## Statement of Qualifications



# **Route 220 Corridor Safety Improvements A Design-Build Project**

0.129 miles south of Route 43 0.331 miles north of Route 696 Botetourt County, Virginia

State Project No.: 0220-011-786 and 0220-011-788 Federal Project No.: NH-5128(326) and STP-5128(340) Contract ID Number: C00105543DB88



A Statement of Qualifications from

## June 8, 2016

# Submitted to: Virginia Department of Transportation

1401 E. Broad Street Richmond, Virginia 23219

# **Letter of Submittal**



#### June 8, 2016

Joseph A. Clarke, PE, DBIA Alternate Project Delivery Office Virginia Department of Transportation 1401 East Broad Street Annex Building, 8<sup>th</sup> Floor Richmond, VA 23219 Letter of Submittal / Statement of Qualifications Route 220 Corridor Safety Improvements Botetourt County, VA State Project No. 0220-011-786 and 0220-011-788 Contract ID Number: C00105543DB88

Dear Mr. Clarke:

W. C. English, Incorporated (English) has assembled a team of experienced firms and personnel who are focused on providing the Virginia Department of Transportation (VDOT) with not only the best price for this project, but also unsurpassed quality. We have included regional and local firms and personnel who bring Design-Build and road widening experience to the team. All members of the team have worked together in the past and are committed to making this a successful project. I am confident our SOQ presents a team of unmatched experience and accomplishments for which English is long recognized.

Our Design and Engineering partner for this project is **A. Morton Thomas and Associates, Inc. (AMT).** AMT brings recent, relevant design-build experience and wide-ranging management and technical capabilities. Other Team members with specialized expertise are introduced and described within this SOQ.

#### As requested in section 3.2 of the RFQ, the English team offers the following information:

**3.2.1, 3.2.2, 3.3.3** Wilson L. Dickerson, Jr., P.E. (Senior Vice President) is the *Principal Officer* of W.C. English, Incorporated, the legal entity with whom a Design-Build contract with VDOT will be written. Mr. Dickerson will serve as the *authorized representative* and *point of contact* for the English team relative to this SOQ, and he will serve as the offeror's representative. His contact information is shown to the right.

W. C. English, Incorporated 615 Church Street Lynchburg, VA 24504 Phone: 434-845-0301 Fax: 434-845-0306 wdickerson@englishconst.com

- **3.2.4** W. C. English, Incorporated is structured as a Corporation. English will undertake the financial responsibility for this Design-Build project, provide the required bonding, and accept the risks and liabilities for the performance of the work. English has no liability limitations.
- **3.2.5** W. C. English, Incorporated will serve as the lead contractor and will execute the Contract with VDOT. AMT will serve as the lead designer. More information on the history and expertise of these firms, as well as our sub-consultants and subcontractors, can be found in section 3.3.
- **3.2.6** See Attachment 3.2.6 in the Appendices.
- **3.2.7** See Attachments 3.2.7 (a) and 3.2.7 (b) in the Appendices.
- **3.2.8** W. C. English, Incorporated's certification number is E009 and is an active prequalified contractor to do business with VDOT. A copy of certificate is included in the Appendices.
- 3.2.9 In Appendices, please find a letter from Travelers Casualty & Surety Co. regarding bonding capability.
- 3.2.10 See Attachment 3.2.10 in the Appendices.
- **3.2.11** W. C. English, Incorporated is committed to meeting the 7% DBE participation goal for the entire value of the contract.

Our team is 100% committed to delivering a successful quality project to VDOT on-time and on-budget. We appreciate the opportunity to submit our qualifications to you and look forward to being selected to pursue this project in greater detail. If you have any questions or need further information, please contact me.

Respectfully submitted,

W. C. English, Incorporated Wilinhouternor

Wilson L. Dickerson, Jr., P.E. Senior Vice President

615 CHURCH STREET, LYNCHBURG, VA 24504 (434) 845-0301 ENGLISHCONST.COM

# **3.3 Team Structure**



#### W. C. ENGLISH, INC.

Construction & Project Management

#### A. MORTON THOMAS AND ASSOCIATES, INC.

Lead Designer & Construction Quality Assurance

#### A. Morton Thomas and Associates, Inc. Roadway, Structures, H&HA/SWM, Drainage, Traffic Engineering, TMP, Environmental Permitting, E&SC, Utility Design/ Coordination, Surveying, Subsurface Utility Locating, Construction Quality Assurance

#### Amec Foster Wheeler Environment & Infrastructure, Inc.

Geotechnical Engineering, Acid-Producing Materials Specialist & QA Lab

#### Stantec Consulting Services, Inc.

Right of Way Acquisition, Utility Design/Coordination, Construction Quality Control, Environmental Permitting

**Traffic Signals Plus, PLLC** Traffic Engineering and TMP

Froehling & Robertson, Inc. QC Lab

## **3.3 TEAM STRUCTURE**

W.C. English, Inc. (English) is pleased to respond to the Virginia Department of Transportation (VDOT) RFQ for the Route 220 Corridor Safety Improvements Design-Build Project. The English Team is comprised of highly skilled team members, both firms and individuals, to create an integrated team structure that advantageously utilizes the Design-Build (DB) process and capitalizes on the strongest attributes of each team member's respective capabilities. English's role includes managing the total design and construction of the project and self-performing the major work elements. With our Lead Designer, A. Morton Thomas and Associates, Inc. (AMT), and subconsultant teaming partners, we provide extensive Design-Build transportation expertise, as well as specific VDOT experience, which we will employ to successfully complete these critically important improvements. The English Design-Build (DB) Team assures you will receive the following:

- > A proven contractor with decades of highway construction experience.
- > A proven Design Partner that excels in Design-Build project delivery with several recent successes to our credit.
- > A Design-Builder that recognizes and welcomes stakeholder involvement.
- > A Design-Build Project Manager with the organizational authority to back our commitment to VDOT.

English has the expertise, personnel, equipment, and fiscal strength to successfully manage and construct the Route 220 Corridor Safety Improvements Design-Build Project. Of key significance and value for the Department is the partnering approach utilized by English on all Design-Build and PPTA projects. The English DB team employs a positive, proactive and all-inclusive team approach on all of our projects. We are accustomed to an operating standard that fosters integrity, relationships, service, quality, and experience. We enjoy the work we do and take great pride in client satisfaction. We want to be the VDOT's DB Team of choice, and will commit all necessary personnel to ensure satisfaction upon completion of project delivery.

**A. Morton Thomas and Associates, Inc. (AMT)** has been a respected provider of transportation design and construction management/inspection in Virginia and the Mid-Atlantic, including Design-Build projects, for over 60 years. Their key personnel have delivered design services on Virginia's busiest interstates and roadways for dozens of projects over the past five years. AMT has demonstrated success on highway widening, interchange and intersection projects for capacity and safety improvements, including major state highways and local roads throughout Virginia and locally. The firm's staff has provided services on some of the most visible VDOT projects in the Commonwealth including the Woodrow Wilson Bridge, I-81 Resurfacing, and I-66 to name a few. AMT has also designed maintenance of traffic (MOT) phasing and temporary traffic controls to achieve high level of service (LOS) throughout construction.

In addition to AMT, and as shown on the previous page, we have included subconsultants with specialized expertise for this project. These include:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) will provide geotechnical engineering and acid-producing materials identification, evaluation and remediation, as well as construction quality assurance testing. In operation since 1848, Amec Foster Wheeler has grown to a company of 27,000 employees (including 750 geotechnical specialists) with a global reach, while still being regionally present and specifically knowledgeable of rock, soil and water conditions in the western and southwestern Virginia. The firm maintains an accredited testing lab in Abingdon.

**Stantec Consulting Services, Inc. (Stantec)** will provide right of way acquisition services, utility design/ coordination, construction quality control management, and environmental permitting for the Route 220 Corridor Safety Improvements project. A VDOT prequalified right-of-way contracting consultant since 1999, the global firm has four offices with over 400 local professionals in the Commonwealth. Stantec has been involved with numerous Design-Build and PPTA projects in Virginia as both a lead designer and subconsultant.

**Traffic Signals Plus, PLLC (TSP)**, a certified DBE/SWaM firm, will provide traffic engineering services and MOT plan preparation. TSP was formed in 2010 by Earl Hughes, PE, PTOE, whose nearly 30 years of experience includes 15 years with the Virginia Department of Transportation and 14 years in the private sector. TSP specializes in traffic engineering design services. The company also offers services in the areas of signing/marking and work zone safety.

**Froehling & Robertson, Inc. (F&R)** will provide quality control testing and laboratory services. F&R is a SWaM-certified, minority-owned business as well as the oldest independent consulting engineering/testing firm in the United States. The firm's core competencies are construction materials testing and geotechnical and environmental engineering. F&R maintains a fleet of drilling equipment as well as accredited geotechnical and construction material testing laboratories that are utilized by each of their dozen offices, including in Roanoke. Their Roanoke office will provide the local resources needed to deliver the quick, efficient, and cost-effective service the Route 220 Design-Build project.

### 3.3.1 Design-Build Team Key Personnel

English has assembled highly-qualified and experienced individuals, and structured the Team for optimal performance. Our key team personnel and design firms come together with a shared history of successful projects and established working relationships. These strengths minimize VDOT's risks and staffing requirements on this project. Our task leaders and technical staff are responsible for items such as design, public involvement and construction, and everyone plays a role in the total success of the project.

The qualifications and experience of the English Team Key Personnel and other Team members should provide confidence to VDOT that the project and risks will be effectively managed through personal competence and accountability. The following table introduces these Key Personnel (with resumes in Appendix 3.3.1). Brief descriptions of their backgrounds and capabilities are provided on the next page.

ROLE	FIRM	NAME
<b>Design-Build Project Manager (DBPM)</b>	English	Cory Bond
Quality Assurance Manager (QAM)	AMT	Chuck Whited, PE
Design Manager (DM)	AMT	Laura Mehiel, PE
<b>Construction Manager (CM)</b>	English	Paul "Eddie" Jones
Lead Geotechnical Engineer	Amec Foster Wheeler	Stanley Hite, PE
Acid-Producing Materials Specialist	Amec Foster Wheeler	Luke Williams, PE

#### **Cory Bond**

#### **Design-Build Project Manager**

**Quality Assurance Manager** 



Mr. Bond has a wealth of relevant management experience. He will be responsible for the success of the project and has the specific, related expertise and experience to control the work, including design, permitting, right-of-way, utility relocation, construction quality management, contract administration, third-party coordination, and all other services required. He has managed numerous transportation projects—both design-build and bid build—involving maintenance of traffic, earthwork/rock, structures, asphalt paving, utilities, and storm drainage. Cory has managed projects in both Virginia and North Carolina, and he has a complete understanding of the VDOT requirements for Design-Build projects. He has over 15 years of experience, both through time in the field and as

a manager, to fully understand the risks of a project like this and mitigate them accordingly. His understanding of construction means and methods, as well as costs, will allow him to have a major impact on the project design and overall schedule. He will report directly to the VDOT Project Manager and will serve as the single point of contact for VDOT for the duration of the contract. Cory will have the authority to act for English on all project related matters. Cory has, in the past year, successfully completed two projects for VDOT that were completed early and collected the maximum incentive allowable. These projects are (NFO)0712-055-P71,B618,C501, on Route 712, in Lunenburg County, and (NFO)0049-041-101,C501,B601, on Route 49, in Halifax County.

#### Isaac "Chuck" Whited, PE

Mr. Whited will ensure that all work and materials, testing, and sampling are performed in conformance with the contract requirements as well as the "approved for construction" plans and specifications. He will develop and execute the project QA/QC plan following VDOT minimum requirements, and maintain the materials notebook. With AMT for the past eight years, Mr. Whited has over 26 years of construction quality assurance, quality control and engineering experience for significant highway and bridge projects. He has a thorough understanding of FHWA and VDOT processes and, having served in the consultant role, has participated in the day-to-day operations of VDOT construction projects including certifying accurate and complete inspection reports, ensuring

compliance with plan specifications, review of daily diaries, preparation of technical, monthly progress reports and website progress updates. Additionally, he has provided oversight of on-site testing of inspection services, established on-site testing laboratories and provided project schedule and cost analysis. Currently the Construction Manager for Independent Assurance on the Route 29 Solutions Design-Build, he also completed six years as QAM for the Route 460 Connector Phase I Design-Build project last year.

#### Laura Mehiel, PE

#### **Design Manager**



Ms. Mehiel will manage all aspects of design including roadway, structural, hydraulic, traffic, MOT, environmental, and geotechnical. She will assign design resources as needed, oversee design subconsultants, coordinate design and review schedules, and be responsible for providing a quality product meeting all design milestones. Ms. Mehiel brings 30 years of management and design experience for significant and complex design-build projects in the Commonwealth for VDOT. She has managed multiple large scale and complex projects, both design-build and traditional, for highway projects in Virginia and throughout the region. This experience has involved roadway design, realignment projects, safety and corridor improvements, hydraulics design, complex

maintenance of traffic design, traffic engineering including TMPs, signing and marking plans, and public meetings support. She has managed design, geotechnical investigations, landscape designs, retaining wall design, utility design and support of plat preparation for right-of-way acquisition. Of special note is Laura's recent experience on the Route 1 Design Build project at Fort Belvoir (Lorton, VA) which included offset horizontal roadway alignment, major change in vertical alignment in select areas, eight stages of MOT, significant temporary drainage measures throughout construction, wetland/stream impact permits, ROW acquisition, public meetings, and addressing unexpected geotechnical conditions during construction.

#### Paul "Eddie" Jones

#### **Construction Manager**



Mr. Jones, as Construction Manager, will be responsible for leading the on-site construction team of superintendents, foreman and the Quality Control Manager. His experience in this role with English has spanned his entire career. He will be responsible for overseeing the jobsite as well as coordinating the suppliers and subcontractors and relaying information to the Project Manager and Design Manager. Eddie has over 30 years of experience in construction management on comparable roadway and bridge construction projects with extreme excavation and rock challenges such as: Route 460 Christiansburg Bypass, Greensboro Western Loop, US 321, Caldwell Co., NC, and US 221 Roanoke Co., VA. Mr. Jones has a number of certifications as cited on his resume,

and he has or will have all required certifications prior to construction commencement. Mr. Jones is currently assigned to NCDOT Contract C202962 which is to be complete in October 2017, just before the construction of the Route 220 Corridor Safety Improvements would begin. While finishing up his responsibilities, he will be part of and participate in all relevant design meetings and work sessions.

#### **Stanley Hite, PE**

#### **Lead Geotechnical Engineer**



Mr. Hite will lead the geotechnical investigation, engineering and testing services for this project. His nearly 40 years of experience includes 26 years working for VDOT. Before joining Amec Foster Wheeler, he was VDOT Assistant State Materials Engineer providing design and review of geotechnical features for transportation-related projects as well as administrative oversight of the Soils Laboratory. With Amec Foster Wheeler, he served as the Principal Geotechnical Engineer for the Route 460 Connector in Buchanan County, on which AMT provided Lead Road Design and QAM services. On this project, Mr. Hite provided peer review and approval of design and analysis of soil and rock slopes, bridge foundations, and retaining walls, as well as other geotechnical

features. His experience also includes a Route 60 box culvert remediation project in Clifton Forge involving pyritic shales impacts.

#### Luke Williams, PE





Mr. Williams will address acid-producing materials concerns for the project. He has over 30 years of experience as a geotechnical engineer, during which he has served as the lead geotechnical engineer on projects requiring the identification, evaluation and determination of remediation measures for acid producing materials. Mr. Williams has extensive experience with the evaluation and remediation of acid-producing materials and characterization of site conditions, selection of appropriate laboratory tests, interpretation of geologic and subsurface conditions, and technical support of engineering design and construction. He is widely recognized for his ability to assist field operations and identify and work with clients and construction personnel to mitigate

issues as they materialize during the construction process.

#### 3.3.2 Organization Chart

The English Team is structured to provide VDOT with a single point of contact, the Design-Build Project Manager (DBPM), Cory Bond, who will be responsible for all design and construction activities and the overall management of this well-integrated team. Our reporting and functional relationships are delineated on the Organizational Chart on the following page and further described subsequently. The English Team organization has a straight-forward chain of command, with individual tasks, responsibilities, and functional relationships clearly identified. Further, a distinct separation is shown between construction and QA; including the separation between the respective QA and QC inspection and field/AMRL-certified laboratory testing facilities in accordance with the *Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects, January 2012.* We are committed to keeping this team intact for the duration of the project.



