site after the panels were erected.

- Maintenance of Traffic: Extensive multi-phase maintenance of traffic plans were required to maintain traffic along all roadways and access to driveways/entrances. The Project was divided into four distinct construction zones based on maintaining drainage within each zone. Each construction zone was designed to allow for the complete construction of two of the four lanes while maintaining the existing traffic on the existing roadway. Each phase was staged so as zones were completed, traffic could be switched onto the new pavement and be maintained while constructing the next phase. Temporary cross-overs from newly constructed pavement to the existing pavement were necessary as each portion of the project was completed.

- Public Involvement: Public meetings were held to continue MDSHA’s public involvement campaign and to inform the community of the final design elements and upcoming construction activities. Public information materials and advanced notification of traffic impacts were provided to MDSHA on a continual basis to keep the public informed throughout construction.
LEAD CONTRACTOR - WORK HISTORY FORM

PROJECT SCOPE

Sudley Manor Drive consisted of the construction of a 2.8-mile, new location, four-lane urban minor arterial designed to accommodate future expansion to six lanes. The LANE portion of the work included grading, storm and waste water pipelines, MOT at intersections, a portion of twin bridges over Norfolk Southern Railroad (NSRR), retaining walls, environmental controls, roadway stone, and seeding. The Linton Hall Road portion (from Devlin Road to Nokesville Rd (Route 28)) consisted of the complete reconstruction of the existing two-lanes into a four-lane divided roadway with turn lanes through a busy residential and commercial corridor. The work included twin bridges over Broad Run, grading, storm, waste, and drinking water pipe lines, environmental controls & facilities, roadway stone, seeding etc. These two roadways were procured under Prince William County’s PPTA specifications.

Evidence of Performance:

Part of the road was opened two weeks prior to the contracted completion date.

Key Personnel for Route 659:

Barry Bernstein, PE (LANE)
Wayne Lindsay (LANE)
Doug Russell (LANE)
Chris Montanari (LANE)
Bob Reed, PE (DMT)

Project Manager:

Barry Bernstein, PE (LANE)
Wayne Lindsay (LANE)
Doug Russell (LANE)
Chris Montanari (LANE)
Bob Reed, PE (DMT)

Utilities:

Utilities were a major concern on Sudley Manor Drive and VDOT to meet the accelerated schedule for plan design, utility relocation, right-of-way acquisition, and construction. Additionally, coordination of the roadway and drainage design with existing utilities and proposed sound barriers was crucial to keeping the project on time and on budget.

Evidence of Performance:

Numerous other more shallow trenches on the Project required rock excavation with nearby facilities that required controlled removal techniques and monitoring. One particular location was a sanitary force main, 18 feet below grade, in rock and adjacent to NSRR. LANE coordinated with NSRR to blast the initial rock cut. The blasting was performed by a licensed subcontractor; LANE self-performed the final neat excavation with hydraulic hoerams and backhoes; no issues were encountered. Numerous other more shallow trenches on the Project required rock removal, all near housing; excavation was performed with hoerams and backhoes.

Relevant Project Elements:

Rock Excavation: This Project had numerous sanitary and stormwater trenches requiring rock excavation with nearby facilities that required controlled removal techniques and monitoring.

Amenities:

Utilities were a major concern on Sudley Manor Drive and Linton Hall Road. Utilities included: Dominion Power, Verizon (fiber and copper), cable, water & sewer. Due to the tight schedule and ROW issues, the D-B Team organized and managed a Partnering meeting with all of the utilities. The Partnering meetings led to teaming strategies for the construction team to support the utility companies who had to self-perform all work except the water & sewer and improved the schedule by nearly one year.

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Relevant Project Elements:

Tourism/Shared Use Path:

The Project consisted of constructing twin bridges over Broad Run Creek and the adjacent Broad Run Trail. LANE took special care to ensure both the creek and the recreational trail were maintained throughout construction. LANE also coordinated with the Prince William County Parks Department and kept the public informed of the construction progress. The scope of work also consisted of the construction of shared-use paths on both Sudley Manor Drive and Linton Hall Road.

