Request for Qualifications: A Design-Build Project

**Warrenton Southern Interchange US 15/17/29**

From: Route 15/17/29 & Route 15/17/29 Business

To: 1.0 mile South of Route 15/17/29 & Route 15/17/29 Business | Fauquier County, Virginia

State Project No.: 0029-030-121, P101, R201, C501, B616
Federal Project No.: STP-032-7(032)
Contract ID Number: C00077384DB100

Submitted to:
Virginia Department of Transportation

Submitted by:
Chemung Contracting Corporation

Michael Baker International, Inc.
3.2 Letter of Submittal
May 31, 2017

Bryan W. Stevenson, P.E., DBIA
Alternate Project Delivery Division
1401 East Broad Street
Richmond, VA 23219

Dear Mr. Stevenson,

Chemung Contracting Corporation (CCC) presents our qualified and experienced team in response to your Request for Qualifications (RFQ) for the Warrenton Southern Interchange at US 15/17/29. The CCC team understands the Risks of this project, we have established innovative mitigation strategies for these Risks, and we are committed to delivering VDOT, the Town of Warrenton, local citizens, and stakeholders a quality project that will improve mobility for local and regional roadway users for decades to come.

Chemung Contracting is part of the Dalrymple Companies started in 1902 in its fourth generation of operations. In Virginia, Chemung works with its sister company Cedar Mountain Stone, which means we directly mine, crush, and sell aggregates, soil materials, cement treated materials, and hot mix asphalt. From our quarry site, just 35 minutes south of the site, Chemung will supply without secondary markup aggregate, fill, soil, and asphalt materials for this project, delivering a significant price advantage over competitors.

Chemung is also part of the community. We heavily invest in programs dealing with VDOT, the Virginia Research Council, the Virginia Community Colleges, UVA’s United Physician Group, construction associations including Virginia Asphalt Association, Old Dominion Contractors Association, and Virginia Transportation Council. We serve on everything from the Chief Engineer’s Gang of Six to VTRC’s STIC committee that moves research from the study phase to implementation. Our involvement keeps us on the cutting edge of innovation, having been part of FHWA studies of the thermal profiling of pavements, George Mason’s ongoing study of RAP combined with 21A, and the use of porous pavements for stormwater mitigation.

The FHWA pavement study led to Chemung investing in equipment that improved our paving quality. This resulted in our Route 20 project in the Culpeper District receiving the 2015 Asphalt Pavement Award for Virginia’s Outstanding Pavement of the Year for Maintenance Projects.

Demonstrating recent, relevant experience on Route 29 in the Culpeper District, the soon to be completed Route 29 at Route 666 project received a CQIP score of 100, a major achievement of the team associated with the project, enough for Charlie Kilpatrick to note it at the 2016 VTCA spring conference. We will bring the same construction management team to the Warrenton Southern Interchange.

Chemung brings the right team to the Warrenton Southern Interchange. The Lead Designer for the CCC team is Michael Baker International (Michael Baker). Michael Baker brings recent design-build experience at the I-66/Route 15 interchange and wide-ranging management and technical capabilities. As author of the 2013 Conceptual Study for this interchange that included traffic forecasting and design alternatives, Michael Baker worked closely with the Culpeper District and brings unique knowledge and understanding of project Risks and requirements. With significant national-level Design-Build and alternative intersection and interchange design experience, Michael Baker will self-perform all traffic analysis, highway, drainage, noise, landscape, environmental, utility, and bridge design for this project. This single design source will streamline and simplify communications through the schedule-critical design process.

Strategically selected subcontractors and subconsultants on the CCC team include Kanawha Stone (Kanawha), a long-time partner of CCC, including on the new Route 29/666 interchange in Culpeper. Quinn
Consulting Services will oversee Quality Assurance with a D-B experienced QAM. Construction Quality Control will be delivered by A. Morton Thomas and Associates (AMT). The QC and QA testing labs will be ECS Mid-Atlantic and Specialized Engineering, respectively. Schnabel Engineering Consultants, Inc. (Schnabel) will solve the cost-critical geotechnical design. Schedule-critical ROW acquisition services will be performed by KDR Real Estate (KDR). Rice Associates, Inc. (Rice), and InfraMap, Corp. (InfraMap), will handle survey and utility locating, respectively.

**Submittal Requirements**
The CCC Team submits the information below as detailed in Section 3.2 of the Request for Qualifications:

3.2.1 The full legal name and address of Chemung Contracting is as follows:
**Chemung Contracting Corporation**, 10496 Quarry Drive, Mitchells, VA 22729

3.2.2 The contact information for Billy Myers (DBPM) who is responsible for the oversight of the entire CCC Team and will be the primary point of contact with VDOT is as follows:
**Billy Myers**
10496 Quarry Drive
Mitchells, VA 22729
540.829.7203 (Office)
540.829.5593 (Fax)
bmyers@dalholding.com

3.2.3 The principal officer of CCC with whom a D/B contract with VDOT would be written is:
**Edward C. Dalrymple, Jr.**
10496 Quarry Drive
Mitchells, VA 22729
540.829.7203 (Office)
540.829.5593 (Fax)
edalrymple@dalholding.com

3.2.4 CCC is a registered Corporation in the Commonwealth of Virginia and will take financial responsibility for the Project.

3.2.5 Chemung Contracting Corporation will be the Lead Contractor and Michael Baker International will be the Lead Designer for the Project.

3.2.6 All affiliated and subsidiary companies are identified on Attachment 3.2.6 in Appendix 3.2.6.

3.2.7 Executed Certification Regarding Debarment Forms are included in Appendix 3.2.7.

3.2.8 CCC is active, in good standing and prequalified to bid on the Project. CCC’s prequalification number is C224 and evidence of prequalification is included in Appendix 3.2.8.

3.2.9 CCC has the capability to obtain a performance and payment bond for the $21M estimated contract value of the Project as exhibited by the letter of surety in Appendix 3.2.9.

3.2.10 The summary of professional licenses, Attachment 3.2.10, as well as full size copies of individual licenses for the CCC Team business entities and Key Personnel are included in Appendix 3.2.10.

3.2.11 CCC is committed to achieving the 11% DBE participation goal for the Project. CCC consistently meets DBE goals and has met the goal on all previous projects completed in Virginia.

CCC’s Team qualifications for this Project are evidenced by our successful work history on projects with similar challenges, outstanding similar experience within the Culpeper District constructing the Route 29/666 interchange, excellent relationships among each member of the CCC Team, and Key Personnel experienced in Design-Build. We look forward to continuing our existing excellent partnership with VDOT’s Culpeper District staff to deliver the Warrenton Southern Interchange safely, ahead of schedule, and within VDOT’s budget.

Respectfully,

______________________________
Edward C. Dalrymple, Jr., President
Chemung Contracting Corporation
3.3 Offeror’s Team Structure
3.3 OFFEROR’S TEAM STRUCTURE

Chemung Contracting Corporation (Chemung) will serve as the lead contractor of the Design-Build Team for the Warrenton Southern Interchange US 15/17/29 Design-Build Project. Chemung’s role will include managing the entire project, supervising construction and self-performing all major work elements. Michael Baker International, Inc. (Michael Baker) will provide all engineering design services to the Team.

Together, Chemung and Michael Baker have assembled additional team members dedicated to the quality of work and service that will provide the best value to VDOT. This strategic selection of our team members has allowed us to take full advantage of the Design-Build process.

### The Chemung Contracting Team

<table>
<thead>
<tr>
<th>Chemung Contracting Corporation</th>
<th>Michael Baker International, Inc.</th>
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<tbody>
<tr>
<td>Offeror/Lead Contractor</td>
<td>Lead Designer</td>
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<tr>
<td>Project Management</td>
<td>Roadway/Hydraulics Design</td>
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<tr>
<td>Coordinating with VDOT</td>
<td>Design for Bridge, Traffic, and Utilities</td>
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<td>Performing Majority of</td>
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<td>Noise</td>
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<td>Supervising Subcontractor</td>
<td>Public Involvement</td>
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<td>Activities</td>
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<tr>
<th>Kanawha Stone Company, Inc.</th>
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<tr>
<th>Quinn Consulting Services, Inc.</th>
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<td>Right-of-Way and Acquisition</td>
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<td>Construction Easements</td>
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<tr>
<th>DVI Group, Inc. t/a Specialized Engineering</th>
<th>Rice Associates</th>
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<td>QA Testing Lab</td>
<td>Design Survey</td>
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<th>A. Morton Thomas and Associates, Inc.</th>
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<td>Quality Control</td>
<td>Utility Locating</td>
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<tr>
<th>ECS Mid-Atlantic LLC</th>
<th>Peggy Malone &amp; Associates</th>
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<tr>
<td>QC Testing Lab</td>
<td>Data Collection</td>
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Michael Baker International, Inc., Quinn Consulting Services, Inc. (QCS), Specialized Engineering, Kanawha Stone Company, Inc. (KSC), A. Morton Thomas and Associates (AMT), and ECS Mid-Atlantic LLC (ECS) will be subconsultants to Chemung Contracting Corporation. The remaining project design firms will be subconsultants to Michael Baker.

3.3.1 KEY PERSONNEL

The four individuals described below are the key personnel who will successfully deliver this project. Each individual was hand picked for this project based on their past experience, required skills and excellent relationships. More detailed information on each is provided on the required Key Personnel Resume Forms (Attachment 3.3.1).

**3.3.1.1 DESIGN-BUILD PROJECT MANAGER (DBPM).** Chemung’s, **Billy Myers**, has been selected as the Design-Build Project Manager (DBPM) for the Project. He will serve as the primary contact for VDOT and the Team throughout the length of this project. Mr. Myers has over 16 years of Design-Build experience,
3.3 Offeror’s Team Structure

and has worked on 10 Design-Build projects. He has served in the role of Project Manager on numerous VDOT projects, including Heritage Center Parkway/Route 1 Improvements (Design-Build) in Prince William County; George Mason University Campus Connector (Design-Build) in Fairfax; and Prince William Parkway Improvements (Design-Build), Prince William County.

3.3.1.2 QUALITY ASSURANCE MANAGER (QAM): Kaushik Vyas, PE, DBIA, with Quinn Consulting Services, Inc. (QCS), will serve as the Quality Assurance Manager (QAM) for the Project. Mr. Vyas is a licensed professional civil engineer and design-build professional with over 38 years of experience in transportation and heavy construction. His transportation experience includes construction management and inspection on interstates, primary and secondary roads, and residential developments. He has worked on several design-build projects where he has held the various positions of Quality Assurance Manager (QAM), resident engineer, transportation engineer, and civil engineer. His responsibilities have included; QA/QC management, inspection, utility coordination, design of residential developments, pay estimate review and processing, schedule review, and the preparation of reports. He has experience of working with bridges, roadways, sound walls, retaining walls, and box culverts. He is a licensed Professional Engineer in the Commonwealth of Virginia and holds DBIA Certification.

3.3.1.3 DESIGN MANAGER (DM): Mitch Johnson, PE, DBIA, with Michael Baker, has over 29 years of highway experience, and will serve as the Design Manager (DM) for this Project. Mr. Johnson brings significant interchange design experience to this project. He has served as the Design Manager on three Virginia design-build projects: I-564 Intermodal Connector (IMC) in Norfolk, Pacific Boulevard in Sterling, and I-95 Fiber in Petersburg. He was the lead design engineer on VDOT’s first highway design-build, the APM Interchange in Portsmouth. His responsibilities have included all aspects of a design project including interchange and roadway design, storm water management and SWPPP, traffic control and MOT sequencing, TMP development, utility coordination and avoidance, right-of-way acquisition, permitting, design public hearings, stakeholder coordination, project close-out and as-built plans. He is a licensed Professional Engineer in the Commonwealth of Virginia and holds DBIA Certification.

3.3.1.4 CONSTRUCTION MANAGER (CM): David Bradeson, PE, has over 22 years of construction experience. Mr. Bradeson will serve as the Construction Manager (CM) for this Project. His experience includes VDOT’s Route 29 Solutions (Design-Build) in Charlottesville, Virginia and Route 29/666 Interchange in Culpeper, Virginia. He is also responsible for managing two AMRL Accredited Material Testing Labs which test aggregate and asphalt materials. Mr. Bradeson is currently certified in all VDOT materials testing relating to aggregate and asphalt and holds a current VDOT Erosion and Sediment Control certification. He is a Licensed Professional Engineer in the Commonwealth of Virginia.

The project and risks will be effectively managed by our key personnel through personal accountability, availability, and responsiveness to successfully deliver this project.
The organizational structure of the Chemung Team is a straightforward chain of command benefiting VDOT by providing a single-source entity, responsible for the complete design and construction of the Warrenton Southern Interchange US 15/17/29 Design-Build project.

The Chemung Team combines the strengths of several companies to address all needs associated with this project. Our organizational chart, on the following page, shows all of our identified team members and graphically depicts the reporting structure within the Team and to VDOT. This Team will remain intact for the duration of the project.

**REPORTING AND LINES OF COMMUNICATION FOR THE WARRENTON SOUTHERN INTERCHANGE PROJECT**

**VDOT.** The Department will coordinate directly with our DBPM as the primary contact for all aspects of design and construction oversight of the Project. Open lines of communication between the QAM and VDOT will assist with monitoring quality assurance oversight. The Chemung Team will establish a partnering process that integrates all project stakeholders, including Fauquier County and the Town of Warrenton.