### Narrative - Functional Relationships and Team Communications

The English Team ascribes to the DBIA paradigm that "integrated development of the design and construction program is the cornerstone of Design-Build delivery and this methodology optimizes opportunities for collective excellence." DB delivery carries with it a united team responsibility to gain a full understanding of the owner's intentions and the factors that will drive value into the process and outcome. Put into practice, English's DBPM, CM and construction personnel will interface with design counterparts from AMT and Stantec's Right of Way Manager throughout the entire design and construction phases. Amec Foster Wheeler will work closely with the design team for the duration of design, and with the construction team throughout construction. Paragraphs describing the functional roles of Key Personnel appear herein. (Please also see Attachment 3.3.1 for resumes.)

**Design-Build Project Manager (DBPM), Cory Bond,** has complete authority over all project design and construction matters for the team and will report to the Executive Committee. Cory's 15 years of transportation construction experience, capabilities in team management, and knowledge of VDOT make him an excellent fit for this Route 220 Corridor Safety Improvements project. He will be VDOT's primary point of contact throughout the life of the project. He is responsible for managing the project from start to completion, including all contract management and administration. He has responsibility and authority for coordination, integration and direction of the entire design-build team: design, construction, quality assurance, MOT, utilities, ROW and public relations. He will supervise all personnel throughout the project. Cory will be involved through design, construction and project closeout. He will assist with constructability reviews and safety audits and will oversee the quality management program, purchasing and construction operations. He will also be responsible for third-party communication for the team. Cory will be available up to 100% of the time as required by the project demands.

Quality Assurance Manager (QAM), Isaac "Chuck" Whited, PE, reports to the DBPM and will have direct, independent access to VDOT. He will ensure work is performed in conformance with contract requirements as well as approved construction plans and specifications. He will be responsible for the development and adherence to the QA Plan, QA inspection and testing of materials used, and associated work performed. He will have the authority to stop construction, enforce compliance with all specifications, and issue and require resolution of all Non-Conformance Reports (NCRs). He will manage all aspects of the QA program including the QA inspector and independent QA testing firm and testing technicians. The QA team will conduct independent and concurrent tests and analysis of the work with the construction quality control team. Chuck will maintain project quality records, and approve and submit pay estimates. In addition, he will submit monthly written reports to both the VDOT project manager and the executive team. He will be on-site full time throughout construction.

**Design Manager (DM), Laura Mehiel, PE,** will also report to the DBPM. She is responsible for ensuring all design work is performed in accordance with current VDOT standards and specifications. She will manage all aspects of design including roadway, traffic control devices, hydraulics/SWM, utility relocation and design, geotechnical engineering, and surveying/SUE. Laura will be responsible for providing quality product and input into the project schedule, meeting all design milestones, and ensuring that the Design QC Program is followed. She will assign resources as needed, oversee the design subconsultants, coordinate design and review schedules, develop and implement corrective measures following Design QC review, if necessary, and ensure environmental compliance measures are integrated into the design. Laura will maintain involvement during construction to oversee plan revisions, shop drawings, and review construction activities with the Construction Manager. She will be available up to 100% of the time during design, and as needed during construction, as the project demands.

**Construction Manager (CM), Paul "Eddie" Jones,** will report directly to the DBPM. He will manage the efforts of the on-site construction team including the Construction QC Manager, Safety Manager, General and Grading Superintendents, subcontractors/vendors, and all other trades. His duties will include the Environmental, Utility, and MOT management for this project. He will be assigned to the project and on-site full time for the duration of construction. He will play a key role in constructability reviews as well as value engineering for all aspects of the design. Along with his staff, he will focus on ensuring the construction is performed productively and safely. He will coordinate with the Design-Build Project Manager, Cory Bond, during construction for the timely issuance and review of RFI's and shop drawings, as well as field visits, preparation of as-builts and plan revisions.

Lead Geotechnical Engineer, Stanley Hite, PE, will report to the DPM for the duration of the design. He will coordinate and lead the subsurface investigation efforts of the project as well as coordinate, review and approve any necessary testing to assess the geotechnical aspects of the project. He will coordinate, review and approve any associated geotechnical design features of the project, and coordinate with the Acid Producing Material Specialist to evaluate and monitor impact of acid producing materials during the design phase. During the construction phase he will work closely with the CM to review any issues that arise and keep the design team members aware of those impacts of changing conditions.

Acid-Producing Materials Specialist, Luke Williams, PE, will report to the DPM for the duration of design. He will lead the mitigation strategies implemented in the design to reduce the impacts of the acid producing materials. During construction he will coordinate with the CM to ensure that all measures are implemented properly. He will also continuously review all site conditions in order to properly modify mitigation strategies throughout the duration of the construction phase.

The keys to the success of this Design-Build project will be early team integration as well as communication and coordination between all team members, VDOT, review agencies and stakeholders. Our team is structured to facilitate involvement of construction expertise during design and design expertise during construction. Having personnel with roles in both design and construction allows us to quickly adjust priorities, understand and develop appropriate levels of detail, explore value engineering ideas, and streamline project development. On the English DB Team, construction staff and design staff are integrated into a complete project team, fostering information sharing and knowledge transfer while ensuring consistency and quality in design and construction. Byron Coburn, PE will act as a liaison between design and construction to interface between field crews and the designers in a timely manner. Having a dedicated Design-Build Coordinator avoids delays or rework, streamlines reviews, and eliminates potential construction field issues. Other tools to facilitate team and specialty integration include:

- Weekly Task Force (discipline based) meetings between the design team and the Construction Manager to discuss contract requirements, constructability, and value engineering concepts throughout the life of the project. Once construction begins participants will be reduced to the key design personnel and design disciplines leads. Other construction personnel will be added to the meetings as construction is underway.
- Weekly internal design meetings with all disciplines to discuss current priorities, latest updates to design which can impact other disciplines, design/permit status, and action items
- Inter-disciplinary design reviews prior to milestones to ensure design disciplines are coordinated
- English constructability reviews of design prior to submission to VDOT
- A robust project collaboration and Document Control system, giving team members access to the same master files (design, RFI's, etc.), tracking progress, and avoiding duplicate or outdated information
- Construction weekly schedule meetings to review the previous work and develop the two week look ahead
- Monthly scheduling meetings to review CPM progress and re-prioritize design as needed

<u>Construction Staff Involvement in Design</u>: The Construction Manager and Superintendents will provide over the shoulder reviews of design during project design development. Their reviews will focused on phasing, optimizing MOT sequencing, minimizing the construction footprint, constructability, erosion and sediment control, and stream protection. Here our collaboration will result in optimizing personnel, equipment, and material resources to ensure efficient construction activities and the limiting of impacts to residents, the traveling public, and emergency responders. The continuity of having the Construction Manager engaged with the design team long before construction starts and then in turn have the key design leads involved throughout construction create a true design build approach that will be the key to a successful project.

<u>Design Staff Involvement in Construction</u>: AMT will assist English in addressing field issues, participate in progress meetings, interact with stakeholders, and remain a part of the DB Team until project completion. This relationship will expedite the RFI process and ensure all parties are informed throughout the process, including shop drawing review, environmental and permit compliance, MOT implementation, and public outreach. During construction, design staff will be heavily involved via regular field visits, continuous communication with construction staff, and regular *Partnering* Meetings.

# **3.4 Team Experience**

## **3.4 TEAM EXPERIENCE**

English and AMT staff have successfully partnered together along with VDOT on projects such as the awardwinning US 29 Lynchburg/Madison Heights Bypass in Lynchburg and the I-81 Truck Climbing Lanes in Rockbridge County. Additionally, English and AMT have worked with the subconsultants in a variety of configurations on projects in the Commonwealth and throughout the region. For examples, Amec Foster Wheeler was the Lead Geotechnical Engineer on the US 460 Connector Phase I project for which AMT provided the Lead Road Design and a Construction Quality Assurance Manager (QAM). This work history will enhance the English DB team's ability to identify, openly discuss and resolve issues as they arise. The English DB Team members already know each other, and have established trust and effective working relationships. Key team members include:

**ENGLISH** W.C. English, Inc. (English) is a third generation family-owned business with a tradition of excellence dating back to 1909. Over the last century, English has grown steadily, adding advanced skills, resources and technology to embrace new opportunities along the way. The company's areas of expertise have expanded through the years to include roadway and bridge facilities (both Design-Build and Bid-Build), mass excavations, rock excavation, water supply and wastewater treatment facilities, monumental structures, civil, utility and industrial projects. Today, English is a multi-disciplined construction firm licensed in eight states throughout the Southeast, with its primary work being performed in Virginia, North Carolina and South Carolina. Working under the leadership of 120 tenured personnel, English's staff of 600 employees has sustained as many as 40 concurrent projects. The company supports its field staff and projects with a fleet of equipment that is one of the largest in the Mid-Atlantic region. English's diversity, tenured office, and top-notch field personnel have contributed to the company's solid financial strength, which is evident by its 60-year relationship with the same bonding company. Throughout English's dynamic history, the company has never outgrown the values and mission that have made it successful since its inception in 1909.

English has built countless widening and safety improvement projects, with examples such as Route 17 in Essex County, Route 208 in Spotsylvania County, the Danville and Farmville bypasses (Phases 1 & 2), and the Route 221 widening in Bedford County.

A. Morton Thomas and Associates, Inc. (AMT), an *Engineering News-Record* "Top 250 Design Firm," has been providing consulting engineering services to public and private clients since 1955. Services include transportation design and traffic engineering; structural design; utility design and coordination; boundary and topographic surveying; hydraulics and stormwater management; landscape architecture; and construction quality assurance management (QAM) and inspection. With 450 employees, and operating from seven offices in Virginia (including Verona, Christiansburg and Abingdon), AMT's focus has been on the Mid-Atlantic Region for over 60 years. Their experience on projects, such as VDOT's Design-Build US 460 Connector Phase I in the Bristol District, VDOT's Southgate Drive/US 460 Bypass Improvements in Blacksburg, and FHWA/VDOT's Design-Build Route 1 in Fairfax equips our Team with the know-how to deliver the Route 220 Corridor Safety Improvements design on time and on budget.

AMT has successfully delivered over \$1.2 billion of Design-Build, roadway and bridge projects, many of similar scope and complexity to this project including those for VDOT, NCDOT, DDOT and Maryland SHA. AMT has consistently earned outstanding performance scores due to dedicated and skilled professionals. The firm's projects and personnel have also received numerous letters of commendation as well as industry awards such as VDOT's 2015 Best Overall Project of the Year – Staunton District and the American Council of Engineering Companies-Virginia 2014 Honor Award for Clifton Forge Design-Build Route 60.

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has deep knowledge of the rock, soil and water conditions in western and southwestern Virginia, having completed countless projects over many decades. As noted above, Amec Foster Wheeler was the Lead Geotechnical Engineer on the US 460 Connector Phase I project for which AMT provided the Lead Road Design and a Construction Quality Assurance Manager (QAM).

**Stantec Consulting Services, Inc. (Stantec)** is a VDOT prequalified right-of-way contracting consultant. As a full-service engineering firm, Stantec has been providing ROW and relocation assistance services in connection with public transportation, utility, and redevelopment projects for many years, including numerous design-build and PPTA projects. Stantec is currently involved in a statewide initiative with Dominion Virginia Power that covers the Commonwealth. The firm routinely provides construction quality control management.

**Traffic Signals Plus, PLLC (TSP)**, while being a small DMBE-certified firm, has recently completed projects throughout the Commonwealth of Virginia including in Charlottesville, Culpeper, Fairfax, Henrico, Norfolk, Portsmouth, Richmond and Roanoke. The firm's design-build projects include the I-95 Express Lanes project and the MLK/MTT project focusing on traffic engineering. TSP recently worked with AMT on the new Southgate Drive/US 460 interchange, a diverging diamond under construction in Blacksburg.

**Froehling & Robertson, Inc. (F&R)** is accustomed to providing expert quality control testing and laboratory services to assist in the design and construction of foundations, roadways and earth structures for all types of transportation projects. F&R maintains a fleet of drilling equipment as well as accredited geotechnical and construction material testing laboratories, including in Roanoke. F&R provided drilling, soils laboratory, as well as Quality Control (QC) field and laboratory services for the \$75 million design build I-81 Corridor Safety project. F&R was engaged to provide the required QC field and laboratory inspection and testing services required by the Quality Assurance and Quality Control Plan for Design Build Project as outlined by VDOT.

### **Specific Experience**

The English DB Team has included work history forms for six projects that best represent our relevant work experience, in Appendix 3.4.1. Highlights of the relevancy of these projects are provided in the following table.

Criteria	US 321	North Gayton Road	Roanoke County Route 221	US 460 Connector	Southgate Drive / US 460 Bypass	Route 1 at Fort Belvoir
Design-Build		$\checkmark$		$\checkmark$		$\checkmark$
<b>Construction Value</b>	\$68M	\$38M	\$21M	\$113M	\$43M	\$70M
Widening / Capacity	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Safety Improvements	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
Structures/Bridges	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Geotechnical Issues	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
<b>Complex MOT/Phasing</b>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
<b>Utility Relocations</b>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
ROW Acquisition		$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
<b>3rd Party Coordination</b>	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Environmentally Sensitive Areas	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

# **3.5 Project Risks**

## 3.5 PROJECT RISKS

Having reviewed available project information and visited the project site, our design and construction team members discussed the project risks and offer identification and strategies for mitigation herein.

### **Risk 1** Acid-Producing Materials

#### Why this Risk is Critical

One of the risks associated with this project is the presence of acid producing shale bedrock from the Millboro Formation strata present in the geologic composition within the project limits. The Millboro Formation shale bedrock has been known to contain pyritic minerals which, when unearthed and exposed to the natural elements, will undergo an adverse chemical reaction producing an acidic byproduct within the material. The acidic producing material is known to exist in the geologic makeup with the limits of the project at approximately station 43+00, 200+00 to 440+00, and 506+00 to the end of the project, as identified in the AECOM Corridor Alignment Study from June 5, 2015. As stated in the Reevaluation document from April 19, 2016, the quantity of this material will only be a small percentage of the overall excavation quantities. However, the fact that the material is known to exist within the project and because the exact limits and quantity are unknown create a risk that must be analyzed and mitigated, during both the design and construction phases.

#### **Risk Impact**

The potential problems associated with working in acid producing bedrock material develop when the native pyritic minerals are exposed to water, dissolved oxygen and atmospheric oxygen, which causes the sulfides contained in the rock to become oxidized and subsequently forms sulfuric acid. This naturally occurring chemical reaction creates problematic situations when the acid dissolves the surrounding materials (particularly those that contain carbonates) and generates a highly acidic metalliferous leachate. This leachate can potentially migrate into the ground water, streams/rivers, and can adversely impact fish and insect life as well as cause damage to concrete and steel structures, shortening the life of and increasing the maintenance costs of these structures. Additionally, this leachate can impact the environment in that vegetation cannot establish and/or survive in the presence of this acid, making the roadside area unsightly and increases the potential for erosion which would subsequently increase the probability of future slides.

Although a host of chemical processes contribute to acid drainage, pyrite oxidation is by far the greatest contributor. The oxidation of the sulfide to sulfate solubilizes the ferrous iron (iron(II)), which is subsequently oxidized to ferric iron (iron(III)). Either of these reactions can occur spontaneously or can be catalyzed by microorganisms that derive energy from the oxidation reaction. The ferric cations produced can also oxidize additional pyrite and reduce into ferrous ions.

