ORIGINAL

STATEMENT OF QUALIFICATIONS

REPLACEMENT OF I-81 BRIDGES OVER RTE. 11, NORFOLK SOUTHERN RAILWAY & MIDDLE FORK HOLSTON RIVER

Smyth County/ City of Atkins, Virginia

State Project No.: 0081-086-818; 0081-086-742
Federal Project No.: BR-081-1(336)
Contract ID Number: C0097555DB102

Due July 12, 2018

Submitted to:

VDOT

Submitted by:

Blythe

TIMMONS GROUP

Section 3.2

Letter of Submittal

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

BLYTHE DEVELOPMENT COMPANY

1415 EAST WESTINGHOUSE BOULEVARD • CHARLOTTE, NORTH CAROLINA 28273 • TEL (704) 588-0023 • FAX (704) 588-9935

July 12, 2018

Commonwealth of Virginia Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 East Broad Street
Richmond, VA 23219
Attention: Suril R. Shah, P.E. (APD Division)

RE: Statement of Qualifications, I-81 Bridges over Rte. 11, Norfolk Southern Railway & Middle Fork Holston River
State Project No. 0081-086-818; 0081-086-742

Dear Mr. Shah:

Blythe Development Company (Blythe) is pleased to submit one original paper version of our Statement of Qualifications (SOQ), ten abbreviated copies of the original paper version, and one CD-ROM containing the entire original in a single PDF file to provide design-build services for the subject project. Blythe has thoroughly reviewed the Request for Qualifications (RFQ).

The following is request information and/or attachments separated by numbered tabs with sections corresponding to the order set forth in Section 3.2

Acknowledgement of Receipt of RFQ, Revisions, and /or Addenda (Form C-78-RFQ) and SOQ Checklist

Completed and included as Attachments 2.10 and 3. 1.2 in the appendix.

3.2.1 Blythe Development Company (Blythe), 1415 E. Westinghouse Boulevard, Charlotte, NC 28273, is the legal entity who will execute the contract with VDOT. Blythe appoints the following:

3.2.2 Richard Kirkman, P.E., Design-Build Project Manager, will serve as the Point of Contact for the Offeror:
1415 E. Westinghouse Boulevard, Charlotte, NC 28273 P: (704) 588-0023 F: (704) 588-9935
rkirkman@blythedevelopment.com

3.2.3 Luke Blythe, Vice President of Operations, will serve as the Principal Officer for the Offeror.
1415 E. Westinghouse Boulevard, Charlotte, NC 28273 P: (704) 588-0023 F: (704) 588-9935
lblythe@blythedevelopment.com

3.2.4 Blythe is a North Carolina corporation, authorized to conduct business in Virginia by the SCC, and will be the sole major participant firm and responsible party to the design-build contract with VDOT. Blythe will hold all financial responsibility for the contract.

3.2.5 Lead Contractor: Blythe Development Company (Blythe). Lead Designer: Timmons Group, Inc. (Timmons)

3.2.6 Affiliated and/or Subsidiary Companies Table (Attachment 3.2.6) is in the Appendix

3.2.7 Certification Regarding Debarment Forms (Attachment 3.2.7(a) and 3.2.7(b)) have been signed and are included in the Appendix.

3.2.8 VDOT Prequalification Certificate (#B 1096, Active) evidence is included in the Appendix

3.2.9 A Surety Letter is included in the Appendix

3.2.10 SCC and DPOR information are listed in Attachment 3.2.1 0 with supporting documentation in the Appendix

3.2.11 Blythe is committed to achieving an 4% DBE participation goal for the entire value of the contract,

Our Team (Blythe and TG) is enthusiastic about the opportunity to participate in the design-build process for the subject project and is confident we will complete this project on time and within budget. Collectively, Blythe and Timmons bring the leadership, skills and shared core values to assist VDOT in delivering a project that sets the standards for others to follow.

Sincerely,

Luther J. Blythe, Jr
Vice President of Operations

Section 3.3 Offeror's Team Structure

Blythe

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3.3 OFFEROR'S TEAM STRUCTURE

With a track record of successfully delivering over $250 million in design-build roadway and bridge projects, Blythe Development Company (BDC) comes to VDOT with a familiar design partner, Timmons Group, Inc. (TG), along with the added depth of highly qualified sub-consultants. Together these firms make up the Blythe Design-Build (DB) Team.

BDC with Timmons Group, has successfully worked with Replacement of Multiple Bridges in Division 11 - Express Design-Build, for North Carolina Department of Transportation. The Ashe County project has complex maintenance of traffic staging, as well as the relocation of a pedestrian bridge. In Watauga County, the project includes advanced hydraulics, integration with a shared-use path, and close coordination with an adjacent family theme park attraction. Therefore, the two firms understand and know how to work with each other's strengths and abilities.

Established working relationships are vital to the success of any DB project. Since the individuals on our Team have a rapport and knowledge of each other's abilities, skills, and working style, the framework for the project implementation is strengthened. This project will not be a "training ground" for the BDC DB Team, but instead will be one additional example of our Team's success.

Additional Subconsultants

Additionally, under subcontract to BDC and Timmons Group are the following highly qualified subconsultants:

- CES Consulting LLC, providing Quality Assurance
- Schnabel Engineering, providing geotechnical engineering
- STV Group Incorporated, providing railroad coordination and structural engineering

3.3.1 KEY PERSONNEL

The BDC DB Team has assembled a team of highly-qualified and experienced individuals and structured them accordingly for optimal performance. Our Key Personnel are identified below and their resumes are in the Appendix.

Design-Build Project Manager (DBPM): Richard Kirkman, PE - Blythe Development Co.

Quality Assurance Manager (QAM): Avtar Singh, PE - CES Consulting LLC

Design Manager (DM): Gary S. Johnson, PE, DBIA – Timmons Group, Inc.

Construction Manager (CM): John Herrin, - Blythe Development Co.

3.3.2 ORGANIZATIONAL CHART & NARRATIVE

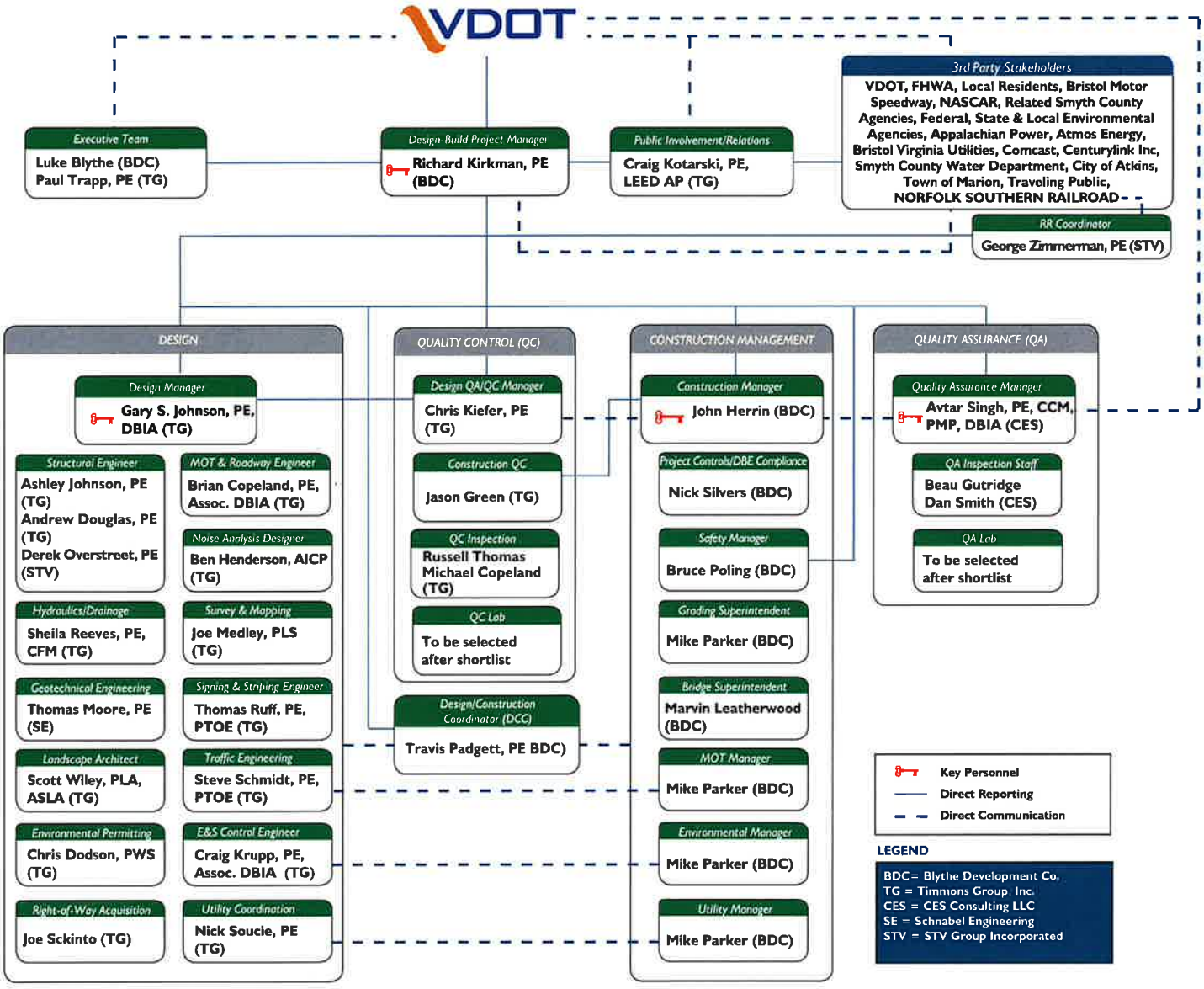
The BDC team is structured to provide VDOT with a single point of contact, our Design-Build Project Manager (DBPM), Richard Kirkman, will be responsible for all design and construction activities and the overall management of this well-integrated team. Our reporting and functional relationships are delineated on the Organizational Chart and further described in this section. The BDC 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, Updated for 2018.*

Commitment to Keeping the Team Intact

Blythe Development Co. (BDC) maintains a culture which promotes longevity among our employees. Our Executive Committee member, Luke Blythe, has been with BDC his entire career of 18 years. Our DBPM, Richard Kirkman, has been with the company for almost a decade and plans on his next 20 years to retirement being with BDC.

3.3 OFFEROR'S TEAM STRUCTURE

BDC understands that VDOT has experienced challenges in maintaining key personnel on DB projects, especially in the CM role. Our proposed CM, John Herrin, is a resident of Asheville, NC which is only 1.5 hours from Bristol. **John, our CM, will create residency in Smyth County for the duration of the Construction phase of this project.** BDC expressly commits John to this endeavor for the life of the project. We also fully commit our other key personnel and key players to the project to ensure consistency and efficient delivery. BDC's philosophy on all our projects is to maintain structure and consistency among our management team through the life of a project.



3.3 OFFEROR'S TEAM STRUCTURE

Functional Relationships

The BDC 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, BDC's DBPM, CM and construction personnel will interface with design counterparts from Timmons Group and subconsultants throughout the entire design and construction phases. Paragraphs describing the functional roles of Key Personnel follow.

Design-Build Project Manager (DBPM), Richard Kirkman, PE has complete authority over all project design and construction matters for the team and will report to the Executive Committee. Richard's 24 years of transportation construction experience, capabilities in team management, and knowledge of VDOT make him an excellent fit for the I-81 Bridge Replacement over Rte. 11 and Middle Fork Holston River. **Richard 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. Richard 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. **Richard will be available up to 100% of the time as required by the project demands.**

Quality Assurance Manager (QAM), Avtar Singh, 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. QAM 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. Avtar 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.

Design Manager (DM) Gary S. Johnson, PE, DBIA will also report directly to the DBPM. He will be responsible for providing a quality product and input into the project schedule, meeting all design milestones and interfaces, and ensuring the Design QA/QC Manager's involvement. Gary is responsible for assuring all design work is performed in accordance with current policies, procedures, and guidelines. He will manage all aspects of design. **He will assign resources as needed, oversee design sub-consultants, coordinate design and review schedules, develop and implement corrective measures, if necessary, and ensure environmental compliance measures are integrated into the design.** Gary will maintain his involvement in the project during construction to oversee any plan modifications and shop drawings, and review construction activities with the CM as work progresses. Gary will utilize his understanding gained as the chairman of the VDOT/VTCA Design-Build Committee and his experience successfully delivering design-build projects with BDC.

Construction Manager (CM), John Herrin will report directly to the DBPM. He will manage the efforts of the on-site construction team including the Construction QC Manager, Safety Manager, Grading and Bridge Superintendents, subcontractors/vendors, and all other trades. 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 and cost control review 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, Richard, 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.**

3.3 OFFEROR'S TEAM STRUCTURE

Additional Personnel & Value-Added Positions

In addition to our Key Personnel, we have assembled a highly skilled team of professionals that have been selected because of their proven competencies in engineering, construction and design-build. Each member was hand-selected based on their experience relative to this project's scope and complexities, as well as their familiarity working together as a team.

Structural Engineer, Derek Overstreet, PE is responsible for delivery of all STV bridge and structure projects throughout Virginia for STV. He has 15 years of design management experience, including the replacement and widening of interstate bridges and projects in karst topography. Derek has led bridge design services for numerous VDOT projects, including the I-95 Bridge Replacement over the Meherrin River, I-581/Valley View Boulevard Interchange Improvements Design-Build, and I-264 Bridge Widening over former Norfolk Southern Railway. In addition, he is serving as project manager for three bridge replacement projects in the Salem District under a VDOT Limited Services Term Contract. Derek will report to the DM.

Railroad Coordinator, George Zimmerman, PE is a railway engineer with more than 35 years of experience on roadway and bridge projects and particular expertise in freight planning, design, and construction management. He manages the firm's relationship with Norfolk Southern, serving as liaison between the firm and the railroad in negotiations and partnerships. Since 1992, Mr. Zimmerman has managed plan review and construction engineering and inspection services for more than 2,000 proposed roadway, bridge, and retaining wall construction projects affecting railway facilities throughout the 22-state Norfolk Southern system. George will report to the DM.

MOT and Roadway Engineer, Brian Copeland, PE, Assoc DBIA brings more than 15 years of experience in the design and management of complex roadway design projects in and around Virginia. Previous design-build project experience includes Timothy T. Day Overlook at the National Museum of the Marine Corps Heritage Center Parkway Extension and Route 1 Improvements in Prince William County, I-95/Russell Road Intersection Improvements and Access Improvements to Ponderosa Gate at Quantico, and Greensville Dominion Power Plant Roadway in Greensville County. Brian will report to the DM.

Geotechnical Engineer, Thomas Moore PE of Schnabel Engineering, has nine years of experience in Virginia and a Master of Science degree from Virginia Tech. Thomas is adept at various transportation related geotechnical analyses including deep and shallow bridge foundations in accordance with AASHTO LRFD methodology, lateral foundation analyses using LPILE, pile driving analyses using GRLWEAP, and slope stability analyses using SLOPE/W. Thomas has a wealth of VDOT bridge experience providing Geotechnical Design Reports (GDRs) in the Bristol, Salem, Staunton and Lynchburg districts. Project experience as lead engineer on bridges with water crossings including I-81 over Reed Creek, Bridge Replacements, Wythe County and Route 20 Bridge Replacement over Slate River, Buckingham County. Thomas will report to the DM.