**Design-Build Project Manager (DBPM).** Our DBPM will be responsible for all that occurs on the project site or with respect to the overall project to include, but not be limited to: overall preparation of the RFP submission, contract development and execution, design and construction activities, scheduling, quality management, commitments, and adherence to all permits and regulations. Mr. Myers will work directly with the Design Manager, Quality Assurance Manager, and Construction Manager to confirm adherence to project control elements in the design and construction phases of work, and oversee the coordination of these efforts. **The DBPM is the single, primary point of contact with VDOT.**

**Quality Assurance Manager (QAM).** Our QAM will be responsible for the following: 1) independent overall quality assurance (QA) inspections and testing of all materials used and work performed on the project; 2) monitoring of the Chemung Team’s quality control (QC) program; and, 3) ensuring all work and materials, testing, and sampling are performed in accordance with the contract requirements and the approved for construction plans and specifications. **Acting in an independent capacity, Mr. Yvas reports directly to the DBPM and will have direct, independent access to VDOT.**

**Design Manager (DM).** Our DM will be responsible for coordinating the individual design disciplines and ensuring the overall project design conforms with the project requirements. Mr. Johnson will also be responsible for all design quality control and quality assurance (QC/QA) requirements, as outlined in VDOT’s Minimum Quality Control and Quality Assurance Requirements for Design-Build and PPTA Projects. He will report directly to the DBPM and will be responsible for reviewing the design details and ensuring the design and construction work are properly coordinated. In the design process, Mr. Johnson will be responsible for monitoring the project design, overseeing the compilation of plans, and determining when the plans are sufficient and ready for quality reviews. Mr. Johnson will be responsible for all design subconsultants. His role during construction will be maintained as it was during design, in order to ensure constructability with design requirements, and to manage all design-related activities associated with construction as planned and construction revisions.

**Construction Manager (CM).** Our CM will be responsible for the following: 1) performing constructability reviews of RFP documentation and coordinate estimating and operations input and support to DBPM for proposal submission; 2) day-to-day management of all on-site construction and project activities; 3) management of the construction process including all quality control (QC) activities to ensure that materials used and work performed meet contract requirements and approved construction plans and specifications; and, 4) ensure all work performed on-site is performed to meet and exceed all safety, quality, and environmental requirements of the project. Mr. Bradeson reports functionally to the DBPM and draws support from the QC Manager and Safety Manager.
The Chemung Team

1. Chemung Contracting Corporation – Lead Contractor
2. Michael Baker International, Inc. – Lead Designer
3. Quinn Consulting Services Inc. (Quinn) – QA Services
4. Specialized Engineering – QA Testing Lab
5. Kanawha Stone Company, Inc. – Bridge Construction Services
7. ECS Mid-Atlantic LLC (ECS) – QC Testing Lab
8. Schnabel Engineering – Geotechnical
9. KDR Real Estate – ROW Acquisition
11. InfraMap – Utility Locating

Key Personnel

Reporting

Communication

Environmental Stakeholders

VDOT, FHWA, DEQ, USACE, VDHR

Public and Private Utilities

Town of Warrenton Water & Sewer, Columbia Gas, Verizon, Dominion Energy, Comcast, Qwest Government Services, Inc.
3.4 Experience of Offeror's Team
3.4 EXPERIENCE OF OFFEROR’S TEAM
FIRM OVERVIEWS

**CHEMUNG CONTRACTING CORPORATION (CHEMUNG)** will serve as the Lead Contractor for this project. Chemung is part of the Dalrymple Companies, a vertically integrated construction and materials group started in 1902 and currently managed with the fourth generation of the family. In Virginia, Chemung works with its sister company Cedar Mountain Stone, which allows us to combine the right materials with the right needs.

Chemung is a part of the community and the state working with programs dealing with VDOT, the Virginia Research Council, the Virginia Community College System, UVA’s United Physician Group, construction associations including, Virginia Asphalt Association, Old Dominion Contractors Association, and Virginia Transportation Council. In doing so Chemung participates in studies of operations and materials serving on everything from the Chief Engineer’s Gang of Six to VTRC’s STIC committee that moves research from the study phase to implementation. We have been part of FHWA studies of the thermal profiling of pavements, George Mason’s on-going study of RAP combined with 21A, the use of porous pavements for storm water mitigation, pilot projects dealing with asphalt content and in place density, as well as development of innovative solutions for construction projects.

This outreach allows Chemung to use innovative materials and techniques prior to their introduction to the standards. We can combine materials for porous pavements that can handle heavy traffic; using blends of materials our stream restoration materials allow growth while protecting the stream bed from erosion. Finally, we continue to use the latest solutions in technology including e-tickets, equipment monitoring and controls as well as daily reporting programs.

Chemung’s workforce is currently made up of 10% Veterans. Chemung is also the leading contractor in the new workforce apprentice programs with Germanna Community College and currently employs six apprentices (four in asphalt technology, one industrial electrical, and one in heavy highway equipment maintenance) that are geared specifically for the asphalt and aggregates industry. Chemung operates two AASHTO/AMRL Accredited labs and has extensive knowledge in aggregates and asphalt testing and mix designs.

In 2016, Chemung received the Statewide Maintenance Award for the best paving project across the entire Commonwealth, which was the direct result of the FHWA study noted above. Chemung has also received numerous other paving awards over the years and will be submitting several projects from 2016 for consideration.

**MICHAEL BAKER INTERNATIONAL, INC. (MICHAEL BAKER)** will serve as the Lead Designer for this project and will provide all of the necessary roadway and structure design services. For over 30 years, Michael Baker has been providing comprehensive engineering, architectural, planning, environmental, and construction services for the development of surface transportation projects. Michael Baker has more than 500 employees in Virginia with offices located in Richmond, Virginia Beach, Manassas, and Alexandria. The Virginia design team has developed roadway designs and construction plans for over 15 projects totaling $300 million in construction. Throughout the development of these projects, Michael Baker’s engineers have proved their ability to provide common-sense solutions to complex problems.

**QUINN CONSULTING SERVICES, INC. (QCS)** is a 100% woman-owned DBE/WBE engineering consulting firm that provides quality control and/or quality assurance services on design-build projects for contractors, design engineers, and owners. As part of their QA/QC Design-Build Services, QCS can develop a project specific QA/QC Plan for inclusion in the design-build submission package and fully implement this QA/QC Plan at project execution.
3.4 Experience of Offeror’s Team

KANAWHA STONE COMPANY, INC. (KSC) will serve as the bridge contractor for this project. Kanawha Stone Company, Inc. is a second generation, family owned and operated contractor providing services throughout the Appalachian region. KSC is a recognized leader in bridge construction, having received multiple VDOT awards, including an unprecedented three consecutive “Project of the Year” awards for the Compton Creek, Route 613 over the Shenandoah, and Route 340 over Gooney Creek projects in the Staunton District. The Virginia Transportation Construction Alliance recently awarded KSC an Honorable Mention Award in the 2014 Contractor Safety Award in the "100,000-250,000 Manhours" Category. Also, KSC recently won the Mega Project Excellence in Construction Award from the Associated Builders and Contractors, Inc., West Virginia Chapter for KSC’s work in developing the Summit Bechtel Family National Scout Reserve (total contract value for all stages of work on the Summit totaled $112 million).

DESIGN-BUILD EXPERIENCE AND APPROACH

RELATIONSHIP OF CHEMUNG AND MICHAEL BAKER

The DBPM for the Warrenton Interchange, Billy Myers, worked together with Michael Baker International in 2010 to successfully deliver the Design-Build Joint Use Intelligence Analysis Facility for the U.S. Army Corps of Engineers, Defense Intelligence Agency, and United States Army Fort Belvoir, Lorton, Virginia. As acting Design-Build Project Manager, Mr. Myers lead the resolution of multiple issues to avoid cost impacts and project schedule delays, such as unforeseen site conditions, the addition of a soil nail wall, and the challenges surrounding the multi-phase environmental design for the entire project. Rock excavation activities became the critical path because blasting was prohibited. Mr. Myers incorporated alternative methods that resulted in dramatic production increases and schedule acceleration. This $62 million project was delivered on budget and schedule.

WORK HISTORY FORMS (ATTACHMENTS 3.4.1(A) AND 3.4.1(B))

We have provided the most recent and relevant projects in the Work History Forms (Attachments 3.4.1(a) and 3.4.1(b)) for both Chemung Contracting Corporation (Lead Contractor) and Michael Baker International, Inc. (Lead Designer) which are included in the Appendix. The representative projects for both firms reflect the experience of the lead contractor and the lead designer on projects similar in scope and complexity as the Warrenton Southern Interchange US 15/17/29 Design-Build Project. Included below is more information about the experience of the Chemung Team.

ADDITIONAL RELEVANT WORK EXPERIENCE

In addition to the recent and relevant projects provided in the Work History Forms, we have provided additional projects performed by our team member overviewed in the following narrative. This additional information by our team members provides VDOT a more complete understanding of our relevant qualifications for the Project.

ROUTE 340 BRIDGE REPLACEMENT OVER GOONEY CREEK, WARREN, VA (CHEMUNG)

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</thead>
<tbody>
<tr>
<td>Completed in 2015</td>
<td>$4,540,000</td>
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Relevancy to this project: Secured borrow locations with unlimited aggregate and all-inclusive import material

Project Overview: Chemung served as the key subcontractor and supplier for the Route 340 Bridge Replacement over Gooney Creek. Responsibilities included aggregate material and asphalt pavement operations. The scope of
3.4 Experience of Offeror’s Team

Work included 12,000 TN asphalt paving and 184,528 TN import material comprised of the following: 4,000 TN #26 aggregate, 141,374 TN rock fill, 10,536 TN select material, 3,400TN #57 aggregate, 19,000TN #21A/B aggregate, 5,000 TN erosion control aggregate. Incorporating Chemung’s strong logistics team and outstanding quality control program allowed for the successful completion for Kanawha Stone Company and VDOT. Team leadership between Chemung and Kanawha Stone gave VDOT confidence and resulted in a Staunton District Project of the Year award. This same level of commitment can be achieved at the Warrenton Southern Interchange.

Due to the distance between the jobsite and material location, Chemung and Kanawha established a material delivery plan to meet Kanawha’s daily delivery and production rates through logistics partnering. A multi stage sequence of construction plan was developed to ensure pavement operations complied with VDOT specifications.

DESIGN-BUILD ROUTE 29 SOLUTIONS – US 29 & RIO ROAD, CHARLOTTESVILLE, VA (CHEMUNG)

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Relevancy to this project: Complex design-build interchange construction over heavily traveled corridor for Charlottesville which required extensive coordination with stakeholders.

Project Overview: Complete a grade separation to move traffic through one of the most congested intersections on the Route 29 corridor. Separating local and through traffic at the intersection, which has a history of high crash rates, would improve safety and travel time. The project, one of the most scrutinized projects in the Commonwealth required extensive coordination with local stakeholders, unique construction processes and large contract incentives and disincentives for meeting milestones.

Lane-Corman contracted with Chemung to place all asphalt on the project. Chemung participated in design review meetings, providing constructability analysis before and during construction. With over 20 different pavement phases it was critical that Chemung adapt to accurately identify each phase and shorten the sequence whenever possible. Through careful planning and extensive coordination, Chemung was able to modify and accelerate the schedule for their contractual work which allowed Lane-Corman to meet their early completion milestone receiving a $7.3 million incentive completion bonus.

This experience allows us to better understand the coordination efforts for the Warrenton Southern Interchange project. On the Route 29 Solutions project we were a part of the stakeholder process and will use the methods learned going forward.

MILITARY HIGHWAY AT VIRGINIA BEACH BOULEVARD SINGLE POINT URBAN INTERCHANGE, NORFOLK, VA (MICHAEL BAKER)

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Relevancy to this project: Interchange; Transportation Management; Traffic; Structures; Utility Coordination and Relocations; Right-of-Way; Construction; Public Relations, Design Quality Control

Project Overview: Michael Baker prepared construction plans for the replacement of the oldest cloverleaf interchange in Virginia with a single point urban interchange (SPUI). This SPUI serves two major intersecting urban arterials, US 13 (Military Highway) and US 58 (Virginia Beach Boulevard).

Michael Baker studied several different alignments and typical sections in a heavily commercialized corridor that resulted in only one property acquisition. Its five stage comprehensive sequence of construction plan included Virginia’s first use of logo signage to support access on a non-limited access highway.
The SPUI bridge has eight thru lanes with 5-foot wide shoulders, three-span continuous steel box girders, and rusticated retaining walls. Special-design expansion joints and multi-rotational bearing devices were also included in Michael Baker’s plans to support the bridge length and HS-25 loading requirements. Other innovative design features to maintain access with limited right-of-way acquisition included cantilevered, pile-supported retaining walls.

### MOSES GRANDY TRAIL (CEDAR ROAD), CHESAPEAKE, VA (MICHAEL BAKER)

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**Relevancy:** Roadway; Transportation; Environmental; Utilities; Construction; Quality Assurance; Public Relations

**Project Overview:** Michael Baker provided final design and environmental services for the 2.6-mile-long, four-lane divided highway on new alignment. The project included design of four through lanes, intersection radius improvements, turn lanes, raised median, a combination open ditch and pipe drainage system to satisfy Army Corps of Engineers concerns. A detailed sequence of construction plan facilitated construction in wet soil conditions by installing a continuous median underdrain and median storm sewer system as a first step. Utility design included water, sanitary sewer, and sanitary force main adjustments. A 495-foot-long, 84-foot-wide, 11-span pre-stressed concrete voided slab span bridge over New Mill Creek was also included to minimize wetland impacts. Michael Baker provided wetland impact analysis, protected species studies, Phase I and modified Phase II site assessments, mitigation services, public participation, and permit documentation.