The net effect of these reactions is to release hydrogen ion (H+), which lowers the pH and maintains the solubility of the ferric ion. Depending on the specific reactions, the pH may be lowered to as little as 2.5. Again, this would depend on the alkalinity. Specific impacts resulting from the identified risk are listed below:

- ► In situ soil, weathered bedrock, or fresh bedrock adjacent to excavation areas could also contain pyritic material causing the remaining in situ materials to become acidic over time after exposure to the elements
- Embankment structures (either cut or fill) could become acidic over time if material is encountered and exposed or utilized to construct
- Excavation disposal area would create a concentrated acidic location which could create water quality and/or environmental impacts
- ► Acidic run-off from native areas and/or newly constructed areas could create water quality and/or environmental impacts
- Vegetation establishment within any acidic area could be difficult

#### **Mitigation Strategies**

Since acid-producing pyritic rock is known to be present within the project impact area, a plan to mitigate acid producing rock must be included in the scope of work. The proposed plan should include four elements:

- 1. <u>Investigation</u>: Identify where pyrite (or any sulfate bearing material) is expected to be encountered so detailed plans for avoidance/handling can be developed long before construction begins. Perform a literature search of available information about the acid potential of formations encountered along the alignment of the road. Utilize geophysical survey methods and geotechnical test boring and sampling operations to characterize the soil/rock along the alignment. Evaluate impact of existing features such as guard rail posts, drainage structures and vegetation to help develop design recommendations and treatment options.
- 2. <u>Testing</u>: During the exploration, implement a laboratory testing program for quantitative analysis of soil/rock samples from all test borings along the alignment for iron sulfide (pyrite) and CaC03 equivalent mineralization. Continue to test material as excavation takes place to confirm or modify data recorded during the geotechnical exploration performed during the design phase.
- 3. <u>Monitoring</u>: Monitor excavation during construction, vegetation, as well as water quality before, during and after construction. Monitor the effectiveness of containment/treatment techniques and implement contingency plans to promote avoidance, minimization, or mitigation of long-term impacts.
- 4. <u>Mitigation</u>: Provide data on the materials encountered for use in developing an acid-leachate mitigation program based on accepted state regulations and procedures to incorporate into project design and construction operations. Provide information on available options for such mitigation programs to the multi-disciplinary design team and construction team, to address issues such as:
  - Design of fill embankments to prevent pyritic materials from weathering such as capping the region impacted and revegetating (this may involve multiple applications of lime to neutralize the leachates until such time that the root system of the vegetation does not extend into the acid rock materials and can remain vibrant and healthy). In some cases, geometric alignments could be revised in order to avoid disturbance of the materials, or closed drainage systems may be warranted to keep the material covered; and
  - Designating holding areas for pyritic materials and establishing the procedures that must be implemented prior to encapsulation. A similar effort as noted above will be needed to establish vegetative cover to prohibit acid water runoff; and
  - Incorporate a system to capture runoff that would utilize a chemical additive to neutralize the acid runoff before it is released into a storm water management basin to not adversely impact local ground water or streams/river.

**Role of VDOT and Other Agencies**: Partner, collaboratively develop and approve acid producing material mitigation plan.

### **Risk 2** Transitioning Drainage throughout Construction

#### Why the Risk is Critical

With extensive shifting of the US 220 alignment from its existing location, and the slope condition of cut on one side and fill on the other in most areas, transitioning the conveyance of drainage across the roadway with live traffic will be a major endeavor. The extensive grading associated with the project alignments shifts will create major earth moving, requiring the need for temporary drainage conveyance. Approximately 65 existing cross pipe culverts of varying sizes will require replacement (or extension if allowable) while maintaining flow, and maintaining traffic on the roadway. Ponding of water in and around the roadway, or on private property, must not occur, requiring staged drainage construction. Furthermore, the high cuts in the northern section of the project require top ditches, which must be conveyed "non-erosively" down the slope. This risk is deemed critical because it requires close attention to interim conditions - the stages between initial and final – that are often overlooked during design, and if not addressed can result in significant safety, cost, schedule and environmental implications.

#### **Risk Impact**

If not handled by a skillful and well-integrated design and construction team, drainage conveyance during construction could create safety problems by creating ponded water within the roadway. Environmental impacts would result if flow across slopes creates sediments that deposit into the waterways. Without careful planning of the transition of cross pipes, another impact would be to the road users who would be inconvenienced by multiple temporary crossings of the existing roadway while the new roadway prism is constructed, offset from the existing roadway. Both cost and schedule could be impacted if interim and temporary drainage conditions are not carefully considered in the early project stages.

#### **Mitigation Strategies**

We will use the following approach to mitigate risks associated with maintaining drainage:

- 1. <u>Consider drainage as a specific component of each MOT stage</u>: The major grading activities associated with the roadway improvements will result in the need for a careful assessment of drainage conveyance within every phase of construction. The MOT designer will partner with a drainage designer while developing maintenance of traffic plans. The team will develop interim grading/contouring plans using GEOPAK tools to identify low spots and other areas requiring special review and temporary drainage design. They will also prepare erosion control design and maintenance of channel flow design as part of the package.
- 2. <u>Convene an Interim Grading/Drainage Task Force</u>: Standing members of the task force will include roadway designer, drainage designer, MOT designer and construction personnel in addition to design and construction management. The purpose of the task force is for the design and construction team to closely interact and address issues that the construction crew identifies. Examples include temporary contouring of interim tie-ins to ensure both positive flow and minimized erosion, and identifying locations where temporary shoring/SOE is required. The meetings will occur prior to construction to address issues before breaking ground. However, the meetings will continue as needed throughout construction to trouble shoot specific problem areas. VDOT is welcome to attend, and their input will be sought for issues as deemed necessary.
- 3. <u>Avoid and minimize high cuts</u>: The alignment design has a direct bearing on the extremity of excavation and the corresponding amount of top diches that are required. Minimizing cut heights can help stem erosion potential and facilitate grading crews' production. The English team has begun to review alignment options and has determined potential for lessening the offset of the new alignment in some areas, while still maintaining traffic and keeping the "eastern" limit of disturbance as shown in the RFQ plans. Reducing the offset to the new roadway will in turn lessen the cut heights. These options will be explored in more detail in the next phase of the project.
- 4. <u>Stabilization Techniques</u>: To avoid erosion in the temporary conditions due to the transitioning of drainage, the team will identify and install a number of techniques. Geotextile fabrics will be installed to protect the run off from making significant contact with any disturbed areas. To assist with water quality as well as the flow speed rip rap and check dams will be installed in the areas that require additional support. For all permanent drainage features appropriate and immediate stabilization is critical to the elimination of any issues caused by the transitioned drainage features. Seeding will be done at the absolute earliest available time, as well as the use of erosion control fabrics, EC-2 & 3 as appropriate.
- 5. <u>Maximize use of existing cross pipes during construction</u>: The design team will look to use existing pipes during construction by lengthening them temporarily through the new roadway prism. This will allow flow under the new offset roadway when drainage is flowing from east to west. However, when flow is directed from west to east, our primary drainage conveyance technique is to stage construction of the culvert pipes. For example, the new roadway which is offset to the west will be built with the portion of new drainage culvert that is contained under that roadway. The outfall drainage will be directed temporarily into an existing culvert across the existing road. Once traffic is shifted to the new roadway, the remainder of the outfall pipe can be completed. On occasion, new pipe crossing will be required across the existing roadway while traffic is still on the road. In these cases, off-peak or night time lane closures will be implemented with flagging, where necessary, to construct the temporary crossings.

6. <u>Coordinate closely with environmental designers during the process</u>: To ensure that the drainage conveyance design and construction will be in compliance with permitting regulations, the design and construction team will coordinate closely with the environmental design staff during all stages of design development. The environmental staff will provide guidance on acceptable methods of pump arounds, time of year restrictions, stabilization, and explain implications of varying levels of impact. They will then incorporate final designs into the permit sketches and seek regulatory approval/permits. The aforementioned task force will be used for these coordination activities.

Role of VDOT and Other Agencies: Review and approve drainage design plans and strategies.

#### **Risk 3** Maintenance of Traffic During Construction

The Design Public Hearing plans provided by VDOT specify the desired safety improvements to Route 220, generally between Route 43 and Route 696 in Botetourt County. To achieve a design speed of 60 mph throughout the corridor, the existing roadway geometry must be improved by widening the travel-way, providing adequate shoulders and recoverable areas/guardrail, adjusting horizontal and vertical curve geometry to increase sight distance, and adding turn lanes at intersections. During construction, these planned modifications to Route 220 will temporarily impact commuters, truck traffic, and residential/commercial property access. These improvements may require the use of lane shifts, travel-ways adjacent to concrete barrier, one-way travel, temporary signalization, temporary pavement, and other restricted traffic movements during construction.

#### Why this Risk is Critical

The temporary traffic patterns require advance notification to local residents, commuters, businesses, police/ fire/EMS, schools, major stakeholders, and motorists so that unexpected situations can be avoided. Changes in traffic patterns and access can be confusing, which increases the probability of accidents on roadways under construction. Since this section of the Route 220 corridor already experiences a higher than average crash rate due to substandard roadway features, the safety risk during construction could be even greater, if not handled properly. Traffic shifts to accommodate construction phasing will present significant challenges and confusion to travelers, particularly those unfamiliar with current traffic patterns or who may not drive the corridor regularly. In addition, phased construction activities can reduce the existing roadway capacity which will increase congestion and impact users outside of established work zones. These traffic pattern changes pose a significant safety concern not only within the limits of the work zone but leading into the work zone as well.

#### **Risk Impact to Project**

- Safety Vehicles traveling into or through an active work zone must be protected from one another and from construction activities. Temporary traffic controls and protection measures must be properly placed and maintained to avoid accidents and unnecessary impacts throughout construction. Construction workers are especially vulnerable when traffic is immediately adjacent to on-going work. A poorly designed and executed TMP will result in unnecessary travel delays and unsafe travelling and working conditions.
- Public Outreach If the communication plan is not effective, the public will not know what to expect and will lose confidence in the English Team and VDOT. In addition, property owners adjacent to the Route 220 corridor will be concerned with access to their property. A properly developed and executed TMP will ensure that the English DB Team, VDOT and the project meet the needs of the local communities, major stakeholders, and motorists during construction. Residents, commuters and businesses that frequently utilize the corridor will be the main focus when developing the Transportation Management Plan (TMP) and the project-specific communication plan.

#### **Mitigation Strategies**

This risk can be effectively managed by first developing a detailed Transportation Management Plan (TMP). The English DB Team will develop a TMP, which includes Maintenance of Traffic (MOT) and Sequence of Construction (SOC) Plan with a major focus on the safe passage of vehicular traffic and maintaining safe access for residents and businesses during each phase of construction. The English DB Team will emphasize public

involvement when developing the TMP and develop a defined schedule for public outreach activities. Additionally, we will systematically implement the MOT/SOC plans and clearly define traffic movements for each phase of construction. Below are key strategies of the English DB Team to mitigate risk associated with safety of the traveling public, and workers, in the work zone.

- 1. We will develop the TMP early in the design phase, which will include a public outreach campaign to lay the ground work in communicating traffic pattern and property access changes. With construction occurring in multiple phases, the TMP must outline the steps in providing continuous traffic flow throughout the work zone(s) during construction. We envision partnering with VDOT, major stakeholders and affected property owners to solicit input on construction sequencing, MOT and access alternatives, and the most effective means in getting the word out on temporary traffic pattern changes and planned corridor improvements.
- 2. A multi-disciplinary design and construction team will work closely to develop the optimal construction staging that both maintains safety and allows for efficient construction. Important members of the team will include: construction (e.g. to guide the team on access needs and priority construction areas); highway designers (e.g. to assess alignment tie-ins/crossovers for traffic shifts); H&H engineers (to work through temporary grading/drainage); and traffic engineers (to ensure compliance with 2011 Virginia Work Area Protection Manual, 2009 Manual on Uniform Traffic Control Devices and 2011 Virginia Supplement).
- 3. The TMP will include project-specific details and strategies to will allow the project to be constructed in multiple phases. Examples include full-depth shoulders to facilitate the shifting of traffic away from active work-zones, temporary drainage structures/pipes/ditches to ensure adequate pavement or off-site drainage during phased construction, and the location of temporary shoring where the new roadway is adjacent to, but higher or lower than the existing roadway. The location of construction entrances and material haul routes will be addressed in the TMP to ensure safe ingress/egress to/from work zones. Construction may need to shift between stages in order to provide an appropriate drop within the travel lanes at the completion of each shift. Details like these will allow the TMP to function as an effective and complete document.
- 4. English construction personnel hold Basic, Intermediate and Advanced Level Work Zone Certifications, to implement and monitor all traffic control devices and ensure compliance with MUTCD and VA WAPM.
- 5. Raising public awareness of traffic pattern changes must occur early-on and continue throughout the project. The English DB Team will ensure that the affected motorists are made aware of the impending changes and duration of impacts likely to be faced. Technology-based public outreach tools, including social media, are extremely effective elements of our team's communication plan. Travelers that use Route 220 during construction will need real-time traffic information and information on upcoming traffic switches, delays, temporary road closures for blasting operations, and emergency operations. The English DB Team will stay in constant communication with the SWRTOC and will continually maintain project social media sites such as Facebook, Twitter, project website, or other electronic outreach tools such as mass email blasts to travelers that have expressed a desire to receive such information. Pardon our Dust meetings can also be scheduled.
- 6. Temporary travel ways and turning movements will be designed using a WB-67 design vehicle to accommodate heavy truck traffic along Route 220. Top-heavy log trucks that frequent the Route 220 corridor will be taken into consideration when designing temporary cross-overs and lane shifts.
- 7. Temporary guide signs, advance warning signs with flashing beacons, temporary pavement markings and illuminated night-time work zones (if applicable) will be provided along Route 220 and the connecting roadways and checked frequently for effectiveness and proper placement/maintenance. Variable message signs will be effectively utilized in advance of the work zone(s) to inform the traveling public.
- 8. The English DB Team will evaluate each phase of construction against the MOT Plan to determine if any field adjustments are needed. English will take an active role early-on in the development of the TMP and will work closely with the Design Team regarding preferred construction sequencing and means and methods.

Role of VDOT and Other Agencies: Participate in TMP development and public outreach/information.

# **SOQ Checklist**

#### ATTACHMENT 3.1.2

#### Project Nos.: 0220-011-786 & 022-011-788, Contract ID#: C00105543DB88 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.

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	Appendix
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	1
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	1
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	1
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	Appendix
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix

#### ATTACHMENT 3.1.2

#### Project Nos.: 0220-011-786 & 022-011-788, Contract ID#: C00105543DB88 STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	Appendix
<b>DBE statement within Letter of Submittal</b> confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	3-5
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix
Key Personnel Resume – Lead Geotechnical Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Appendix
Key Personnel Resume – Acid-Producing Materials Specialist	Attachment 3.3.1	Section 3.3.1.6	no	Appendix
Organizational chart	NA	Section 3.3.2	yes	6
Organizational chart narrative	NA	Section 3.3.2	yes	7-8

#### ATTACHMENT 3.1.2

#### Project Nos.: 0220-011-786 & 022-011-788, Contract ID#: C00105543DB88 STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	11-15

# Form C-78-RFQ

Form C-78-RFQ

#### ATTACHMENT 2.10

#### COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION

RFQ NO. C00105543DB88

PROJECT NO.: 0220-011-786 & 0220-011-786

#### 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 – April 25, 20	16		
	2.	Cover letter of	(Date)			
	3.	Cover letter of	(Date)			
W. C. English,	Inc	orporated				
		Whatderfam	1	June 8	, 2016	
		SIGNATURE			DATE	
		Wilson I. Disko	100 Tu	Senior Vice	President	
		wilson L. Dicke	rson, jr.	Semon vice	Trestaent	
		PRINTED NAM	ЛЕ		TITLE	

# List of Affiliated and Subsidiary Companies

### ATTACHMENT 3.2.6

### State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

### Affiliated and Subsidiary Companies of the Offeror

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Shared Management & Related Ownership	English Construction Company, Inc.	PO Box P-7000, Lynchburg, VA 24505
Shared Management & Related Ownership	Counts & Dobyns	37 Leland Rd, Rustburg, VA 24588
90% Ownership	Thomas Bros., LLC	494 Glenmore Drive, Salem, VA 24153
100% Ownership	Lee Construction Company of the Carolinas, Inc.	PO Box 7667, Charlotte, NC 28241
100% Ownership	MCC Acquisition, LC	PO Box 568, South Boston, VA 24592
100% Ownership	Fairfield-Echols, LLC	85 Construction Lane, Fishersville, VA 22939
Beverley E. Dalton (Sole stockholder of W. C. English, Incorporated) and A. Douglas Dalton, Jr., (stockholder of English Construction Company) own 99.15%	Adams Construction Company	PO Box 12627, Roanoke, VA 24027

# **Debarment Forms**

#### **CERTIFICATION REGARDING DEBARMENT** PRIMARY COVERED TRANSACTIONS

#### Project Nos.: 0220-011-786 & 0220-011-788 Contract ID: C00105543DB88

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.

Wilin	policital	June 8, 2016	Wilso Senio
Signature		Date	Title

on L. Dickerson, Ir. or Vice President

W. C. Eng	glish, Incorporated
Name of F	irm

#### **CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS**

# **Project Nos.:** 0220-011-786 & 0220-011-788 **Contract ID:** C00105543DB88

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 Qfferor for contracts to be let by the Commonwealth Transportation Board.

May 31, 2016 Principal Title Signature Date

A. Morton Thomas and Associates, Inc.

Name of Firm

#### CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

# **Project Nos.:** 0220-011-786 & 0220-011-788 **Contract ID:** C00105543DB88

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.

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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.