Public Outreach Manager, Craig Kotarski, PE, LEED AP has over a decade of experience working as a liaison between project teams and stakeholders. He has led public hearings that have ranged from a series of large gatherings in a public auditorium, to a few persons gathered in a local facility. Recent projects include Charlottesville City Market/Mixed-use Development project, West Main Streetscape in Charlottesville, and Turn Lane Warrant Analysis at the Louisa County Sports Complex. Craig will report to VDOT and the DBPM.

Design QA/QC Manager, Chris Kiefer, PE leads Timmons Group's Transportation division that includes engineers, designers and planners focused on transportation issues. He has 30 years of extensive experience designing and managing a wide variety of projects – in and around Central Virginia. DOT experience includes Contract manager for VDOT Central Region Operations On-Call Contract for Traffic Engineering Services, Project Manager for preparation of design-build bridging documents for Braddock/Pleasant Valley Road Intersection Improvements, Fairfax County, VA, and Utility Manager for Greater Richmond Transit Company (GRTC) Bus Rapid Transit (BRT) design-build project in Richmond. Additionally, he was Design Manager for the Virginia Capital Trail Park Phase project. Chris will report to the DBPM and DM.

3.3 OFFEROR'S TEAM STRUCTURE

Design/Construction Coordinator (DCC), Travis Padgett, PE offers more than 28 years of combined construction experience in both highways and bridges. He directs and leads design-build projects ensuring all project activities are in accordance with contract specifications. He interacts with the Design Manager, Construction Manager and owner representatives to complete projects on time and within budget by overseeing the safety program, budgets, schedules, change orders, expenditures and billings. He also assigns and manages project resources including staff resources and equipment. Mr. Padgett served key roles (Quality Manager and Assistant DBPM) as part of the management team overseeing the successful completion of the NCDOT I-73 / PTI Guilford County, NC DB project and is serving in the same role on the NCDOT DB I-40 Widening, Davie & Forsyth Counites, NC. Travis will report to the DBPM and coordinates all aspects of design and construction.

Safety Manager, Bruce Poling will be responsible for the Project's overall safety program. His duties include: setting up customized safety plans for each project upon start-up; regular visits to job sites; oversight and enforcement of safety policies; safety training implementation; maintenance of educational sessions; and involvement with all safety aspects of every project. He has completed both the OSHA 10 Hour Certification and the OSHA 30 Hour Certification as well as numerous other OSHA safety related courses. Bruce will report to the DBPM and communicates with CM.

Executive Committee The Executive Committee consists of Officers of the DB Team firms and will serve as a guiding force and resource to the BDC DB Team. They will ensure that all team partners are on the same page and that proper and sufficient resources are allocated to the project. **Their main objective and focus will be to ensure that the project will be delivered to VDOT in accordance with the contract requirements.** The Executive Committee will meet monthly to discuss the overall progress and performance of the Team.

Design and Construction Team Interaction Throughout the Project

Construction Staff Involvement in Design The Construction Manager and Superintendents will provide over the shoulder reviews of the design during project design development. Their reviews will be focused on phasing, optimizing MOT sequencing, minimizing the construction footprint, constructability, and erosion and sediment control. **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 having the key design leads involved throughout construction, create a true design build approach that will be the key to a successful project.

Design Staff Involvement in Construction Timmons Group will assist BDC 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 project, 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. This will all be strengthened by Timmons Group's role as QC for construction, further giving them a vested stake in successful delivery.

VDOT

Section 3.4 Experience of Offeror's Team

Blythe

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3.4 EXPERIENCE OF OFFERORS TEAM

Blythe Development Company will serve as the Lead Design-Build Contractor. BDC was founded in 1989 and is headquartered in Charlotte, NC as a licensed general contractor specializing in heavy highway and site work construction in Virginia, North Carolina, and South Carolina. BDC performs nearly $275 million in civil improvement projects per year and is currently ranked among the 100 largest privately held corporations in North Carolina, as well as ranked 353rd by Engineering News Record (ENR) in the list of "Top 400 Contractors." BDC self performs erosion control, grading, maintenance-of-traffic (MOT), storm drain, water, sewer, asphalt paving, flatwork concrete, structures, MSE wall, sound wall and culvert construction. They hold employee and public safety to a high standard and our 0.91 EMR ranks BDC in the top of the upper quartile of civil contractors validating our commitment to quality.

Founded in 1953, *Timmons Group, Inc.* is a 550-person, multi-disciplined engineering and technology firm and has been recognized for over twenty years as one of Engineering News Record's (ENR) Top 500 Design Firms in the country. They provide traffic/transportation engineering, structures and bridge design, site/civil engineering, environmental, geotechnical, GIS/geospatial technology, landscape architecture and surveying services to a diverse client base.

Timmons Group operates 13 offices along the Atlantic Coast, including eight locations in the Virginia. In addition to surveying and engineering design, they also provide environmental permitting and compliance, landscape architecture, utility coordination and design, GIS consulting and applications development, value engineering, construction management and resident inspection services.

Timmons Group employs numerous Design Build Professionals as designated by the Design Build Institute of America. In addition, they are honored to have received multiple DBIA awards for several of our projects including the Pentagon Renovation. Recent design build roadway related projects include: I-95/Russell Road Interchange, Quantico, VA; Kingsmill Riverwalk, and Centerville Road/Route 60 Improvements at Warhill Tract, James City County, VA; and Virginia Capital Trail for VDOT.

CES Consulting is a proven leader and expert in the area of Construction Management, Construction Engineering Inspection, and Project Controls. Their company is comprised of 65 experienced and talented engineers and inspectors. CES has been involved with all types of transportation projects including design-build and design-bid-build. They are currently providing the Quality Assurance Manager and Quality Assurance staff for the challenging $120 Million Route 29 Solutions design-build project.

Schnabel Engineering is a leading national provider of geotechnical, dam, and tunnel engineering services. Schnabel has successfully completed investigations on more than 250 highway and bridge projects in Virginia. They have experience with projects located in tight urban areas including the Martin Luther King Expressway extension in Portsmouth, Dominion Boulevard project in Chesapeake, and Route 1 Fort Belvoir project in Fairfax County.

STV has completed 35 D-B projects in the Mid-Atlantic/Southeast region, including the $45M VDOT I-581/ Valley View Boulevard Interchange project, as well as the $95M NCDOT I-485/I-85 Turbine Interchange and $85M NCDOT I-485 Widening projects. For over a half-century, STV has provided a full range of transportation design services for major highway bridges, having designed 40 highway-waterway crossings in excess of 1,000 feet long. STV offers three offices in the Virginia, located in Virginia Beach; Richmond; and Fairfax; employing 275 professionals in the Mid-Atlantic/Southeast region and more than 1,800 professionals nationally. They will provide railroad coordination and bridge design on this project.

EXPERIENCE WORKING TOGETHER

This team was not developed just as a matter of convenience. This team was assembled based on extensive experience of individuals working together, successfully delivering design-build (DB) projects, and the desire to work together again. Timmons Group staff has extensive experience working with BDC staff as well as our proposed Design Manager. Our Design Manager is currently delivering multiple DB bridges with BDC and more specifically with our proposed DBPM. This strong bond between individuals, mutual respect, and a desire to work together will serve VDOT well in the successful delivery of this project.

3.5 Project Risks

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3.5 PROJECT RISKS

RISK #1 – RAILROAD COORDINATION

Why this Risk is Critical As identified in the RFQ, railroad coordination is a significant project risk that must be properly assessed, analyzed, managed, and monitored. This project will involve bridge demolition and construction activities adjacent to and over an existing Norfolk Southern (NS) mainline track, which will require close coordination with NS during design and construction. Our past experience has shown that the accurate and timely communication of information with NS will improve planning, expedite approvals and aid in the successful completion of the project.

The existing I-81 bridges span over a single NS mainline track located at Railway Milepost NB-356.83. The existing railroad right-of-way width is approximately 105 feet where I-81 crosses the NS corridor. There is an existing public highway-rail crossing located west of the existing bridges where Route 685 (Flowing Spring Road) crosses the single NS track. There is also a private highway-rail crossing located approximately 900 feet east of the existing I-81 NBL Bridge.

Risk Impact The NS Public Projects Manual outlines railroad policies, requirements, criteria, and standards for the design and construction of projects being constructed over, under, or adjacent to NS. Compliance with the NS guidelines is required in order to achieve uniformity in the preparation of construction documents and to expedite the review and approval by the railroad of design and construction submittals.

NS has a standardized process that must be followed, and the durations for numerous design and construction reviews must be properly accounted for in the project schedule and achieved in order to minimize the potential for project delays. All design submissions, construction submittals, and insurance documents must be complete so as to minimize the potential for additional information requests or rejection by the railroad. It is important to note that NS reviews design submissions and construction submittals for public projects throughout the 22 states in which they operate. Each submittal is reviewed based on when the railroad receives the submittal. NS will not prioritize the review of submittals simply because a project is behind schedule.

Additionally, understanding the process for scheduling a flagman is also critical as it can take up to 30 days to obtain a flagman due to union rules. The demand for railroad flagmen has also been elevated in recent years due to the high number of public projects occurring throughout the NS system. NS is now optionally using "observers" in place of flagmen when no track time is required. The use of observers is at the discretion of the railroad, but would typically allow certain construction activities to occur without flagmen. However, any work occurring over the track such as beam/girder erection, hoisting operations, and demolition work would require a NS flagman to be present. If NS is unable to provide a railroad flagman then the construction schedule could be adversely impacted. Further, with NS changing their policies regarding flagmen and observers, there's a risk the process may change again, which could further impact project scheduling.

In order to obtain Norfolk Southern's approval of the project, the design must meet railroad requirements and constructability must be considered in the design. This includes site access, crane and equipment requirements, girder splice locations, support tower requirements, and accommodations for the number of tracks, future tracks, access roads, maintenance roads, and number of daily train movements.

The NS Strategic Planning Department has classified the NS line within the project limits as a super core line, which means that it may need to be protected for a minimum of three mainline tracks (two future tracks) plus any additional tracks due to local needs (industrial development, etc.). The requirements for maintenance roadways will also need to be established. Understanding the railroad's future improvements is critical to establishing the required span lengths over the railroad, the type of superstructure, and the location of substructure units adjacent to the railroad for the new structures. If these requirements are not properly coordinated with the railroad then it could impact the schedule and costs for the Design Builder.

Buried railroad utilities must be located by NS as "One Call" services do not locate buried railroad utilities. Buried railroad utilities are vital to the railroad's communication and signal network, and damage to these systems can result in delays to trains and fines issued by the railroad for such delays. The railroad also has buried utilities

that control highway-rail grade crossing warning systems. Damage to these underground railroad utilities can cause highway-rail grade crossing warning systems (i.e., flashing lights with gates) to malfunction and potentially impact the safety of both railroad and highway operations.

NS places the highest priority on safety for its employees and for the public. NS has the sole authority to determine the need for flagging required to protect its operations. If a contractor works within distances that violate instructions given by the railroad's authorized representative or performs work that has not been scheduled with the railroad's authorized representative, a flagman or flagmen may be required full time until the project is completed. This can result in a substantial cost impact on a project. Failure to follow the railroad's authorized representative instructions could also adversely affect train operations and result in fines by the railroad.

Mitigation Strategies With a focus on safety, the accurate and timely communication of information with NS, and minimizing impacts to NS operations, our team will implement the following mitigation strategies to minimize or eliminate railroad coordination impacts:

Railroad Coordinator – As indicated on the organizational chart, we have added a Railroad Coordinator position to the project. Our Railroad Coordinator will keep the NS Engineer-Public Improvements and the NS Division Engineer (or their authorized representative) apprised of the project schedule, upcoming flagging needs, and major work activities such as demolition and erection operations. These railroad coordination activities will be led by George Zimmerman, P.E. with STV Incorporated (STV). For the past 30 years, STV has been providing on-call services over, under, and along the NS rail system, throughout the 22 states in which they operate including oversight on public improvement projects. STV assists NS during the preliminary engineering phase with office coordination, estimating, agreement review and plan review. During the construction phase, STV represents NS with on-site field inspections, regularly performs reviews of contractor submittals, and coordinates NS forces as needed where work is required to be completed by the railroad.

Project Work Plan and Schedule – Our team will work directly with NS to develop a work plan and schedule that incorporates NS's availability and schedule requirements. The work plan and schedule will include both design and construction related activities that impact the railroad. Our team will hold a preconstruction meeting with NS to identify key personnel and contact information, identify required submittals, and review the Special Provisions for Protection of Railway Interests.

Design to Minimize Railroad Impacts – Our team intends to evaluate bridge types and span arrangements that will meet the project requirements and minimize both short-term and long-term railroad impacts to the greatest extent possible.

Minimum Vertical Clearance – Railroad track maintenance activities have a tendency to raise the profile of a track over time, which can have an impact on meeting the required minimum vertical clearance over the track if maintenance work has occurred since the top of rail survey data was originally collected. NS may require a minimum vertical clearance that exceeds 23'-0" if a dip in the track has been introduced due to an existing vertical clearance restriction (e.g., the existing bridges). We will review existing survey data and conduct supplemental surveys to verify the top of rail elevations 500 feet on either side of the proposed bridges in order to confirm early in the design process that additional vertical clearance does not need to be provided. Our standard practice is to set the roadway profiles and bridge superstructure depths such that the minimum required vertical clearance required by the railroad is slightly exceeded. In addition, all as-built bridge seats and top of rail elevations will be surveyed and furnished to NS for review and verification at least 30 days in advance of the beam/girder erection to confirm that the minimum vertical clearances, as approved on the plans, will be achieved.

Pier Locations – The location of all piers will be selected to accommodate requirements specified by NS for future railroad corridor improvements, such as additional tracks and maintenance roadways. Piers will also be located to eliminate the need for crashwalls, facilitate and simplify the erection of beams/girders, and minimize the need for excavation shoring systems to support the NS track. This will help reduce the number of construction submittals requiring review and approval by NS, and will allow for more conventional means and methods of construction to be used.

3.5 PROJECT RISKS

Drainage – Drainage encroachments on the railroad's right-of-way will be avoided to the extent possible.

Erosion Control – The bridge and roadway plans will include the proposed methods of erosion control to prevent silt accumulation in the railroad's ditches and culverts and to prevent fouling the track ballast and sub-ballast.

Buried Railroad Utilities – Since "One Call" services do not locate buried railroad utilities, our team will contact NS to locate and mark any existing railroad utilities within the project limits, so we can develop design solutions to avoid impacting their existing facilities. During construction, we will request NS to continuously mark the railroad utilities within the project limits, so they can be avoided.

Independent Design Plan Reviews by Railroad Coordinator – The NS Public Projects Manual requires design documents to be submitted to NS for review and approval at the 30%, 60%, Right-of-Way, and 100% design levels. According to the NS Public Projects Manual and our past experience, each design package review by the railroad can take up to 4 weeks to complete and receive railroad acceptance and/or comments. In order to improve the probability of the railroad's acceptance of the various design packages, our Railroad Coordinator will conduct an independent review of the design documents from Norfolk Southern's perspective prior to submitting any design documents for review and approval. These independent reviews will be performed by STV's design staff who routinely perform design plan reviews on behalf of NS on similar public improvement projects.