### INTERSTATE 264/U.S. 13 INTERCHANGE & MILITARY HIGHWAY RECONSTRUCTION, NORFOLK, VA (MICHAEL BAKER)

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**Relevancy to this project:** Interchange Design; Roadway; Transportation; Structural; Utilities; Quality Assurance; Construction; Public Relations

**Project Overview:** Michael Baker provided engineering services for the reconstruction of I-264 at Military Highway (Route 13). Michael Baker’s services included conceptual transportation studies, stakeholder coordination, alternatives analysis, preliminary and final design, value engineering, utility relocation design, and drainage design.

**Interchange Reconstruction, Bridge Replacement and Bridge Widening.** This project replaced three major highway bridges including a five-span, six-lane, concrete bridge with a three-span, 10-lane continuous girder and concrete deck structure over an 11-lane interstate highway. Also replaced were a four lane highway bridge and a four-span bridge over a railroad. Sequencing included coordinating de-energizing a major overhead electric transmission line with demolition, pile driving, and girder placement activities.

Significant utilities included the replacement of a main telephone trunk without disrupting service and replacement of overhead utilities with off-highway, underground utilities. Utilities also included two 48-and 20-inch water lines, 18-inch gas line, 10-inch sanitary, and electric and telephone cable.

Challenging drainage factors included the limited right-of-way and high right-of-way acquisition costs; flat terrain, and 100-year flood stage height and floodplain limits.

The project also included 2,500 feet of retaining walls, road sections with curb and gutter, and maintenance of traffic requirements.
3.5 Project Risks
3.5 PROJECT RISKS

3.5.1 THREE UNIQUE RISKS

The Chemung Team has identified the following risk factors to the Project.

**1 RISK 1 – LONG TERM ROUNDABOUT PERFORMANCE**

1. **Why the Risk is Critical**

There is significant risk associated with the useable life cycle of the proposed single-lane roundabout concept that has been prepared for this solicitation. The 2040 traffic volumes presented in the RFQ traffic study are much lower than the traffic volumes developed for the 2040 scenario in the 2013 traffic study conducted by Michael Baker during conceptual design. Two major real-estate developments are planned that do not seem to be accounted for in the RFQ traffic study.

The first development is the full build-out of the Lord Fairfax Community College as shown in their Master Plan. Our team verified with the College that their 2012 Master Plan showing full build-out is current. The RFP traffic study does include a future 40,000 square foot building generating 1,100 trips per day, however the Master Plan shows five additional academic buildings and a wellness center.

Secondly, the Stafford Property directly north of the Community College is also expected to be developed within the life cycle of the new interchange. The RFQ traffic study shows a small County Facility Relocation to the south of the Community College generating 1,350 vehicles per day, however the development plan for the Stafford Property, completed in 2011 and included in the 2017 Fauquier County CIP, shows a massive County Joint Use facility between Lord Fairfax Road and Meetze Road that includes a potential school.

To assess this Risk, we performed a preliminary traffic analysis with aaSIDRA that indicates traffic volumes generated by these future developments will overwhelm the single lane roundabout design. The two-lane roundabout concept presented in the 2013 Conceptual Study supports this additional traffic; however the large truck volumes from the transfer station will present operational concerns as the outside roundabout lanes will poorly accommodate trailer off-tracking. In furthering our assessment of this Risk to establish potential mitigation strategies, we performed preliminary SYNCHRO analysis based on full build-out volumes. This analysis indicates several alternative interchange designs of similar footprint and cost that would provide far more traffic capacity, including diverging diamond interchange (DDI) and single point urban interchange (SPUI) solutions.

2. **The Impact the Risk will have on the Project**

If inadequate capacity is provided while both through traffic on Route 29 and local traffic on Lord Fairfax Drive increase, the Department will be once again faced with LOS failure and severe congestion on Route 29, with significant future costs to once again upgrade the interchange. The investment being made now will be maximized if future growth is accounted for.

We recognize Public Involvement has already began and stakeholders expect roundabouts. The Chemung Team is prepared to hold additional meetings to explain traffic projections and demonstrate the LOS failure likely to occur. We are confident stakeholders will prefer to avoid future congestion, and we are very confident an alternative design that provides safe long-term functionality for industrial, educational, residential, and bicycle/pedestrian users can be implemented in an aesthetically attractive and context-sensitive manner.

3. **Strategies Implemented to Address the Project Risks**

The Chemung Team will obtain new counts, evaluate all regional growth scenarios, and perform a new traffic analysis with agreed growth rates. After its approval, the selected alternative design will be developed based on this analysis.
3.5 Project Risks

Interchange styles that will likely fit within the right-of-way and utility impact footprint of the RFQ preliminary design include Dual Lane Roundabout, Diverging Diamond and Single Point Urban interchanges. It is particularly interesting to note that a single-lane DDI concept, studied with our preliminary numbers, will function at acceptable LOS beyond 2040.

Potential advantages of a DDI concept include

- Excess traffic capacity to support future development
- Efficient support of large truck turning footprints and volumes
- Faster and more cost-efficient construction

![Figure 8: A Diverging Diamond Interchange may potentially mitigate insufficient roundabout capacity within a similar footprint, while providing context-sensitive design and trail connectivity.](image)

4. Role of VDOT or Other Agencies Addressing this Risk

The Chemung Team will perform analysis and seek VDOT approval of a revised traffic study assessing an alternative design. We would ask the Department for reviews of this study and support for potential solutions should the study show the need for an alternative solution. Should such analysis or significantly unfavorable public opinion show that an alternative design is not viable, the Department will hold no risk as the Chemung Team will design and build a dual-roundabout interchange similar to that presented in the preliminary package.

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**RISK 2 – MAINTENANCE OF TRAFFIC**

Currently the Eastern Bypass (Route 29) and James Madison Highway/Lord Fairfax Road at grade intersection experience significant delays throughout the day due to the volume of traffic traveling Route 29. Adding to this traffic is Lord Fairfax Community College and the Fauquier County Landfill approaching from the east and Route 15 Business from the West. During construction, maintenance of traffic (MOT) is critical for public safety and to ensure traffic continues to flow at its current LOS throughout construction.

Our team’s approach utilizes three phases which include temporary pavement to shift the east/west traffic south, thus allowing continued traffic while the bridge construction starts. The new bridge alignment will also be shifted south and will use MSE walls and retained earth systems to allow approach construction without significantly changing current traffic patterns. Ramps B, C, and D will be constructed and opened to service early in the project to pull turning movements from the traffic signal.

1. Why the Risk is Critical

The current LOS at the intersection during peak and off peak hours is already beyond the original design and construction at the signal will increase this congestion. Safety of the public is critical due to the existing traffic and the “on looker” delays will only add to the concern. Also, the safety of the construction team, VDOT, the
3. Project Risks

Inspection team, and others directly involved in the project is of paramount importance. Heavy truck traffic already exists at the intersection due to the landfill, Home Depot, Walmart, and other businesses in the vicinity. Materials brought to the site will add to the existing traffic and risk. Changing traffic patterns can also increase delays and the risk of accidents. Clear guidance throughout the project and conveying this information to the public is critical to ensure everyone affected by the construction arrives safely to their destination.

2. The Impact the Risk will have on the Project

The MOT risk involves and affects the largest group of stakeholders more than any other risk, the traveling public. The safety of the traveling public and increased motorist delays will affect the overall perception of the project. The schedule can be significantly affected if a well-designed and executed plan is not developed.

3. Strategies Implemented to Address the Project Risks

Culpeper District-Experienced Construction Team. The same construction team assigned to this project is building the successful Route 29/666 Interchange in Culpeper. Importantly, our collaborative relationship with the Area Construction Engineer will continue if selected for this project. As Route 29/666 is a similar-sized interchange on the same highway, this team is experienced in similar MOT requirements and public involvement. Route 29/666 is adjacent to a high school, county facilities, commercial businesses, and is one of the main entry points into the Town of Culpeper. Previously this had been a signalized intersection experiencing significant delays similar to the Warrenton intersection.

Public Involvement. Public involvement should be immediate, steady, and most importantly, organic. The public’s viewpoints are highly important to the project success. Our toolbox will give the team the tools to develop an effective public involvement policy to construct the project. These tools include:

- Collecting information through interested and affected stakeholders
- Social media – implement project website to facilitate visual and written communication to the public
- Conduct safety public involvement activities
- Mapping techniques to clearly identify project phasing
- Evaluate public involvement activities
- Public workshops for the different stages of the project

Construction Signage. At the start of the first construction signs being placed, the traveling public will be affected. It is our commitment to communicate the ongoing work and TMP regularly. The team’s use of signs and message boards will convey a clear message to the traveling public throughout the project.

Design Elements. The team proposes to improve the efficiency of the design and MOT phases by shifting the bridge somewhat south. This will permit early completion of the critical ramps (B, C, and D) which will significantly reduce traffic at the signal. Retained earth walls will be used to allow for early start of the bridge without significantly changing existing traffic patterns. This will reduce the number of traffic pattern changes during construction. Schedule Delays – Proper handling of traffic approaching the signal and efficient construction of the ramps will mitigate delays. We have determined that this project can be constructed in only three main phases. The supporting graphics are schematic only to depict efficient sequencing.

Phase 1

- Initial MOT signage including early message boards
- E&S controls
- Temporary shift the existing signal south approximately 100’
- Construct Ramps D, B, and C
- Begin bridge construction

Figure 9. Sequencing - Phase 1
3.5 Project Risks

Phase 2
- Shift NB right turn traffic turning onto Lord Fairfax to Ramp D
- Shift Lord Fairfax traffic entering NB 29 to Ramp C
- Shift 29 SB traffic turning right onto James Madison to Ramp B
- Continue with Bridge Construction
- Start approach ramps
- Start Ramp A

Phase 3
- Switch traffic onto the bridge
- Remove the signalized intersection
- Continue with interchange
- Remove the signalized intersection
- Continue Ramp A, A1, D2 and open to traffic
- Final surface asphalt and marking
- Complete the project on time and budget.

4. Role of VDOT or Other Agencies Addressing this Risk
The overall team’s experience and specifically that of the construction team will successfully develop and implement MOT plans which will limit VDOT’s risk. VDOT will only need general oversight to review and approve the plans. We will perform Public Involvement before any traffic pattern changes and throughout construction to provide a direct line of communication to the team, thus minimizing VDOT’s interaction.

RISK 3 – INADEQUATE PROJECT BUDGET
After reviewing preliminary and conceptual project documentation and historical costs, the Chemung Team has determined that the available budget will play a major role in the successful design-build procurement and construction of the Warrenton Southern Interchange at US 15/17/29. The project cost estimating summary presented by VDOT in 2015 identified an estimate of $43,162,286 which has now been reduced to $20,000,000 as indicated in the RFQ documents. This significant reduction of funds threatens the viability of constructing a grade-separated interchange.

1. Why the Risk is Critical
Reducing funding by half presents a challenge to any project and scope reduction has been evident between the 2013 Conceptual Study and the provided preliminary plans. However, reducing the pavement area and capacity of the interchange may not be sufficient to build an entire interchange for $20 million. A comparative review of this project’s scope and current budget versus recent similar interchange design-build projects indicates that the inadequate budget Risk is significant.
### 3.5 Project Risks

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Award costs for recent Virginia interchange design-build projects. The Warrenton Southern Interchange includes both a new bridge and new ramp gores.

As the above table illustrates, recent bids for similar sized design-build interchanges in Virginia indicate that interchanges requiring new bridges as well as MOT-critical new mainline ramp gores will exceed $20 million, and will likely be on the order of $30-40 million. Even accounting for the substantial existing right-of-way, since the Warrenton Southern Interchange requires a completely new bridge and new ramp ties to the Route 29 mainline, it will clearly be a challenge to obtain design-build bids within the stated $20 million budget.

2. The Impact the Risk will have on the Project

If bids for this solicitation exceed the project budget, Smart Scale funding procedures may force the Department to either cancel or delay the project, leaving the Warrenton corridor with severe congestion for another several years. Given the severity of daily backups at this location it is critical that this solicitation be successful now.

3. Strategies Implemented to Address the Project Risks

Chemung’s cost advantage is inherent in our ownership of our quarry and the demonstrated innovation of our project team. We propose a menu of cost-reduction strategies starting with our materials control advantage, and continuing with recently proven bridge and geotechnical solutions designed to reduce budget and schedule-intensive traffic control. Our main strategies include:

a. Control of Materials Supply Chain: Chemung’s ownership of Cedar Mountain Stone near the project site will provide a significant cost advantage as this will eliminate secondary markups. As a borrow-heavy project in an area of poor soils, materials will be a significant cost component. We will directly-source through our own quarry any type of aggregate required and we own practically unlimited quantities of approved borrow.

b. Innovative Bridge Features: Since schedule reduction will directly relate to cost savings, our bridge strategy is to adjust the design type and construction methods accordingly. Shortening the bridge structure may allow a single span structure, thereby eliminating the pier in the median, its foundation construction, and associated traffic control and public risk. Utilizing MSE wall abutments with pile caps and integral beams will allow best-value superstructure options in a smaller footprint than can be provided with a longer conventional design.

c. Geotechnical Alternatives: The Chemung Team will incorporate an aggressive geotechnical design approach, proven on recent local projects, that maximizes our direct-source materials supply advantage. These include compost blankets in lieu of topsoil and reinforced soil slopes. Compost blankets provide demonstrated cost reduction versus conventional seeding by approximately 60%. Our local, direct-sourced cement treated materials allow us to use reinforced soil slopes lieu of retaining walls; this improves construction access, difficult soil conditions, and settlement periods. Chemung used these methods when constructing the Route 29 Scale Entrances just north of the Warrenton Southern Interchange site, a project that came in on time and within budget.