Local Community:

Similar to Belmont Ridge Road, there was an urgent need to widen the roadways because of the rapid increase of commuter and residential travelers using the roads. Linton Hall Road is a thoroughfare that passes between residential communities; LANE worked closely with the community, neighborhood associations, churches, fire & rescue, a private school and several businesses to ensure the public was aware of the construction plan, progress and the subsequent impacts. Because of LANE’s open and effective communication plan and program, the Project was completed with minimal complaints from the public.

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ATTACHMENT 3.4.1(b)
LEAD DESIGNER WORK HISTORY FORMS
Helped to overcome opposition. The results of these efforts culminated in agreement between stakeholders for the intersection configuration and operations after several meetings with the community, elected officials and civic groups.

Use Path to be constructed without more serious impacts to utilities and adjacent residences.

Subconsultant.

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Coordination of Design Waivers/Exceptions - Due to right of way constraints, JMT requested and obtained a Design Waiver concerning the Shared Use Path. The normal 10 -foot buffer between the travel way and the Shared Use Path was reduced to 7.5 feet, allowing the Shared Use Path to be constructed without more serious impacts to utilities and adjacent residences.

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VISSIM traffic software, which accommodated the existing right-of-way constraints while also providing the operating improvements. JMT also provided extensive public meeting displays which in turn informed stakeholders and residents and helped to overcome opposition. The results of these efforts culminated in agreement between stakeholders for the intersection configuration and operations after several meetings with the community, elected officials and civic groups.

Evidence of Performance:

"I want to thank you all for your hard work on the Route 7 Widening Project from Rolling Holly Dr to Reston Ave – you guys have been great to work with! The project will be ADVERTISED TODAY!!"

PROJECT SCOPE

JMT was responsible for providing professional engineering services to VDOT for design and capacity improvements to Route 7 (Leesburg Pike) in Fairfax County, VA. The Project was split into two segments, Rolling Holly Drive to Reston Avenue (1.2 miles) and Reston Avenue to the Dulles Toll Road (approximately 6.5 miles).

Plans were prepared utilizing MicroStation V8 and GEOPAK. The widening was generally to the inside, however alternatives were developed to determine the most feasible and prudent options where widening exclusively to the median was not practical or was to be limited to not preclude future transit options. The Project included survey, subsurface utility engineering, preliminary design, complete right-of-way and roadway construction plans (included standard retaining wall plan sheets); multi-purpose trails on both sides of Route 7; structure and bridge plans included the design of a bridge replacement (Route 7 over Difficult Run), landscaping plans, signing, signals, roadway lighting, pavement markings, roadway drainage design and hydraulic and hydrologic analysis of bridged waterways and major structures as well as analysis to determine scour, water quality work, final plans, estimates, special provisions, review of shop drawings, construction consultation and load ratings.

The design included improvements to 33 intersections, including adding turn lanes, medians, islands and signalization in accordance with VDOT NOVA District requirements. Included in the design were signing and pavement marking plans for the mainline roadway and the connections. JMT conducted signal warrant studies at 9 intersections. 14 existing signals were impacted by the design and were designed for the new intersection configurations. Additionally, design alternatives were evaluated at major intersections to determine the most feasible and prudent options to improve traffic flow, including assessing alternative intersection options.

VISSIM/Synchro/SimTraffic software was utilized to develop a coordinated system to maximize traffic flow volumes and to decrease delay times along the corridor. Furthermore, bicycle and pedestrian crossings were analyzed at the signalized intersections due to the shared-use path paralleling Route 7 through the corridor.

JMT developed a Type C Transportation Management Plan (TMP) for Rolling Holly Drive to Reston Avenue of the project and is currently developing a TMP for the Reston Avenue segment to the Dulles Toll Road. There was significant bifurcation between the eastbound and the westbound roadways, which complicated the phasing of construction. An extensive public involvement program was implemented which included newsletters, a website, public involvement meetings, citizen working group sessions as well as close coordination with Fairfax County.

The roadway plans included drainage design for both open and closed storm systems, ditches, inlets, storm water management facilities, erosion and sediment control, and hydraulic and hydrologic analysis for major structures and bridges. A very extensive stormwater strategy was developed for the Project to identify areas where stormwater management facilities may serve joint usage facilities for Fairfax County Park Authority and or other developments along the corridor to help minimize environmental and property impacts.