Pre-Review of Construction Submittals by Railroad Coordinator – NS will require construction submissions for any activities that have the potential to foul the NS track, impact NS operations, or disturb NS right-of-way. Examples of construction submittals required to be submitted to NS for review and approval include, but are not limited to the following:

- General Project Means and Methods/Construction Phasing
- Construction Excavation & Shoring
- Debris Shielding
- Demolition Plan
- Erection Plan
- Erosion Control
- Roadbed Protection
- Emergency Action Plan

According to the NS Public Projects Manual and our past experience, the railroad's review of construction submittals can take up to 30 days to complete. To improve the probability of the railroad's acceptance of the various construction submittals, our Railroad Coordinator will perform a pre-review of the construction submittals from the railroad's perspective prior to submitting any construction submittals to NS for review and approval. These pre-reviews will be performed by STV's design staff who routinely perform construction submittal reviews on behalf of NS on similar public improvement projects.

Project Specific Safety Plan – Our team will develop a Project Specific Safety Plan that addresses NS work requirements, NS emergency contacts, required NS safety briefings by the assigned railroad representative and construction staff, NS fall protection requirements, and the minimum personal protective equipment required by NS. The plan may also include requirements for erecting orange safety fencing and/or silt fence between the work areas and the NS track in order to provide a visual barrier to warn workers and equipment operators of the foul zone of the track. The plan will also include areas where vehicles, equipment, and/or materials are prohibited from being stored so as to not block the line of sight of train conductors and the at-grade crossings.

Role of VDOT/Other Agencies We anticipate that VDOT will execute a Preliminary Engineering Agreement with NS prior to issuing Notice to Proceed to the Design Builder in order to allow our team to immediately begin communicating with the NS Engineer-Public Improvements, or their authorized representative. While the specifics are anticipated to be outlined in the RFP, we anticipate that VDOT will reimburse NS for preliminary engineering costs and expenses incurred on preliminary engineering activities as defined in the NS Public

Projects Manual. Once NS has approved the project for construction, VDOT will execute a Project Agreement with NS in a timely manner. VDOT will reimburse NS for costs and expenses incurred during construction including, but not limited to construction engineering, accounting, and flagging services. It is anticipated that VDOT will provide the Design Builder an estimate of how many hours have been budgeted for railroad flagging for this project so work activities requiring flagging services can be scheduled accordingly. If VDOT deems appropriate, these costs can be borne by the Design Builder and VDOT's role in this risk is further reduced.

RISK 2 – KARST FEATURES EXISTING IN THE PROJECT AREA

Why this Risk is Critical Karst topography can significantly impact the design and construction of bridge foundations, mechanically stabilized earth (MSE) walls, pavements, and stormwater management structures and therefore is a critical risk for this project. Typical karst features include a highly variable top of rock surface, soft residual soils, steep-sided rock pinnacles, soil-filled troughs, and open cavities. Sinkholes are another common karst characteristic caused by the subsurface erosion and/or collapse of soil overburden into cavities in the rock. Latent karst features encountered during construction can adversely impact project schedule, maintenance of traffic, and adjacent infrastructure such as the railway and U.S. Route 11.

Risk Impact

Bridge Foundations – Karst features can impact both deep and shallow bridge foundations. For deep foundations, the variable top of rock surface can result in significant variation of pile lengths, and steep-sided or pinnacled rock can damage piles during driving. The existing bridge plans indicate pile lengths varied significantly across Abutment A of both bridges. These pile lengths varied from 25 to 61 feet at the southbound bridge and 11 to 57 feet at the northbound bridge. For shallow foundations, the irregular top of rock surface can result in variable bearing elevations across a foundation element. Soil-filled troughs or seams, at or below the bearing elevation, can also undermine the competency of the foundation. The existing bridge plans did not show significant deviation in spread footing bearing elevations at the existing piers but did indicate the use of subfootings was necessary on Pier 6 of the northbound bridge. Additionally, the existing boring logs suggest that clay seams were encountered below the top of rock elevation.

MSE Walls – Karst poses a high risk to the performance of MSE walls. Porous MSE wall backfill can allow water to infiltrate the foundation materials, which increases the risk of subsurface soil erosion and sinkhole development. If a sinkhole were to develop below the wall, excessive deformation of the wall could occur. Additionally, soft residual soils below the MSE walls can cause unacceptable settlement, which can impact the overlying pavement structure and cause downdrag forces on the abutment foundation piles. Because the risks and consequences are high, VDOT S&B, Vol. V, Part 2, Ch. 17, File No. 17.01-7 states that MSE walls are prohibited in karst areas unless design approval has been granted by District S&B Engineer.

Pavements – Residual soils in karst terrain can be very soft and highly plastic, and will frequently exhibit low resilient moduli as correlated from California Bearing Ratio (CBR) or Unconfined Compressive Strength (UCS) values. These residual soils may not be suitable as pavement subgrades and therefore may need to be undercut or augmented.

Stormwater Management Structures – Water is almost always the instigator of sinkholes, so facilities that convey and contain stormwater are particularly prone to the formation of sinkholes.

Mitigation Strategies Karst risk mitigation requires proactive planning during design and active engagement during construction.

Utilize Experienced Engineers - Having a well-experienced and local geotechnical engineering firm leading the subsurface investigation, testing and geotechnical engineering program allows the project team to select suitable design solutions to address karst-related risks. Schnabel has considerable transportation project experience along the I-81 corridor including the I-81 over Mullberry Lane bridge replacement and the I-81 over Reed Creek bridge replacement, both located in the Bristol District.

3.5 PROJECT RISKS

Enhanced Exploration - We will recommend performing an enhanced subsurface exploration program (e.g., additional borings, geophysical testing, and geologic mapping) to help identify and mitigate karst risk. Karst mitigation strategies will be thoroughly evaluated as part of the geotechnical engineering study during project design, and the appropriate solutions will be selected for the conditions that exist.

Design Solutions - Specific design solutions to mitigate karst-related risks for pile foundations might include redundant piles for each substructure to compensate for possible variable pile lengths and/or piles damaged during installation. Piers will be designed to accommodate lowering spread footings, where necessary, to accommodate actual field conditions without the need to redesign the structural system. If the soil overburden is relatively thin, then it may be possible to alleviate the karst risk for an MSE wall by removing the overburden and founding the wall on rock.

Stormwater Management Design – Engineering stormwater management facilities in karst terrain should be done with caution as even shallow pools in karst terrain can increase the risk of sinkhole formation and groundwater contamination. Design of stormwater management facilities located within karst topography should follow the design recommendations in the Virginia DEQ Stormwater Design Specifications for designing in karst topography. We would envision investigating the use of an impermeable lining system, typically consisting of 24-inches of compacted clay, or similar process.

Construction Monitoring - During construction, the Geotechnical Engineer will be an integral team member to review on-site earthwork and foundation operations to verify they are consistent with the geotechnical recommendations, and modify the recommendations, if necessary, based on actual conditions encountered. Specific construction solutions to mitigate karst-related risks might include drilling probe holes in spread footing bearing material to verify the rock competency and using subfootings to accommodate the variable top of rock surface.

Role of VDOT/Other Agencies It is anticipated that VDOT will provide review and commentary on the conditions encountered in the subsurface exploration, design recommendations, plans, and other documents. We will incorporate VDOT's comments into the plans and specifications issued for construction. During construction, we will submit any design changes necessary to accommodate differing subsurface conditions to VDOT for review. All VDOT review comments will be incorporated into the revised construction documents. We do not anticipate any additional effort from VDOT, or other agencies, related to karst conditions.

RISK NO. 3 – MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION

Why this Risk is Critical MOT during construction is a critical issue due to the limited availability of acceptable detour routes and the high volume of truck and other traffic along I-81 and U.S. Route 11. Traffic must be maintained on both of these roadways with a minimum of disruption to ensure efficient and safe road operations throughout the Sequence of Construction (SOC).

On I-81, traffic volumes dictate the need for two lanes of traffic in both the northbound and southbound direction during peak hours, with a generally 50/50 directional split. Since reducing the number of travel lanes would severely impact traffic flow on I-81 during peak hours, it is anticipated that any reduction in the number of travel lanes will be unacceptable. On Lee Highway (U.S. Route 11), closing the crossing below I-81 would result in a lengthy detour (over two miles – see Figure A) on narrow, residential secondary roads that includes a substandard height" crossing under I-81 to the south.

Figure A: Possible detour of Route 11 traffic utilizing Routes 615 and 708

3.5 PROJECT RISKS

The safety of construction workers and the traveling public is paramount. With this in mind, the narrowing, closures or other restrictions can increase the hazards associated with the MOT plans on both I-81 and Route 11. Furthermore, the elevations of the existing bridges are proposed to be raised to address geometric requirements for providing minimum clearance for the Norfolk Southern Railway and Route 11. This means that new bridges and pavements will be at different elevations from the existing, which will require shoring, additional phasing and complex temporary road configurations. A properly developed MOT/SOC plan is essential to minimize hazards and to minimize disruption to the traveling public.

Constructability issues are also of concern. Under the bridges, Route 11, the railway and the Middle Fork of the Holston River are located in between existing and proposed piers. The RFQ Conceptual Plans call for the bridge abutments and piers to be replaced in the different locations than existing. This would require temporary retaining walls and/or shoring during construction and demolition of the abutments and staged construction of the piers.

Risk Impact If maintenance of traffic during construction is not properly addressed and the risks mitigated, the safety of the traveling public and construction workers could be compromised. Delays in travel time and construction duration will occur along with increased reaction time for first responders. Driver frustration will increase along with project costs.

Mitigation Strategies The overall mitigation strategy for this risk will be a fully-developed Traffic Management Plan (TMP) that covers Traffic Control (MOT), Public Communication, and Transportation Operations, as per VDOT IIM-LD-241.5. Some specifics include:

Maintaining all Lanes During Construction - The BDC design-build team will investigate strategies to maintain two lanes of traffic in each direction along I-81 during construction. Since the proposed replacement bridge will fill the median, we will construct the bridge on an even plane from the "inside out". By creating the new structure within the existing median, we can shift traffic in either direction onto the median section of the new bridge while the existing, outer bridges are demolished. Once the new bridge is widened, the required median barrier can be installed on the bridge deck to provide physical separation between the northbound and southbound traffic, clearly differentiating the work zone and construction zone. By doing this, two lanes of traffic in each direction will be provided during construction and traffic disruption will be minimized. Single lane closures, if allowed by VDOT, may still be employed during off-peak periods to shorten the overall construction schedule.

Planning for the Required Increase Clearance - Raising of the profile along I-81 will cause challenges to MOT. The BDC design-build team will mitigate this risk by fully investigating the use of temporary shoring consisting of driven sheeting, soldier pile walls, or fabric reinforced wire basket walls. The system selected will be the one that best mitigates the risk by being able to be installed and removed safely, given the existing geotechnical conditions and construction phasing.

Minimizing Route 11 Disruptions - While traffic disruptions along Route 11 cannot be fully eliminated, these disruptions will be minimized to the greatest extent possible. Temporary shoring will be installed above Route 11 to protect the traveling public during the demolition process. Only during brief timing for the placement of beams will traffic be re-routed away from Route 11. These will only occur during non-peak hours and only for short-terms to minimize inconvenience to traffic. The detailing of the bridge superstructure will also be designed with a focus on minimizing girder erection time, thereby minimizing the number and length of necessary closures.

Minimize I-81 Profile Modifications - We will minimize the required I-81 profile modifications to minimize impacts to traffic. Specific strategies will be to minimize superstructure depths by closer beam spacings. The proposed 3-span configuration is quite efficient but we will investigate optimizing the span configuration to provide a more slender superstructure, thus minimizing the project footprint and traffic impacts.

Substructure Constructability - In order enhance abutment/pier constructability, we will investigate constructing the new bridge abutments and pier offset longitudinally from the existing such that they can be constructed without fully demolishing the substructures of the existing bridges. This will allow faster and more efficient construction to occur. In order to accomplish this, we may slightly offset Route 11 in order to lower it as close to

the existing alignment, possibly reducing it to one-lane, two-way operation during construction using temporary traffic signals and/or flagging operations. The new abutments and piers will be constructed adjacent to the existing and the bridge superstructure constructed on these new substructure elements.

The proposed southbound south abutment and northbound Pier 1 appear to conflict with existing piers. Our team will look to slightly adjust these locations to improve substructure constructability.

Superstructure Constructability – While cranes will be allowed during construction, our team will investigate other construction methods for erecting the bridge while minimizing traffic disruptions. The relatively straight alignment and available laydown areas will lead to the investigation of launching the girders. Launching will be most effective with the construction in the median with traffic on either side of the construction zone, as it will remove the need for short-term closures for picks over live traffic.

Minimizing Traffic Shifts - The bridge design and construction will be sequenced such that the middle portion of the finished single bridge will be constructed first with existing traffic continuing on the existing separate structures as depicted in Figure B. After this first phase of the bridge is completed, NB traffic will be shifted onto the portion of the bridge constructed in Phase I allowing for the existing NB bridge to be demolished. After this second phase of bridge is completed, the NB traffic will be shifted to the eastern end of the new bridge and the SB traffic will be shifted onto the middle section of the bridge constructed in Phase I allowing for the existing SB bridge to be demolished and the third and final stage of the bridge can be completed before shifting the traffic to its final positions. To the extent practical, we plan to build the permanent roadway approach pavement to minimize temporary staged pavement placement and removal.

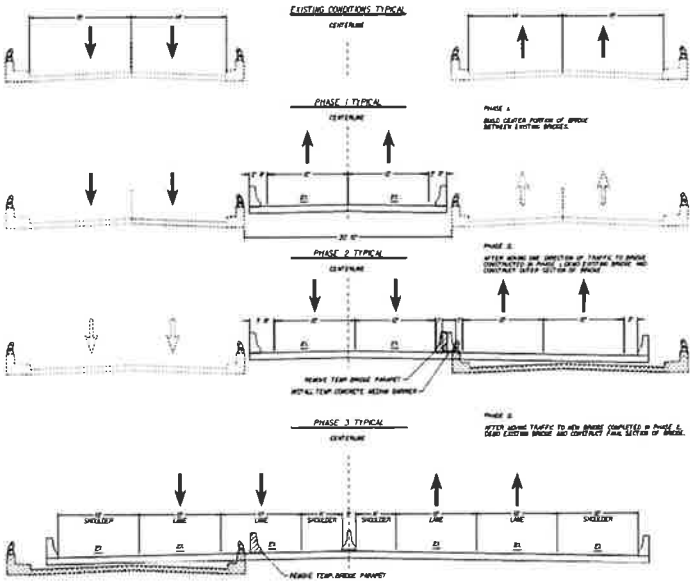

Figure B: Three-phase bridge construction typical section

Developing a relevant and practical Transportation Management Plan (TMP) - In addition to the detailed phasing of the various construction stages (see Figure C), the TMP will include an incident management plan outlining an efficient reporting process that evolves throughout construction sequencing. In addition to the E-911 and various other contacts, the plan will include the NS railroad contacts and include information to ensure coordination with the Lane Closure Advisory Management System (LCAMS) and the Traffic Operations Center (TOC). These notifications will be critical for major traffic events like NASCAR race weekends. The plan will include appropriate use and notification of State Police for critical operations and traffic changes. The plan will include considerations for a local towing service to be on-call to clear the scene of vehicles that may be involved in incidents along the corridor to restore operations and the flow of traffic as soon as practical. Due to the close proximity to the river, the plan will also include provisions for Spill Prevention, Control and Countermeasure (SPCC) implementation. We understand the importance of keeping the public (local residents, businesses and commuters) aware of the project and will have a public relations strategy to remain transparent throughout the project and build upon what VDOT has already begun with the public hearing process.