These strategies essentially replace traditional bridge and earthwork designs having higher MOT and schedule impacts with innovative bridge and geotechnical designs made cost-effective by material source control. These innovative solutions will reduce project footprint, impacts to Route 29 users, and project schedule, resulting in significant project savings.

4. Role of VDOT or Other Agencies Addressing this Risk

The Chemung Team anticipates managing the Risk noted above in accordance with methods currently allowed by VDOT. No role is anticipated from VDOT other than normal plan review.
Appendices
Attachment 3.1.2 - The SOQ Checklist
ATTACHMENT 3.1.2

Project: 0029-030-121, P101, R201, C501, B616
STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
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<th>SOQ Page Reference</th>
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# ATTACHMENT 3.1.2

**Project:** 0029-030-121, P101, R201, C501, B616  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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### Project Risk

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Attachment 2.10 - Form C-78-RFQ
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00077384DB100
PROJECT NO.: 0029-030-121, P101, R201, C501, B616

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

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

1. Cover letter of RFQ – April 26, 2017
   (Date)

2. Cover letter of RFQ Addendum #1- May 22, 2017
   (Date)

3. Cover letter of
   (Date)

   [Signature]
   [Date: May 30, 2017]
   [Printed Name: Edward C. Dalrymple, Jr.]
   [Title: President]
Attachment 3.2.6 - List of Affiliated and Subsidiary Companies of the Offeror
Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

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

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<td>2105 S. Broadway, Pine City, NY 14871</td>
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<td>Subsidiary</td>
<td>Cedar Mountain Stone Corporation</td>
<td>P.O. Box 12, 10496 Quarry Dr., Mitchells, VA 222729</td>
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Attachments 3.2.7(a) and 3.2.7(b) Debarment Forms
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

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

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

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

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

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

Signature  May 10, 2017  President

Chemung Contracting Corporation

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

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

_________________________  __________________________
Signature                 Date

Michael Baker International, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

[Signature]  [Date]  President

[Name]  [Title]

Kanawha Stone Company, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

[Signature] June 2, 2017 [Signature] Date Title

[Signature] Quinn Consulting Services, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

__________________________________________  5/11/2017  VP of Business Development
Signature                       Date                   Title

DIW Group, Inc. t/a Specialized Engineering
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

Signature: ____________________________  Date: May 25, 2017

Principal: ____________________________  Title: ____________________________

A. Morton Thomas and Associates, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

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

Signature: ___________________________  Date: 5/25/17
Principal Engineer: ___________________________
ECS Mid-Atlantic, LLC
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

[Signature] [Date] 5/5/17 Senior Vice President
Title

Schnabel Engineering, LLC
Name of Firm
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

____________________________________ __________________
Signature  Date  Title

Rice Associates, Inc.

Name of Firm

May 15, 2017

Vice President and Chief Marketing Officer
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

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

Signature 5/8/2017 Vice President Business Development
Date Title

InfraMap Corp.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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, declined ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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

[Signature] May 8, 2017 [President]
[Signature] [Date] [Title]

KDR Real Estate Services, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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

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

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

[Signature] 05/05/2017  Vice President  [Date] [Title]

Peggy Malone & Associates, Inc.

Name of Firm
Attachment 3.2.8 Offeror's VDOT Prequalification Certificate
CERTIFICATE OF QUALIFICATION

CHEMUNG CONTRACTING CORPORATION

Vendor Number: C224

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

Your firm specializes in the noted Classification(s):

GRADING; MAJOR STRUCTURES; ASPHALT CONCRETE PAVING; MINOR STRUCTURES; UNDERGROUND UTILITIES; MARINE CONSTRUCTION

Issue Date: March 31, 2017

This Rating and Classification will Expire: March 31, 2018

Suzanne FR Lucas, State Prequalification Officer

Don E. Silies, Director of Contracts

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.
Attachment 3.2.9 Surety Letter
May 5, 2017

Mr. Edward C. Dalrymple, Jr.
Chemung Contracting Corporation
10496 Quarry Drive
Mitchells, VA 22729

Re: Prequalification Letter
VDOT – D/B Warrenton Southern Interchange US 15/17/29
RFQ Number: C00077384DB100

Dear Ed,

Enclosed, as requested, please find letter from the Travelers Casualty and Surety Company of America which is to be included in your prequalification package to the Virginia Department of Transportation for the above captioned project.

Very truly yours,

Timothy M. Tyrrell
Bond Department

TMT/bhs
Enclosure

Sent via UPS (05/05/17)
May 5, 2017

Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219
Attn: Bryan W. Stevenson, P.E. (APD Division)

Re: Request for Qualifications for Chemung Contracting Corporation
Project: Design-Build Project, Warrenton Southern Interchange US 15/17/29
RFQ Number: C00077384DB100
Submission Date: June 2, 2017

Dear Mr. Stevenson,

As surety for the above captioned contractor, the Travelers Casualty and Surety Company of America, has an A.M. Best Financial Strength Rating of A++ and Financial Size Category of XV. The Travelers Casualty and Surety Company of America acknowledges that the Chemung Contracting Corporation is capable of obtaining a 100% Performance Bond and a 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction as defined in Section 2.1 ($20,000,000) of the RFQ. The said bonds will cover the Project and any warranty periods as provided in the contract documents on behalf of Chemung Contracting Corporation in the event that they are the successful bidder and enter into a contract for this project.

Chemung Contracting Corporation is a highly valued contract surety bond client of Travelers Casualty and Surety Company of America. We have the utmost confidence in their ability to administer and perform a construction contract of this size and magnitude. We would highly recommend them for your consideration.

Very truly yours,
Travelers Casualty and Surety Company of America

By: T. M. Tyrrell, Attorney-in-Fact
SURETY COMPANY'S ACKNOWLEDGMENT

State of New York,
County of Albany

On this 5th day of May, 2017, before me personally appeared T.M. Tyrrell, to me known, who, being by me duly sworn, did depose and say:
That he/she resides in Albany, New York; that he/she is Attorney-in-Fact of Travelers Casualty and Surety Company of America, Hartford, Connecticut, a corporation, created, organized and existing under and by virtue of the laws of the State of Connecticut; upon oath did say that the corporate seal affixed to the attached instrument is the seal of the said Company; that the seal was affixed and the said instrument was executed by the authority of its Board of Directors; and he did also acknowledge that he executed the said instrument as the free act and deed of said Company.

[Signature]
Rensselaer County
Commission Exp. 12/28/2018

[Signature]
Notary Public in and for the State of New York
Commission Expires Dec. 16, 2018
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<th>LIABILITIES &amp; SURPLUS</th>
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<td>OTHER ACCRUED EXPENSES AND</td>
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<td>TOTAL SURPLUS TO POLICYHOLDERS</td>
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<td>$ 6,485,845,440</td>
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| TOTAL LIABILITIES & SURPLUS          | $ 16,864,340,144              |

STATE OF CONNECTICUT  
COUNTY OF HARTFORD  
CITY OF HARTFORD  


SECOND VICE PRESIDENT

NOTARY PUBLIC

SUBSCRIBED AND SWORN TO BEFORE ME THIS 17TH DAY OF MARCH, 2017
POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 231410
Certificate No. 007004095

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the “Companies”), and that the Companies do hereby make, constitute and appoint

C. C. Leach, P. J. Clyne, T. M. Tyrrell, E. J. Canterbury, Jaymie P. Columbus, Bridget E. Mullen, and Dustin A. Spataro

of the City of _______ Albany __________, State of New York __________, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this _______ 5th _______ day of _______ October __________, 2016. ______

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: ____________________________
Robert L. Raney, Senior Vice President

On this the _______ 5th _______ day of _______ October __________, 2016 before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed 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 hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2021.

Marie C. Tetreault, Notary Public

58440-5-16 Printed in U.S.A.
This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 5th day of May, 2017.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.
Attachment 3.2.10 - SCC and DPOR Information Tables
ATTACHMENT 3.2.10

State Project No. 0029-030-121, P101, R201, C501, B616

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.

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<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>SCC Information (3.2.10.1)</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
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<td>F0487456</td>
<td>Foreign Corporation</td>
<td>Active</td>
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<td>Foreign Corporation</td>
<td>Active</td>
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<td>ARC, ENG, LA</td>
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<td>Michael Baker International, Inc.</td>
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<td>1801 Bayberry Court, Ste 101, Richmond, VA 23226</td>
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<td>F1339573</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>P.O. Box 503, Nitro, WV 25143</td>
<td>Class A Board for Contractors</td>
<td>2705041075</td>
<td>01/31/2019</td>
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<tr>
<td>Quinn Consulting Services Incorporated</td>
<td>04925517</td>
<td>Corporation</td>
<td>Active</td>
<td>14160 Newbrook Dr. Ste 220, Chantilly, VA 20151</td>
<td>ENG</td>
<td>0407003733</td>
<td>12/31/2017</td>
<td></td>
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<tr>
<td>DIW Group, Inc.</td>
<td>F1281908</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>4845 International Blvd #104, Frederick, MD 21073</td>
<td>ENG</td>
<td>0407004748</td>
<td>12/31/2017</td>
<td></td>
</tr>
<tr>
<td>A. Morton Thomas and Associates, Inc.</td>
<td>F0494312</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>14555 Avion Pkwy Ste 150, Chantilly, VA 20151</td>
<td>LS, ENG</td>
<td>0411000586</td>
<td>02/28/2018</td>
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<tr>
<td>ECS - Mid-Atlantic, LLC</td>
<td>S1208216</td>
<td>Limited Liability Company</td>
<td>Active</td>
<td>915 Maple Grove Dr Ste 100,</td>
<td>ENG</td>
<td>0411000383</td>
<td>02/28/2018</td>
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## ATTACHMENT 3.2.10

**State Project No. 0029-030-121, P101, R201, C501, B616**

### SCC and DPOR Information

<table>
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<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>SCC Address</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
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<th>DPOR Expiration Date</th>
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<td>14026 Thunderbolt PI Suite 100, Chantilly, VA 20151</td>
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<td>Schnabel Engineering, LLC</td>
<td>S0889123</td>
<td>Limited Liability Company</td>
<td>Active</td>
<td>9800 Jeb Stuart Pkwy Ste 200, Glen Allen, VA 23059</td>
<td>ENG</td>
<td>0407004386</td>
<td>12/31/2017</td>
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<tr>
<td>Rice Associates, Inc.</td>
<td>03316627</td>
<td>Corporation</td>
<td>Active</td>
<td>10661 Gaskins Way Manassas, VA 20109</td>
<td>Professional Engineering and Professional Land Surveying</td>
<td>0407003842</td>
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<tr>
<td>InfraMap Corp.</td>
<td>F1055252</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>10365 Cedar Lane Glen Allen, VA 23059</td>
<td>ENG, LS</td>
<td>0407003343</td>
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<tr>
<td>KDR Real Estate Services, Inc.</td>
<td>05712104</td>
<td>Corporation</td>
<td>Active</td>
<td>2500 Grenoble Road Richmond, VA 23294</td>
<td>Real Estate Board – Firm License</td>
<td>0226007129</td>
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<tr>
<td>Peggy Malone &amp; Associates, Inc.</td>
<td>F1486192</td>
<td>Foreign Corporation</td>
<td>Active</td>
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</table>
## ATTACHMENT 3.2.10

### State Project No. 0029-030-121, P101, R201, C501, B616

### SCC and DPOR Information

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemung Contracting Corporation</td>
<td>David D. Bradeson</td>
<td>Mitchells, VA</td>
<td>8342 Swan Woods Road, Rhoadesville, VA 22542</td>
<td>Professional Engineer</td>
<td>0402034544</td>
<td>12/31/2018</td>
</tr>
<tr>
<td>Michael Baker International, Inc.</td>
<td>Jeremy Michael Dow</td>
<td>Virginia Beach, VA</td>
<td>1801 Black Angus Court, Virginia Beach, VA 23453</td>
<td>Professional Engineer</td>
<td>0402047192</td>
<td>01/31/2019</td>
</tr>
<tr>
<td>Michael Baker International, Inc.</td>
<td>Charles Gardner Eastman</td>
<td>Virginia Beach, VA</td>
<td>3957 Jousting Arch Virginia Beach, VA 23456</td>
<td>Professional Engineer</td>
<td>0402033233</td>
<td>07/31/2017</td>
</tr>
<tr>
<td>Michael Baker International, Inc.</td>
<td>Zachary Phillip Harris</td>
<td>Richmond, VA</td>
<td>9670 Iredell Rd, North Chesterfield, VA 23235</td>
<td>Professional Engineer</td>
<td>0402043138</td>
<td>06/30/2018</td>
</tr>
<tr>
<td>Michael Baker International, Inc.</td>
<td>Dwain Hathaway</td>
<td>Cary, NC</td>
<td>3008 Van Gogh Lane, Apex, NC 27538</td>
<td>Professional Engineer</td>
<td>0402039356</td>
<td>10/31/2018</td>
</tr>
<tr>
<td>Michael Baker International, Inc.</td>
<td>Mitchell F Johnson</td>
<td>Richmond, VA</td>
<td>2158 Kelly Ridge Road, Richmond, VA 23233</td>
<td>Professional Engineer</td>
<td>0402023838</td>
<td>01/31/2019</td>
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<tr>
<td>Michael Baker International, Inc.</td>
<td>Melanie Ocampo Palalay</td>
<td>Virginia Beach, VA</td>
<td>1305 Eastern Way, Chesapeake, VA 23320</td>
<td>Professional Engineer</td>
<td>0402036563</td>
<td>06/30/2017</td>
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<tr>
<td>Michael Baker International, Inc.</td>
<td>Philip David Quillin II</td>
<td>Virginia Beach, VA</td>
<td>228 Terwillinger Road, Chesapeake, VA 23323</td>
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<td>Kanawha Stone Company, Inc.</td>
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</tr>
<tr>
<td>Quinn Consulting Services Incorporated</td>
<td>Kaushikkumar Bhupendra Prasad Vyas</td>
<td></td>
<td>10170 Spring Drive Gordonsville, VA 22942-7581</td>
<td>Professional Engineer</td>
<td>0402039004</td>
<td>06/30/2018</td>
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<tr>
<td>Schnabel Engineering, LLC</td>
<td>Jeffrey Yates Sewell</td>
<td>Baltimore, MD</td>
<td>362 Marabrooke Court, Sykesville, MD 21784</td>
<td>Professional Engineer</td>
<td>0402048205</td>
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# ATTACHMENT 3.2.10