5/24/2016 let. Office Manager Signature Sate Title Amec Foster Wheeler Environment & Infrastructure, Inc. Name of Firm

#### CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

#### **Project Nos.:** 0220-011-786 & 0220-011-788 **Contract ID:** C00105543DB88

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.

May 24, 2016 Signature Date

Managing Member Title

Traffic Signals Plus, PLLC Name of Firm

#### CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

# **Project Nos.:** 0220-011-786 & 0220-011-788 **Contract ID:** C00105543DB88

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.

May 26, 2016 ighature Date

Stantec Consulting-Services Inc.

Senior Principal Title

Name of Firm

#### CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

#### **Project Nos.:** 0220-011-786 & 0220-011-788 **Contract ID:** C00105543DB88

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.

June 2, 2016 CEO Date gnature Title Froehling & Robertson, Inc. Name of Firm

# Offeror's VDOT Prequalification Certificate


Virginia Department of Transportation

 Date Printed:
 05/06/2016

 ied Vendors
 12:00 AM

 s Of 5/6/2016
 Page 149

Department's List of Prequalified Vendors Includes All Qualified Levels As Of 5/6/2016 - E -

Vendor ID:E009Vendor Name:W. C. ENGLISH, INCORPORATEDPrequal Exp:04/30/2017

-- PREQ Address --P. O. BOX P-7000 LYNCHBURG, VA 24505-7000 Phone: 434-845-0301 Fax: 434-845-0306 Work Classes (Listed But Not Limited To) 002 - GRADING 003 - MAJOR STRUCTURES 007 - MINOR STRUCTURES

Bus. Contact: DALTON, JUDSON H. Email: JDALTON@ENGLISHCONST.COM

-- DBE Information --

DBE Type: N/A DBE Contact: N/A

Vendor ID: E417 Vendor Name: ENVIRONMENTAL EROSION CONTROL, L.L.C. Pregual Exp: 04/30/2017

-- PREQ Address --P.O. BOX 392 CLOVERDALE, VA 24077

Phone: 540-537-7990 Fax: 540-342-5462 Work Classes (Listed But Not Limited To) 036 - SOIL STABILIZATION 070 - EROSION CONTROL

Bus. Contact: JENNINGS, ERIC TODD Email: ERIC@EECSOIL.COM

-- DBE Information --

DBE Type: N/A DBE Contact: N/A

# **Surety Letter**



Travelers Bond & Financial Products Construction Services 9954 Mayland Drive, Suite 6100 Richmond, VA 23233 Phone: (877) 282-4140

June 8, 2016

Joseph A. Clarke, PE, DBIA Alternate Project Delivery Office Virginia Department of Transportation 1401 East Broad Street Annex Building, 8th Floor Richmond, VA 23219

Re: Letter of Submittal – Route 220 Corridor Safety Improvements, Botetourt Co., VA

Dear Mr. Clarke:

W. C. English, Incorporated has been a valued client of Travelers Casualty and Surety Company of America for over sixty years. During that time, we have maintained a working line of surety credit and have supported single bond requests up to the \$125,000,000. range and aggregate programs up to the \$500,000,000. range. These levels reflect our history with this client; however, they are not to be construed as limits. Given English's extensive experience and financial strength, we are certainly prepared to consider requests well in excess of these levels.

W. C. English, Incorporated is capable of obtaining a 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 on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

Travelers Casualty and Surety Company of America is licensed to transact surety business in all 50 states and is listed on the United States Department of Treasury list of acceptable surety companies. Travelers Casualty and Surety Company of America carries an A.M. Best rating of A+ and has a Financial Size Category of XV. The information contained in this letter is valid for a period of three (3) months from date of this letter.

Please feel free to contact us if you have any questions.

Sincerely,

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

potesse A. Hancoch

Contessa A. Hancock Attorney-in-Fact

CAH/sll Power of Attorney Attached



**In Witness Whereof**, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2016.



anie C. Jetreau

Marie C. Tetreault, Notary Publi

58440-8-12 Printed in U.S.A.

#### WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorney-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this  $\frac{8^{\text{th}}}{4^{20}}$  day of  $\frac{16}{20}$ 

a E Hugh

Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

# SCC and DPOR Information Tables

## State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

## **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.

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
Business Name	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
W. C. English, Incorporated	00689448	Corporation	Active	615 Church Street Lynchburg, VA 24504	Contractor Class A	2701003331	04-30-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Corporation	Active	113 Mill Place Parkway, Unit 107 Verona, VA 24482	ENG	0411000589	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Corporation	Active	105 Arbor Drive, Suite 200 Christiansburg, VA 24073	ENG	0411001223	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Corporation	Active	125 Deadmore St SE Abingdon, VA 24210	ENG	0411001044	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Corporation	Active	100 Gateway Centre Parkway, Suite 200 Richmond, VA 23235	ENG, LS	0411000587	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Corporation	Active	14555 Avion Parkway, Suite 350 Chantilly, VA 20151	ENG, LS	0411000586	02-28-2018
A. Morton Thomas and Associates, Inc.	F049431-2	Corporation	Active	800 King Farm Blvd, 4 <sup>th</sup> Floor Rockville, MD 20850	ENG, LA	0407003077	12-31-2017
Amec Foster Wheeler Environment & Infrastructure, Inc.	F144198-1	Corporation	Active	1070 W. Main Street, Suite 5 Abingdon, VA 24210	ENG	0411000912	02-28-2018
Stantec Consulting Services, Inc.	F149319-8	Corporation	Active	1011 Boulder Springs Drive, Suite 225 Richmond, VA 23225	ENG	0411001086	02-28-2018
Stantec Consulting Services, Inc.	F149319-8	Corporation	Active	4500 Daly Drive, Suite 100 Chantilly, VA 20151	ENG	0411000987	02-28-2018

# State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

# SCC and DPOR Information

Stantec Consulting Services, Inc.	F149319-8	Corporation	Active	6110 Frost Place Laurel, MD 20707	ENG	0411000985	02-28-2018
Traffic Signals Plus, PLLC	S299757-7	Limited Liability Company	Active	621 French's Store Rd Cumberland, VA 23040	ENG	0413000317	12-31-2017
Froehling & Robertson, Inc.	0027211-2	Corporation	Active	3015 Dumbarton Road Richmond, VA 23228	ENG	0407000098	12-31-2017
Froehling & Robertson, Inc.	0027211-2	Corporation	Active	1734 Seibel Drive, NE Roanoke, VA 24012	ENG	0411000053	02-28-2018

# State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

# SCC and DPOR Information

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)						
Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
A. Morton Thomas and Associates, Inc.	Laura Mehiel	Chantilly	2 East Read St, 4 <sup>th</sup> Floor Baltimore, MD 21202	ENG	0402034707	04-30-2017
A. Morton Thomas and Associates, Inc.	Isaac "Chuck" Whited	Christiansburg	602 Arbroath Road South Boston, VA 24592-5104	ENG	0402035104	09-30-2016
A. Morton Thomas and Associates, Inc.	Michael Wiercinski	Rockville	2706 Lubar Drive Brookeville, MD 20833	ENG	0402016426	05-31-2018
A. Morton Thomas and Associates, Inc.	Fred Wagner	Rockville	104 Roselawn Court Bel Air, MD 21014	ENG	0402050917	09-30-2016
A. Morton Thomas and Associates, Inc.	Byron Coburn	Verona	162 Hickory Hill Road Fishersville, VA 22939	ENG	0402037749	11-30-2016
A. Morton Thomas and Associates, Inc.	Jeff McKay	Richmond	11113 Sterling Cove Drive Chesterfield, VA 23838	ENG	0402034639	06-30-2016
A. Morton Thomas and Associates, Inc.	Khoss Babaei	Chantilly	12144 Westwood Hills Drive Herndon, VA 20171	ENG	0402025896	02-28-2017
A. Morton Thomas and Associates, Inc.	Charles O'Connell	Chantilly	12977 Hampton Forest Court Fairfax, VA 22030	ENG	0402024735	02-28-2018
A. Morton Thomas and Associates, Inc.	Don Rissmeyer	Richmond	100 Gateway Centre Parkway, Suite 200 Richmond, VA 23235	ENG	0402026104	06-30-2017
A. Morton Thomas and Associates, Inc.	Keith Sinclair	Chantilly	1009 Tyler Street Herndon, VA 20170-3250	ENG	0402011195	09-30-2016
A. Morton Thomas and Associates, Inc.	John Claytor	Richmond	9409 Derbyshire Road Richmond, VA 23229	LS	0403002288	01-31-2018
A. Morton Thomas and Associates, Inc.	Stephen Stewart	Richmond	2204 Cancun Court Virginia Beach, VA 23456	ENG	0402040298	12-31-2016

# State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

# SCC and DPOR Information

A. Morton Thomas and Associates, Inc.	Alex Meitzler	Chantilly	2908 Videre Drive Wilmington, DE 19808	ENG	0402040367	10-31-2016
Amec Foster Wheeler Environment & Infrastructure, Inc.	Stanley Hite	Abingdon	437 Evanrude Lane Sandston, VA 23150	ENG	0402017597	07-31-2017
Amec Foster Wheeler Environment & Infrastructure, Inc.	Luke Williams	Abingdon	8704 Dunaire Drive Knoxville, TN 37923	ENG	0402048889	11-30-2106
Traffic Signals Plus, PLLC	Earl Hughes	Richmond	621 French's Store Rd Cumberland, VA 23040	ENG	0402042707	09-30-2016
Stantec Consulting Services, Inc.	Alan Arnold	Laurel	10013 Evergreen Ave Columbia, MD 21046	ENG	0402029959	04-30-2018
Stantec Consulting Services, Inc.	Julie Hartman	Fairfax	749 Mile Ridge Estates Strasburg, VA 22641	ENG	0402044099	10-31-2017
Stantec Consulting Services, Inc.	Joseph "Tim" Copeland	Richmond	204 March Drive Suffolk, VA 23434	RE Appraiser	4001013213	12-31-2017

# Full Size SCC and DPOR Supporting Registration/ License Information

## Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

Commonwealth of Virginia **State Corporation Commission** Vir 06/07/16 CISM0180 CORPORATE DATA INQUIRY 13:32:42 0068944 - 8 CORP ID: STATUS: 00 ACTIVE STATUS DATE: 05/23/02 ENGLISH, INCORPORATED, W. C. CORP NAME: DATE OF CERTIFICATE: 04/06/1954 PERIOD OF DURATION: INDUSTRY CODE: 00 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND: GOOD STANDING IND: Y MONITOR INDICATOR: MON STATUS: MONITOR DTE: CHARTER FEE: MON NO: R/A NAME: JAMES P KENT JR STREET: 525 7TH STREET AR RTN MAIL: CITY: ALTAVISTA STATE : VA ZIP: 24517-0000 R/A STATUS: 4 ATTORNEY EFF. DATE: 03/15/05 LOC : 115 ACCEPTED AR#: 216 06 4922 DATE: 04/07/16 CAMPBELL COUNTY CURRENT AR#: 216 06 4922 DATE: 04/07/16 STATUS: A ASSESSMENT INDICATOR: 0 TOTAL SHARES YEAR FEES PENALTY INTEREST TAXES BALANCE 16 130.00 6,000

C. C. 167-10-15-53

### COMMONWEALTH OF VIRGINIA DEPARTMENT OF THE STATE CORPORATION COMMISSION

#### CITY OF RICHMOND

April 6, 1954

### NOTICE OF ISSUING AND CERTIFICATION OF

charter of W. C. English, Incorporated

to be recorded in the office of the State Corporation Commission and where necessary certified to the clerk of the proper court for recording in his office.

Papers covering the above specified application having been duly considered by the Commission, and it being found that all the requirements of law have been complied with, the Commission has this day ordered the same to be admitted to record in this office.

Enclosed herewith you will find receipt of the State Corporation Commission for charter fee (if any required on this application), \$5.00 for costs in this office, and recording fee. Where necessary to be recorded by a court clerk, such clerk will receipt to you direct for his fee.

Your attention is called to blanks and circulars prepared by the Commission and enclosed herewith for the use of the corporation, as specified below in paragraphs against which is marked upon the margin the typewritten letter "X":

> A blank prepared under the provisions of Section 167 of the Constitution of Virginia and Section 13-97, Code of Virginia, 1950, upon which a statement of the financial plan of stock to be issued should be made and lodged with the Commission, and acknowledgment thereof received by the corporation from the Commission, before any stock is actually issued.

A blank for report pursuant to Sections 13-9, and 13-32 Code of Virginia, 1950, with the law printed upon the back of the blank, requiring same to be made to the Commission upon the organization of the corporation, and within thirty days after the time appointed for the election of officers and directors, annually thereafter. This report must be filed as soon as the corporation is organized, whether the officers or directors, as shown in the charter, are changed or not.

There is also enclosed Circular No. 5, giving in full Section 13-12, Code of Virginia, 1950, and where all officers and directors of the corporation, as shown in the charter, are non-residents of the city or county in which the principal office of the corporation is to be located, blanks in duplicate are also enclosed for the written power of attorney required to be executed and filed in accordance with the above mentioned section before the corporation commences business.

Mr. W. Barney Arthur Attorney at Law Altavista, Virginia

M.W. antinson

Clerk of the Commission.

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### CERTIFICATE OF INCORPORATION

OF.

### W. C. ENGLISH, INCORPORATED

### To The State Corporation Commission Commonwealth of Virginia

This is to certify that we, the undersigned, desire to, and hereby do associate to establish a corporation, under the provisions and subject to the requirements of the law for such cases made and provided, and we, by this our certificate of incorporation set forth as follows:

(a) The name of the corporation is to be W. C. English, Incorporated.

(b) The principal office in this State is to be in Altavista, Campbell County.

(c) The purposes for which it is formed are as follows:

(1) To make, enter into, perform and carry out contracts for building, erecting, improving, constructing, altering, repairing, decorating, finishing and furnishing houses, buildings, warehouses, store-rooms, edifices, works, roads, tenements and structures of every kind and desoription; to carry on in all their respective branches the businesses of builders, contractors, decorators and such other trades and businesses as pertain or are connected with the general business of building and construction. (2) To take over, acquire, purchase, own, sell, (2) to take over, acquire, purchase, own, sell, lease, hire, hold, control, manage, maintain and operate quarries, brick-yards, lime-kilns, refineries, asphalt, commant and plaster mills, lumber yards, timber lands, saw mills, glass, metal and woodworking plants, pulp and paper mills, furnaces, factories and establishments for the manufacture presention and production of building manufacture, preparation and production of building supplies, material, furnishings, descrations and furniture; and to buy, sell and generally deal in and with all such articles and materials. (3) To buy, sell, exchange, mortgage, lease, improve, farm, manage, operate, build, construct, maintain, or otherwise dispose of any property, real or personal, of all kinds and descriptions; to make and obtain loans upon real estate, improved and unimproved, and to take mortgages and essignments of mortgages upon the same, and to supervise, manage, and protect such property and loans, and all interests and claims affecting the same. (4) To carry on and conduct a general contracting business, including the constructing, enlarging, repairing, remodeling or otherwise engaging in any work upon buildings, roads, side walks, water lines, power lines, highways, bridges, or manufacturing plants; and to engage in iron, steel, wood, brick, concrete, stone, cement, masonry and earth con-struction, and to execute contracts or to receive assignments of contracts therefor, or relating thereto; also to manufacture and furnish the building materials and supplies connected herewith.

(5) To do all and everything necessary, suitable and proper for the accomplishment of any of the purposes or attainment of any of the objects or the furtherance of any of the powers hereinbefore mentioned, either alone or in association with any other corporations, firms or individuals, and to do every other act or acts, thing or things, incidental or appurtement to or growing out of or connected with the aforesaid business or powers or any part or parts thereof, provided the same be not inconsistent with the laws under which this corporation is organized.

(d) The capital stock of the corporation is to consist of no par value shares, the maximum number of shares to be issued is to be one hundred and fifty (150), and the minimum number of shares to be issued is to be fifty (50).

(e) The period for the duration of the corporation is unlimited.

(f) The names and residences of the officers and directors who unless sconer changed by the stockholders, are for the first year to manage the affairs of the corporation, are as follows:

OFFICES

#### OFFICERS

W. Curtis English Louise T. English Helen F. Myers

**RESIDENCES** President Altavista, Va. Altavista, Va. Altavista, Va. Vice-President Secretary-Treasurer RESIDENCES

Altavista, Va.

Altavista, Va. Altavista, Va.

### DIRECTORS

W. Curtis English Louise T. English Helen F. Myers

(g) The amount of real estate to which its holdings at any time are to be limited is 1000 acres.

Given	under	our	hands	this day of, 1954.
				What is
				2 genery

STATE OF VIRGINIA.