3.5 PROJECT RISKS

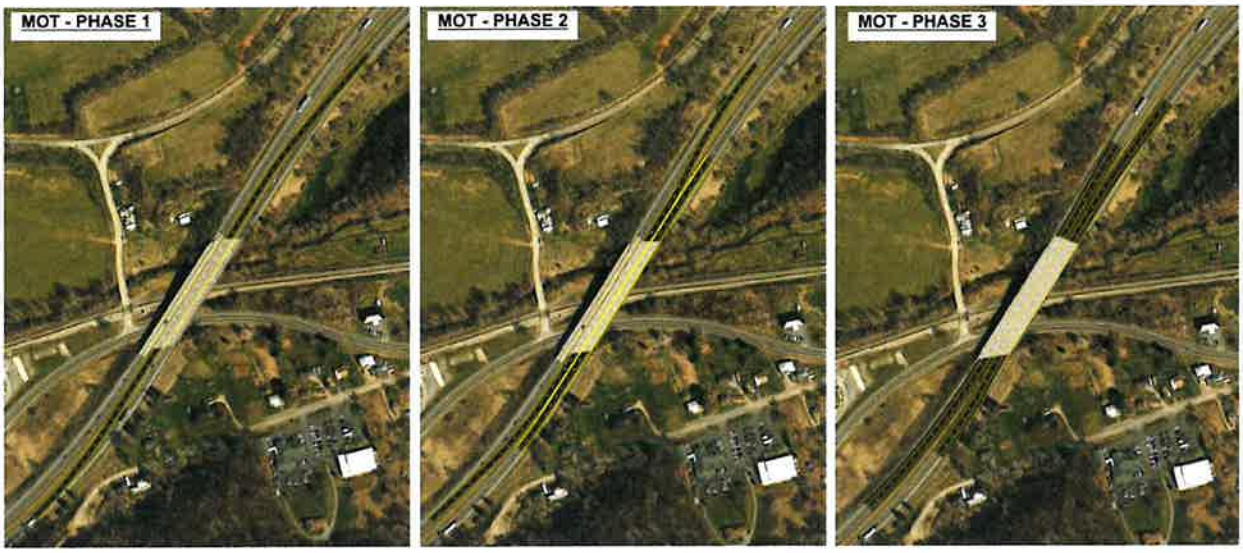

Figure C: Three-phase MOT pavement transition plan

Separating Construction Activity and Traffic - For safety and construction operational considerations, we understand the importance providing safe longitudinal positive barrier through the installation of properly placed concrete barrier service with appropriate attenuation that will separate high speed, high volume traffic and work zones. Temporary placement of concrete barrier service will also be employed for traffic travelling in opposite directions side by side.

Borrow & Other Material and Construction Access - We understand borrow material will need to be supplied to the work area to fill in the median ditches and backfill the abutments. We will consider the ingress/egress of trucks on both ends of the bridge to ensure safe and efficient operations for such activities. We plan to accomplish this by minimizing access points in median for the various stages of construction. We plan to sign/mark access points clearly so as to avoid any possibility of confusion. Consideration will be given to the deceleration and acceleration lane needs to safely leave and enter traffic in a 70 mph zone.

Protection of U.S. Route 11 & NS Railroad During Construction and Demolition - During the various stages of bridge construction and demolition, the project carries a risk of debris and/or equipment falling down onto or near Route 11, the railway and the river. We understand this and plan to develop a Construction Effects and Mitigation Plan to identify all the potential risks of the various stages of construction (demolition, blasting, etc.) in order to identify the risks and develop practical plans to obviate the risks. We understand that Norfolk Southern will have permanent on-site observers during construction and we plan to coordinate with assigned NS personnel to keep them abreast of the planned work.

Route 11 Reconstruction - We plan to reconstruct and lower existing Route 11 in place through staged construction to the extent practical. We also plan to investigate the practicality of re-aligning Route 11 (refer to Figure D) to minimize disruption of traffic along this important alternative interstate access corridor that is utilized by vehicles in the event of an incident on I-81 (between exists 50 and 54). We understand that any alternative alignment would have to provide the same operating speed and conform to the existing functional classification, must be coordinated with Norfolk Southern, and must work around existing and proposed pier locations. We will also need to look at moving the existing, parallel waterline immediately adjacent to Route 11.

Role of VDOT/Other Agencies The Blythe design-build team will handle and manage the risks associated with maintenance of traffic and constructability issues. VDOT's role in this risk will be limited to posting appropriate messages to the traveler information system in cooperation with the BDC design-build team. We anticipate no significant role from other agencies with these issues.

Appendices

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Attachment 3.1.2

SOQ Checklist and Contents

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ATTACHMENT 3.1.2

Project: 0081-086-818; 0081-086-742

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: 0081-086-818; 0081-086-742

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	
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
DBE statement within Letter of Submittal 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	2-6
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
Organizational chart	NA	Section 3.3.2	yes	3
Organizational chart narrative	NA	Section 3.3.2	yes	2-6

ATTACHMENT 3.1.2

Project: 0081-086-818; 0081-086-742
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				7
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				
Provide a narrative for Project Risk 1	NA	Section 3.5.1	yes	8-11
Identify and discuss two additional **unique** risks that are critical for the Project	NA	Section 3.5.1	yes	11-15

Attachment 2.10

Form C-78, Acknowledgement of RFQ, Revision and/or Addenda

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ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C0097555DB102

PROJECT NO.: 0081-086-818; 0081-086-742

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 – June 1, 2018 (Date)
2. Cover letter of _____ (Date)
3. Cover letter of _____ (Date)

[signature]	7-12-18
SIGNATURE	DATE
Luther J Blythe Jr.	VP of Operations
PRINTED NAME	TITLE

Attachment 3.2.6

Affiliated and Subsidiary Companies of the Offeror

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ATTACHMENT 3.2.6

State Project No. 0081-086-818; 0081-086-742

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
Blythe Development Company- Subsidiary	Blythe Brothers Asphalt, LLC	1415 E. Westinghouse Blvd., Charlotte, NC 28273

☒ **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
	Timmons Group, Inc.	

☒ **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
	CES Consulting LLC	

ATTACHMENT 3.2.6

State Project No. 0081-086-818; 0081-086-742

Affiliated and Subsidiary Companies of the Offeror

☐ 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
Subsidiary	Schnabel Management Services	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Subsidiary	Schnabel Engineering, LLC	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Subsidiary	Schnabel Services, Inc.	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Subsidiary	Lachel & Associates, Inc.	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Subsidiary	Schnabel Engineering DC, Inc.	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Subsidiary	Schnabel Real Estate Holdings, LLC	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Subsidiary	Schnabel Engineering West, Inc.	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Affiliate	Basinger Engineering, Inc. dba Schnabel Engineering of Michigan, Inc.	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Affiliate	Schnabel Engineering South, P.C.	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059
Affiliate	Schnabel-Lachel Engineering, P.C. dba Schnabel Engineering of New York	9800 JEB Stuart Parkway, Suite 200, Glen Allen, VA 23059

ATTACHMENT 3.2.6

State Project No. 0081-086-818; 0081-086-742

Affiliated and Subsidiary Companies of the Offeror

☐ 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
Affiliate	STV Group, Incorporated	205 West Welsh Drive, Douglassville, PA 19518-8713
Affiliate	STV Incorporated	225 Park Avenue South, New York, NY 10003-1604
Affiliate	STV Architects, Inc.	205 West Welsh Drive, Douglassville, PA 19518-8713
Affiliate	STV Architects, P.C.	225 Park Avenue South, New York, NY 10003-1604
Affiliate	STV Canada Architects, Inc.	1920 Yonge Street, Suite 200 Office No. 220 Toronto, ON M4S 3E2 Canada
Affiliate	STV Energy Engineering, P.C.	225 Park Avenue South, New York, NY 10003-1604
Affiliate	STV Energy Services II, P.C.	205 West Welsh Drive, Douglassville, PA 19518-8713
Affiliate	STV Puerto Rico, LLC	The Atrium Office Center 530 Ave De La Constitución San Juan, Puerto Rico 00901-2304
Affiliate	STV Silver & Ziskind Architects, P.C.	225 Park Avenue South, New York, NY 10003-1604
Subsidiary	STV Canada Construction, Inc.	1920 Yonge Street, Suite 200 Office No. 258 Toronto, ON M4S 3E2 Canada
Subsidiary	STV Canada Consulting, Inc.	1920 Yonge Street, Suite 200 Office No. 258 Toronto, ON M4S 3E2 Canada

Attachment 3.2.7 (a) and (b)

Certification Regarding Debarment

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ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0081-086-818; 0081-086-742

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

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

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

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

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

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

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

Signature

7-12-18
Date

VP of Operations
Title

Blythe Development Company
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-086-818; 0081-086-742

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

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

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

Signature	6/20/2018	Principal
	Date	Title

Timmons Group, Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-086-818; 0081-086-742

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

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

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

Signature	6/20/2018 Date	President Title

CES CONSULTING LLC
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-086-818; 0081-086-742

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

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

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

Signature	June 21, 2018 Date	Principal Title

Raymond A. DeStephen, PE

Schnabel Engineering, LLC
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-086-818; 0081-086-742

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

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

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

Signature	June 22, 2018 Date	E. Richard Capps Jr., P.E. Senior Vice President Title

STV Incorporated dba STV Group Incorporated
Name of Firm

Attachment 3.2.8

VDOT Prequalification Certificate

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS

Vendor ID: B347
Vendor Name: BLUERIDGE GENERAL, INC.
Prequal Level: Prequalified (Currently Inactive)
Prequal Exp: 02/28/2019

-- PREQ Address --
3422 STRATHMORE AVENUE
NORFOLK, VA 23504-0000
Phone: (804)627-9914
Fax: (757)623-4248

Work Classes (Listed But Not Limited To)
022 - INCIDENTAL CONCRETE
055 - BRIDGE REPAIRS
101 - EXCAVATING

Bus. Contact: MCPHERSON, LORI J.
Email: LMCPHERSON@BGI-GC.COM

-- DBE Information --

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

Vendor ID: B1096
Vendor Name: BLYTHE DEVELOPMENT CO.
Prequal Level: Prequalified (Probationary)
Prequal Exp: 02/28/2019

-- PREQ Address --
1415 E. WESTINGHOUSE BOULEVARD
CHARLOTTE, NC 28273
Phone: (704)588-0023
Fax: (704)588-9935

Work Classes (Listed But Not Limited To)
002 - GRADING
004 - ASPHALT CONCRETE PAVING
013 - ROADWAY MILLING
045 - UNDERGROUND UTILITIES
101 - EXCAVATING

Bus. Contact: BLYTHE, FRANKLIN WILLIAMS
Email: FRANKB@BLYTHEDEVELOPMENT.COM

-- DBE Information --

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

COMMONWEALTH OF VIRGINIA

VDOT
Virginia Department of Transportation

CERTIFICATE OF QUALIFICATION

BLYTHE DEVELOPMENT CO.

Vendor Number: **B1096**

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

PREQUALIFIED (PROBATIONARY)

Your firm specializes in the noted Classification(s):
GRADING; ASPHALT CONCRETE PAVING; ROADWAY MILLING; UNDERGROUND UTILITIES; EXCAVATING

Issue Date: February 28, 2018

This Rating and Classification will Expire: February 28, 2019

Issued under the authority of:
Don E. Silies, Director of Contracts

Jennifer Miranowicz

From: Travis Padgett <tpadgett@blythedevelopment.com>
Sent: Wednesday, July 11, 2018 11:28 AM
To: Gary Johnson; Jennifer Miranowicz
Cc: Richard Kirkman
Subject: FW: Blythe Development Co Prequal

Here is our waiver for our prequalification.

From: Caples, Harold [mailto:harold.caples@vdot.virginia.gov]
Sent: Wednesday, July 11, 2018 11:09 AM
To: Travis Padgett <tpadgett@blythedevelopment.com>
Cc: Shailendra Patel <shailendra.patel@vdot.virginia.gov>; rr VDOT-Prequalification <prequalification@vdot.virginia.gov>
Subject: Re: Blythe Development Co Prequal

Travis,

I have reviewed the qualifications of Blythe Development Co. and I find them acceptable for the purpose of bidding this Design/Build project. Therefore, I hereby waive the bidding restriction on your firm for this project.

As we discussed, this waiver is predicated on your compliance with the Rules Governing Prequalification. The rules state that you are limited to no more than three projects at any given time, not exceeding a total cost of $6 million. This waiver allows you to bid beyond that dollar limit, but should you be successful on this project, you will be ineligible for any further VDOT work as a prime contractor until your receive a satisfactory VDOT performance evaluation.

VDOT looks forward to your proposal.

Thank you,

Harold R. Caples, P.E., VCCO

Assistant State Construction Engineer

Virginia Department of Transportation

1401 East Broad Street

Richmond, Virginia 23219

(804) 786-1630 - Office

(804) 371-7896 - Fax

On Fri, Jun 29, 2018 at 1:29 PM, Travis Padgett <tpadgett@blythedevelopment.com> wrote:

Attachment 3.2.9

Surety Letter

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

USI Insurance Services
6100 Fairview Road, Suite 800
Charlotte, NC 28210
www.usi.com
Tel: 704.364.1233

July 6, 2018

Suril R. Shah, P.E.
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: Our Client: Blythe Development Company
Project: Replacement of I-81 Bridges over Rte. 11, Norfolk Southern Railway & Middle Fork Holston River
RFQ No. C0097555DB102 Smith County, VA
State Project No. 0081-086-818-086-742
Federal Project No. BR-081-1(336)
Estimated Cost: $23,000,000.

Dear Suril:

It is our pleasure to comment on the bonding qualifications of Blythe Development Company. Through their current surety, Liberty Mutual Insurance Company, we have handled the contract Performance and Payment bond requirements on behalf of the above firm since 2004. Their current bonding limits are $80,000,000 single job / $475,000,000 aggregate work program. Current unutilized bonding capacity is approximately $100,000,000.

We consider Blythe Development Company to be one of the more outstanding contactors in this area and we recommend them highly. Blythe Development Company is well managed, capably staffed and sufficiently financed to process the work they are bidding.

It is our understanding that the above referenced project has an estimated value of approximately $23,000,000. Liberty Mutual Insurance Company would be most willing to provide the Performance and Payment Bond, in the event they are awarded the contract and enter into a contract satisfactory to all parties.

As surety for Blythe Development Company, Liberty Mutual Insurance Company, with an A.M. Best Financial Strength Rating of "A" (Excellent) and a Financial Size Category of XI ($2 Billion or greater), is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the even that such firm is the successful bidder and enter into a Contract for this project.

Please note that the decision to issue Performance and Payment bonds is a matter between Blythe Development Company and Liberty Mutual Insurance Company and will be subject to our standard underwriting at the time of the final bond request, which will include but not be limited to the acceptability of the contract documents, bond forms and financing. We assume no liability to third parties or to you if for any reason we do not execute said bonds.