**State Project No. 0029-030-121, P101, R201, C501, B616**

**SCC and DPOR Information**

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
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<tbody>
<tr>
<td>Rice Associates, Inc.</td>
<td>Randy Stowers, LS</td>
<td>Manassas, VA</td>
<td>105 Sentinel Dr Winchester, VA 22603</td>
<td>Professional Land Surveyor</td>
<td>0403002342</td>
<td>6/30/2017</td>
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<tr>
<td>InfraMap Corp.</td>
<td>Stephen H. Armendinger</td>
<td>Glen Allen, VA</td>
<td>4387 Worsham Road Powhatan, VA 23139-6938</td>
<td>Land Surveyor</td>
<td>0403001452</td>
<td>09/30/2018</td>
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<td>KDR Real Estate Services, Inc.</td>
<td>Allen Gunn Dorin Jr.</td>
<td>Richmond, VA</td>
<td>2500 Grenoble Road Richmond, VA 23294</td>
<td>Real Estate Board – Principal Broker License</td>
<td>0225108043</td>
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</table>
Attachment 3.2.10.1-.4 Full Size SCC and DPOR Registration/License Documentation
CHEMUNG CONTRACTING CORPORATION

General

SCC ID: F0487456
Entity Type: Foreign Corporation
Jurisdiction of Formation: NY
Date of Formation/Registration: 7/31/1985
Status: Active
Shares Authorized: 1000

Principal Office

2105 S. BROADWAY
PINE CITY NY14871

Registered Agent/Registered Office

SAMUEL R WALKER
FRAY HUDSON CLARK & WALKER LLP
115 S WEST ST
CULPEPER VA 22701
CULPEPER COUNTY 123
Status: Active
Effective Date: 4/8/2015
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<td><strong>INDUSTRY CODE:</strong></td>
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<td><strong>STATE OF INCORPORATION:</strong></td>
<td>NEW YORK</td>
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<td><strong>STOCK INDICATOR:</strong></td>
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<td><strong>MERGER IND:</strong></td>
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<td><strong>CONVERSION/DOMESTICATION IND:</strong></td>
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<td><strong>GOOD STANDING IND:</strong></td>
<td>Y</td>
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<td><strong>MONITOR INDICATOR:</strong></td>
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<td><strong>CHARTER FEE:</strong></td>
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<tr>
<td><strong>R/A NAME:</strong></td>
<td>SAMUEL R WALKER</td>
</tr>
<tr>
<td><strong>STREET:</strong></td>
<td>FRAY HUDSON CLARK &amp; WALKER LLP</td>
</tr>
<tr>
<td><strong>AR RTN MAIL:</strong></td>
<td></td>
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<tr>
<td><strong>115 S WEST ST</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CITY:</strong></td>
<td>CULPEPER</td>
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<tr>
<td><strong>STATE:</strong></td>
<td>VA</td>
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<td><strong>ACCEPTED AR#:</strong></td>
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<td><strong>DATE:</strong></td>
<td>06/03/16</td>
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<tr>
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<td>216 09 3349</td>
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<tr>
<td><strong>DATE:</strong></td>
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<td><strong>STATUS:</strong></td>
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<td><strong>ASSESSMENT INDICATOR:</strong></td>
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<td><strong>BALANCE</strong></td>
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<td><strong>TOTAL SHARES</strong></td>
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</table>
STATE CORPORATION COMMISSION
CHEMUNG CONTRACTING CORPORATION

Commonwealth of Virginia

STATE CORPORATION COMMISSION
Richmond, July 31, 1985

CHEMUNG CONTRACTING CORPORATION

This is to Certify, that

a corporation organized under the laws of New York
having complied with all the requirements of law, is
hereby authorized to transact business in the State of
Virginia in so far as not in conflict with and subject to the
laws of the State.

State Corporation Commission

Attest:

George M. Bryant

Clerk of the Commission
Michael Baker International, Inc.

General

SCC ID: F0260747
Entity Type: Foreign Corporation
Jurisdiction of Formation: PA
Date of Formation/Registration: 10/13/1992
Status: Active
Shares Authorized: 100

Principal Office

500 GRANT STREET, SUITE 5400
PITTSBURGH PA15219

Registered Agent/Registered Office

CT CORPORATION SYSTEM
4701 COX ROAD, SUITE 285
GLEN ALLEN VA 23060
HENRICO COUNTY 143
Status: Active
Effective Date: 10/4/2013
CISMO180 CORPORATE DATA INQUIRY

CORP ID: F026074 - 7 STATUS: 00 ACTIVE STATUS DATE: 01/22/01
CORP NAME: Michael Baker International, Inc.

DATE OF CERTIFICATE: 10/13/1992 PERIOD OF DURATION: 00 INDUSTRY CODE: 00
STATE OF INCORPORATION: PA PENNSYLVANIA STOCK INDICATOR: S STOCK
MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: MON NO: MON STATUS: MONITOR DIE:

R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX ROAD, SUITE 265 AR RTN MAIL:

CITY: GLEN ALLEN STATE: VA ZIP: 23060-0000
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC: 143
ACCEPTED AR#: 216 54 9952 DATE: 04/10/17 HENRICO COUNTY
CURRENT AR#: 216 54 9952 DATE: 04/10/17 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
16 100.00 0

STATE CORPORATION COMMISSION
MICHAEL BAKER INTERNATIONAL, INC.
Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Michael Baker International, Inc., a corporation incorporated under the law of Pennsylvania, 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 October 13, 1992; 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:
March 3, 2017

Joel H. Peck, Clerk of the Commission
STATE CORPORATION COMMISSION
KANAWHA STONE COMPANY, INC.

KANAWHA STONE COMPANY, INC.

General

SCC ID: F1339573
Entity Type: Foreign Corporation
Jurisdiction of Formation: WV
Date of Formation/Registration: 5/29/1998
Status: Active
Shares Authorized: 25000

Principal Office

409 JACOBSON DRIVE
ROCK BRANCH IND PK
POCA WV25159

Registered Agent/Registered Office

CT CORPORATION SYSTEM
4701 COX ROAD, SUITE 285
GLEN ALLEN VA 23060
HENRICO COUNTY 143
Status: Active
Effective Date: 10/4/2013
Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That KANAWHA STONE COMPANY, INC., a corporation incorporated under the law of West Virginia, 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 May 29, 1998; 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:
April 20, 2017

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1704206039
QUINN CONSULTING SERVICES INCORPORATED

General

SCC ID: 04925517
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 10/24/1997
Status: Active
Shares Authorized: 5000

Principal Office

14160 NEWBROOK DRIVE
SUITE 220
CHANTILLY VA20151

Registered Agent/Registered Office

JOHN H QUINN JR
2208 S KNOLL ST
ARLINGTON VA 22202
ARLINGTON COUNTY 106
Status: Active
Effective Date: 10/24/1997
CERTIFICATE OF GOOD STANDING

I certify the following from the records of the Commission:

That DIW GROUP, INC., a corporation incorporated under the law of Maryland, 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 January 30, 1997; 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:
June 12, 2014

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1406125758
STATE CORPORATION COMMISSION
DIW GROUP, INC. t/a SPECIALIZED ENGINEERING

DIW GROUP, INC.

General

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

Principal Office

4845 INTERNATIONAL BLVD.
#104
FREDERICK MD21703

Registered Agent/Registered Office

C T CORPORATION SYSTEM
4701 COX ROAD
SUITE 285
GLEN ALLEN VA 23060
HENRICO COUNTY 143
Status: Active
Effective Date: 12/12/2013
A. MORTON THOMAS & ASSOCIATES, INC.

General

SCC ID: F0494312
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 11/26/1997
Status: Active
Shares Authorized: 52000

Principal Office

800 KING FARM BOULEVARD 4TH FL
ROCKVILLE MD20850

Registered Agent/Registered Office

NATIONAL CORPORATE RESEARCH, LTD.
250 BROWNS HILL COURT
MIDLOTHIAN VA 23114
CHESTERFIELD COUNTY 120
Status: Active
Effective Date: 9/30/2015
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That A. MORTON THOMAS & ASSOCIATES, INC., a corporation incorporated under the law of Maryland, 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 November 26, 1997; 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:
September 26, 2013

Joel H. Peck, Clerk of the Commission
ECS - Mid-Atlantic, LLC

General

SCC ID: S1208216
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 4/16/2004
Status: Active

Principal Office

14026 THUNDERBOLT PL STE 100
CHANTILLY VA 20151

Registered Agent/Registered Office

JAMES A ECKERT
14026 THUNDERBOLT PL STE 100
CHANTILLY VA 20151
FAIRFAX COUNTY 129
Status: Active
Effective Date: 4/16/2004
Richmond, April 16, 2004

This is to certify that the certificate of organization of

Engineering Consulting Services - Mid-Atlantic,
LLC
SCC ID: 51208216

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: April 16, 2004

State Corporation Commission
Attest:

Joel H. Peck
Clerk of the Commission
**Schnabel Engineering, LLC**

### General

- **SCC ID:** S0889123
- **Entity Type:** Limited Liability Company
- **Jurisdiction of Formation:** VA
- **Date of Formation/Registration:** 12/19/2002
- **Status:** Active

### Principal Office

- 9800 JEB STUART PARKWAY
- SUITE 200
- GLEN ALLEN VA23059

### Registered Agent/Registered Office

- CT CORPORATION SYSTEM
- 4701 COX ROAD, SUITE 285
- GLEN ALLEN VA 23060
- HENRICO COUNTY 143
- **Status:** Active
- **Effective Date:** 10/4/2013
Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

Schnabel Engineering Consultants, Inc., a Virginia corporation, merged into Schnabel Engineering, LLC, a Virginia limited liability company, which is the surviving entity effective as of January 1, 2016.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
January 20, 2016

Joel H. Peck, Clerk of the Commission
Rice Associates, Inc.

General

SCC ID: 03316627
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 12/15/1988
Status: Active
Shares Authorized: 70000

Principal Office

10661 GASKINS WAY
MANASSAS VA20109

Registered Agent/Registered Office

SHERRY MAKELY FEE
16116 AUBURN ROAD
CULPEPER VA 22701
CULPEPER COUNTY 123
Status: Active
Effective Date: 8/12/2016
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Rice Associates, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is December 15, 1988;

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, 2016

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1605185348
InfraMap Corp.

**General**

SCC ID: F1055252  
Entity Type: Foreign Corporation  
Jurisdiction of Formation: DE  
Date of Formation/Registration: 10/22/1990  
Status: Active  
Shares Authorized: 1500

**Principal Office**

10365 CEDAR LANE  
GLEN ALLEN VA23059

**Registered Agent/Registered Office**

C THOMAS GREEN III  
311 S BOULEVARD  
RICHMOND VA 23220  
RICHMOND CITY 216  
Status: Active  
Effective Date: 9/2/2016
Commonwealth of Virginia

State Corporation Commission

I certify the following from the records of the Commission:

InfraMap Corp., a corporation incorporated under the laws of DELAWARE is authorized to transact business in Virginia and is in good standing. It obtained a certificate of authority from the Commission on October 22, 1990.

Nothing more is hereby certified.

Signed and sealed at Richmond on this date:
August 19, 2010

Joel H. Peck
Clerk of the Commission
KDR Real Estate Services, Inc.

General

SCC ID: 05712104
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 1/30/2002
Status: Active
Shares Authorized: 100

Principal Office

2500 GRENOBLE RD
RICHMOND VA23294

Registered Agent/Registered Office

ALLEN G DORIN JR
2500 GRENOBLE RD
RICHMOND VA 23294
HENRICO COUNTY 143
Status: Active
Effective Date: 7/9/2003
STATE CORPORATION COMMISSION
KDR REAL ESTATE SERVICES, INC.

Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, January 30, 2002

This is to Certify that the certificate of incorporation of

KDR Real Estate Services, Inc.

was this day issued and admitted to record in this office and that
the said corporation is authorized to transact its business subject
to all Virginia laws applicable to the corporation and its business.
Effective date: January 30, 2002

State Corporation Commission
Attest:

Joel H. Peck
Clerk of the Commission
PEGGY MALONE & ASSOCIATES, INC.