COUNTY OF CAMPBELL, to-wit:

I, \_ . a Notary Public of and for the County and State aforesaid, do certify that N. CURTIS ENGLISH, LCUISE T. ENGLISH and HELEN F. MYERS, whose names are signed to the writing above, bearing date or the \_\_\_\_\_ day of \_\_\_\_\_, 1954, have acknowledged the same before me in Campbell County.

Given under my hand this \_\_\_\_ day of \_\_\_\_\_, 1954.

My commission expires \_\_\_\_

Notary Public

## Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

Commonwealth of Virginia **State Corporation Commission** Vir 06/01/16 CISM0180 CORPORATE DATA INQUIRY 10:58:27 F049431 - 2 CORP ID: STATUS: 00 ACTIVE STATUS DATE: 12/15/09 THOMAS & ASSOCIATES, INC., A. MORTON CORP NAME: DATE OF CERTIFICATE: 11/26/1997 PERIOD OF DURATION: INDUSTRY CODE: 00 STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK MERGER IND: CONVERSION/DOMESTICATION IND: GOOD STANDING IND: Y MONITOR INDICATOR: CHARTER FEE: MON NO: MON STATUS: MONITOR DTE: R/A NAME: NATIONAL CORPORATE RESEARCH, LTD. STREET: 250 BROWNS HILL COURT AR RTN MAIL: STATE : VA ZIP: 23114-0000 CITY: MIDLOTHIAN R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 09/30/15 LOC: 120 ACCEPTED AR#: 215 15 3245 DATE: 10/05/15 CHESTERFIELD CO CURRENT AR#: 215 15 3245 DATE: 10/05/15 STATUS: A ASSESSMENT INDICATOR: 0 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES 15 400.00 52,000

## Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

Commonwealth of Virginia

**State Corporation Commission** 

Vir 06/07/16 CISM0180 CORPORATE DATA INQUIRY 13:39:07 F144198 - 1 STATUS: 00 ACTIVE CORP ID: STATUS DATE: 09/20/00 Amec Foster Wheeler Environment & Infrastructure, CORP NAME: Inc. DATE OF CERTIFICATE: 09/20/2000 PERIOD OF DURATION: INDUSTRY CODE: 00 STATE OF INCORPORATION: NV NEVADA STOCK INDICATOR: S STOCK MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND: GOOD STANDING IND: Y MONITOR INDICATOR: CHARTER FEE: 2000.00 MON NO: MON STATUS: MONITOR DTE: R/A NAME: CT CORPORATION SYSTEM STREET: 4701 COX ROAD, SUITE 285 AR RTN MAIL: STATE : VA ZIP: 23060-0000 CITY: GLEN ALLEN R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC : 143 ACCEPTED AR#: 215 12 8902 DATE: 08/17/15 HENRICO COUNTY CURRENT AR#: 215 12 8902 DATE: 08/17/15 STATUS: A ASSESSMENT INDICATOR: 0 FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES YEAR 15 1,700.00 990,000

Please note: The SCC website will be unavailable Thursday, May 19, from 6 p.m. p.m., for system maintenance. We apologize for the inconvenience and appreciat patience.

Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w



## Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

Commonwealth of Virginia **State Corporation Commission** Vir 06/07/16 CISM0180 CORPORATE DATA INQUIRY 13:40:50 F149319 - 8 STATUS: 00 ACTIVE CORP ID: STATUS DATE: 03/23/16 Stantec Consulting Services Inc. CORP NAME: DATE OF CERTIFICATE: 12/04/2001 PERIOD OF DURATION: INDUSTRY CODE: 00 STATE OF INCORPORATION: NY NEW YORK STOCK INDICATOR: S STOCK MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND: GOOD STANDING IND: Y MONITOR INDICATOR: CHARTER FEE: 2500.00 MON NO: MON STATUS: MONITOR DTE: R/A NAME: CORPORATION SERVICE COMPANY STREET: Bank of America Center, 16th Floor AR RTN MAIL: 1111 East Main Street CITY: RICHMOND STATE : VA ZIP: 23219-0000 R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 04/29/11 LOC : 216 ACCEPTED AR#: 215 19 3573 DATE: 04/18/16 RICHMOND CITY CURRENT AR#: 215 19 3573 DATE: 04/18/16 STATUS: A ASSESSMENT INDICATOR: 0 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES 15 1,700.00 170.00 3,250,000

## Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

Commonwealth of Virginia

**State Corporation Commission** Vir 06/07/16 CISM0180 CORPORATE DATA INQUIRY 13:42:04 0027211 - 2 CORP ID: STATUS: 00 ACTIVE STATUS DATE: 11/13/09 FROEHLING & ROBERTSON, INCORPORATED CORP NAME: DATE OF CERTIFICATE: 10/11/1924 PERIOD OF DURATION: INDUSTRY CODE: 00 STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK MERGER IND: CONVERSION/DOMESTICATION IND: GOOD STANDING IND: Y MONITOR INDICATOR: CHARTER FEE: 2480.00 MON STATUS: MONITOR DTE: MON NO: R/A NAME: WILLIAM H HOOFNAGLE III STREET: 1900 ONE JAMES CENTER AR RTN MAIL: 901 E CARY ST STATE : VA ZIP: 23219-0000 CITY: RICHMOND R/A STATUS: 4 ATTORNEY EFF. DATE: 09/21/11 LOC : 216 ACCEPTED AR#: 215 14 1079 DATE: 09/10/15 RICHMOND CITY CURRENT AR#: 215 14 1079 DATE: 09/10/15 STATUS: A ASSESSMENT INDICATOR: 0 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES 15 1,700.00 1,100,000

















(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)















(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)






(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)







(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

























# Key Personnel Resume Forms

Bri	ef Resume of Key Personnel anticipated for the Project.
a.	Name & Title:
	Cory M. Bond
b.	Project Assignment: Design Build Project Manager
C.	Name of Firm with which you are now associated: W. C. English, Incorporated
d. and em be	Years experience: With this Firm <u>15</u> Year With Other Firms <u>0</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities d duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of ployment history, please list the history for those years you have worked. Project specific experience shall included in Section (g) below):
	Mr. Bond has over 15 years of experience with transportation projects in Virginia and North Carolina delivering both Design-Build and traditional Bid-Build projects. His experience includes managing grading and structure projects to include extensive experience with heavily traveled roadways with continuous maintenance of traffic issues and phasing.
	Project Manager / Estimator W. C. English, Incorporated
	Estimating duties include: all takeoff, project analysis, risk analysis, subcontractor/vendor quote solicitations, DBE participation, review all quotes and scopes, price all self-perform work, analysis of production capabilities, and compile/submit all relevant bidding information.
	<b>Field Engineer / Foreman</b> <i>W. C. English, Incorporated</i>
e.	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Military Institute, Lexington Virginia / BS / 2001 / Civil Engineering
f.	Active Registration: Year First Registered/ Discipline/VA Registration #: Competent Person Training-Trench & Excav; Confined Space - Coble Trench; CPR / First Aid 7/15/13; E & S - Responsible Land Disturber (DCR),/RLD0411-5/10/16; OSHA 10 Hour-2764141; OSHA 30 Hour, 12-601218577; Roadway Worker Protection Contractor Safety Certification,1/11/16,Underground Utility Damage Prevention Training
g.	<ul> <li>Document the extent and depth of your experience and qualifications relevant to the Project.</li> <li>1. Note your role, responsibility and specific job duties for each project, not those of the firm.</li> <li>2. Note whether experience is with current firm or with other firm.</li> <li>3. Provide beginning and end dates for each assignment; projects older than fifteen (15) years will not be considered for evaluation.</li> <li>(List <u>ONLY</u> three (3) relevant projects* for which you have performed similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</li> </ul>

Project Name:	Contract C202886 Intersection of SR-1309 and US-1 in Pinehurst – Moore County, NC	Start Date:	309 and Start Date: 2012	2012
Project Role:	Project Manager	End Date:	2014	
Client/Owner:	NCDOT	With Current Firm?	Yes	

As **Project Manager**, Mr. Bond was responsible for all construction, quality, contract administration, DBE compliance, project schedule, cost control, and all other services for this project consisting of approximately one mile of roadway improvements on US 1 to include four intersection improvements in Southern Pines. The project included a new 2-span bridge on Morganton Road, constructed in three phases. This project also had multiple permanent shoring walls to allow for roadway widening. Pipe lines were added along and across US 1 and US 1 Bus, both open to traffic, and had to be constructed at night with detours. Aesthetics were added to the contract during construction creating a need to partner with the NCDOT and suppliers to achieve desired final project. The project also had extensive stakeholder involvement with multiple existing retail and service businesses within the project footprint.

NCDOT, after a year of construction, requested that the project be accelerated to have the majority of work completed six months early to accommodate the US Open Golf tournament at Pinehurst #2. The project was able to meet this acceleration request by resequencing some of the work, increasing resources for all self-performed operations, as well as necessary resources from all subcontractors on the project. The buy in from the required subcontractors and the resources provided by English were the keys to delivering this the majority of the project early as requested. Mr. Bond was instrumental in requesting and managing the additional resource load need by English and working with the subcontractors to facilitate the success of the project. Ultimately the requested portion of the project was finished ahead of schedule. *Total Project Cost: \$10M*.

**Project Similarities:** Grading & Structures, Parallel Roadway Construction/Widening, Phased Construction, Retaining Walls (permanent & temporary), Extensive New Drainage under open heavily traveled roadway, Maintenance of Traffic, Wetlands/streams, Stormwater Management, 3rd party stakeholder management.

Project Name:	Contract C202596 NC-49 from East of SR- 2630 (Cline Road) to East of NC-73 – Cabarrus County, NC	Start Date: End Date:	2011 2014
Project Role:	Project Manager		
Client/Owner:	NCDOT	With Current Firm?	Yes

As **Project Manager**, Mr. Bond was responsible for all construction, quality, contract administration, DBE compliance, project schedule, cost control, and all other services for this project which consisted of adding two lanes (approx. 2.5 miles) and improvements (Widening) to existing Route NC-49 from East of Sr-2630 to East of NC -73, to include a new two span 95' wide bridge, approaches, and entry/exit ramps on NC-73 over NC-49. The Project also included the construction of five new box culverts. All box culvert construction consisted of multiple phases with live traffic to be maintained at all times. The excavation included 247,000 cubic meters of excavation with 74,000 cubic meters being rock. Blasting activities needed to be coordinated with live traffic, adjacent property owners, and businesses. The project also included extensive amounts of unsuitable material that had to be placed into appropriate portions of fills or off site to an appropriate waste site. *Total Project Cost: \$19.4M*.

**Project Similarities:** Grading & Structures, Rock Excavation, High Cuts, Retaining Walls, Parallel Roadway Construction/Widening, New Box Culverts, Phased Construction, Extensive Maintenance of Traffic, New Drainage under open heavily traveled roadway, Wetlands/streams, Stormwater Management, 3rd party stakeholder management.

Project Name:	Design Build on US 158 over Yadkin River – Davie/Forsyth Counties, NC	Start Date: End Date:	2007 2011
Project Role:	Project Manager		
Client/Owner	NCDOT	With Current Firm?	Yes

As **Project Manager**, Mr. Bond was responsible for all construction, quality, contract administration, DBE compliance, project schedule, cost control, and all other services for this Design-Build project constructing a new 1,150', four lane replacement bridge carrying US 158 over the Yadkin River. Roadway alignment was offset to allow parallecl construction while maintaining traffic on existing roadway and bridge. Approaches included widening US 158 on each end of the bridge from two lanes to four. All construction activities had to be coordinated with existing traffic, adjacent property owners and maintaining access to a major well used soccer complex. *Total Project Cost: \$15M*.

**Project Similarities:** Design Build, Parallel Roadway Construction (for new offset bridge), Grading & Structures, Phased Construction, Extensive Maintenance of Traffic, New Drainage under new roadway alignment, Utility Relocations, ROW acquisitions, Wetland/Stream impacts and permitting, 3rd party stakeholder management.

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

Brief Resume of Key Personnel anticipated for the Project.			
a. Name & Title: Laura Mehiel, PE Associate			
b. Project Assignment: Design Manager			
c. Name of Firm with which you are now associated: A. Morton Thomas and Associates, Inc. (AMT)			
<ul> <li>d. Years experience: With this Firm <u>5</u> Year With Other Firms <u>25</u> Years Please list chronologically (most recent first) 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 employment history, please list the history for those years you have worked. Project specific experience sha be included in Section (g) below):</li> </ul>	; all		
Associate A. Morton Thomas and Associates, Inc	<i>ıt</i> ing		
Senior Project Manager / Operations Manager HNTB Corporation	1		
design/build throughout VA, MD, and DC, including QC role. Engineer in Charge of the Columbia, MD office, supervising a staff of highway, hydraulics, traffic, and construction professionals. Held operational, business development, and technical oversight roles.			
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Delaware, Newark Delaware / BCE / 1986 / Civil Engineering			
f.       Active Registration: Year First Registered/ Discipline/VA Registration #:         1992Virginia       Professional Engineer         Also registerd in DC, DE, MD, NC, PA, TN			
<ul> <li>g. Document the extent and depth of your experience and qualifications relevant to the Project.</li> <li>1. Note your role, responsibility and specific job duties for each project, not those of the firm.</li> <li>2. Note whether experience is with current firm or with other firm.</li> <li>3. Provide beginning and end dates for each assignment; projects older than fifteen (15) years will be considered for evaluation.</li> </ul>	not		
(List <u>ONLY</u> three (3) relevant projects* for which you have performed similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. any case, only the first three (3) projects listed will be evaluated.)	In		

Project Name:	Design-Build Route 1 at Fort Belvoir Fairfax County, VA	Start Date:	2013
Project Role:	Design Manager	End Date:	2016
Client/Owner:	FHWA – Eastern Federal Lands/VDOT	With Current Firm?	Yes

Design Manager responsible for managing a multi-disciplinary team for widening/new alignment of 3.6 miles of US Route 1 from 4 lanes undivided to a 6 lane divided facility. The project includes roadway widening/new alignment, safety and capacity improvements, bridges and culverts, new trail and sidewalk, retaining walls, and pile-stabilized slopes. Two intersections of the project carry on average more than 62,000 vehicles per day during construction, requiring well planned maintnenace of traffic design to keep traffic safely moving through the work zone. Ms. Mehiel and her team designed the project in 3 stages with 7 sub-phases, generally by widening to the west, shifting traffic to the new pavement, then completing the reconstruction of the existing lanes to serve as northbound. Extensive temporary drainage meaures were required to carry storm flows across the existing roadway while carrying traffic. Ms. Mehiel managed all design including geometric alignments, intersection improvements, traffic analysis, bridge and wall design, MOT plans/TMP, drainage and SWM design, wetland/stream permits, topographic and utility surveys, geotechnical explorations, ROW plans and acquisition. She ran the Design Public Hearing, and conducted stakeholder design workshops. A total of 24 separate "release for construction packages" were prepared, including two advance grading packages to initiate grading early and to facilitate utility relocaitons. Laura has been involved in the construction phase, providing design support such as refined MOT sequencing, shop drawing reviews, RFI's, and partnering. She also managed the right of way acquisition process, with her direct team preparing all Right of Way Plans, and her subconsultant providing appraisals, negotiations, COT's and relocations Total Project Cost: \$70M.

Project Name:	Southgate Drive / US 460 Bypass Interchange Blacksburg, VA Start Date: 20	Start Date:	2012
Project Role:	Design Project Manager	End Date:	2014
Client/Owner:	Virginia Department of Transportation	With Current Firm?	Yes

As **Design Project Manager**, Laura oversaw an cutting edge deisgn project that incorporated multiple innovative intersections including two roundabouts, and a diverging diamond interchange. Laura and her team provided extensive alternatives analyses, and public hearing through 100% plans, specifications and estimates following VDOT standards, in a period of 20 months. She provided technical leadership for the design of highway, interchange, and shared-use path geometrics, roundabout design, stormwater management, and drainage facilities, and managed the production team performing traffic modeling of multiple intersection and interchange alternatives, bridge and retaining wall design, geotechnical investigations, TMP/SOC, right of way palns, design waivers, and environmental permit support. Laura organized and facilitated a stakeholder outreach plan which included alternative workshops, design charettes, graphics, simulations and renderings for the Design Public Hearing. A first for the VDOT Salem District, Laura and her team provided "turn-key" project management support as an extension of VDOT staff. Ranked as the #1 priority project for the Salem District, it is adjacent to Virginia Tech and will eliminate the existing signalized at-grade T-intersection to relieve a source of major congestion and improve safety on US 460 Bypass. The shared use trail is grade separated in three locations, and the project includes gateway aesthetic treatments on walls and abutments. *Total Construction Cost (anticipated): \$47M*.