Sincerely,

LIBERTY MUTUAL INSURANCE COMPANY

Angela Ramsey

Angela D. Ramsey, Attorney-In-Fact

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.
This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 8055008

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

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Donna K. Ashley; Diane Gibson; Larry L. Langevin; Angela D. Ramsey; G. Timothy Wilkerson

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

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 5th day of April, 2018.

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

By: _____
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 5th day of April, 2018, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 10 day of July, 2018.

By: _____
Renee C. Llewellyn, Assistant Secretary

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

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

LMS_12873_022017

VDOT

Attachment 3.2.10

SCC and DPOR Information

Blythe

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

ATTACHMENT 3.2.10

State Project No. 0081-086-818; 0081-086-742

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)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Blythe Development Co	F162751-4	Corporation	Active	1415 E Westinghouse Blvd Charlotte, NC 28273	Contractor	2705094714	05-31-2019
Timmons Group, Inc.	0264043-1	Corporation	Active	1001 Boulders Pkwy Suite 300 Richmond, VA 23225	LS, ENG, LA	0405000456	12-31-2019
				430 Southlake Blvd Suite B-15 Richmond, VA 23236	ENG	0410000133	02-29-2020
				117 South 14th St Ste 303 Richmond, VA 23219	ENG	0410000111	02-29-2020
				20100 Ashbrook Pl Suite 100 Ashburn, VA 20147	ENG, LS	0410000133	02-29-2020
				608 Preston Ave Ste 200 Charlottesville, VA 22903	ENG, LS	0410000161	02-29-2020
				2815 N Augusta St, Suite C Staunton, VA 24401	ENG, LS	0410000263	02-29-2020
				4701 Owens Way Suite 900 Prince George, VA 23875	ENG, LS	0410000020	02-29-2020
				208 Golden Oak Ct Suite 230 Virginia Beach, VA 23452	ENG, LS	0410000169	02-29-2020

ATTACHMENT 3.2.10

State Project No. 0081-086-818; 0081-086-742

SCC and DPOR Information

CES Consulting LLC	S341600-7	Limited Liability	Active	23475 Rock Haven Way Suite 255 Dulles, VA, 20166	ENG	0407005783	12-31-2019
				317 Office Square Ln Ste 101a Virginia Beach, VA 23462	ENG	0411001331	02-29-2020
Schnabel Engineering, LLC	S0889123	Limited Liability	Active	1901 South Main Street Suite 11 Blacksburg, VA 24060	ENG	0411000323	02-29-2020
STV Incorporated dba STV Group Incorporated	F0253452	Foreign Corporation	Active	10800 Midlothian Turnpike Suite 302, Richmond, VA 23235	ENG	0411000462	02-29-2020

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
Timmons Group, Inc.	Gary Sebastian Johnson	Richmond, VA	3808 Ivory Court Richmond, VA 23233	PE	0402033863	09-30-2019
CES Consulting LLC	Vasilios Andreas Andreou	Virginia Beach, VA	2308 Wilchester Glen Dr Virginia Beach, VA 23456	PE	0402017579	2019-07-31

FIRM SCC DOCUMENTATION

Blythe Development Co.

SCC eFile > Entity Search > Entity Details

Login | Create an Account

SCC eFile
FAST. SIMPLE. SECURE

SCC eFile
- SCC eFile Home Page
- Check Name Distinguishability
- Business Entity Search
- Certificate Verification
- FAQs
- Contact Us
- Give Us Feedback

Business Entities
UCC or Tax Liens
Court Services
Additional Services

SCC eFile
Business Entity Details

Help

BLYTHE DEVELOPMENT CO.

General

SCC ID: F1627514
Entity Type: Foreign Corporation
Jurisdiction of Formation: NC
Date of Formation/Registration: 5/10/2005
Status: Active
Shares Authorized: 100000

Select an action

File a registered agent change
File a registered office address change
Resign as registered agent
File an annual report
Pay annual registration fee
Order a certificate of good standing
View eFile transaction history
Manage email notifications

New Search | Home

Principal Office

1415 E WESTINGHOUSE BLVD
CHARLOTTE NC28273

Registered Agent/Registered Office

MICHAEL M COLLINS
275 W MAIN ST
COVINGTON VA 24426
ALLEGHANY COUNTY 102
Status: Active
Effective Date: 5/10/2005

SCC LICENSES

Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Timmons Group, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is November 30, 1984;

That the period of its duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
May 18, 2018

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1805186192

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

LLC-1018.1
(04/10)

STATEMENT OF CHANGE OF THE PRINCIPAL OFFICE ADDRESS OF A LIMITED LIABILITY COMPANY

1. **Limited Liability Company's Name:** **SCC ID #: S341600-7**

   CES CONSULTING, LLC

2. Current principal office address on record:

   13991 VIRGINIA CEDAR COURT
   GAINESVILLE, VA 20155

3. The limited liability company's principal office address, including the street and number, is changed to:

   23475 ROCK HAVEN WAY
   SUITE 255
   DULLES, VA 20166

Executed in the name of the limited liability company by:

Signed on October 18, 2016, on behalf of CES Consulting, LLC
By: Avtar Singh, Member
/s/ Avtar Singh

The statement must be executed in the name of the limited liability company by any manager or other person who has been delegated the right and power to manage the business and affairs of the limited liability company, or if no manager or such other person has been selected, by any member of the limited liability company.

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

AT RICHMOND, OCTOBER 26, 2010

The State Corporation Commission has found the accompanying articles submitted on behalf of

CES Consulting, LLC
(formerly known as Construction Engineering & Scheduling Consulting Engineers, PLC)

to comply with the requirements of law, and confirms payment of all required fees. Therefore, it is ORDERED that this

CERTIFICATE OF AMENDMENT

be issued and admitted to record with the articles of amendment in the Office of the Clerk of the Commission, effective October 26, 2010.

STATE CORPORATION COMMISSION

By

James C. Dimitri
Commissioner

10-10-26-1101
LLAACPT
CIS0368

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

LLC-1014N
(04/10)

ARTICLES OF AMENDMENT
CHANGING THE NAME OF A VIRGINIA LIMITED LIABILITY COMPANY
By the Members

The undersigned, on behalf of the limited liability company set forth below, pursuant to § 13.1-1014 of the Code of Virginia, states as follows:

1. The current name of the limited liability company, as it appears on the records of the State Corporation Commission, is

   Construction Engineering & Scheduling Consulting Engineers, PLC

2. The name of the limited liability company is changed to

   CES Consulting, LLC
   The LLC is now a general business LLC

   (The name must contain the words limited company or limited liability company or the abbreviation L.C., LC, L.L.C. or LLC)

3. *(See "Approval" Instructions for requisite vote.)* The foregoing amendment was adopted by a vote of the members in accordance with the provisions of the Virginia Limited Liability Company Act on 10/25/2010 (date).

Executed in the name of the limited liability company by:

(signature)	10/25/2010 (date)
Avtar Singh (printed name)	Member (title (e.g., manager or member))
S341600-7 (limited liability company's SCC ID no. (optional))	(571) 722-9824 (telephone number (optional))

CHECK IF APPLICABLE **(see instructions)**:

☐ The person signing this document on behalf of the limited liability company has been delegated the right and power to manage the company's business and affairs.

(The articles must be executed in the name of the limited liability company by any manager or other person who has been delegated the right and power to manage the business and affairs of the limited liability company, or if no managers or such other person has been selected, by any member of the limited liability company.)

PRIVACY ADVISORY: Information such as social security number, date of birth, maiden name, or financial institution account numbers is NOT required to be included in business entity documents filed with the Office of the Clerk of the Commission. Any information provided on these documents is subject to public viewing.

SEE INSTRUCTIONS ON THE REVERSE

Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, October 14, 2010

This is to certify that the certificate of organization of

Construction Engineering & Scheduling Consulting Engineers, PLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: October 14, 2010

State Corporation Commission
Attest:

Joel H. Peck
Clerk of the Commission

CISMAF

Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Schnabel Engineering, LLC is duly organized as a limited liability company under the law of the Commonwealth of Virginia;

That the date of its organization is December 19, 2002; and

That the limited liability company is in existence in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
August 3, 2016

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1608035657

Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That STV GROUP INCORPORATED (USED IN VA. BY: STVINCORPORATED), a corporation incorporated under the law of New York, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on August 9, 1999; and

That the corporation is in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:

February 17, 2012

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1202175574

3.2.10.2 DPOR LICENSING

Blythe Development Company

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
05-31-2019

NUMBER
2705094714

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H

BLYTHE DEVELOPMENT CO
1415 E WESTINGHOUSE BLVD
CHARLOTTE, NC 28273

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

Timmons Group

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
12-31-2019

NUMBER
0405000456

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION REGISTRATION

PROFESSIONS: LA, LS, ENG

TIMMONS GROUP INC
1001 BOULDERS PKWY STE 300
RICHMOND, VA 23225

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

DPOR License Lookup License Number 0410000160

License Details

Name	TIMMONS GROUP INC
License Number	0410000160
License Description	Professional Corporation Branch Office Registration
Rank	Professional Corporation Branch Office
Address	430 SOUTHLAKE BLVD SUITE B-15, RICHMOND, VA 23236
Initial Certification Date	2006-04-27
Expiration Date	2020-02-29

3.2.10.2 DPOR LICENSING

Timmons Group

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0410000111

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

TIMMONS GROUP INC
117 SOUTH 14TH ST STE 303
RICHMOND, VA 23219

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0410000161

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

TIMMONS GROUP INC
608 PRESTON AVE STE 200
CHARLOTTESVILLE, VA 22903

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)
(DETACH HERE)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0410000133

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, LA, LS

TIMMONS GROUP INC
20110 ASHBROOK PL STE 100
ASHBURN, VA 20147

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)
(DETACH HERE)

3.2.10.2 DPOR LICENSING

Timmons Group

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0410000263

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: LS

TIMMONS GROUP INC
28 IMPERIAL DR
STAUNTON, VA 24401

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0410000020

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, LS

TIMMONS GROUP INC
4701 OWENS WAY
SUITE 900
PRINCE GEORGE, VA 23875

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0410000169

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, LS

TIMMONS GROUP INC
2901 S LYNNHAVEN RD
STE 200
VIRGINIA BEACH, VA 23452

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

3.2.10.2 DPOR LICENSING

CES Consulting LLC

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
12-31-2019

NUMBER
0407005783

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

CES CONSULTING LLC
23475 ROCK HAVEN WAY
SUITE 255
DULLES, VA 20166

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0411001331

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

CES CONSULTING LLC
317 OFFICE SQUARE LN STE 101A
VIRGINIA BEACH, VA 23462

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

3.2.10.2 DPOR LICENSING

Schnabel Engineering

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0411000323

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

SCHNABEL ENGINEERING, LLC
1901 SOUTH MAIN ST STE 11
BLACKSBURG, VA 24060

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

STV

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2020

NUMBER
0411000462

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

STV INCORPORATED DBA STV GROUP INC
STV GROUP INC
10800 MIDLOTHIAN TNPK SUITE 302
RICHMOND, VA 23235

DPOR

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

3.2.10.3 DPOR LICENSING - KEY PERSONNEL

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
09-30-2019

NUMBER
0402033863

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

GARY SEBASTIAN JOHNSON
3808 IVORY CT
RICHMOND, VA 23233

Status can be verified at http://www.dpor.virginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
01-31-2019

NUMBER
0402035169

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

AVTAR SINGH
6773 LEOPOLDS TRAIL
HAYMARKET, VA 20169

Attachment 3.3.1

Key Personnel Resume Forms

Blythe

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
Richard Kirkman, PE - Division Manager

b. Project Assignment:
Design-Build Project Manager

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) :
Division Manager – Blythe Development Company (Blythe) (full time)

d. Employment History: With this Firm 5 Years With Other Firms 17 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):

Division Manager – Blythe Development Company **June 2011 – Present**
Mr. Kirkman offers 23 years of construction experience, specializing in bridge construction. As Bridge Division Manager for Blythe Development, he is directly responsible for procurement and management of a $40M bridge, culvert and retaining wall work program, for both public and private sector clients. He serves as the Design-Build Project Manager on pursuit of all design-build bridge replacement projects throughout VA, NC and SC. In this role he ensures all project activities are in accordance with contract specifications and interacts with the Design Manager, Construction Manager, and owner representatives to complete projects on time and within budget. He is also responsible for managing project resources and overseeing project schedules, budget and safety.

Owner/Project Manager – Kirkman Construction, Inc. **February 2007 – June 2011**
Mr. Kirkman served as Owner and Project Manager for Kirkman Construction, a small start-up Heavy-Highway construction company specializing in road, bridge, retaining wall and culvert construction. In this role he was directly responsible for all business functions including Operations, Safety, Estimating, Accounting, Human Resources and Corporate Management (e.g. licensing, bonding, & insurance). Mr. Kirkman grew the company to an average annual work volume of $4M.

Project Manager (Vice President) – Dane Construction Company **June 2000 – February 2007**
As Project Manager and Vice President, Mr. Kirkman was responsible for the profitability of one-half of Dane's annual $28M road and bridge construction program, consisting of an average of 12 active projects. He managed a 35 person staff of field and office employees and was responsible for hiring, training, and conducting performance reviews for each employee. He also assisted the company President with both developing and implementing company standards in several areas including estimating, safety, equipment, accounting, and human resources. Mr. Kirkman provided monthly project profit forecasts for analysis and worked closely with the company President in setting the direction of the company through periodic forecasting and workload analysis.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
University of North Carolina at Charlotte, Charlotte, NC / BSCE / 1994 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
Registered in North Carolina, Virginia PE Pending

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

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 project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) relevant projects* for which you have performed a 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: **Rowan County – C203207 China Grove, NC** Dates: **Mar. 2014-Feb. 2016**
Project Role: **Bridge Project Manager** With Current Firm? **Yes**
Client/Owner: **North Carolina Department of Transportation**

Mr. Kirkman estimated, managed and was directly responsible for this project that includes the construction of a new three-span steel girder railroad bridge over an extension to a local arterial roadway. The bridge is one component of this four mile high-speed railbed construction project. Substructure construction was made challenging due to the close proximity of the new bridge's alignment to the existing active rail mainline. It was necessary for Blythe to design and construct full cofferdam enclosures at each interior pier location. As Project Manager, Mr. Kirkman oversaw all aspects of construction including resource assignment, document control, owner correspondence, schedule creation and monitoring, financials, and timely delivery of this project. Contract value: $19M

Similar Scope & Complexity
- ✓ Bridge Construction
- ✓ Extensive Temporary Shoring

Project Name: **Macy Grove Road Kernersville, NC (DESIGN-BUILD)** Dates: **June 2012-Sept. 2015**
Project Role: **Bridge /Project Manager** With Current Firm? **Yes**
Client/Owner: **North Carolina Department of Transportation**

Mr. Kirkman served as the Chief Estimator and Project Manager for the bridge and wall construction portions of this design-build road and bridge project with the NCDOT. This project consisted of the construction of three single span bridges over an interstate, a highway and a railway. Mr. Kirkman worked with RK&K, the lead Designer on the project, to minimize required span lengths by utilizing MSE walls to retain the abutment fills. Two existing bridges were demolished as part of the contract. Mr. Kirkman was responsible for managing all aspects of bridge construction, including managing resources, schedule and budget. Contract value: $38M

Similar Scope & Complexity
- ✓ Design-Build
- ✓ Bridge Construction
- ✓ Interstate Widening
- ✓ Extensive MOT

Project Name: **Davidson County – C203142 Lexington, NC** Dates: **Nov. 2013-Nov. 2014**
Project Role: **Project Manager** With Current Firm? **Yes**
Client/Owner: **North Carolina Department of Transportation**

Mr. Kirkman estimated, managed and was directly responsible for this project that included the re-alignment of Turner Road and new bridge construction. The new alignment construction consisted of 103,000 CY of abutment fill leading to a 530' bridge (20,000 + SF deck). The bridge spanned the Norfolk-Southern Railway, with 25+ trains a day, as well as a large stream. Mr. Kirkman was responsible for coordination between roadway and bridge construction crews, along with coordination with the NCDOT and Norfolk Southern Railway. As Project Manager, Mr. Kirkman oversaw as all aspects of construction including resource assignment, document control, owner correspondence, schedule creation and monitoring, financials, and timely delivery of this project. Contract value: $8M

Similar Scope & Complexity
- ✓ Bridge Construction
- ✓ Stream Crossing

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

Not Applicable

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
Avtar Singh, PE, CCM, PMP, Associate DBIA – President

b. Project Assignment:
Quality Assurance Manager

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time):
President - CES Consulting, LLC (fulltime)

d. Employment History: With this Firm 6 Years With Other Firms 16 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):

Consultant Project/Quality Manager – CES Consulting, LLC **Jan. 2011 - present**
Tasked to oversee Quality management for bridge and highway projects per VDOT/FHWA guidelines. Works to ensure conformance with contract/intent, works with designer of record for review and approval; reviews/negotiates work orders and assists design engineers to expedite field changes. Coordinates traffic management with adjacent projects/TOC to ensure minimal disruptions. Reviews baseline schedules and ensures final project quality/closeout. Responsible for quality inspection documentation, correct payments and handling all stakeholder concerns. Manages QA staff of up to two managers and 40 inspectors.