General

SCC ID: F1486192
Entity Type: Foreign Corporation
Jurisdiction of Formation: FL
Date of Formation/Registration: 10/1/2001
Status: Active
Shares Authorized: 100

Principal Office

14286 BEACH BLVD
STE 19-345
JACKSONVILLE FL32250

Registered Agent/Registered Office

HUBCO REGISTERED AGENT SERVICES, INC.
2331 MILL ROAD
SUITE 100
ALEXANDRIA VA 22314
ALEXANDRIA CITY 200
Status: Active
Effective Date: 8/11/2010
**STATE CORPORATION COMMISSION**  
**PEGGY MALONE & ASSOCIATES, INC.**

<table>
<thead>
<tr>
<th>SCC eFile</th>
<th>2016 ANNUAL REPORT</th>
<th>COMMONWEALTH OF VIRGINIA</th>
<th>STATE CORPORATION COMMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DUE DATE: 10/31/2016</td>
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</tr>
</tbody>
</table>

1.) CORPORATION NAME:  
PEGGY MALONE & ASSOCIATES, INC.

2.) VA REGISTERED AGENT NAME AND OFFICE ADDRESS:  
HUBCO REGISTERED AGENT SERVICES, INC.  
2331 MILL ROAD  
SUITE 100  
ALEXANDRIA, VA

3.) CITY OR COUNTY OF VA REGISTERED OFFICE:  
ALEXANDRIA CITY

4.) STATE OR COUNTRY OF INCORPORATION:  
FL

5.) STOCK INFORMATION

<table>
<thead>
<tr>
<th>CLASS</th>
<th>AUTHORIZED</th>
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<tbody>
<tr>
<td>COMMON</td>
<td>100</td>
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</tbody>
</table>

6.) PRINCIPAL OFFICE ADDRESS:

| ADDRESS: | 14286 BEACH BLVD  
STE 19-345  
CITY/ST/ZIP: JACKSONVILLE, FL 32250 |

7.) DIRECTORS AND PRINCIPAL OFFICERS:

| NAME: PEGGY C MALONE | OFFICER  
TITLE: PRES/SEC  
ADDRESS: 14286 BEACH BLVD  
STE 19-345  
CITY/ST/ZIP/CO: JACKSONVILLE, FL 32250 |
<table>
<thead>
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<tbody>
<tr>
<td>X OFFICER</td>
<td>X DIRECTOR</td>
</tr>
</tbody>
</table>

| NAME: MICHAEL R SIMPSON | OFFICER  
TITLE: VICE PRESIDENT  
ADDRESS: 14286 BEACH BLVD  
STE 19-345  
CITY/ST/ZIP/CO: JACKSONVILLE, FL 32250 |
<table>
<thead>
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<tbody>
<tr>
<td>X OFFICER</td>
<td>X DIRECTOR</td>
</tr>
</tbody>
</table>

| NAME: JANETTE D. SIMPSON | OFFICER  
TITLE: VICE PRESIDENT  
ADDRESS: 14286 BEACH BLVD STE 1A-345  
CITY/ST/ZIP/CO: JACKSONVILLE, FL 32250 |
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>X OFFICER</td>
<td>X DIRECTOR</td>
</tr>
</tbody>
</table>

I AFFIRM THAT THE INFORMATION CONTAINED IN THIS ELECTRONIC REPORT IS ACCURATE AND COMPLETE AS OF THE DATE BELOW AND THAT I AM LEGALLY AUTHORIZED TO SIGN THIS REPORT.

/is/ MICHAEL R SIMPSON  
MICHAEL R SIMPSON, VICE PRESIDENT  
8/26/2016

SIGNATURE OF DIRECTOR/OFFICER LISTED IN THIS REPORT  
PRINTED NAME AND CORPORATE TITLE

It is a Class 1 misdemeanor for any person to sign a document, which includes this electronic record, that is false in any material respect with the intent that the document be delivered to the Commission for filing.
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8300

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
"CLASSIFICATIONS" BLD ELE HH HVA PLB

CHEMUNG CONTRACTING CORP
2105 S BROADWAY
PINE CITY, NY 14871

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

(See reverse side for privileges and instructions)
DPOR - FIRMS
MICHAEL BAKER INTERNATIONAL, INC.

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

EXPIRES ON
02-28-2018

NUMBER
0411001262

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

PROFESSIONS ENG
MICHAELE BAKER INTERNATIONAL, INC
8000 REGENCY PARKWAY
SUITE 600
CARY, NC 27518

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

DPOR - FIRMS
KANAWHA STONE COMPANY, INC.

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
2705041075

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
"CLASSIFICATIONS" H/H

KANAWHA STONE COMPANY, INC.
PO BOX 503
NITRO, WV 25143

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG

ECS-MID-ATLANTIC LLC
915 MAPLE GROVE DR
STE 100
FREDERICKSBURG, VA 22407-6935

Expires on 02-28-2018
Number 0411000383

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

(See reverse side for privileges and instructions)

DPOR-LIC (05/2015)

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

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

PROFESSIONS: ENG

ENGINEERING CONSULTING SERVICES LTD
14026 THUNDERBOLT PL
SUITE 100
CHANTILLY, VA 20151

Expires on 12-31-2017
Number 0407003069

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

(See reverse side for privileges and instructions)

DPOR-LIC (05/2015)
DPOR - FIRMS
INFRAMAP CORPORATION

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

EXPRES ON
12-31-2017

NUMBER
0407003343

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

PROFESSIONS: ENG, LS

INFRAMAP CORP
10365 CEDAR LANE
GLEN ALLEN, VA 23059

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

DPOR LIC (05/2015)

DPOR - FIRMS
KDR REAL ESTATE SERVICES, INC.

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

EXPRES ON
12-31-2018

NUMBER
0226007129

REAL ESTATE BOARD: FIRM LICENSE
POST IN A CONSPICUOUS PLACE
THIS LICENSE TO BE IN CUSTODY AND CONTROL OF PRINCIPAL BROKER

KDR REAL ESTATE SERVICES INC
2500 GRENoble RD
RICHMOND, VA 23294

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

DPOR LIC (05/2015)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23223
Telephone: (804) 367-8500

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

JEREMY MICHAEL DOW
1801 BLACK ANGUS COURT
VIRGINIA BEACH, VA 23453

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23223
Telephone: (804) 367-8500

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

CHARLES GARDNER EASTMAN
3957 JOUSTING ARCH
VIRGINIA BEACH, VA 23456

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23223
Telephone: (804) 367-8500

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

ZACHARY PHILLIP HARRIS
9670 IREDELL RD
NORTH CHESTERFIELD, VA 23235

Status can be verified at http://www.dpor.virginia.gov
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

PHILIP DAVID QUILLIN II
228 TERWILLINGER ROAD
CRES APKE, VA 23323
Attachment 3.3.1 - Key Personnel Resume Forms
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Billy Myers – Design-Build Project Manager/Contract Administrator</td>
</tr>
<tr>
<td>b. Project Assignment: Design-Build Project Manager</td>
</tr>
<tr>
<td>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): Chemung Contracting Corporation – Full Time</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 1 Years With Other Firms 15 Years</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Chemung Contracting Corporation; Design Build Project Manager/Contract Administrator, Jun. 2016-Present:</td>
</tr>
<tr>
<td>Providing oversight of the company’s design-build procurement/construction process. Responsibilities include development of company’s procurement process for design-build projects, developing and overseeing any required support associated with right-of-way acquisitions, environmental permitting and mitigation, as well as utility relocations as needed along with acting Contract Administrator for Chemung’s Operations. Director of Estimating duties include: all takeoff, project and risk analysis, subcontractor/vendor quote solicitations, DBE participation, review all quotes and scopes, price all self-perform work, analysis of production capabilities, and compile/submit all relevant bidding information.</td>
</tr>
<tr>
<td>Branch Highways Inc.; Design Build Project Manager/Project Manager, Nov. 2012-Jun. 2016:</td>
</tr>
<tr>
<td>All phases of Project Management. Projects include new and re-construction of highways, bridges and heavy civil work. Responsibilities include: scheduling and supervision of manpower and equipment, owner/subcontractor/supplier contact and coordination, modification/extra work estimating, pricing and negotiation, claims management, enforcement and compliance with corporate safety regulations/training.</td>
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<tr>
<td>Lifecycle Construction Services; Design Build Project Manager, Jul. 2010-Nov. 2012:</td>
</tr>
<tr>
<td>Managed simultaneous federal design-build projects for DOD, USACE, Air Force, and NAFAC.</td>
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<tr>
<td>The Walsh Group-Archer Western Contractors; Design-Build Project Manager, Jul. 2008-Jun. 2010:</td>
</tr>
<tr>
<td>Responsible for providing oversight and monitoring of all stages of the project life cycle; coordination with internal and external stakeholders; ensures project delivery in accordance with the project schedule; works closely with owners representatives, designers, construction staff and quality teams.</td>
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<tr>
<td></td>
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<tr>
<td>Holtzman Corporation; Design-Build Project Manager, Apr. 2004-Jun. 2008:</td>
</tr>
<tr>
<td>Oversaw construction development for one of the largest oil companies on the east coast. Coordinated the successful completion of upgrades for over 100 existing convenience stores/gas stations, bulk oil terminals, fast food restaurants and casual dining restaurants in three states.</td>
</tr>
</tbody>
</table>
Shirley Contracting Company, LLC; Assistant Project Manager, Jul. 2001-Mar. 2004:
Responsible for daily management of large construction projects, including project budgeting, project cost controls, project CPM scheduling, schedule updates, owner requisitions, public relations, and subcontractor management.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Military Institute, Lexington, VA/Bachelor of Science/2001/Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
- 2007/Virginia DEQ Responsible Land Disturber/35490
- 2016/Intermediate Work Zone Traffic Control/040716010
- 2017/General Miner Minor Cert. #009458
- 2017/First Aid&CPR Cert.#NN52GCOT4MH2
- 2017/MSHA Safety Training
- 2017/OSHA 30-Hour Cert.
- 2017/First Aid&CPR Cert.#NN52GCOT4MH2

Virginia Military Institute, Lexington, VA/Bachelor of Science/2001/Civil Engineering

**Project Similarities:** VDOT Design-Build, bridge construction, ROW acquisition, utility coordination/relocation, excavation, traffic signal, environmental, geotechnical, higher education, contractor QA/QC, public involvement, MOT, CEI services.

1. Campus Drive (West Campus Connector) George Mason University – Fairfax, Virginia, Branch Highways Inc. Design-Build Project Manager. Design-Build project to create a connector road beneath an existing 4 lanes divided primary road, Route 123. This highly coupled project blends a mixture of new roadways and improvements to existing roadways and creates a gateway to an extensive area on the West Campus for future expansion of the university. Mr. Myers was responsible for overseeing all construction activities and design coordination to include contract administration, scheduling, quality control, and safety. He was also responsible for coordination between multiple GMU agencies for the construction of maintenance buildings, large canopy structure near athletic fields and relocation of tennis courts. Lead the DB Branch Highways team on utility relocation and environmental mitigation and permitting. Dates: Nov. 2012 – Dec. 2015. $17.6 Million.

**Project Similarities:** VDOT Design-Build, bridge construction, ROW acquisition, utility coordination/relocation, excavation, traffic signal, environmental, geotechnical, higher education, contractor QA/QC, public involvement, MOT, CEI services.

2. Heritage Center Parkway/ Route 1 Improvements – Fairfax, Virginia, Branch Highways Inc. Design-Build Project Manager. Project included design and construction of improvements that extended Heritage Center Parkway, an existing 2-lane private roadway located on Marine Corps Base Quantico property at the National Museum of the Marine Corps, approximately 0.30 miles to provide a second entrance to U.S. Route 1 within the 135-acre Marine Corps Heritage Center site. As liaison, Mr. Myers managed the integration of multiple military agencies, PWC Dept. of Transportation, and VDOT from conceptual design to final construction drawings along with management tasks. Dates: Jun. 2013 – Dec. 2015. $6.6 Million.

**Project Similarities:** VDOT Design-Build, extensive high security utility relocations, ROW acquisition, pedestrian/museum accommodations, CEI services, intersection modifications, traffic signal, MOT, environmental, contractor QA/QC, public involvement.

3. Prince William Parkway Improvements – Manassas, Virginia, Branch Highways Inc. Design-Build Project Manager. Project included the design and construction of improvements to widen Prince William Parkway from a 4-lane roadway to a 6-lane for a length of approximately 1.8 miles from Old Bridge Road to Minnieville Road with the addition of a bike path on north-side and sidewalk on south-side of road. Overall scope of work includes surveying, design, environmental permitting, right of way acquisition, utility relocation, construction and quality control. Dates: Nov. 2012–Dec. 2015. $15.7 Million.

**Project Similarities:** VDOT Design-Build, roadway alignment/widening, ROW acquisition, shared-use path, CEI services, utility coordination/relocation, excavation, traffic signal, environmental, contractor QA/QC, public relations, MOT.