Similar Scope Elements:

- Roadway
- Survey
- Structural/Bridges
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control
- Devices
- Shared Used Path
- TMP
- Right-of-Way
- Utilities
- Public Involvement/Rela.
- QA/QC
- Geotechnical
- Overall Project

Evidence of Performance:

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G. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. (Design Work was Performed by JMT as the Prime Designer from Herndon, VA, Richmond, VA and Sparks, MD offices)
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*(LIMIT 1 PAGE PER PROJECT)*

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<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
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<td>FAIRFAX COUNTY PARKWAY EXTENSION, (Design-Build) Springfield, VA</td>
<td>Cherry Hill Construction, Inc.</td>
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<td></td>
</tr>
<tr>
<td>[SINGLE CONTRACT]</td>
<td>Name of Client: Federal Highway Administration-Eastern Federal Lands Highway Division (FHWA-EFLHID)</td>
<td>Phone: 703.404.6302</td>
<td>Project Manager: Robert A. Morris, PE</td>
<td>Phone: 703.432.6368</td>
<td>Email: <a href="mailto:Robert.morris@dot.gov">Robert.morris@dot.gov</a></td>
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<td>JMT was responsible for complete design of the Project including work in the following disciplines: highway, structural, water resources, traffic, multipurpose trail, lighting designs, surveys, utility designations, subsurface utility engineering, geotechnical engineering, environmental analysis and permitting (led by EEE). JMT also provided services to finalize conveyance of the ROW from the Army to VDOT. To meet the requirements of BAC, the Fairfax County Parkway (FCP) project had an extremely aggressive schedule of 750 calendar days to design, permit, relocate utilities, and construct the parkway. The design team initiated design upon notice of award beginning in Oct. 2008 and delivered approval for construction plans that allowed construction of the western end (west of Accotink Creek) of the Project to commence in April 2009. Full plan approval for the remainder of the contract was received on Aug. 2009, approximately 6 months ahead of schedule. This accelerated design schedule allowed earlier construction starts that enabled the opening of segments II on Sept. 2010, nearly a month ahead of schedule. The Project corridor begins at Rolling Rd/Franconia-Springfield Parkway and proceeds southeastward on a new alignment and ends just east of Fullerton Rd. The design included a new interchange at FCP and Barta Road for access to West North Loop Road National Geospatial-Intelligence Agency (NGA) interior roadway network within the new NGA facility. Extensive design collaboration/coordination with the U.S. Army for this access point was required and included coordination for security lighting, overhead vehicle detection, geometry and utility connections. A majority of this roadway was located on the southern portion of the Fort Belvoir North Area. The work involved in the FCP included: grading, drainage and paving, bridges, noise walls, lighting, traffic signals, landscaping, signing/ striping and extensive environmental services. The environmental challenges were further complicated by the fast-track schedule, involvement of multiple stakeholders, and complex environmental and regulatory issues. The FCP alignment cut through the Fort Belvoir North Area and crossed five former firing ranges and testing sites including three RCRA sites that had significant groundwater and soil contamination, and stringent Land Use Controls required by an EPA Consent Order to protect human health and the environment. Design services included a comprehensive investigation of the nature and extent of contamination on several of these areas, including groundwater modeling to evaluate the impact on construction of the fate and transport of multiple contaminated groundwater plumes. The project also included widening of I-95 to accommodate a new exit lane designed as a certified Defense Access Road to provide direct access to the NGA. The DB Team completed the following work: Design of a 4-lane divided, limited access highway, to facilitate future widening to 6-lanes within the project ROW; Relocation of portions of Rolling Road; Interchange at FCP with Barta Road; New Bridges at Fullerton Road, Accotinck Creek/Barta Rd; and multipurpose trail alongside a portion of the road. Construction of Ramp A/Loop D at the Barta Road Interchange. Provided an access road for approx. 1.0 mile beginning at the existing exit ramp connecting SB I-95 to WB FCP to a new alignment to the W. South Loop Rd, included widening of existing Br. 675. Consisted of constructing Ramp C of the Boudinot Drive interchange. This ramp was approximately 0.3 miles long and provides access from Fullerton Road to southbound FCP. Provided access to northbound FCP from Boudinot Drive by extending Boudinot Drive beneath the FCP and constructing Loop D. Also provided a connection from FCP northbound to Boudinot Drive via Ramp B; and access from southbound FCP to FCP via Ramp D and a new bridge crossing Accotinck Creek.</td>
<td>July 2011</td>
<td>July 2011</td>
<td>$73,756</td>
<td>$112,416 (Increase due to addition scope by Owner)</td>
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**PROJECT SCOPE**