Project Name:	Design-Build I-495 HOT (Express) Lanes Fairfax County, VA	Start Date: End Date:	Start Date: 2007	2007
Project Role:	Area 1 Design Manager		2010	
Client/Owner	Fluor-Lane / VDOT	With Current Firm?	No	

As **Area 1 Design Manager**, Laura managed the Area 1 design of \$270M construction value, and supervised the D/B team's design of I-495 mainline widening and four interchanges from south of Braddock Rd to north of US 50. She oversaw design production of over fifty staff and subconsultants in producing 55 design packages for grading/drainage, erosion control, final grading/roadway, noise and retaining walls, 13 bridges, utility relocations, and ROW plans, 80% of which was completed in a 10 month period. Included complex MOT staging requiring traffic modeling for each phase, to maintain existing interchange movements and property access throughout construction. Provided retaining walls to mitigate impacts to Accotink Creek, and designed outfall improvements at degraded outfalls throughout Wakefield Park meeting MS-19. Ensured QC procedures and utilization of VDOT CAD Standards. Worked closely with the Contractor and GEC reviewers on a daily basis by use of over the shoulder reviews, comment resolution meetings, and discipline-specific design sessions to maintain production schedule and meet the project construction goals. *Total Project Cost (Area 1 only): \$270M*.

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

Brie	ef Resume of Key Personnel anticipated for the Project.
a.	Name & Title:
	Isaac M. "Chuck" Whited, PE Quality Assurance Manager
h	Dreiget Assignment
D.	Quality Assurance Manager
C.	Name of Firm with which you are now associated: A. Morton Thomas and Associates, Inc. (AMT)
d. and emp be i	Years experience: With this Firm <u>7</u> Year With Other Firms <u>21</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities I duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of ployment history, please list the history for those years you have worked. Project specific experience shall ncluded in Section (g) below):
	Quality Assurance Manager A. Morton Thomas and Associates, Inc
	Construction Manager for Bridge Greenhorne and O'Mara, Inc
	Senior Project Engineer <i>Greenhorne and O'Mara, Inc.</i>
e.	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of South Florida, Tampa Florida / 1986 / Civil Engineering
f.	Active Registration: Year First Registered/ Discipline/VA Registration #:         2000VirginiaVirginiaProfessional Engineer         #35104         1990FloridaProfessional Engineer
g.	<ol> <li>Document the extent and depth of your experience and qualifications relevant to the Project.</li> <li>Note your role, responsibility and specific job duties for each project, not those of the firm.</li> <li>Note whether experience is with current firm or with other firm.</li> <li>Provide beginning and end dates for each assignment; projects older than fifteen (15) years will not be considered for evaluation.</li> <li>(List <u>ONLY</u> three (3) relevant projects* for which you have performed similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</li> </ol>

Project Name:	Route 29 Solutions Design-Build Albemarle County, VA	Start Date: End Date:	2015 2016
Project Role:	Independent Assurance of Quality Control	2110 2 4101	
Client/Owner:	Virginia Department of Transportation	With Current Firm?	Yes

**Construction Manager for Independent Assurance** for this **\$70 million** design-build project at Rio Road in Charlottesville. The purpose of the project is to alleviate congestion through one of the busiest and dangerous intersections along the Route 29 corridor. This is achieved by separating local traffic from through traffic utilizing a grade separated interchange. The project includes permanent retaining wall structures with driven, tie-back, and cantilever piling, depressed highway reconstruction, installation of underground stormwater management structures, major utility relocations, precast bridge deck panels with post tensioning of threaded rods, installation of composite concrete retaining wall fascia, traffic signals, etc. Mr. Whited's responsibilities include verification of inspection, testing, documentation of the contractor's work by the QC and QA staff; performing independent observation, verification of testing results, and overall compliance with the procedures detailed in the approved QA/QC Plan; verifying accuracy and completeness of material book entries, reviewing daily work reports for accuracy, acting on behalf of the Owner (VDOT) in regards to Section 105.01 Authority of the Engineer and Section 105.13 Removal of Unacceptable and Unauthorized Work, and the 7 R's of construction documentation for quality control.

Project Name:	U.S. Route 460 Connector, Phase I Design- Build, Buchanan County, VA	Start Date: End Date:	Start Date: 2009 End Date: 2015
Project Role:	Quality Assurance Manager	2110 2 4101	
Client/Owner:	Virginia Department of Transportation	With Current Firm?	Yes

**Quality Assurance Manager** for this **\$113 million** design-build highway/bridge project that includes one mile of new 460 Connector Roadway and 0.56 miles of widening and realignment of Route 80. The project also include three bridges: twin 1,733 foot long cast-in-place hollow box concrete structures crossing Grassy Creek and Route 610 at a maximum height of 267 feet, and a 300 foot long bulb-T girder bridge crossing Hunts Creek. Mr. Whited provided oversight and management of construction activities, materials testing, and analysis and interpretation of project plans and specifications to ensure constructability. Mr. Whited was responsible for the oversight of the QA team that worked closely with the Contractor's QC team to ensure that the project adhered to the project specific QA/QC Plan and the minimum requirements for QA and QC as set forth in the VDOT Design-Build Manual. The QA team scheduled and conducted activity preparatory meetings; performed the required QA inspection and testing; monitored the performance and documentation of the QC team, reviewed and approved monthly pay estimates, developed project punch lists, and addressed non-conforming items with contractor QC personnel.

Project Name:	I-64 Battlefield Boulevard Interchange Chesapeake, VA	Start Date: End Date:	2007 2009
Project Role:	Bridge Construction Manager	Life Date.	2007
Client/Owner	Virginia Department of Transportation	With Current Firm?	No

**Bridge Construction Manager** for a **\$98.6 million** project interchanged project. Mr. Whited provided quality control and supervision of inspection staff on six bridges including braided ramp flyover, fracture critical bridges, railroad overpass bridges, and two new Battlefield Boulevard bridges; a major interstate interchange and collector/distributor road reconstruction. Scope of the work included reviewing, editing and approving all inspector diaries, accepting all materials in accordance with Materials Manual of Instructions, preparing the documentation for all bridge inspection requirements, generating and maintaining the materials book, and preparing the final estimates.

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.

Route 29 Solutions, Construction Manager for Independent Assurance, Scheduled completion date: Fall 2016

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Paul "Eddie" Jones Construction Manager
b. Project Assignment: Construction Manager
c. Name of Firm with which you are now associated: W. C. English, Incorporated
<ul> <li>d. Years experience: With this Firm <u>32</u> Year With Other Firms <u>0</u> Years Please list chronologically (most recent first) 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 employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</li> </ul>
Mr. Jones has constructed transportation projects throughout the mid-Atlantic to include Virginia, for over 32 years. Most of these projects have included extensive excavation, traffic control constraints and phased construction. His experience for managing grading projects in mountainous terrain with large quantities of rock, extensive blasting and unstable material is unparalleled.
Construction Manager W. C. English, Incorporated
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Marion High School / Diploma / 1982
<ul> <li>f. Active Registration: Year First Registered/ Discipline/VA Registration #: 04-11-06/Competent Person Training-Trench &amp; Excavation; 3-1-16/Responsible Land Disturber/39617; 5-3- 12/OSHA 10 Hour/15-003829792;1-30-15/OSHA 30 Hour/12-601218586; 5-2-15 WZTC Intermediate with Traffic Control Supervisor Cert (TCS) – ATSSA/219257; 3-11-15/WZTC Traffic Control Supervisor (TCS) NCDOT</li> </ul>
<ul> <li>g. Document the extent and depth of your experience and qualifications relevant to the Project.</li> <li>1. Note your role, responsibility and specific job duties for each project, not those of the firm.</li> <li>2. Note whether experience is with current firm or with other firm.</li> <li>3. Provide beginning and end dates for each assignment; projects older than fifteen (15) years will not be considered for evaluation.</li> </ul>
(List <u>ONLY</u> three (3) relevant projects* for which you have performed similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Project Name:	Contract C201115 US 321 Reconstruction & Widening - Caldwell County, NC	Start Date: End Date:	2005
Project Role:	Construction Manager / Grading Superintendent		2011
Client/Owner:	NCDOT	With Current Firm?	Yes

As **Construction Manager**, managed all construction processes, to include coordinating with Quality Control for this reconstruction and widening project on Route 32. The project included widening two lanes to four lanes between Lenoir and Blowing Rock, 3,100,000 CY of excavation (most of which was rock), specialty rockwork, 10 retaining walls and two box culverts. Mr. Jones was also responsible for an on-site rock crushing operation that utilized the excavated rock to be manufactured and used as a NCDOT certified ABC material that was ultimately used in the pavement structure on the project. This project included extensive traffic control and coordination with blasting operations. There were lots of residences and businesses along the corridor that had to be informed of traffic pattern switches as well as detours. Mr. Jones was constantly in contact with all relevant third parties to inform them of all relevant issues. *Total Project Cost: \$68M*.

**Project Similarities:** Grading & Structures, Parallel Roadway Construction/Widening, Unique Rock Formations & Excavation, High Cuts, Phased Construction, Retaining Walls (perm & temp), Wetland/Stream impacts, Stormwater Management, Extensive Maintenance of Traffic, Utility Coordination, 3rd party stakeholder management.

Project Name:	Contract C00095812C02, Route 221 Roanoke County, VA	Start Date: End Date:	2010
Project Role:	Construction Manager / Grading Superintendent		2013
Client/Owner:	VDOT	With Current Firm?	Yes

As **Construction Manager**, managing all construction processes, to include coordinating with the Quality Control for this project consisting of two miles of roadway reconstruction/widening of Route 221 at Bent Mountain in Roanoke County. Construction included 286,000 CuM of excavation, 205,200 CuM of the excavation was rock, three bridges (two on Route 221 and one on Cotton Hill Road), over 15,000 tons of asphalt paving, storm drainage (6,900' piping), one double box culvert, and one retaining wall. This project involved considerable traffic control and blasting operations. The project's traffic control included three phases. It also included several environmentally sensitive areas with countless erosion control measures that required constant inspection and maintenance. *Total Project Cost: \$20.9M*.

**Project Similarities:** Grading & Structures, Parallel Roadway Construction/Widening, Rock Excavation, High Cuts, Phased Construction, Box Culverts, Drainage Construction Under Traffic, Retaining Walls (permanent & temporary), Extensive Maintenance of Traffic, Environmentally Sensitive Areas, Stormwater Management, 3rd party stakeholders.

Project Name:	Contract C202962 I-73/74 from SW of SR 1304 (Harrington Rd) to I-73/74 Interchange South of Ellerbe – Richmond County, NC	Start Date:	2014
Project Role:	Construction Manager / Grading Superintendent	End Date.	2017
Client/Owner	NCDOT	With Current Firm?	Yes

As **Construction Manager**, managing all construction processes, to include coordinating with the Quality Control for the reconstruction and realignment of I73/74 in Richmond County, NC. The Construction includes 1,665,000CY of excavation, three bridges, over 215,000 tons of asphalt, 42,600 LF of storm drainage pipe, one double box culvert, and a sound wall. The project involves considerable traffic control that has to be coordinated with the extensive excavation. The projects traffic control includes four phases. It also includes several environmentally sensitive areas with countless erosion control measures that require constant inspection and maintenance. *Total Project Cost: \$50M*.

**Project Similarities:** Grading & Structures, High Cuts, Box Culverts, Phased Construction, Retaining Walls (perm & temp), Drainage Construction Under Traffic, Extensive Maintenance of Traffic, Environmentally Sensitive Areas, Stormwater Management, Utility Coordination.

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.

# Construction Manager - Contract C202962 I-73/74 from SW of SR 1304 (Harrington Rd) to I-73/74 Interchange South of Ellerbe - Anticipated Completion Date: October 2017

Mr. Jones is currently assigned to NCDOT Contract C202962 which is to be complete in October of 2017, just before the construction of the Route 220 Corridor Safety Improvements would begin. While finishing up his responsibilities, he will be part of and participate in all relevant design meetings and work sessions.

Bri	ef Resume of Key Personnel anticipated for the Project.
a.	Name & Title: Stanley Lewis Hite PE
	Associate Engineer-Geotechnical
b.	Project Assignment:
	Lead Geotechnical Engineer
c.	Name of Firm with which you are now associated: AMEC Foster Wheeler Environment & Infrastructure, Inc.
d. and em be	Years experience: With this Firm <u>6.5</u> Year With Other Firms <u>33</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities d duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of ployment history, please list the history for those years you have worked. Project specific experience shall included in Section (g) below):
	Associate Engineer-Geotechnical Amec Foster Wheeler Environment & Infrastructure, Inc
	Assistant State Materials Engineer Virginia Department of Transportation
e.	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute and State University, Blacksburg, VA / Bachelor of Science / 1977 / Civil Engineering
f.	Active Registration: Year First Registered/ Discipline/VA Registration #: 1987 / Civil Engineering / #017597 Also licensed in DC, MD, PA, NC, SC, WV
g.	<ol> <li>Document the extent and depth of your experience and qualifications relevant to the Project.</li> <li>Note your role, responsibility and specific job duties for each project, not those of the firm.</li> <li>Note whether experience is with current firm or with other firm.</li> <li>Provide beginning and end dates for each assignment; projects older than fifteen (15) years will not be considered for evaluation.</li> </ol>
	(List <u>ONLY</u> three (3) relevant projects* for which you have performed similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Project Name:	Design-Build U.S. 460 Connector (Phase 1) Buchanan County, Virginia	Start Date: End Date:	2010
Project Role:	Principal Geotechnical Engineer		2012
Client/Owner:	Virginia Department of Transportation	With Current Firm?	Yes

Mr. Hite served as **Principal Geotechnical Engineer** on the Route 460 Phase 1 Connector Project, which was a designbuild project that included construction of approximately 4,800 feet of 4-lane divided highway for US 460 with twin bridges that were each approximately 1700 feet long and 250 feet high, and a two-lane connector road to Route 80. The roadway is cut into steep terrain with benched side slopes engineered to minimize earthwork and disturbance to the environment. To address the extensive earthwork needs stemming from the terrain and topography, approximately 2.6 million cubic yards of excavated material was placed in an engineered waste area on the project site. Mr. Hite oversaw all geotechnical exploration, analaysis and recommendaitons for the project, which involved design of transportation features in a complex geologic setting. He ran an exploration program of approximately 130 borings that were a total of approximately 9000 feet. Mr. Hite was responsible for providing expert guidance for geotechnical issues such as addressing high cuts and benched side slope design, review of major structure foundation design, soil and rock slope stability analysis review, review of retaining structures, and support of the engineered on-site soil disposal area area. He was also consulted during construction to address stability, subgrade and embankment preconsolidation issues.

Project Name:	Route 288 Chesterfield County, Virginia	Start Date: End Date:	2003
Project Role:	Assistant State Materials Engineer		2005
Client/Owner	Virginia Department of Transportation	With Current Firm?	No

As a VDOT **Assistant State Materials Engineer**, Mr. Hite provided oversight to the Department's geotechnical and structural materials programs. Mr. Hite was responsible for the geotechnical evaluation and design of retaining walls, foundations, soil and rock slopes, geotechnical instrumentation, pavement subgrade and structure design and ground improvements at many locations throughout the Commonwealth of Virginia. He was involved in many signature projects from a geotechnical perspective, and gained expertise in many slope stabilization techniques, including: pile supported embankments, geogrid reinforced soil slopes, gabion walls and H-Pile with concrete lagging walls, slotted drain systems to stabilize slopes, rock buttresses, anchored sheet pile wall, and gravity walls with special design sub-footings and deadman anchors to stabilize unstable "side hill" fills.

A project example featuring Mr. Hite's geotechnical expertise during his tenure as VDOT Assistant State Materials Engineer was the Route 288 roadway improvement project in Chesterfield County. The project required both design and redesign of numerous buttress and subgrade stabilizations systems throughout a two mile section of the project area. Several of the slopes along Route 288 were complicated due to the presence of a high power electrical transmission towers and residential developments along the top of the unstable slopes. Therefore, designs incorporated buttress and stabilization systems to provide for long term stability of the slopes. Mr. Hite served as a subject matter expert and provided technical guidance relating to the stabilization methods utilized on the project.