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

<table>
<thead>
<tr>
<th>a.</th>
<th>Name &amp; Title: Kaushik Vyas, P.E., DBIA, Quality Assurance Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b.</td>
<td>Project Assignment: Quality Assurance Manager</td>
</tr>
<tr>
<td>c.</td>
<td>Employment History: With this Firm 7 Years With Other Firms 31 Years</td>
</tr>
<tr>
<td>d.</td>
<td>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 experience, please list all of your experience for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
<tr>
<td>e.</td>
<td>Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization: Gujarat University, Ahmedabad, India/BS/1983/Civil Engineering</td>
</tr>
<tr>
<td>f.</td>
<td>Active Registration: Year First Registered/ Discipline/VA Registration #: Professional Engineer VA 2004/Civil Engineer/0402 039004</td>
</tr>
</tbody>
</table>

**Quinn Consulting Services, Inc.; Quality Assurance Manager, March 2010-Present**

Kaushik is a registered Professional Civil Engineer in Virginia and a certified Professional of the Design Build Institute of America (DBIA). His professional record includes 31 years of experience in engineering, quality assurance, and quality control on transportation and other heavy civil projects. Kaushik has provided professional services on both PPTA/P3 Projects (Public Private Partnership Projects) and Design-Build Transportation projects where he has held the positions of Quality Assurance Manager (QAM) on 7 VDOT DB projects and Area QC Resident Engineer on the 495 Express Lanes. His responsibilities as Quality Assurance Manager have included the supervision of Quality Assurance inspection staff and responsibility for material record documentation as required for payment application approval. His responsibilities also include the Quality Assurance and oversight of the construction operations, including the QA testing technicians; review of test reports, daily reports, safety reports, and environmental reports; he determined and certified to VDOT whether the materials and work complied with the Contract Documents; he conducted preparatory inspection meetings prior to the start of any new work; provided oversight and directed the independent quality assurance testing and inspections; and reviewed QA and QC documentation for conformance to VDOT’s Minimum QA/QC Requirements Manual and the project Quality Control Plan.

**TRC, Formally Site-Blauvelt; Transportation Engineer, April 2001-March 2010:**

Kaushik worked as Transportation Engineer on various Transportation Projects to include the PPTA Route 895 Pocahontas Parkway Project in Richmond, VA; Design-Bid-Build Projects such as the I-95, Rte. 627 Interchange Project in Stafford County VA, Discovery Blvd. Project, and Phase II Spriggs Road Widening Project in Prince William County, and Design-Build Projects such as the Rte. 15 Widening, Linton Hall Road Widening Design-Build Projects in Prince William County. His Responsibilities included ensuring construction work on these projects were performed as per Project Plans and Specifications. Also, he ensured adequate materials testing was performed, materials documentation was in order, and pay items were verified. His role on Prince William County Design-Build Projects was as Owner’s Representative where his responsibilities included ensuring construction work was performed as per approved plans and specifications. He also ensured the testing of the materials, reviewed reports, and the Materials Notebook. In addition, he verified pay quantities and pay applications and coordinated with utility companies for utility relocations.

**Gujarat Electricity Board ; Civil Engineer, June 1985-July 2000:**

Mr. Vyas worked as Civil Engineer in Gujarat Electricity. His responsibility included ensuring quality of construction for various electric substations, transmission lines tower foundations as per plans & specifications. His wide range of duties included preparing estimates for civil works, providing initial line-out/lay out of electrical substations civil components work like structure foundations, control room buildings, residential buildings, cable trenches, roadway construction, overhead tanks, ensuring precise construction work as per civil drawings in co-relation with electrical structures foundation drawings & recording the work in measurement books for the payment. Mr. Vyas also worked as Civil Engineer in Generation Department/ in Power Plants and his duties included Ensuring construction & maintenance of different foundation components of the structures related to Turbine structures, Bottom Ash Hopper, Chemical Plants, C.W. (Canal Water) Pump House structures Foundations in the power plant. His duties also included to ensure that work was completed without interruption of Power Generation thus making sure that work was completed in the Particular Unit of the Plant during Unit Maintenance schedule time frame to ensure uninterrupted Power Generation.
g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities for each project, not those of the firm.
   2. Note whether experience is with current firm or with other firm.
   3. Provide beginning and end dates for each project, projects older than fifteen (15) years will not be considered for evaluation.

(List 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.)

1. I-66 Route 15 Diverging Diamond Interchange, VDOT Design Build - Haymarket, VA, Quinn Consulting Services, Inc. Mr. Vyas is the Quality Assurance Manager (QAM) for this $36 million project to build a diverging-diamond interchange (DDI) on U.S.15 at I-66 to relieve congestion, enhance public safety, operations and capacity, and accommodate forecasted traffic demand in the area. As part of this diverging-diamond interchange, the project includes constructing two new bridges to carry U.S. 15 traffic over I-66 with two crossover intersections; ramp improvements (including a spur ramp to ease traffic flow from westbound I-66 to northbound U.S. 15 to westbound Heathcote Boulevard); improvements on U.S. 15 from just north of the railroad tracks to just south of Heathcote Boulevard; wider intersections on U.S. 15 at Heathcote Boulevard and Route 55, adding turn lanes to both; and a 10-foot-wide shared-use path on the east side of U.S. 15 for pedestrians and bicyclists. His responsibilities included conducting preparatory inspection meetings prior to the start of each new activity; providing oversight and directing the independent quality assurance testing and inspections; reviewing Pay Applications and comparing the QA and QC tests to ensure that they are within the tolerances established by VDOT’s Minimum QA/QC Requirements Manual. He also developed and resolved project Non-compliance reports (NCR’s) and deficiencies and maintained the project punch list. Dates: March 2015 to August 2017. $36 Million

2. Belmont Ridge Road, VDOT Design Build - Loudoun County, VA, Quinn Consulting Services, Inc. Mr. Vyas served Quality Assurance Manager (QAM) for this $45 million project located along Route 659 (Belmont Ridge Road) in Loudoun County, VA between Route 642 (Hay Road) and Route 2150 (Gloucester Parkway). The total Project length is approximately 1.9 miles. The purpose of this Project is to address current and future traffic volume needs along the corridor by widening the existing two-lane roadway to a four-lane median divided facility. A Bridge, for grade-separation is being constructed at the Washington & Old Dominion (W&OD) Trail and shared use paths will be provided on both sides of Route 659 (Belmont Ridge Road) with direct connections to the W&OD Trail. His responsibilities included conducting preparatory inspection meetings prior to the start of new activity; providing oversight and directing the independent quality assurance testing and inspections; reviewing Pay Applications and comparing the QA and QC tests to ensure that they are within the tolerances established by VDOT’s Minimum QA/QC Requirements Manual. In addition, he oversaw QA inspection staff and monitored the QC staff for compliance with the project specific QA/QC Plan. Dates: September 2016 to December 2018. $45 Million

3. Gloucester Parkway Extension, VDOT Design Build - Loudoun County, VA, Quinn Consulting Services, Inc. Quality Assurance Manager. This project extended Gloucester Parkway from the Loudoun County Parkway to the intersection of Pacific Boulevard and Nokes Boulevard. The $26 million project consisted of the design and construction of a four-lane divided highway, a new bridge over Broad Run, intersection improvements at Loudoun County Parkway (Route 607) and Pacific Boulevard (Route 1036), and trail and sidewalk improvements. As the Quality Assurance Manager (QAM), Kaushik coordinated with QA/QC teams to execute the work according to the approved plans & VDOT Specifications. His responsibilities included checking test reports, daily reports, MOT reports, and environmental reports. Kaushik was also responsible for the Quality Assurance of the construction operations, including the supervision of the QA testing technicians; and he determined and certified to VDOT whether the materials and work complied with the Contract Documents. In addition, conducted preparatory inspection meetings prior to the start of any new activity; reviewed pay applications, provided oversight and directing the independent quality assurance testing and inspections; compared the QA and QC tests to ensure that they are within the tolerances established by VDOT’s Minimum QA/QC Requirements Manual. In addition, Kaushik worked closely with both VDOT and DB Contractor to resolve Non-Compliance issues and to prevent repeat occurrences. Dates: November 2014 to September 2016. $26 Million

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-66/Rt 15 Interchange – August 2017, Belmont Ridge Road – December 2018
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Mitchell F. Johnson, P.E., DBIA – Virginia Roadway Leader</td>
</tr>
<tr>
<td>b. Project Assignment: Design Manager (DM)</td>
</tr>
<tr>
<td>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): Michael Baker International; Full Time</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 1.5 Years With Other Firms 28 Years</td>
</tr>
<tr>
<td>Michael Baker International; Virginia Roadway Leader; 2016-Present:</td>
</tr>
</tbody>
</table>

**Project Execution:** Ensure QA/QC procedures are performed by appropriate staff on roadway design components of project deliverables; Support project managers in developing staffing plans, schedules and budgets for roadway projects; Serve as DM or PM for large roadway design projects.  
**Business Development/Proposal:** Maintain VDOT exposure; support local government and VDOT District BD efforts; strategy leader for all roadway design proposal efforts in Virginia; collaborate with team leaders and regional design-build leader to establish pursuit strategies and go/no-go decisions.  
**Resources:** Establish Virginia roadway resource needs and collaborate with other team leaders to support regional workshare efforts to improve utilization; participate in National highway and design-build practice calls, pursuits and workshare opportunities; track Virginia roadway staff professional development.  

**Jacobs Engineering Group; Transportation Market Principal; 2014-2016:**  
Lead Virginia efforts to build comprehensive long-term strategy to capture market share in non-rail transportation infrastructure design; interact with VDOT and local agencies to ensure client satisfaction.  
Recruit and develop staff to ensure staffing needs are met. Responsible for overall project delivery, QA/QC, contract compliance and client satisfaction for transportation design business in Virginia, including managing large projects. Designer of Record for I-564 Intermodal Connector (IMC) Design-Build Project.  

**Kimley Horn and Associates; Transportation Practice Builder; 2009-2014:**  
Lead design practice builder in Richmond office; directed team of seven to complete transportation design projects ranging from small task orders to major design projects. Part of regional transportation team strategy for pursuits, project development, client interaction, and teaming. Responsible for project pre-sell, pursuit, win and delivery to as-sold margin. Design Manager of Pacific Boulevard Design-Build project.  

**Vanasse Hangen Brustlin, Inc; Senior Project Manager; 1999-2009:**  
Project manager in Richmond office; responsible for pre-sell, pursuit, win, project development and delivery to as-sold margin. Directed team of four engineers in local agency and Virginia Department of Transportation planning and design contracts. Engaged in regional pursuit and teaming strategy, as well as office and regional workshare and staffing discussions to best increase utilization. Design team leader of APM interchange and Design Manager of I-95 Fiber installation Design-Build Projects.  

**Summary of Relevant Experience:**  
- 29 years in Highway Design  
- 23 years of design team and project management  
- Significant interchange design experience  
- Design Manager on 3 DB projects  
- Registered PE in Virginia  
- Member DBIA  

| f. Active Registration: Year First Registered/ Discipline/VA Registration #: |
|-----------------------------|-------------------------------|
| 1993 / Civil Engineering/ Virginia 023838 |

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
|-----------------------------|-------------------------------|
| Virginia Polytechnic Institute and State University / Bachelor of Science / 1988 / Civil Engineering |
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.)

1. I-564 Intermodal Connector, Norfolk, VA (Design-Build, Jacobs-Stantec JV with Cherry Hill Construction, for VDOT via FHWA EFLHD): Experience with Jacobs. Mr. Johnson was the Interim Designer of Record. Responsible for all aspects of final design, stakeholder coordination, agency approvals and permitting for approximately 2.8 miles of new four-lane limited access highway from existing I-564 in the area of Terminal Boulevard on the east to the Naval Station Norfolk (Second St.) and Norfolk International Terminals on the west. Design-build improvements include construction of new-alignment I-564 interchange, intermodal connector with ramps, bridges, local connectors and Naval facility roadways, storm water management, crossing of Norfolk Southern rail lines, interface with Virginia Port Authority North Gate, interface with Naval Station Norfolk Gate 6, Navy commercial vehicle inspection station, right-of-way plans and acquisition services, securing design exceptions, and major utility relocations. Project included bi-weekly major stakeholder meetings, design public hearing and construction public involvement. Construction value $93M. Services 2014-2016, Construction 2015-2017 (ongoing). Client contact Bruce Duvall, VDOT Hampton Roads District.

2. Pacific Boulevard Widening, Design-Build Project, for VDOT: Experience with Kimley-Horn. Mitch was Design Manager and engineer of record for this Design-Build project completed in 2012 by General Excavation, Inc. This project involved widening Pacific Boulevard from two to four lanes from the intersection of Sterling Boulevard to Relocation Road, a length of 0.4 mile. Funding through ARRA. Project included widening plans, parallel shared use path, storm drainage, signal design, power and communications connection coordination, right-of-way acquisition, work zone traffic control plans and type B TMP. Project proceeded from Notice to Proceed to construction in four months. Services: 2010 Construction: 2011; Construction cost: $2 million. Client contact Tim Hartzell, VDOT Northern Virginia District.

3. APM Terminals Access Interchange, Route 164, Portsmouth, Virginia for Tidewater Skanska and VDOT: Experience with VHB. Mitch was design team managing engineer for $22 million interchange and ancillary roadways for new container port facility. VDOT’s first solicited Design-Build project proceeded from survey to mobilization in only nine months; project fully delivered in less than two years. Managed team of five engineers and technicians; responsible for all highway design elements including drainage, as well as plan and document production. Mitch developed work zone traffic control plan that included raising existing alignment of Route 164 while under traffic. Plans produced to VDOT standards coordinated through Norfolk Residency. Attended contractor coordination meetings, VDOT field inspection meetings, and public hearing. Services: 2005; Construction: 2006; Construction Cost: $22 Million; Client contact Bud Morgan, VDOT Hampton Roads District.

* 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.
### KEY PERSONNEL RESUME FORM

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>David D. Bradeson, P.E. – Regional Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Construction Project Manager</td>
</tr>
<tr>
<td>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):</td>
<td>Chemung Contracting Corporation – Full Time</td>
</tr>
<tr>
<td>d. Employment History:</td>
<td>With this Firm 11 Years With Other Firms 11 Years</td>
</tr>
<tr>
<td>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):</td>
<td></td>
</tr>
</tbody>
</table>

**Chemung Contracting Corporation; Regional Project Manager, May 2006-Present:**
Manager of all projects in Virginia to include commercial site work, FAA, and VDOT and manage two AMRL accredited asphalt plant laboratories. Responsible for execution and coordination of all contracts. Work with owners management, extensive knowledge of all construction specifications, CPM cost loaded scheduling, cost projection, pricing and negotiating contracts, claims mitigation, specification reviews.