Area Construction Engineer (ACE) – Virginia Department of Transportation **Jan. 2005 - Dec. 2010**
As VDOT ACE, he managed over 28 road and bridge construction projects with a total value of $230 million. As the Responsible Charge Engineer, he managed Quality Assurance staff of two construction managers and over 35 inspectors with up to eight concurrent projects. Responsible for managing/mentoring Quality Assurance staff, providing schedule analysis and claims reviews, providing technical expertise for field/design issues on ongoing projects and upcoming planned projects. Responsible for public outreach through seminars, public speaking engagements and multiple political representatives.

Project Construction Quality Engineer – NXL Construction Services **Aug. 2004 - Dec. 2004**
As consultant Project Construction Engineer, worked exclusively to manage quality assurance of VDOT bridge and highway projects throughout the Commonwealth as assigned. Provided day to day quality management/inspection of bridge and roadway projects, documentation of work and final project closeouts.

Project Engineer – NXL Construction Services **Aug. 1998 - Dec. 2004**
Provided quality assurance inspection for VDOT road and bridge projects throughout the Commonwealth. Responsible for project documentation, field inspection, materials testing and resolving field change issues.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
George Washington University, District of Columbia - Certificate in Management/2009/Project Management
Queen's University, Kingston, Canada - M.Sc./1994/Structural Engineering
Queen's University, Kingston, Canada - B.Sc./1992/Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2011/Professional Engineer/VA (#0402035169)
2011 CCM (A2127)
2014/DBIA Certified Design-Build Professional

g. Document the extent and depth of your experience and qualifications relevant to the Project.
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 project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) relevant projects* for which you have performed a 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: **Route 29 Solutions**
Albemarle County, VA (DESIGN-BUILD)
Project Role: **Quality Assurance Manager (QAM)**
Client/Owner: **Virginia Department of Transportation**

Dates: **March 2015-Oct. 2017**
With Current Firm? **Yes**

Quality Assurance Manager responsible for the Quality Assurance program on this Design-Build project. Mr. Singh was integral to all aspects of this project, from overseeing the complex maintenance of traffic for the three segments of the project to the materials testing for every aspect of the project. He handled the tracking and resolution of Non-Compliance Reports (NCRs) amongst the multiple design partners to arrive at acceptable and fair resolutions. Being on-site for the entire project duration gave him extensive knowledge as to the importance Quality Assurance has on the successful delivery of a project. He managed a staff of eight inspectors to ensure proper coverage over this project that spanned for miles. He served as the eyes and ears of VDOT on multiple occasions and he played a large role in the monthly meetings with the contractors, designers, VDOT, and VDOT's representatives. Contract value: $116.7M

Similar Scope & Complexity
- ✓ Design-build
- ✓ VDOT project
- ✓ QAM role
- ✓ Bridge project
- ✓ Extensive MOT

Consistency of Personnel
Gary Johnson, PE DBIA (TG)
- ✓ Lead Structural Engineer
- ✓ Proposed DM

Project Name: **VDOT I-95 Widening Project**
Dumfries, VA
Project Role: **Consultant Construction Manager**
Client/Owner: **Virginia Department of Transportation**

Dates: **March 2013-March 2015**
With Current Firm? **Yes**

Quality Assurance on this 7-mile long I-95 widening project. This project included roadway widening, installation of drainage pipes, extensive ITS/TMS work, overhead signs and extensive coordination with concurrent Express Lanes construction in the same project footprint. Mr. Singh coordinated on the corridor-wide (from I-95 in Alexandria to Spotsylvania) Traffic Management System for all lane closures, incident management and teamwork to minimize inconveniences to motorists during construction. He was fully responsible for project quality management of a VDOT Construction Manager and nine CEI Staff. In addition, he was involved in the oversight of all testing, documentation, and payment of work on site. He worked with and coordinated with the FHWA, Design Engineers, and Contractor to resolve field construction issues. He enforced VDOT specifications/standards and ensured that all Non-Conforming Work was properly documented, remediated and closed out. Contract value: $42M

Similar Scope & Complexity
- ✓ Roadway Widening
- ✓ VDOT project
- ✓ Extensive MOT operations
- ✓ Compressed schedule
- ✓ Similar size

Project Name: **VDOT I-66 HOV Widening from 234 Bypass to Route 29, Gainesville, VA**
Project Role: **Responsible Charge Engineer (on site)**
Client/Owner: **Virginia Department of Transportation**

Dates: **June 2006-Sept. 2009**
With Current Firm? **No**

Responsible Charge Engineer (on site) for widening of 2.8 miles of I-66 (2 new lanes each direction) and construction of five new bridges along with storm sewer, jack/bore, waterline, lighting and TMS work. Project was completed on time/on budget while reconstructing three new bridges that were not part of the original scope. He managed the $14.6 million Quality Assurance/Control budget and staff of over 20 managers/inspectors; served as technical source for field and design issues; partnered with the contractor to accelerate work; reviewed and negotiated change orders to build new bridges and work with the design engineers to expedite design (construction was allowed to proceed prior to full design plans as part of partnering approach between contractor, owner and designer in a Design-Build fashion); conducted schedule analysis and review and final project closeout. There were no claims on the project and project success was attributed to complete trust between the contractor and owner aspiring to the same goals of successful project delivery. He was involved in the extensive public outreach with local HOAs, shopping centers, local hospitals, school board and schools, PWC parks and local civic organizations (Lions Clubs, town mayors, Rotary Club, scouts, etc.). Contract value: $103M

Similar Scope & Complexity
- ✓ Complex interchange
- ✓ VDOT project
- ✓ Complex MOT
- ✓ Extensive technical issues
- ✓ Bridge construction
- ✓ Added scope/same duration

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

Not Applicable.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:

Gary S. Johnson, PE, DBIA – Director of Transportation Design-Build

b. Project Assignment:

Design Manager

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) :

Director Transportation Design-Build and Director of Bridges & Structures – Timmons Group (full time)

d. Employment History: With this Firm 1 Years With Other Firms 24 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):

Director Transportation Design-Build and Director of Bridges & Structures - Timmons Group Feb. 2017 – present

As the Director of Transportation Design Build, Mr. Johnson is responsible for securing and successfully delivering transportation design-build projects. In his role as the Director of Bridges & Structures, he is leading the growth of the structural practice firm-wide. He has 24 years of project management, design and construction inspection experience in structures, roadways, and mass transit stations. His extensive project management experience, formal training (MBA) and hands-on participation in inspection (NBIS), design and construction engineering assignments afford him in-depth knowledge of project requirements. Additionally, his experience with design-build projects has developed his full understanding of the implementation of bridge plans and projects through construction. He is a former member of the VTCA Engineering Consultant Leadership Committee and currently serves as the Chairman of the VTCA/VDOT Design-Build Committee where he serves as a voice of the industry to VDOT. He also serves on the Board for the local chapter of DBIA.

Director of Design-Build and Structures – RK&K Sept. 2010 – Feb. 2017

As the Director of Design-Build, Mr. Johnson was responsible for the successful delivery of all design-build projects in Virginia. Under his leadership, the firm's presence in the design-build arena grew from very minor roles to delivering multiple projects including performing as the prime designer on one of the highest profile design-build projects in Virginia (Route 29 Solutions). He also worked with the VDOT Alternative Project Delivery Division under a staff augmentation contract in a supporting role for the development of multiple design-build projects. During this tenure, he was also responsible for all structures projects in Virginia.

Mid-Atlantic Unit Manager – T.Y. Lin International May 2005 – Sept. 2010

Project Manager and Lead Structural Engineer for dozens of bridge projects. Oversaw staff of 20 structural engineers. Served as Engineer of Record on new bridge and replacement projects. Served as Principal in Charge for design-build projects in Virginia, North Carolina, and Washington DC.

Director of Virginia Operations – Ammann & Whitney June 1993 – May 2005

Project Manager and Lead Structural Engineer for projects throughout Virginia, Massachusetts, and Pennsylvania. Served as Engineer of Record on bridge replacement and rehabilitation projects. Focused on rehabilitation of bridges damaged from over height loads and emergency response.

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

Virginia Commonwealth University, Richmond, VA / MBA / 2003 / Business Administration
University of New Hampshire, Durham, NH / BSCE / 1993 / Civil Engineering

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

1999 / Professional Engineer / VA / #0402033863
2010 / DBIA Professional / #125387

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

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 project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) relevant projects* for which you have performed a 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: **Route 29 Solutions**
Albemarle County, VA (DESIGN-BUILD)
Dates: **March 2015-Feb. 2017**
Project Role: **Deputy Design Manager/Lead Structural Engineer**
With Current Firm? **No**
Client/Owner: **Virginia Department of Transportation**

Similar Scope & Complexity
- ✓ Design-build
- ✓ VDOT project
- ✓ Complex bridge design
- ✓ Retaining walls
- ✓ Extensive MOT

Mr. Johnson served as the Deputy Design Manager for this project and was involved in the entire procurement, design process, and leadership during construction. He also served as the Lead Structural Engineer. He was personally responsible for structural design of the bridges and retaining walls for the overall project that will reduce congestion on the busiest north-south corridor in the Charlottesville/Albemarle County region. Mr. Johnson's responsibilities included coordination with multiple subconsultants, managing the design schedule, ensuring conformance with the contract documents, and adhering to the aggressive design schedule. **He personally was responsible for the development of an advanced design** where the Rio Road Bridge superstructure serves as a strut to support the retaining walls below. This innovative design allowed for the Grade Separated Intersection (GSI) to be constructed in less than 60 days. His extensive coordination with subconsultants and disciplines, including roadway, stormwater, right-of-way, utilities, traffic, geotechncial, lighting, and fire code experts was instrumental to delivering this design and construction ahead of schedule. Design and construction for this project is complete. Contract value: $116.7M

Project Name: **I-64 Widening and Route 623 Interchange, Henrico and Goochland Counties, VA (DESIGN-BUILD)**
Dates: **Oct. 2013-Oct 2015**
Project Role: **Principal-in-Charge/Lead Structural Engineer**
With Current Firm? **No**
Client/Owner: **Virginia Department of Transportation**

Similar Scope & Complexity
- ✓ Design-build
- ✓ VDOT project
- ✓ Similar project size
- ✓ Bridge design
- ✓ Waterway Crossing
- ✓ Interstate parallel bridges
- ✓ Retaining walls
- ✓ Extensive MOT

This design-build project involved the widening of 4.5 miles of Interstate 64 to the inside from a four- lane divided interstate to a six-lane divided interstate and improvements to the I-64/Route 623 Interchange. It also included two mainline bridge replacements. The interchange improvements include upgrading the existing traffic signal, widening the I-64 westbound ramp to Route 623 to provide an additional turn lane, adding a left turn lane on Route 623 southbound to I-64 eastbound, and widening the I-64 eastbound off ramp to Route 623 to provide an additional turn lane. Mr. Johnson led and was responsible for the design of the bridges for this project, as well as multiple retaining walls required for the project. During the proposal process, Mr. Johnson served as the Principal-in-Charge the lead coordinator amongst all of the in-house design disciplines and subconsultants to deliver the successful proposal and successful design of the project. This leadership continued during the construction where he maintained being fully involved in the management of the project. The project is complete. Contract value: $34.8M

Project Name: **US 158 over Yadkin River**
Mocksville, NC (DESIGN-BUILD)
Dates: **June 2008-Sept. 2010**
Project Role: **Design Manager/Lead Structural Engineer**
With Current Firm? **No**
Client/Owner: **North Carolina Department of Transportation**

Similar Scope & Complexity
- ✓ Design-build
- ✓ Bridge design
- ✓ Roadway widening
- ✓ Similar project size
- ✓ Waterway crossing

Mr. Johnson was the Design Manager and Lead Structural Engineer for this roadway widening, intersection improvement, and bridge replacement project that included a nine-span bridge structure with a length of 1150 feet. Mr. Johnson led a multi-member, multi-disciplined project design team (including utilities, roadway, right-of-way, environmental, structures, and hydraulics) from proposal development through construction. Complicating the project was extensive right-of-way negotiations, complex maintenance of traffic, complex hydraulic analysis, and an aggressive schedule. Maintenance of Traffic was complicated by a horizontal curve at the end of the bridge as well as the requirement to maintain all lanes during construction while replacing the bridge on its current alignment. **Mr. Johnson was fully involved and in-charge of all design-related aspects from the pursuit to the project closeout**. During construction, he was hands-on with the day–to-day management with the contractor and subcontractors performing the construction as well as serving as a liaison to the Client. Contract value: $15M

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

Not Applicable

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
John E. Herrin Sr - Construction Manager

b. Project Assignment:
Construction Manager

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) :
Blythe Development Company (full time)

d. Employment History: With this Firm 2Years With Other Firms 38Years
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):

Construction Manager – Blythe Development Company **June 2016 - present**
The management of construction for $50M in transportation DB projects. Overseeing the design process and through construction. Responsible for safety, management of resources, erosion control, constructability review, coordination with the client, public relations, schedule and resolution of design and construction conflicts.