JMT was responsible for complete design of the Project including work in the following disciplines: highway, structural, water resources, traffic, multipurpose trail, lighting designs, surveys, utility designations, subsurface utility engineering, geotechnical engineering, environmental analysis and permitting (led by EEE). JMT also provided services to finalize conveyance of the ROW from the Army to VDOT. To meet the requirements of BAC, the Fairfax County Parkway (FCP) project had an extremely aggressive schedule of 750 calendar days to design, permit, relocate utilities, and construct the parkway. The design team initiated design upon notice of award beginning in Oct. 2008 and delivered approval for construction plans that allowed construction of the western end (west of Accotink Creek) of the Project to commence in April 2009. Full plan approval for the remainder of the contract was received on Aug. 2009, approximately 6 months ahead of schedule. This accelerated design schedule allowed earlier construction starts that enabled the opening of segments II on Sept. 2010, nearly a month ahead of schedule. The Project corridor begins at Rolling Rd/Franconia-Springfield Parkway and proceeds southeastward on a new alignment and ends just east of Fullerton Rd. The design included a new interchange at FCP and Barta Road for access to West North Loop Road National Geospatial-Intelligence Agency (NGA) interior roadway network within the new NGA facility. Extensive design collaboration/coordination with the U.S. Army for this access point was required and included coordination for security lighting, overhead vehicle detection, geometry and utility connections. A majority of this roadway was located on the southern portion of the Fort Belvoir North Area. The work involved in the FCP included: grading, drainage and paving, bridges, noise walls, lighting, traffic signals, landscaping, signing/ striping and extensive environmental services. The environmental challenges were further complicated by the fast-track schedule, involvement of multiple stakeholders, and complex environmental and regulatory issues. The FCP alignment cut through the Fort Belvoir North Area and crossed five former firing ranges and testing sites including three RCRA sites that had significant groundwater and soil contamination, and stringent Land Use Controls required by an EPA Consent Order to protect human health and the environment. Design services included a comprehensive investigation of the nature and extent of contamination on several of these areas, including groundwater modeling to evaluate the impact on construction of the fate and transport of multiple contaminated groundwater plumes. The project also included widening of I-95 to accommodate a new exit lane designed as a certified Defense Access Road to provide direct access to the NGA. The DB Team completed the following work: Design of a 4-lane divided, limited access highway, to facilitate future widening to 6-lanes within the project ROW; Relocation of portions of Rolling Road; Interchange at FCP with Barta Road; New Bridges at Fullerton Road, Accotinck Creek/Barta Rd; and multipurpose trail alongside a portion of the road. Construction of Ramp A/Loop D at the Barta Road Interchange. Provided an access road for approx. 1.0 mile beginning at the existing exit ramp connecting SB I-95 to WB FCP to a new alignment to the W. South Loop Rd, included widening of existing Br. 675. Consisted of constructing Ramp C of the Boudinot Drive interchange. This ramp was approximately 0.3 miles long and provides access from Fullerton Road to southbound FCP. Provided access to northbound FCP from Boudinot Drive by extending Boudinot Drive beneath the FCP and constructing Loop D. Also provided a connection from FCP northbound to Boudinot Drive via Ramp B; and access from southbound FCP to FCP via Ramp D and a new bridge crossing Accotinck Creek.