Project Name:	Design-Build Richmond Airport Connector Richmond, Virginia	Start Date: End Date:	2009
Project Role:	Principal Geotechnical Engineer		2011
Client/Owner:	TransUrban	With Current Firm?	Yes

Served as **Principal Geotechnical Engineer** for the \$39 million dollar, 1.6 mile, 4-lane connector roadway providing direct access to the Richmond Airport from the Pocahontas Parkway. The project included more than 500,000 cubic yards of earthwork, three new bridges, four box culver extensions, and over 100,000 sqare feet of retaining walls. Mr. Hite oversaw all geotechnical exploration, analysis and recommendations for the project, which included subgrade recommendations, major structure (brige) foundation design recommendations and review, pavement design recommendations, retaining wall settlement and global stability analysis, ground improvement design, and soils management including lime stabilization and geotextile fabrics He was also consulted during construction to address constructability issues such as groundwater/subsurface drainage recommendations and undercut recommendations.

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

Bri	ief Resume of Key Personnel anticipated for the Project.	
a.	Name & Title:	
	Luke Williams, PE	
	Associate Engineer-Geotechnical	
b.	Project Assignment: Acid-Producing Materials Specialist	
C.	Name of Firm with which you are now associated:	
0.	AMEC Foster Wheeler Environment & Infrastructure, Inc.	
d.	Years experience: With this Firm <u>35</u> Years With Other Firms <u>0</u> Years	
ano em	Please list chronologically (most recent first) your employment history, position, general responsibilitie d duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of apployment history, please list the history for those years you have worked. Project specific experience sh included in Section (d) below):	⊧s nall
00		
	Associate Engineer-Geotechnical Amec Foster Wheeler	ent
	Mr. Williams has over thirty years of experience as a geotechnical engineer and materials specialist. During career he has served as the lead geotechnical engineer on projects requiring the identification, evaluation determination of remediation measures for acid producing materials. Mr. Williams has extensive experience the evaluation and remediation of acid-producing materials and characterization of site conditions, selectio appropriate laboratory tests, interpretation of geologic and subsurface conditions, and technical suppor engineering design and construction. He is widely recognized for his ability to assist field operations and idea and work with clients and construction personnel to mitigate issues with acid producing materials as materialize during the construction process. Mr. Williams has extensive experience with acidic rock properties has been responsible for the evaluation, characterization and mitigation of many sites involving acid producing materials/strata.	g his and with n of t of ntify they and icing
e. Ba	Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: chelor of Science, Civil Engineering, University of Tennessee, Knoxville, Tennessee, 1979	
f.	Active Registration: Year First Registered/ Discipline/VA Registration #:	
	2011	
	1986	
	1986	
a	Document the extent and depth of your experience and qualifications relevant to the Project	
9.	1. Note your role, responsibility and specific job duties 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 assignment; projects older than fifteen (15) years will be considered for evaluation	l not
	(List <u>ONLY</u> three (3) relevant projects* for which you have performed similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive any case, only the first three (3) projects listed will be evaluated.)	. In

Project Name:	National Gateway Initiative Clearance Project Western Pennsylvania	Start Date: End Date:	2012 2012
Project Role:	Acid Rock Specalist		
Client/Owner:	CSXT	With Current Firm?	Yes

Mr. Williams served as the technical lead and Acid Rock Specialist for the design and construction management team to perform site characterization and provide material handling plans for three open cuts to remove railroad tunnels. The project included highwalls up to 400 feet that intercepted 2 to 6 acid producing strata. Mr. Williams was responsible for the evaluation, including characterization of site conditions and development of laboratory testing program to determine the extent of the acid producing strata on this project. Mr. Williams was also responsible for developing the required remediation plan and modifications to design in order to mitigate the acid producing strata encountered. The project required separation of the acid producing materials. The acid producing strata material was placed in special areas of the fills that were designed to be high and dry and amended with lime. Seepage from the cuts was treated in alkaline ditches to manage acid levels. He also provided oversight and consultation during construction as issues with the acid producing strata arose.

Project Name:	Acid Drainage Remediation, Big South Fork National River Recreation Area	Start Date: End Date:	2001 Ongoing
Project Role:	Lead Engineer		0
Client/Owner:	National Park Service	With Current Firm?	Yes

Under an IDIQ contract with the U.S. Department of Energy National Energy Technology Laboratory, and on behalf of the National Park Service, Mr. Williams has served as the **Technical Lead And Lead Investigator** for the design and NEPA documentation of remedial actions to abate acid drainage at nine remote sites in this national river recreation area. Mr. Williams has been responsible for developing site investigation plans and laboratory testing programs to provide site characterization of the acid producing strata on the site. He also was responsible for conducting site inspections, topographical surveys, and additional surface water analyses. Mr. Williams prepared conceptual designs to remediate each site using either source controls or passive treatment technology. Remediation techniques developed by Mr. Williams included site grading and capping, slurry cut-off walls, vertical flow wetlands, anoxic limestone drains and steam grouting. Mr. Williams is also providing oversight and consultation during construction as issues with the acid producing strata arose.

Project Name:	Sequatchie Valley Coal Mine	Start Date: End Date:	2006 2010
Project Role:	Project Manager	Lind Dute.	-010
Client/Owner	Sequatchie Valley Coal Company	With Current Firm?	Yes

For more than two decades, Mr. Williams served as **Project Manager** and lead preparer of more than 200 coal mining permits involving acid producing rock identification, segregration, treatment and disposal. One such project is the Sequatchie Valley Coal Mines, for which he served as project manager for reclamation plans to obtain bond release on 1500+ acre surface mine site with acid mine drainage (AMD) problems. In addition to AMD produced by pyritic shales the site included a sandstome member that contained siderite (FeCO<sub>3</sub>) that was masking the total acid producing nature of the stratas. Mr. Williams developed revised procdures for acid base accounting to account for siderite. He was responsible for developing and conducting site characterization strategies for ground and surface water monitoring and modeling. Mr. Williams developed the overall treatment plan and strategies and negotiated applicable permits for construction. He designed passive and chemical control/treatment systems for point sources and aerial discharges. Mr. Williams was responsible for QA/QC during construction of treatment systems including 4000 ton ALD, aerobic wetlands and numerous source controls such as backfill dewatering.

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.

# **Work History Forms**

#### ATTACHMENT 3.4.1(a)

### **LEAD CONTRACTOR - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design	c. Contact information of the Client or	d. Contract	e. Contract	f. Contract Value (in thousands)		g. Dollar Value of Work
	consulting firm responsible for the	Owner and their Project Manager who can	Completion	Completion	Original Contract	Final or Estimated	Performed by the Firm identified
	overall project design.	verify Firm's responsibilities.	Date	Date (Actual	Value	Contract Value	as the Lead Contractor for this
			(Original)	or Estimated)			procurement.(in thousands)
Route 221 Roanoke County, VA	Virginia Department of Transportation	Virginia Department of Transportation P.O. Box 3071 Salem, VA 24153 Project Manager: Mr. Jeff Echols, P.E., Area Construction Engineer Email: jeff.echols@VDOT.virginia.gov	08/2013	10/2013	\$20,130	\$20,900	\$20,900

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

#### **ENGLISH ROLE**

**W. C. English, Incorporated** was the Lead Contractor for this project consisting of two miles of reconstruction, widening, and realignment of Route 221 at Bent Mountain in Roanoke County. It included 286,000 CuM of excavation, of which 205,200 CuM was rock, three bridges (two on Route 221 and one on Cotton Hill Road), over 15,000 tons of asphalt paving, storm drainage (6,900' pipe), one double box culvert, MSE Walls and a soldier pile retaining wall. English self-performed all of the exaction, storm pipe, box culvert extensions, retaining walls, and bridges.

#### **PROJECT FEATURES**

- Two miles of reconstruction, widening, and realignment
- 286,000 CuM of excavation, mostly rock
- Bridges, box culvert extensions and retaining walls
- Mountainous terrain
- Phased traffic control
- Temporary Drainage issues

From the start, this project had challenges where construction operations impacted the traveling public. As clearing began, the debris was cut and had to fall in the middle of existing Route 221. As soon as the excavation began, blasting operations were directly adjacent to the live traffic. In both instances extensive maintenance of traffic planning and implementation had to take place for these activities. The bridge construction contained their own challenges. The locations of the structures and the natural terrain in the area made access for all needed resources to include personnel, equipment, and materials extremely difficult. The access issues for the bridges also included several stream crossings that had to be built sufficiently enough to move large cranes and all materials to include rebar, forms, piling, ready mix, and the girders for the superstructure. The stream crossings also had to be built and maintained in such a manner to survive extreme storm events in mountainous terrain where such events create considerable runoff.



Bridge Construction along the new alignment of Rte. 221

The Phasing of the project included building the bridges and part of the roadway on new alignment and shifting traffic when this section was completed. The second phase involved building the connections in two phases as traffic was shifted to allow room to complete the construction.



Excavation of the new Rte. 221 alignment

#### **SCOPE & COMPLEXITY SIMILARITIES**

- Construction Manager
- Extensive Maintenance of Traffic Issues
- Phased Construction
- Major Widening of Heavily Traveled Road
- Extensive Blasting Operations and Rock Excavation
- Variable Subsurface Conditions
- Maintenance of Traffic Constraints
- Safety of workers and the travelling public was the top priority
- Construction over and near environmentally sensitive areas
- Challenging geotechnical conditions

# VERIFIABLE EVIDENCE OF GOOD PERFORMANCE & SUCCESSFUL DELIVERY

The difference in the original and actual completion dates was due to a cut slope that was installed per plan and then failed after construction. English worked with VDOT to devise a solution to the problem that included excavating 24,000 CY of material off of the slope to stabilize the situation. Through the resolution of this issue the contract time was adjusted to reflect the approved and actual completion shown above.

#### ATTACHMENT 3.4.1(a)

#### **LEAD CONTRACTOR - WORK HISTORY FORM**

#### (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design	c. Contact information of the Client or	d. Contract	e. Contract	f. Contract Value (in thousands)		g. Dollar Value of Work
	consulting firm responsible for the	Owner and their Project Manager who	Completion	Completion	Original Contract	Final or Estimated	Performed by the Firm identified
	overall project design.	can verify Firm's responsibilities.	Date	Date (Actual	Value	Contract Value	as the Lead Contractor for this
			(Original)	or Estimated)			procurement.(in thousands)
North Gayton Road Design- Build	County of Henrico	<b>County of Henrico, VA</b> 4301 E. Parham Road	04/2012	12/2012	\$38,600	\$38,600	\$38,050
Henrico County, VA		Henrico, VA 23228					
		Phone: 804-501-5985					
		Project Manager: Rob Tieman					

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on <u>this</u> Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

#### **ENGLISH ROLE**

**W. C. English, Incorporated** was responsible for the overall project management of the North Gayton Road Design-Build project, an estimated 2.10 mile stretch that continues across Pouncey Tract Road and terminates at the intersection of Shady Grove Road and Twin Hickory Drive. The project involved the widening of the existing 2-lane facility to 4 lanes at both ends of the project. The 4-lane divided typical section required a closed drain system and called for a shared use path to provide additional means for pedestrian and bicycle transportation. Two arch culverts with extensive rock excavation were also constructed.

This project encompassed design, environmental assessment and permitting, a traffic management plan, Right-of-Way acquisition, coordination and construction of private/public utility relocations, quality assurance/quality control, and public involvement. An extensive traffic management plan was required for traffic control and phasing was required to construct the widening of Shady Grove Road and intersection reconstruction at both Pouncey Tract Road and Broad St.

Highlights and challenges to this project included a detailed MOT plan to accommodate construction. The MOT plan not only had to accommodate the existing thru traffic but also countless private residential and church entrances due to the high population and development throughout the project footprint. Private utility relocations presented a variety of challenges, as relocation of nearly a mile of overhead Dominion power lines, Comcast and Verizon lines, and City of Richmond Gas. These utility relocations necessitated synchronization with construction and scheduling, with a total value of over \$1M. Construction work had to be performed to accommodate the relocations and in some cases, had to be performed while the relocations were taking place. Also, poor soils were present throughout the project and under cutting these materials became a major component of the grading operation and a driver in the ultimate pavement design.

With over 70 parcels of right-of-way acquisition, the Design-Build team's involvement was critical. English participated in all public hearings for the project and met with each individual property owner through the duration of the project. English's greatest challenge was prioritizing acquisition to coincide with construction phasing and extensive utility relocations. The use and management of a detailed CMP schedule that included activities for each parcel was key to the success and delivery of the project.

#### **PROJECT FEATURES**

- Design-Build for 2.1 miles of widening
- 3,100,000 CY of excavation
- Bridge Construction over I-64
- Two Arch Culverts
- Five Signalized Intersections
- Extensive ROW acquisition
- Utility Relocations
- Permitting
- Traffic Management Plan / Maintenance of Traffic



New alignment of North Gayton Rd. at the intersection of Bacova Dr.

#### **SCOPE & COMPLEXITY SIMILARITIES**

- Design-Build
- Widen existing 2 lane to 4 lane divided
- Extensive and complicated maintenance of traffic
- Phased Construction
- Major Widening of Heavily Traveled Road
- Rock Excavation
- Maintenance of Traffic Constraints
- Culvert Construction
- Construction over and near environmentally sensitive areas
- Permitting Issues
- Third Party coordination
- Right-of-Way acquisition
- Significant utility conflicts and coordination (Public and Private)
- Public Relations / Public Involvement

# VERIFIABLE EVIDENCE OF GOOD PERFORMANCE & SUCCESSFUL DELIVERY

At the request of the owner the price was reduced by roughly \$2,000,000 without any change to the scope. Subsequently the owner then added back to the contract just under \$2,000,000 of additional work consisting of aesthetic improvements, additional access to adjacent property owners requested during ROW negotiations, additional waterline, and a shared use pedestrian path. Do to the negotiation of the price reduction and the additional work added the project completion date was adjusted as shown above and completed on time and as noted above with the contract values, under budget.

#### ATTACHMENT 3.4.1(a)

#### **LEAD CONTRACTOR - WORK HISTORY FORM**

#### (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design	c. Contact information of the Client or	d. Contract	e. Contract	f. Contract Value (in thousands)		g. Dollar Value of Work
	consulting firm responsible for the	Owner and their Project Manager who	Completion	Completion	Original Contract	Final or Estimated	Performed by the Firm identified
	overall project design.	can verify Firm's responsibilities.	Date	Date (Actual	Value	Contract Value	as the Lead Contractor for this
			(Original)	or Estimated)			procurement.(in thousands)
US 321 Contract C201115 Caldwell County, NC	North Carolina Department of Transportation	North Carolina Department of Transportation Phone: (828) 265-5088 Project Manager: Doug Eller Email: <u>deller@ncdot.gov</u>	08/2008	06/2011	\$63,421	\$68,061	\$68,061

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on <u>this</u> Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

#### **ENGLISH ROLE**

**W. C. English, Incorporated** was the Lead Contractor for this project consisting of the reconstruction and widening of 6.6 miles of Rt. 321 from 2 lanes to 4 lanes between Lenoir and Blowing Rock, NC. It included 3,100,000 CY of excavation, of which roughly 2,000,000 CY was rock, specialty rockwork, 10 retaining walls and two box culverts. W. C. English was the Prime Contractor for this work responsible for 100% of the contract value and self-performing more than \$35,000,000 of the value, which consisted primarily of the excavation, rock crushing/processing, retaining walls, and maintenance of traffic.

Maintenance of traffic on US 321 throughout the life of this project was a major consideration. Route 321 was only allowed to be closed and detoured for two hours (noon-2pm) on Tuesdays and Thursdays. Rock blasting typically consisted of setting off shots on existing cut slopes, which in turn threw the shot material into the middle of the existing open roadway. The shot had to be pulled, the roadway cleaned, in some cases



Paving and Retaining wall construction along Rte. 321

the roadway repaired from any damage that the falling material caused, and then the roadway opened back up to traffic, all within the two hour window. There were extensive liquidated damages that were to be incurred every hour beyond the allowable time. Extensive planning and coordination had to take place to ensure each shot was ready on time, detours, and all resources, manpower and equipment were in place, to do whatever it took to reopen the roadway to traffic. Proper planning had to also focus on the size of the blast itself. Enough material needed to be shot in the 2 hour windows twice a week to provide enough material to move productively for the entire week. Safety was a paramount concern because of the nature of the rock and the way some existing slopes overhung the travel way. This very difficult part of the job was handled flawlessly, facilitated by a great partnering effort by both English and VDOT.

One unique feature of the project was that English not only excavated all of the rock material, but that material was also crushed and processed onsite. The processed material was a certified NCDOT ABC product. The quantity of the processed material was above the original quantity of ABC required for the project and, due to the surplus quantity, English worked with the NCDOT to value engineer a use for this material. The final use lead to an increase in the thickness of the ABC layer within the pavement structure and a reduction of asphalt for the project as well as a reduction in the cost of the overall pavement structure.