Construction Manager & Design Build Project Manager - NHM Constructors **June 1995 -May 2016**
Led DB Teams from SOQ phase through construction. Led the Design Build Team as a Partner with the Lead Design Firm and the Owner through the Design Phase of the work and then took over the Project through construction communicating with the Lead Designer and the Owner. Responsibilities during construction were to oversee safety, QA/QC for Plans and Construction, Erosion Control, Design & Construction Resolution, and aided in Public Relations alongside the owner. He played a key role in conflict resolution with the highest respect for all parties involved. John monitored and maintained schedules through all phases of the project to completion. Monitored cost, worked together with the owner through contract modifications.

Earlier in his career with this company, he served as the Superintendent of the Structure Division. During his time with this company, it went through a name change from Taylor and Murphy Construction to NHM Constructors.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: 38 years of on the Job Training.

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
The following certifications will be held prior to the commencement of construction: Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC).

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

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 project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) relevant projects* for which you have performed a 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: **I-26 / NC 191 (Brevard Road) Interchange Modifications and I-26 Widening and Pavement Reconstruction (DESIGN-BUILD)**
Dates: **March 2016 – Nov. 2018 (est)**
Project Role: **Construction Manager**
With Current Firm? **Yes**
Client/Owner: **North Carolina Department of Transportation**

Construction Manager on the Design-Build Project I-5504 that includes the modification of the I-26 / NC 191 (Brevard Road) interchange in Buncombe County. The Design-Build Team designed and, under John's leadership, constructed approximately 1.2 miles of I-26 to accommodate a future eight-lane facility with a twenty-six-foot full depth paved median and Type T concrete median barrier. Throughout the project limits, the I-26 design and construction includes pavement reconstruction. The primary purpose of this project is to reduce traffic congestion and improve the I-26 / NC 191 (Brevard Road) interchange efficiency.

The project included the replacement of parallel bridges along the interstate with complex MOT playing a major factor in the project's success. John was intimately involved in the MOT layout and implementation.

Contract value: $47.4M

Similar Scope & Complexity
- ✓ Design-build
- ✓ DOT project
- ✓ Similar project size
- ✓ Bridge replacement
- ✓ Interstate widening
- ✓ Retaining walls
- ✓ Extensive MOT

Project Name: **Express DESIGN BUILD Multi Structures Division 13**
Dates: **March 2012 - March 2016**
Project Role: **Construction Manager**
With Current Firm? **No**
Client/Owner: **North Carolina Department of Transportation**

Construction Manager for this design build project that includes the replacement of 12 bridges in seven different counties. John was responsible for safety, management of resources, erosion control, constructability review, coordination with the client, public relations, schedule and resolution of design and construction conflicts. The fact that the construction sites were so spread out called for extensive construction management that John was responsible for. The overall project was completed on time and on budget with no safety issues.

Contract value: $7.4M

Similar Scope & Complexity
- ✓ Design-build
- ✓ DOT project
- ✓ Waterway Crossings
- ✓ Roadway widenings
- ✓ Retaining walls
- ✓ Extensive MOT

Project Name: **I-40 Design-Build (DESIGN-BUILD)**
Dates: **July 2006 - June 2009**
Project Role: **Construction Manager**
With Current Firm? **No**
Client/Owner: **North Carolina Department of Transportation**

Construction Manager responsible for the construction of auxiliary lanes East Bound and West Bound on I-40 in the proximity of Exit 44 in Buncombe County. The project is located in a high traffic volume area near Asheville, NC. John was responsible for the construction of parallel interstate bridges as part of this project. To conduct this work John coordinated the utility relocation and extensive interstate maintenance of traffic throughout the life of the project. Crossovers were utilized to safely maintain all lanes during construction.

Contract value: $42.9M

Similar Scope & Complexity
- ✓ Design-build
- ✓ DOT project
- ✓ Bridge construction
- ✓ Interstate widening
- ✓ Extensive MOT

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

I-26 / NC 191 (Brevard Road) Interchange Modifications and I-26 Widening and Pavement Reconstruction is slated to be completed in November 2018.

Attachment 3.4.1 (a) and (b)

Work History Forms

Blythe

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS

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 consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: New Interchange with Macy Grove and I-40 Business Location: Catawba County, NC	Name: Rummel, Klepper & Kahl, LLP **DESIGN-BUILD**	Name of Client/ Owner: NCDOT Phone: 704.480.9020 Project Manager: Larry Carpenter, PE Phone: 704.480.9020 Email: lcarpenter@ncdot.gov	10/2012	02/2013 (Owner approved time extensions)	$3,132	$2,931 (Reduced from original contract amount due to quantity underruns)	$2,931

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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.

This fast-track, Blythe Development led design-build project consisted of the construction of a new interchange and three bridges at Macy Grove and I-40 Business to enable traffic to flow with the highest efficiency both in its final pattern and temporary patterns throughout the phasing required for this project. As the Design-Build Contractor, Blythe was 100 percent responsible for all aspects of construction and design, including highways and structures, MOT, environmental permits and protection, public relations, coordination with adjacent properties and utility protection and relocation. Daily coordination occurred onsite and weekly meetings were held. The scope of the project included the demolition and removal of the existing bridge over I-40 Business that carried approximately 55,000 vehicles a day with a new 156 foot, single-span structural steel bridge with MSE walls used to minimize span length. Two additional bridges were included as part of this project scope and were constructed to carry Macy Grove Road traffic over a NSRR and over East Mountain Street. With traffic control and safety being of paramount concern, much of the construction was completed at night and during off-peak traveling.

RELEVANT PROJECT ELEMENTS

Structural Engineering: Similar to what may be utilized on the I-81 Bridge Replacement over Rte. 11 and Middle Fork Holston River Project, median crossovers and the existing ramps with potential modifications along with phased construction helped manage the MOT. Utility coordination and ROW acquisition were major components of the project and were managed by the team.

Utilities: The D-B Team acquired all permits for construction and coordinated all utility construction and relocation. After right-of-way plans were developed, utility coordination quickly began. Close coordination was maintained with utility companies to finalize designs and begin construction as soon as right-of-way was acquired.

Right of Way: Right-of-way acquisition and permitting were two scheduled critical activities that led to getting the construction phase off to a good start. Post-award investigation by the team of the permit requirements resulted in a nationwide permit being obtained instead of an individual permit. This allowed construction to begin earlier than originally scheduled. The construction management team developed a priority list of parcel acquisitions which allowed construction to progress.

Due to the high volume of train traffic on the NSRR, construction of the structure over NSRR took longer than anticipated. To solve this potential issue, bridge crews worked longer hours and on the weekend to overcome the delay. In the future, a longer duration will be accounted for in the schedule for structures over railroads with a high volume of train traffic.

SCOPE OF WORK:

- ✓ Design-Build
- ✓ Roadways
- ✓ Survey
- ✓ Structures and Bridges
- ✓ Environmental
- ✓ Geotechnical
- ✓ Hydraulics
- ✓ Traffic Control Devices
- ✓ Transportation Management Plan
- ✓ Maintenance of Traffic
- ✓ QA/QC
- ✓ Right-of-Way
- ✓ Utilities
- ✓ Landscaping
- ✓ Guardrail
- ✓ Public Involvement/Relations
- ✓ Construction Engineering and Inspection
- ✓ ITS

Similar Scope and Complexity

- ✓ Bridge Construction
- ✓ Design-Build
- ✓ Traffic Management

Successful Delivery

- ✓ This project was delivered 10 days beyond schedule with a perfect safety record. There were no recordable safety incidents for the construction team or the travelling public. The delay in schedule was due to an equipment failure by a subcontractor at the completion of the project. The project was also delivered under budget.
- ✓ Winner of ACEC Pinnacle Award

Consistency of Personnel

Mike Parker (BDC)

- ✓ Role General Superintendent
- ✓ A large part of the success of this project was Mr. Parker's performance with both scheduling & execution of all construction activities.

Marvin Leatherwood (BDC)

- ✓ Role Bridge Superintendent
- ✓ Mr Leatherwood played a significant role in the success of this project by providing leadership for the scheduling, resource management and quality for the bridge construction. He will serve in the same role for the I-81 Smyth County project.

Richard Kirkman (BDC)

- ✓ Design Build Coordinator
- ✓ Mr. Kirkman was the liaison between the construction and design teams and kept both sides focused on the most critical parts of the project. He will serve in a similar role on the I-81 Smyth County project.

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 consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: Bridge Replacement on Salisbury Street over I-40 Location: Forsyth County, NC	Name: NCDOT Staff Engineers	Name of Client/ Owner: NCDOT Phone: 336.249.6255 Project Manager: Dale Swicegood, PE Phone: 336.249.6255 Email: dswicegood@ncdot.gov	11/2012	11/2012	$2,226	$2,120 (Reduced from original contract amount due to quantity overruns)	$2,120

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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.

Blythe Development Company served as the Lead Contractor for the bridge replacement on Salisbury Street over I-40 project. This project included the removal of the existing 4-span, 190' long reinforced concrete deck-girder bridge and replacement with a 2-span, 200' long concrete bridge consisting of pre-stressed concrete girders, concrete deck, sidewalk and decorative classic bridge rail, founded on three piers. Temporary shoring was required to support the existing interstate while excavating and constructing the center pier footings and columns. Numerous improvements to the roadway approaches and nearby intersecting city streets were completed, including construction and installation of drainage structures, water & sewer lines, RCP, curb & gutter, sidewalk, driveways and new asphalt pavement. In addition, a 100' long CIP concrete gravity retaining wall was built in order to facilitate road widening in close proximity to an existing church. Blythe's Team was responsible for the bridge demolition; temporary shoring installation; cast-in-place gravity retaining wall construction; all aspects of bridge construction from H-pile installation to barrier rail construction; erosion control, concrete flatwork construction including curb and gutter, sidewalk and driveways; stormwater system construction including drainage structure and pipe installation; utility coordination and construction including water and sewer; all aspects of roadway grading including collector and arterial road tie-ins.

RELEVANT PROJECT ELEMENTS

Interstate Corridor Bridge Demolition: As will be required on the I-81 project, intensive demolition plans were required involving both equipment and traffic plans to allow for the demo of the existing structures.

Interstate Corridor Bridge Construction: Limited access created logistical situations that required a high level of planning to ensure an expedited schedule that minimized the impacts on the traveling public and maximized the safety of the site and traffic thru the project.

MOT of High Volume Roadway: The use of crossovers and staged construction was required as will be on much of the construction on I-81.

Night Construction: Much of the roadway, bridge demo and placement of girders was performed at night during off peak hours to minimize the impacts on the heavily traveled section of I-40. In addition to these situations the tie in work for crossovers and placement of traffic into its final pattern required the activities to be performed when lane closures were allowed. Similar use of traffic control during night hours will be required for the I-81 project.

SCOPE OF WORK:

- ✓ Roadways
- ✓ Interstate
- ✓ Survey
- ✓ Structures and Bridges
- ✓ Environmental
- ✓ Geotechnical
- ✓ Hydraulics
- ✓ Transportation Management Plan
- ✓ Maintenance of Traffic
- ✓ QA/QC
- ✓ Right-of-Way
- ✓ Utilities
- ✓ Public Involvement/Relations
- ✓ Construction Engineering and Inspection

The scope of work for this project posed numerous challenges for the Blythe team. Thorough and detailed planning by Blythe project management staff allowed for successful resolution of these challenges. For instance, ingress & egress to a narrow interstate median with reduced sight distances in both directions posed safety issues. To resolve this, minor material deliveries were scheduled for low peak traffic times, with major material deliveries scheduled for night time, using escort vehicles to pace traffic.

The installation of temporary shoring (driven sheeting) in a tight median space immediately adjacent to interstate traffic was required. To remedy, one lane of interstate traffic was closed in each direction at night to allow for installation of sheeting

As the contract only allowed for pacing of traffic and 20 minute closures to allow for demolition of existing structure over interstate traffic, Blythe's management team developed, presented to the owner and received approval for an interstate detour plan which called for a full interstate closure at night, allowing for the uninterrupted demolition of the existing bridge. While a full detour is not anticipated on I-81, this level of thinking points to the problem solving mindset of the team.

Similar Scope and Complexity

- ✓ Interstate Corridor Bridge Demolition
- ✓ Interstate Corridor Bridge Construction
- ✓ MOT of High Volume Roadway
- ✓ Night Construction

Successful Delivery

- ✓ This project was delivered on-time and under budget. This project was also delivered with a perfect safety record for the construction team as well as the travelling public. There were no reported incidents on this project. This is a testament to the importance Blythe places on safety.
- ✓ Delivered under budget

Consistency of Personnel

Marvin Leatherwood (BDC)

- ✓ Role Bridge Superintendent
- ✓ Mr Leatherwood played a significant role in the success of this project by providing leadership for the scheduling, resource management and quality for the bridge construction. He will serve in the same role for the I-81 Smyth County project.

Richard Kirkman (BDC)

- ✓ Design Build Coordinator
- ✓ A large part of the success of the project was the role of Richard Kirkman. Mr. Kirkman was the liaison between the construction and design teams and kept both sides focused on the most critical parts of the project. He will serve in a similar role on the I-81 Smyth County project.

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 consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: NC-16 over I-40 Bridge Replacement Location: Catawba County, NC	Name: NCDOT Staff Engineers	Name of Client/ Owner: NCDOT Phone: 704.480.9020 Project Manager: Larry Carpenter, PE Phone: 704.480.9020 Email: lcarpenter@ncdot.gov	10/2012	02/2013 (Owner approved time extensions)	$3,132	$2,931 (Reduced from original contract amount due to quantity underruns)	$2,931

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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.

Blythe Development Co. served as the Lead Contractor for this NC-16 over I-40 Bridge Replacement project and was responsible for all aspects of demolition, removal of existing bridge and construction of new bridge and upgrades to the roadway approaches. The project scope included the removal of the existing 4-span, 320' long concrete deck-steel girder bridge over I-40 on NC-16 and replacement with a 2-span, 200' long bridge consisting of pre-stressed concrete girders, concrete deck, sidewalk, and three bar metal rail, founded on three piers. MSE walls were built at each abutment location to allow for the use of shorter span lengths. A system similar to this operation will be investigated for I-81 Bridge Replacement at Exit 114 project. Numerous improvements to the roadway approaches were completed at both ends of the project, including construction and installation of drainage structures, RCP, curb & gutter, sidewalk, driveways and new asphalt pavement. Blythe's Team was responsible for the bridge demolition; bridge construction; MOT, environmental permits and protection, erosion control; utility coordination, concrete flatwork construction including curb; gutter, sidewalk and driveways; stormwater system construction including drainage structure and pipe installation; roadway grading including collector and arterial road tie-ins. The scope of work for this project posed numerous challenges for the Blythe team. Thorough and detailed planning by Blythe project management team allowed for successful resolution of these challenges, as follows:

The contract only allowed for pacing of traffic and 20 minute closures to allow for demolition of existing structure over interstate traffic. To solve this issue, the Blythe Team proposed MOT revisions to improve traffic flow and presented to the owner. These revisions were implemented once approved by the Owner, and an interstate detour plan, which called for a full interstate closure at night, allowed for the uninterrupted demolition of the existing bridge.

Original contract time was very tight at just ten months with potential of significant contractual liquidated damages ($2000/per calendar day). To mitigate this issue, the Blythe Team developed and actively managed an aggressive critical path schedule. This enabled the timely design approval and delivery of key permanent materials, scheduling of key subcontractors and additional labor crews and ensured the team stayed ahead of any potential issues which could negatively affect the schedule.