**RELEVANT PROJECT ELEMENTS**

This project has relevance to the proposed Belmont Ridge Road project in Loudoun County for several factors including: Innovative Design: Designed significant profile revisions to minimize surplus material, thereby avoiding impacts to HAZMAT and UXO’s, and reducing construction traffic on the local road network. Extensive Stakeholder Coordination and Partnering: Conducted extensive coordination process to satisfy the varying and diverse needs of the major stakeholders. Extensive public relations campaign and partnering approach to Project was key to successful implementation of a yearlong detour of existing ramp. Partnered with the communities on the noise wall locations. Rock Excavation: Work included rock drilling into granite bedrock for installation of drilled shafts and to provide for MSE wall straps. Rock excavation was required for establishing subgrade elevation. Excavated rock was crushed on-site and used in final construction as MSE wall fill. Utilities: Conducted vibration analysis to predict impacts from rock drilling near a Fairfax County 48” diameter reinforced concrete sanitary sewer. Provided emergency sewer back-up system design to provide redundant protection. Adjusted roadway design to minimize relocation of 20” waterline and 8” gas line along Barta Road that avoided delays to construction schedule. Completed relocations of 1,420 LF of water mains and several 8” sewer relocation along Fullerton Road, coordinated utility relocations with Washington Gas, Dominion Power, Verizon, Cox Communication, US Army and others. Coordination of Design Waivers/Exceptions - Coordinated the mitigation and processing of design waivers and exceptions from previously approved CTX plans, allowing the project to remain within boundaries established by the MOA between project stakeholders (VDOT, EFLHID, U.S. Army, and Fairfax County) and keeping the commitments of the ROD.  

**Key Personnel on Project:**

| Bob Reed, PE | Bill Schaub, PE |
| Randy Bocce, PE | Trup Phan, PE |
| Rodney Hayzlett, PE | Jon Conner, HLA, LEED AP |
| Mike Zmuda, LS, PE | Mike Leffler, PE |
| Paul Clement, PE, CPESC | Ian Frost, AICP, LEED AP |
Because of the aggressive schedule and the stringent State review process, JMT's managers and engineers were faced with the task of acquiring State approvals that allowed the contractor to start construction and meet the deadline scheduled. This was accomplished by adopting an innovative “segmental” approach to design.

Innovative Design: Because of the abundance of wetlands in the area, an innovative approach to the removal of undercut was required. This was accomplished using a structural trenching box that is pulled along the grade to allow the contractor to work in the dry area behind the trench. The extremely flat grade in this region of Maryland presented a challenge to coordinate the drainage and stormwater management needs with the maintenance of access for the local traffic. Also included on this project was drainage and SWM facilities design, intersection lighting design, landscaping, and reforestation.

The proposed typical section consisted of 2, 24-foot roadways with 10-foot outside shoulders. The northbound and southbound traffic is separated by a 34-foot median which includes 4-foot paved shoulders, a 26-foot grass median and median w-beam traffic barrier. Access management roads were constructed to provide access for the local traffic. Also included on this project was drainage and SWM facilities design, intersection lighting design, landscaping, and reforestation.

Major construction activities included new full depth pavement, wedge and leveling and resurfacing of the existing pavement and shoulders, reforestation, drainage allowed the contractor to start construction and meet the deadline scheduled. This was accomplished by adopting an innovative “segmental” approach to design.

PROJECT SCOPE

JMT, as Prime Designer was responsible for completing the design of this portion of the U.S. 113 Corridor under the Design-Build method of project delivery. This portion of the U.S. 113 Corridor was distance of about 2.5 miles. The improvements included constructing U.S. 113 as a dual divided highway. The two additional lanes were constructed on the west side of the existing U.S. 113 roadway, ultimately becoming a southbound roadway. The existing U.S. 113 become the northbound roadway. Intersection improvements included left and right turn lanes with acceleration and deceleration lanes.

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Detailed hydrology and hydraulics were performed for five drainage structures that were extended or rebuilt in the process of realigning the U.S. 113 Corridor. New drainage structures included extension of reinforced concrete box culvert and design and construction of metal plate pipe arches.

JMT has successfully completed three additional segments of the U.S. 113 Corridor under separate Design-Build contracts.

Key Personnel on Project:

Mr. John Zanetti, Former MSHA's Project Manager

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Safety: The project separates the northbound and southbound traffic to make the U.S. 113 corridor safer, and to alleviate the higher than normal traffic accident history.

Utility Coordination: Early and Continuous Coordination and Partnering with numerous Utility Owners was Key to Successfully Meeting Relevant Project Schedule Milestones

Innovative Design: Because of the abundance of wetlands in the area, an innovative approach to the removal of undercut was required. This was accomplished using a structural trenching box that is pulled along the grade to allow the contractor to work in the dry area behind the trench. Because of the aggressive schedule and the stringent State review process, JMT’s managers and engineers were faced with the task of acquiring State approvals that allowed the contractor to start construction and meet the deadline scheduled. This was accomplished by adopting an innovative “segmental” approach to design.