#### **PROJECT FEATURES**

- 6.6 miles of widening and reconstruction
- 3,100,000 CY of excavation, mostly rock
- 200+ ft. cut slopes
- Excavated material was crushed and processed onsite
- 10 retaining walls and two box culverts
- Significant maintenance of traffic considerations



Rock excavation Rte. 321

#### **SCOPE & COMPLEXITY SIMILARITIES**

- Construction Manager
- Extensive Maintenance of Traffic Issues
- Phased Construction
- Major Widening of Heavily Traveled Road
- Extensive Blasting Operations and Rock Excavation
- Variable Subsurface Conditions
- Maintenance of Traffic Constraints
- Culvert Construction
- Safety of workers and the travelling public was the top priority
- Construction over and near environmentally sensitive areas
- Challenging geotechnical conditions.
- Adjoining Federal Land Pisgah National Forest

# VERIFIABLE EVIDENCE OF GOOD PERFORMANCE & SUCCESSFUL DELIVERY

The difference in the original and actual completion dates was due to numerous delays to the project that were beyond the control of English. The variable nature of the rock material created issues with unstable rock cut slopes at various locations and variable subsurface conditions created issues for many of the structures and the subgrades. These unpredictable rock features also required that the sequence of construction be changed from what was in the original plans. The ultimate resolution for these subsurface conditions was to realign portions of the roads centerline to overcome and avoid many of the issues identified. Extensive utility delays also created issues for the project schedule and the sequence of construction. The entire list of issues and the extensive effort on behalf of English and the NCDOT allowed for successful resolution in order to close all outstanding issues and to adjust the contract completion date.

# ATTACHMENT 3.4.1(b)

# **LEAD DESIGNER - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Valu Construction Contract Value (Original)	e (in Thousands) Construction Contract Value (Actual or Estimated)	g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)
<b>US Route 460 Phase I</b> <b>Design-Build</b> Buchanan County, VA	Bizzack Construction, LLC	Virginia Department of Transportation 870 Bonham Road Bristol, VA 24201 Amanda Cox, PMP (276) 669-6151 Amanda.Cox@VDOT.Virginia.gov	08/2009	09/2015	\$113,000	\$113,000	\$5,800

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. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts shall not be evaluated.

#### **AMT ROLE**

AMT was the **lead road designer and construction quality assurance manager (QAM)** for this \$113 million designbuild project in southwestern region of Virginia. The US 460 Connector will ultimately link federal highways in Virginia and Kentucky along a route known as "Corridor Q," a part of the Appalachian Development Highway System. AMT provided and oversaw all highway design services (roadway, drainage, phasing/traffic control, signing, stormwater management, erosion and sediment control, and utilities) of this four lane Rural Principal Arterial with connections to local routes and other local roadway improvements.

AMT provided design services for the US 460 Connector and realignment of Route 80 connecting the current roadway with the new US Route 460 Connector Phase I project. The project includes 1 mile of new Connector roadway and 0.56 miles of widening and realignment of Route 80. Services included roadway design, hydraulic design and erosion and sediment control plan development. The project also includes three



New US 460 Connector Roadway Pavement Placement

bridges: twin 1,733 foot long cast-in-place hollow box concrete structures crossing Grassy Creek and Route 610 at a maximum height of 267 feet, and a 300 foot long bulb-T girder bridge crossing Hunts Creek. The widening of the shoulders and clear zone of Route 80 for safety improvements was also included. MSE retaining walls were designed in areas where right of way or environmental features were a concern.

The roadway is cut into steep terrain with benched side slopes engineered to minimize earthwork and disturbance to the environment. To address the extensive earthwork needs stemming from the terrain and topography, approximately 2.6 million cubic yards of excavated material was placed in an engineered waste area on the project site. Stormwater management facilities and erosion control features were designed to minimize impacts to sensitive local streams and to control increases in stormwater runoff as a result of the large footprint of the project.

AMT provided roadway design and coordinated closely with members of the structural engineering team throughout the project. We developed more than 50 construction packages to address the roadway, drainage, utility and traffic control related needs under our purview. In addition to the standard construction packages, due to the unique soil and subsurface conditions in the area, AMT prepared Well and Surface Mining Plans. AMT prepared the Transportation Management Plan (TMP), and also provided Construction Quality Assurance for testing and/or inspection of items of construction work for conformance with the contract plans and specifications. Another aspect of AMT's scope included leading the preparatory meetings for several important items of construction, including Erosion/Sediment Control, Clear and Grub, Permanent Re-vegetation, Traffic Control and Drainage Installation.

#### **PROJECT FEATURES**

- A 0.8-mile four-lane divided highway (US Route 460) starting at the Kentucky State Line.
- An access ramp to Route 80, improving access to Breaks Interstate Park. This includes the construction of a bridge crossing Route 768.
- Secondary connections to Routes 609 and 693 from Route 80, including:
  - Connection to existing Route 80
  - Overlay and improvement along existing Route 80
  - o Relocation of existing Route 693
  - Relocation of existing Route 768
  - Relocation of existing Route 609
- New connection of Route 768 with relocated Route 609
- Twin high-level bridges, 1700 linear feet in length, located over Conaway Road (Route 610) and Grassy Creek. When completed the over 250-foot-high bridges will be the tallest in Virginia.



New US 460 Connector Roadway Base Asphalt & Temporary Guardrail

#### **SCOPE & COMPLEXITY SIMILARITIES**

- One of the three most urgently needed infrastructure improvement projects for the region
- Close coordination between roadway designer and contractor
- Design-build delivery method
- Extensive earthwork: > two million CY
- Unique soil and subsurface conditions
- Significant sized project \$113 million
- VDOT project

# VERIFIABLE EVIDENCE OF GOOD PERFORMANCE & SUCCESSFUL DELIVERY

- AMT received a letter of recognition from VDOT's Project Manager, Amanda Cox, PMP, for excellent performance.
- AMT gained valuable experience working on VDOT's largest active design-build contract at the time. AMT structured its electronic filing system to enhance internal file sharing, access, and review to facilitate extensive QC and QA reviews. AMT designers also extracted information from the construction team members who may not normally be fluent in design terminology. AMT also worked in a fast paced design environment where multiple designers were advancing concepts concurrently, requiring regular communication and cross-discipline reviews.
- Construction phase staff were involved with all the design staff early and often to provide constructability reviews.

#### **OFFICE(S) WHERE DESIGN WAS PERFORMED**

The Design and QAM services were provided from AMT's Abingdon and Verona offices.

# ATTACHMENT 3.4.1(b)

# **LEAD DESIGNER - WORK HISTORY FORM**

# (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Val Construction Contract Value (Original)	ue (in Thousands) Construction Contract Value (Actual or Estimated)	g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)
<b>Design-Build US Route 1</b> <b>Improvements at Fort Belvoir</b> Fairfax County, Virginia	Corman Construction, Inc. / Wagman, Inc. Joint Venture	Eastern Federal Lands Highway Division / Virginia Department of Transportation Thomas E. Shifflett 21400 Ridgetop Circle Sterling, VA 20166; 703-404-6323 Thomas.Shifflett@dot.gov	06/2013	Dec. 2016 (Substantial Completion)	\$70,000	\$76,000	\$6,314

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. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

#### **AMT ROLE**

AMT is the Lead Prime Designer and Construction Quality Control Manager for this \$70 million design-build project in northeastern region of Virginia, which provides traffic relief and safety for the ongoing BRAC consolidation occurring in the vicinity of Fort Belvoir. The Route 1 Improvements project implements a series of enhancements along Route 1 from the Telegraph Road intersection north to /Mt Vernon Memorial Highway for a distance of 3.68 miles. These improvements generally widen Route 1 from four to six lanes, provide a one-mile new alignment, improve intersection safety, operations and capacity with new traffic signals and turn lanes, and provide parallel pedestrian and bicycle facilities for the entire length. In addition, this project has new bridges over Accotink Creek, several wildlife crossing structures under Route 1, and removal of an existing military railroad crossing.

AMT's design of improvements utilizes the existing pavement to the maximum extent possible. Through the use of milling, overlay, and build-up in area where allowable, proposed maintenance of traffic was greatly simplified requiring smaller shifts in traffic to address grade changes at the curb line and provide widening as needed. In areas of complete reconstruction, AMT developed a bifurcated roadway profile to help minimize earthwork and limit impacts on the adjacent Fort Belvoir and other historic properties. AMT also provided phase drainage/culvert construction plans, creative stormwater management approach to minimize the number of facilities (using the "1 percent rule" and nutrient banking), and advance grading packages to facilitate early utility construction.

The project is coordinated with several projects administered by others - North Post Access Control Point (Fort Belvoir), Lyndam Hill Development, Accotink Village and Mulligan Road. Twenty-five parcels required either partial or total acquisition, and more than 100 tenants were provided relocation as part of the design build project, under the management of AMT.

Highway design services (roadway, drainage, phasing/traffic control, signing, stormwater management, erosion and sediment control, and utilities) are provided by AMT. Utility protection/relocation including designation and test holes for the existing utilities are also provided by AMT. AMT is also providing the Construction Quality Control Manager for the project. This includes managing/providing quality control inspection and testing services.



# Sequence of Construction Summary

#### **PROJECT FEATURES**

- An improved 3.68-mile six-lane divided highway (US Route 1), including a widened raised median to accommodate future transit
- Twin bridges, 332 linear feet in length, lifting the existing roadway out of the Accotink Creek Floodplain
- Extensive TMP to provide safe and efficient traffic flow during construction
- More than 300 drainage structures, 5 miles of storm drain pipe, 5 SWM ponds, and extensive E/S control (phased with MOT)
- Permits for multiple impacts to stream channels (500 LF) and wetlands (approximately 1 acre), with time of year restrictions
- Relocated Utility poles along entire alignment





**Route 1 Construction Progress Photos** 

#### **SCOPE & COMPLEXITY SIMILARITIES**

- Design-build delivery method
- Significant size project \$70 million
- VDOT owned and maintained
- Combination of both thru and local traffic
- Strategic maintenance of traffic and phasing
- Offset roadway alignment/widening, with extensive new drainage systems to be built and "daylighted" while maintaining traffic
- Extensive Right-of-Way Acquisitions
- Utility relocations (pole lines, gas, and others)
- Innovative stormwater management approach
- Coordination with adjacent projects

#### **VERIFIABLE EVIDENCE OF GOOD PERFORMANCE &** SUCCESSFUL DELIVERY

- AMT structured its delivery of the project to provide parts of the project immediately available for construction and delaying portions of the project to allow for adequate time for outreach and community input while obtaining the necessary approvals.
- Excellent community feedback on social media, for example: "Thank you so very much for the work efforts made in the design and construction of U.S. Route 1. You have provided posters, maps, and scale models to allow us to understand ... the proposed infrastructure changes. Project Team members have shared information and answered questions at scheduled meetings and programs in communities like mine. There have been creative and safe detours and temporary closures with signs providing news regarding current and future changes. Use of the orange cones/barrels and construction vehicles has been exceptional!"

#### **OFFICE(S) WHERE DESIGN WAS PERFORMED**

The Design services were provided from AMT's Chantilly, Washington DC, and Richmond offices and the Project Field Office.
## ATTACHMENT 3.4.1(b)

## **LEAD DESIGNER - WORK HISTORY FORM**

## (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in Thousands)		
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)
<b>New Interchange and Roadway</b> <b>Improvements at Southgate</b> <b>Drive and US 460 Bypass</b> Blacksburg, VA	Branch Highways, Inc.	Virginia Department of Transportation Phillip Hammack, PE 731 Harrison Avenue Salem, VA 24153 540 378-5041 Phillip.Hammack@VDOT.Virginia.gov	April 2015	12/2018 (Est.)	\$46,700	\$46,700 (Est.)	\$4,916
h. Narrative describing the Wo subconsultant. The Work Histo segments, elements, and/or con	rk Performed by the Firm identified as th ory Form shall include only one singular tracts, the SOQ may be rendered non-res	ne Lead Designer for this procurement. In project. Projects with multiple phases, s sponsive. In any case, only the first phas	nclude the office loca segments, elements, a se, segment, element,	tion(s) where the de and/or contracts shall and/or contract liste	esign work was perfo l not be considered a ed will be evaluated.	rmed and whether the f single project. If a pro	irm was the prime designer or a bject listed includes multiple phases,
<ul> <li>AMT ROLE</li> <li>AMT provided full design services on this critical roadway improvement project for a overall total of 3.6 miles of roadway alignment, adjacent to Virginia Tech in Blacksburg. The purpose was to eliminate the existing signalized at-grade T-intersection at the heaviest used, primary entrance to Virginia Tech campus. This traffic signal is currently the only signal on the limited access bypass segment of U.S. Route 460 in the Town of the Town of Blacksburg. The intersection experiences significant backups during the moming and evening peak hours as well as during major/special events and hampers through movements along the 460 Bypass, also creating a safety concern due to rear-end collisions. The project provides a grade separated interchange in a new location southeast of the existing intersection to accommodate current and plannet traffic movements and realignment of Route 314 form US 460 to the Virginia Tech campus. AMT is providing the following services, serving as an extension of VDOT staff and performing many reporting and management functions that VDOT would typically self-perform.</li> <li>AMT was the Lead Designer who oversaw, managed and provided the following services:</li> <li>Traffic Analysis, including traffic/crash data collection and analysis, traffic operation analysis, no-build and build forecasts, origin/destination study, safety analysis, and trave time study.</li> <li>Roadway Design and Trail Relocation Design, for a total of 36 miles of roadway alignment, 1.5 miles of "off-line" trail including two grade separated trail crossings, and two reconfigured at-grade intersections.</li> <li>Interchange Justification Report which included alternative grade separation/interchange configurations and assessment for each alternate of the following: meets purpose and need (functionality), geometrics, traffic operations (LOS) and sensitivity analysis, safety, right of way impacts, environmental impacts, roadway construction less, utilities, and constructa</li></ul>			<ul> <li>Bridge Design and Retaining Wall Design for one new bridge structure, and up to 4,000 feet of retaining walls, including soil nail and MSE/Reinforced Earth</li> <li>Public and Stakeholder Outreach – AMT, as the lead designer, developed a tailored coordination/ communication plan for each stakeholder. AMT services also included full Public Hearing support including brochure, displays, simulations, and renderings to convey the project to the public</li> <li>Geotechnical Engineering to support bridge foundation design, wall design, and pavement design. Prepared alternative foundation designs as "bid options" due to presence of shallow rock found at some boring locations. Options included drilled shafts, and driven piles in combination with socketed piles.</li> <li>Landscape Architecture/Aesthetic Design to provide a gateway design for the entrance to the University</li> <li>Right of Way plans per VDOT requirements.</li> <li>Utility relocation design per Municipality/Owner Requirements</li> <li>PROJECT FEATURES</li> <li>Roadway widening and realignment for safety and congestion relief</li> <li>Shared-use trail realignment and improvements</li> <li>New grade separation of signalized intersection</li> <li>Significant Maintenance of Traffic/Phasing</li> <li>Extensive Environmental Resource Protection</li> <li>Reconstruction of existing roadways and intersections on Campus with roundabouts</li> <li>Stormwater management meeting the new DEQ requirements</li> <li>Phased erosion/sediment control corresponding to MOT phases</li> <li>Coordination with several adjacent projects in close proximity, including airport runway extension, US 460 Connector, Huckleberry Trail project and power station expansion.</li> </ul>			<ul> <li>single project. If a project listed includes multiple phases,</li> <li>SCOPE &amp; COMPLEXITY SIMILARITIES</li> <li>High profile project, long planned project (&gt;30 years) – located at Virginia Polytechnic and State University main entrance</li> <li>Significant sized project - \$46.7 million</li> <li>Widening within tight ROW, including use of retaining walls to minimize impacts</li> <li>Combination of both thru and local traffic</li> <li>Hard weathered rock encountered throughout project site</li> <li>VDOT project</li> <li>Detailed TMP required to maintain traffic movements during construction</li> <li>Included Safety features such as increased clear zone, traffic barriers, and rumble strips."</li> <li>Utility relocation and coordination</li> <li>VERIFIABLE EVIDENCE OF GOOD PERFORMANCE &amp; SUCCESSFUL DELIVERY</li> <li>Completed PAC milestone within 19 months of NTP</li> <li>Conducted successful public hearings with positive feedback from Virginia Tech, Blacksburg, and VDOT District Administrator</li> <li>Wirginia Tech, Blacksburg, and VDOT District Administrator</li> <li>Actated Southgate Drive (Route 314) under Construction</li> <li>Detated Southgate Drive (Route 314) under Construction</li> </ul>	