SCOPE OF WORK:

- ✓ Roadways
- ✓ Interstate
- ✓ Survey
- ✓ Structures and Bridges
- ✓ Environmental
- ✓ Geotechnical
- ✓ Hydraulics
- ✓ Traffic Control Devices
- ✓ Transportation Management Plan
- ✓ Maintenance of Traffic
- ✓ QA/QC
- ✓ Right-of-Way

Similar Scope and Complexity

- ✓ Interstate corridor bridge demolition
- ✓ Interstate corridor bridge construction
- ✓ Interstate construction
- ✓ MOT of busy arterial and collector roads
- ✓ Night construction

Successful Delivery

- ✓ This project was delivered with a perfect safety record for the construction team and the travelling public. Late in the contract, the owner made significant design changes to a portion of the project, which necessitated negotiation of additional contract time. Blythe worked with the designers to efficiently integrate these owner-directed changes and Blythe completed the project on-schedule with the additional time granted by the owner.
- ✓ Delivered under-budget

Consistency of Personnel

Marvin Leatherwood (BDC)

- ✓ Role Bridge Superintendent
- ✓ Mr Leatherwood played a significant role in the success of this project by providing leadership for the scheduling, resource management and quality for the bridge construction. He will serve in the same role for the I-81 Smyth County project

Richard Kirkman (BDC)

- ✓ Design Build Coordinator
- ✓ A large part of the success of the project was the role of Richard Kirkman. Mr. Kirkman was the liaison between the construction and design teams and kept both sides focused on the most critical parts of the project. He will serve in a similar role on the I-81 Smyth County Project

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)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: NCDOT Division 11A Express Design-Build Location: Ashe County & Watauga County, NC	Name: Blythe Development Co. **DESIGN BUILD** **SAME TEAM**	Name of Client: NCDOT Phone: 919.707.6613 Project Manager: Eileen Fuchs Phone: 919.707.6613 Email: eafuchs@ncdot.gov	02/2018	10/2019 est.	$2,563	$2,563 est.	$330

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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

The Richmond office of the Timmons Group is the prime designer for the replacement of two bridges and associated roadway work for the North Carolina Department of Transportation. Timmons Group is the lead designer providing the design management, roadway design, hydraulics design and permitting, erosion control, traffic control, utility coordination, surveys, and SUE. The cost developed by this team for the overall project was within five percent of the owner's estimate. This one project includes bridge replacement in Ashe County and Watauga County and are described below.

State Route 194 over Old Field Branch Waterway in Ashe County

This section of the project includes the bridge replacement of the main waterway crossing in the town of Lansing, NC along an old railroad corridor. As the main thoroughfare through the town and a primary road, maintaining traffic during construction was a requirement of the project. The client called for extensive temporary roadway work and a temporary bridge to meet this requirement. The Blythe / Timmons team developed an alternative Maintenance of Traffic (MOT) plan that removed the need for the temporary roadway and bridge. This plan, approved through proprietary meetings, reduced the projected construction time and resulted in a significant cost savings for the Department of Transportation.

Along with the construction of the vehicular bridge, the project included the relocation of two pedestrian bridges.

The project was complicated by extensive utility relocation with overhead lines and facilities carried by the structure itself. Timmons Group served as the lead utility coordinator for this work.

The entire project is to be constructed within the existing Right-of-Way with minimal easements. With buildings on 2 corners of the project, public involvement was paramount and vibration monitoring is required during construction to ensure no damage occurred to the adjacent properties.

State Route 1540 over South Fork of the New River in Watauga County

This section of the project includes the bridge replacement of a State Route and the only access to a Railroad Theme Park that is very important to the local community and economics of the area. The scope of the project also includes the realignment of the State Route 1540 to improve safety to the travelling public. The Blythe / Timmons team simplified the alignment and profile, reducing the need for borrow on the project, saving construction time and construction cost.

The significant waterway of the South Fork of the New River called for advanced hydraulics design and scour design as part of the overall structural analysis. The hydraulic opening was also sized to allow for a pedestrian walkway to be accommodated under the structure. The realigned Route crossed another waterway that was serviced by a culvert section and was also hydraulically modeled. All work was planned to occur within the Time of Year (TOY) Restrictions for trout.

The integration of a new traffic signal and improvements to the adjacent Route 321 is also included in this project and was designed by Timmons.

Consistency of Personnel and Desire to Continue to Work Together

This project consisting of two bridge replacements and associated roadway approaches has been successful for Blythe and Timmons. Based on this success, we look to continue to work together.
The majority of the design team members from Timmons and team members from Blythe who work on this project are assigned to the I-81 project.

Similar Scope and Complexity
- ✓ Design Build
- ✓ Two Bridge Replacements
- ✓ Complex MOT
- ✓ Hydraulics

Successful Delivery
- ✓ Eliminated need for temp bridge
- ✓ Project is ahead of schedule
- ✓ Project is on budget

Consistency of Personnel

Gary Johnson (Timmons)
- ✓ Design Manager on this project and proposed project

Chris Kiefer (Timmons)
- ✓ Roadway designer on this project and QA/QC Design Manager on proposed project

John Herrin (BDC)
- ✓ Construction Manager on this project and proposed project

Travis Padgett (BDC)
- ✓ Design Construction Coordinator on this project and proposed project

Richard Kirkman (BDC)
- ✓ DBPM on this project and proposed project

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)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-95/Russell Road Interchange Improvements Location: Quantico, VA	Name: Hensel Phelps Construction Company **DESIGN BUILD**	Name of Client.: Hensel Phelps Construction Co. Phone: 703.828.3200 Project Manager: Andrew George Phone: 702.828.3200 Email: ageorge@henselphelps.com	4/2010	8/2012	$10,000	$10,000	$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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

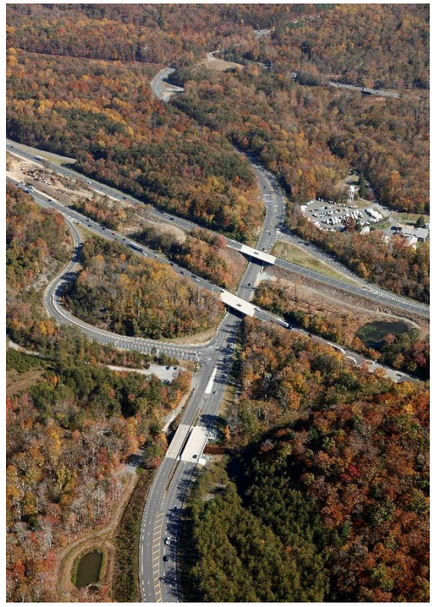
As part of the Design-Build team, Timmons Group staff from the Richmond, Virginia office provided traffic and transportation design engineering, environmental, landscape architecture and land surveying services for the $375 million Military Department (MILDEP) Collocate Investigative Agencies project at Marine Corps Base Quantico. The primary access point serving this 735,000 square foot facility is the I-95 interchange at Russell Road (Exit 148) in Prince William County. STV, our design consultant on the I-81 project, was a subconsultant for bridge design on this project.

Collaborative team effort delivered this project on time and under budget. Early on, we established a clear chain of command and communication process that helped us navigate through all of the various stakeholders and review staff (NAVFAC, VDOT, FHWA (indirectly through VDOT), Quantico Marine Corps DPW, and multiple contractor partners. In addition, we developed detailed MOT plans and ramp improvements to the existing I-95/Russell Road interchange that involved temporary signals and the ramp nodes (as well as permanent signals) in keeping with an approved IMR.

Timmons Group was the lead designer of the transportation aspects of this project and included the following:

Civil and Roadway Design

- Increasing the capacity of the I-95 interchange (Exit 148) by widening and reconfiguring the existing ramps;
- Widening over two miles of Russell Road from a 2-lane rural to a 4-lane urban section;
- Designed 1000' of new 4-lane roadway and turn lane improvements;
- Resurfacing and rehabilitating bituminous roadways to comply with applicable VDOT and UFC standards; and
- Developed and presented multiple geometric design options to protect stakeholder interests.



Hydrology, Hydraulics, and Drainage

- Developed extensive drainage improvements and stormwater management facilities to satisfy Virginia stormwater regulations.

Utility Design and Coordination

- Protected and coordinated the relocation of MCBQ fiber optic lines and private utilities.

Traffic Engineering

- Designed five new signalized intersections;
- Prepared a "Type C" (most stringent VDOT requirement) Transportation Management Plan (TMP) that includes detailed traffic operations modeling and maintenance of traffic plans illustrating how lane closures will impact traffic operations; and
- Developed traffic signal timing plans for three temporary signals necessitated by lane closures and limited ramp capacity during key stages of construction.

Structural Design (Conducted by our sub STV)

- Single-span bridge and the rehabilitation of an existing three-span bridge over Chopawamsic Creek;
- The new single-span bridge eliminated impacts to the stream bed and facilitated permitting;
- Semi-integral abutments were used to eliminate joints and reduce future maintenance costs;
- To address the corrosive characteristics of the soil and rock at the site, drilled shaft foundations and special concrete mix designs were utilized;
- Completed a condition inspection of the existing structure to inventory and map structural deficiencies for use in developing rehabilitation plans for the existing structure;
- Incorporated 600' of roadside retaining walls due to limited right-of-way availability;
- New bridge was added parallel to the existing bridge and after traffic was diverted onto it via staged construction, the existing bridge was re-constructed.

Environmental

- Identified environmental constraints, including the endangered small whorled pogonia and extensive waters of the U.S. located within the project footprint and utilizing the appropriate avoidance and minimization techniques to obtain the necessary environmental permits.

Maintenance of Traffic (MOT)

- Performed operational studies that demonstrated that during construction, the traffic would have no impacts or backups onto the interstate ramps;
- Required design of temporary traffic signals at the interstate nodes;
- Existing two lane bridge carrying traffic on Russell Road was just a few hundred feet away from the interstate ramps; and
- Base had a very high one directional peak hour flow and therefore all MOT plans were focused on these movements.

Geotechnical

- Mitigated poor subsurface conditions, including high groundwater, corrosive Quantico slate and unforeseen buried debris.

Stakeholder Coordination

- Coordinated with numerous stakeholders including NAVFAC Washington, A/E#1 (NAVFAC's consultant), MCBQ (users and security personnel), ROICC office, VDOT, GEC (VDOT's "general engineering consultant"), multiple architects and other subcontractors.

Similar Scope and Complexity

- ✓ Design-build
- ✓ Interstate
- ✓ Virginia project
- ✓ Comparable project size
- ✓ Bridge design (Team)
- ✓ Waterway crossing
- ✓ Maintenance of traffic design
- ✓ Environmental permitting
- ✓ Stakeholder coordination
- ✓ Utility coordination and design

Successful Delivery

- ✓ Delivered within budget
- ✓ Delivered on-time
- ✓ NAVFAC Commanders 2011 Design Honor Award
- ✓ DBIA 2012 Design Excellence Merit Award

Consistency of Personnel

Paul Trapp, PE

- ✓ Principal in Charge
- ✓ Proposed Executive Committee

Chris Kiefer, PE

- ✓ Design Manager/Utility Coordinator
- ✓ Proposed Design QA/QC

Brian Copeland, PE, Assoc. DBIA

- ✓ Roadway Design Engineer
- ✓ Proposed Roadway Design Engineer

Derek Overstreet, PE (STV)

- ✓ Bridge Design

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)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: Mist Lake Water Management Complex Site – Bridge Design Location: Durham, NC	Name: Gilbane Building Company **DESIGN BUILD**	Name of Client: City of Durham - Water Management Phone: 919.560.4381, ext. 35283 Project Manager: Robert M. Gasper Phone: 919.560.4381, ext. 35283 Email: robert.gasper@durhamnc.gov	11/2018	11/2019 est.	$3,000	$3,000 est.	$120

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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

Timmons Group is the prime designer providing roadway and bridge design services as part of the site development for a new water treatment facility in Durham, NC. The Richmond office led the structural and hydraulics work and the Raleigh office led the other disciplines. As part of a larger overall project that includes the adjacent water treatment facility, it involves design of an access road to the facility complex, requiring a stream crossing. The proposed bridge is a 90' prestressed concrete girder structure, chosen as the most cost efficient bridge option which also results in the fewest long-term maintenance requirements.

The structure when first envisioned was a longer multi-span curved structure on a significant vertical curve. Working in a true design-build fashion, Timmons Group's structural team worked with the contractor, hydraulics, and roadway engineers to streamline the structure. The alignment was modified to allow for a straight bridge, which significantly simplified the design and greatly reduced the construction costs. From a vertical perspective, the profile was modified in the area of the bridge to a tangent. This modification of moving the required vertical curve off the bridge deck simplified the geometry during design and construction.

Structural Design

The bridge is designed as a jointless structure with integral abutments to reduce long-term maintenance impacts to the bridge components. The prestressed concrete girder provide an efficient means of spanning the necessary length while providing the lowest maintenance option for a water crossing. The abutment piles are designed for anticipated scour conditions. The bridge cross-section will accommodate pedestrian traffic as well as vehicular traffic, and incorporates a barrier separation between the two, increasing both pedestrian and driver comfort. The bridge is designed to incorporate aesthetic features, including the use of concrete formliner and concrete staining to provide the appearance of stone façade on the parapets, abutments and retaining walls.

Roadway Design

The roadway design was complicated by the existing ground elevations, required tie-in points at each end, and freeboard requirements for the bridge and water treatment facility above the floodplain. The west end of the new drive will tie into existing Camden Avenue, which is the low point of the entire project site area. Coming from Camden Ave., the roadway elevation must increase quickly over a short distance to allow for the low chord of the bridge to be above the 100-year elevation, and then tie into the proposed elevations adjacent to the new building, which are set at a specified height above the floodplain. This required complex design of the roadway profile to meet required elevations and not exceed limits on acceptable roadway grades.

Hydraulic Design

Timmons Group performed a full Hydrologic and Hydraulic Analysis (H&HA) for the proposed stream crossing to determine the impacts on the 100-year floodplain elevation and limits. This work includes a CLOMR/LOMR process through FEMA due to changes in the 100-year floodplain.

Scour analysis was also performed as part of the project. Initial design scour depths were larger than expected, so throughout the design process, structural, hydraulic and roadway engineers worked together to refine the hydraulic modeling and bridge layout to limit the scour impacts. The hydraulic model was updated with a more accurate terrain model than the existing FEMA models, and the bridge wingwall layout was revised to produce improved flow conditions approaching the bridge. These updates lessened the water velocities under the bridge and reduced the design scour depth.

The same structural and hydraulics design team for this bridge is assigned to the I-81 project.

Similar Scope and Complexity
- ✓ Bridge Design
- ✓ Design Build
- ✓ Roadway Design
- ✓ Waterway Crossing
- ✓ Hydraulic Design

Successful Delivery
- ✓ Simplified design through DB process
- ✓ Minimizing maintenance needs

Consistency of Personnel

Gary Johnson, PE (Timmons)
- ✓ Bridge Design Manager

Ashley Johnson, PE (Timmons)
- ✓ Bridge Design

Andrew Douglas, PE (Timmons)
- ✓ Bridge Design

Sheila Reeves, PE (Timmons)
- ✓ Hydraulic Design