- VDOT - Route 29/666 Interchange, Culpeper, VA
- VDOT - Route 28/718 Intersection Improvements, Culpeper, VA
- VDOT – Route 29/666 Intersection Improvements, Culpeper, VA
- Culpeper Regional Airport Hangars, Culpeper, VA
- VDOT – Various Paving Schedules
- Town of Culpeper – Various Paving Schedules
- Town of Orange – Byrd Street Improvements, Orange, VA
- Luray Airport Rehabilitation, Luray, VA
- Charlottesville Airport, Runway extension, Charlottesville, VA
- Fawn Lake Subdivision Section, Spotsylvania County, VA
- Three Flags Subdivision, Culpeper, VA
- Norfolk Southern Railway Expansion, Gainesville, VA

**Jones Bros., Inc.; Project/Group Manager, Nov. 1998-May 2006:**
Project and Group Manager for heavy highway construction including both bridges and highways. Responsibilities include: Coordination of crews and equipment between various states (VA, NC, SC, and FL), CPM scheduling, owner/subcontractor/supplier contact and coordination, modification/extra work estimating, cost projection, pricing and negotiation, claims management, EEO compliance, enforcement and compliance with corporate safety regulations, critical crane lift Engineer land and water, concrete form work design for bridges and box culverts.

- NCDOT 15-501, Pittsboro, NC
- FDOT – I-275 Interchange, St. Petersburg, FL
- FDOT – Trail Overpass Design-Build, Winter Park, FL
- VDOT – Hwy 29 By-pass Amherst - Sweetbrier Interchange
- NCDOT – I-85 By-pass, Greensboro
- SCDOT – Bridge Over U.S. 1 and Norfolk Southern RR, Columbia, SC
- NCDOT – 15-501, Pittsboro, NC
- NCDOT – New River Bridge, Jacksonville, NC

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: |
| University of North Carolina, Charlotte, NC/Bachelor of Science/1995/Civil Engineering Technology |
| f. Active Registration: Year First Registered/ Discipline/VA Registration #: |
| 2002/Commonwealth of Virginia Professional Engineer/034544 |
| 1998/American Society of Civil Engineers Member |
| 2015/VAA Environmental Committee Member |
| 2007/VDOT Asphalt Field 1 and 2 Cert. |
| 2007/VDOT Central Mix Aggregate Cert. |
| 2007/VDOT Asphalt Plant 1 and 2 Cert. |
| 2012/VDOT Pavement Marking Technician Cert. |
| 2011/VDOT Intermediate Work Zone Traffic Control/032516008 |
| 2006/Nuclear Gauge Safety Cert./6540 |
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.)

1. Route 29/666 Interchange, Culpeper, VA, Chemung Contracting Corp. As project manager for the Route 29/666 Interchange project, Mr. Bradeson lead all activities to include earthwork, grading, paving, traffic signalization, MOT, box culvert, water, sewer, and overall management coordination with VDOT. The projects objective is to replace the existing at-grade intersection of Route 29 and 666 with a diamond interchange to improve traffic capacity and public safety. All duties included CPM Cost loaded scheduling, manage subcontractors, cost projections, owner relations, determine and provide cost saving suggestions, manage all crews and equipment utilizations. Strengthened Chemung’s relationship with VDOT’s Culpeper District through strong partnering practices. Dates: May 2015 – Present. $17.3 Million.

Project Similarities: Bridge construction, utility coordination/relocation, excavation, environmental, traffic signal, geotechnical, higher education, contractor QC, MOT, public involvement.

2. Route 29 By-pass, Amherst, VA, Jones Bros., Inc. Project Manager. Mr. Bradeson oversaw all construction activities to include coordinating of 9 new bridges (2 for Norfolk Southern Railroad) and 2 box culverts. Extensive oversight of the construction of one bridge over active Route 29 was achieved to maintain high safety inspections while maintaining an aggressive schedule. Additional duties include managing subcontractors, cost projections, CPM scheduling, concrete form design, manage all crews and equipment, critical lift engineering, safety, and EEO. Dates: Jun. 2003-Jul. 2004. $21.5 Million.

Project Similarities: Bridge construction, excavation, bridge construction under traffic – Route 29, geotechnical, contractor QC, TMP design and construction, drainage construction under traffic.

3. I-275 Interchange, St. Petersburg, FL, Jones Bros., Inc. Project Manager. Through extensive leadership, Mr. Bradeson managed all construction processes for the completion of 4 bridges, concrete activities, and asphalt paving. Additional responsibilities included CPM Cost loaded scheduling, manage subcontractors, cost projections, owner relations, manage all crews and equipment, concrete form design, critical lift engineering, safety and EEO. Dates: Jul. 2004–Nov. 2004. $32.6 Million

Project Similarities: Bridge construction, geotechnical monitoring, contractor QC, bridge construction under heavy traffic, public involvement, TMP design and construction.

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.
   • 29 Solutions Charlottesville – Project Manager – Jun. 2017*
   • Route 29/666 Interchange – Project Manager – Project Completion Aug. 2017*
   • Charlottesville Airport – Project Manager – Project Completion Oct. 2017*
   • VDOT Paving Schedules (2) – Project Manager – Project Completions Sept. 2017 and Jun. 2018*
   • Ardent Mills Silo Construction Site Work – Project Manager – Project Completion Dec. 2017*

Note: Construction of Warrenton Southern Interchange US 15/17/29 to commence Summer 2018.
Attachments 3.4.1(a) and 3.4.1(b) - Work History Forms
### LEAD CONTRACTOR - WORK HISTORY FORM

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement. (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rt. 29 &amp; Rt. 666</td>
<td></td>
<td></td>
<td>08/2017</td>
<td>08/2017</td>
<td>$18,689</td>
<td>$18,689</td>
</tr>
<tr>
<td>Interchange</td>
<td>Virginia Department of Transportation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$10,931</td>
</tr>
<tr>
<td>Location: Culpeper, VA</td>
<td>Name: Virginia Department of Transportation</td>
<td>Name: Virginia Department of Transportation, Phone: (540) 727-7038 Project Manager: Dianna Sheesley, Phone: (540) 449-6340 Email: <a href="mailto:Dianna.Sheesley@VDOT.virginia.gov">Dianna.Sheesley@VDOT.virginia.gov</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### PROOF OF QUALITY PERFORMANCE

- Received a **100%** on Construction Quality Improvement Program (CQIP) Review by VDOT.
- Received a **4** on VDOT’s Contractor Performance Evaluation (CPE Interim Report) stating, “Chemung Contracting Corporation has displayed exemplary cooperation and coordination with the inspection staff and VDOT administration. Positive feedback from the local public have stated notice of the order and cleanliness of the project.”
- Revised the TMP plan that eliminated a major detour and temporary portable cameras and provided a savings of $110,250.00 to VDOT.
- Redesigned the bridge substructure resulting in a savings to VDOT of approximately 10% for the pier foundations.
- VDOT has received positive feedback from Culpeper County, Town of Culpeper citizens, Eastern View High School, and Rt. 29 motorists. This was accomplished through utilizing construction signage and variable message boards, to promote awareness of upcoming project impacts.
- Participation with stakeholders was paramount to maintain strong relationships. This included assisting traffic control through the project limits for such county-wide activities as the Culpeper Fest and Culpeper Air Fest along with maintaining regularly schedule activities throughout Eastern View High School.
- Chemung received numerous compliments for the project from VDOT personnel to include Garrett Moore - VDOT Chief Engineer, John Lynch – Culpeper District Engineer, and David Pearce – Culpeper District Maintenance Engineer along with Erine Hoch - Culpeper County Administrator.
- The project was highlighted by VDOT’s Commissioner, Charles Kilpatrick, during the Commissioner’s Address at the 2016 VTCA Spring Transportation Conference.

### OVERVIEW OF PROJECT

To improve safety and maximum capacity, VDOT designed this project to replace the existing at-grade intersection of Routes 29 and 666 with a diamond interchange. Once Eastern View High School was opened, the project funding was accelerated due to increased vehicle, pedestrian, and bicycle traffic. VDOT recommended the diamond interchange because of its lowest initial cost, prior preparation by VDOT, shortest construction duration, future modification capabilities, and familiarity to motorists. The scope includes raising Route 666 to an overhead crossing of Route 29 via a new interchange. For pedestrians and bicycle traffic, bike lanes would be added along with a sidewalk and shared use path.

### CHEMUNG’S RESPONSIBILITIES INCLUDED

- **Relevant Tools and Equipment Utilized**
  - **Class C Bridge Contractor**
  - **Class C Stone Contractor**
  - **Class B Food Contractor**

- **Work Performed**
  - **500 LF of material excavation, 750 CY of imported material, 1,200 CY of excavated material, 147,000 CY of regular excavation**
  - **3,200 LF of storm infrastructure, 4,000 LF of roadway, 800 TN aggregate, 340 TN asphalt paving, 1,400 TN asphalt concrete, 10% aggregate, 147,299 CY of material, 8,400 LF of storm structure**
  - **2,700 SY of bridge concrete, 2,700 SY of roadway concrete, 2,700 SY of bridge concrete, 147,299 CY of material, 8,400 LF of storm structure, 800,000 TN aggregate**

### LESSONS LEARNED

- **Inclement Weather** – Challenges are faced with severe weather conditions that necessitate the suspension of operations, which may impact project duration and costs.
- **Public Safety** – Accidents and injuries are a concern, with the need for adherence to safety protocols to minimize risks. Staff members are trained to handle such incidents, ensuring a safe working environment.
- **Project Coordination** – Effective communication among project stakeholders, including VDOT, contractors, and subcontractors, is crucial for the successful execution of the project. Regular meetings and updates help in addressing any issues promptly.

---

**ATTACHMENT 3.4.1a**

**Location:** Aerial of Rt. 29 & Rt. 666 Interchange

**Image:** Arial of Rt. 29 & Rt. 666 Interchange

**RELEVANCY TO THE WARRENTON SOUTHERN INTERCHANGE US 15/17/29 PROJECT**

- **Interchange Construction**
- **Traffic Management Plan**
- **Stakeholder Coordination**

**KEY PERSONNEL**

- **Billy Myers (Contract Administrator)**
- **David Bradeson (Regional PM)**
- **Edward Dulrymple III (PM)**
- **Daniel Soderquist (Superintendent)**
- **Matthew Ciuros (Field Engineer)**
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement. (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: SR6015 Section 61P</td>
<td>Name: Mansfield, PA</td>
<td>Name of Client/Owner: Pennsylvania Department of Transportation</td>
<td>9/2004</td>
<td>11/2003</td>
<td>$18,197</td>
<td>$19,460</td>
</tr>
<tr>
<td>Location: Mansfield, PA</td>
<td></td>
<td>Phone: (570) 368-4229 Project Manager: Sandra Tosca, P.E.</td>
<td></td>
<td></td>
<td>$19,460</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phone: 570-368-8686 Email: <a href="mailto:stosca@pa.gov">stosca@pa.gov</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

PROOF OF QUALITY PERFORMANCE

- Accelerated construction activities which resulted in the completion ten months ahead of the contract completion date.
- Traffic was maintained on the companion structure during construction.
- Structural capabilities within limited work areas with heavy open traffic.
- Permanent impacts of both wetlands and waterways were mitigated through replacement wetlands via stream stabilization and riparian corridor restoration at Canoe Camp Creek which was required to be constructed prior to starting the SR6015 Section 61P project. Maintained compliance with all environmental regulations for work over the Tioga River.

OVERVIEW OF PROJECT

The project consisted of constructing approximately 10.5 miles of Route 15 (Future I-99) and rehabilitation of 4 bridges near and around Mansfield, PA. One of the bridges carried southbound lanes of S.R. 6015 over the Tioga River. This element was part of the enhancement of the S.R. 6015 to a 4-lane limited access highway that would eventually become part of the Interstate 99 corridor. This structure was built adjacent to an existing companion structure.

CHEMUNG'S RESPONSIBILITIES INCLUDED

Chemung was responsible for all aspects of this work. The major items of work included approximately 221,000 tons of asphalt paving; eight structure rehabilitations, four of which were Design-Build of the bridge decks and parapets; installation of drainage pipe; 80,000 ft of base drain; a 94" pipe culvert and a 20'x6' box culvert; electrical; guide rail; installation of concrete barrier and curb and other miscellaneous work. All materials were provided by mines and asphalt plants owned by the company. This is similar to operation established in Virginia.

LESSONS LEARNED

- Innovative Solutions – Designed bridge decks and parapets to meet the owner’s goals that reduced the area of the deck and adjoining superstructure features effectively reducing cost and time of construction.
- Phased Construction – Chemung gained valuable experience working over and around waterways to establish future understanding of practices and expectations of stakeholders.
- Public Safety – Extensive planning for safe passage of workers and the traveling public, use of proven tried and true construction methods that reduce the risk of design or delays was the top priority.
- Public Awareness - Implemented an environmental team to promote education, assistance, and visual aids to comply with regulations and took proactive measures with stakeholders to pursue their goals while maintaining daily communication with all agencies and committees.

RELEVANCY TO THE WARRENTON SOUTHERN INTERCHANGE US 15/17/29 PROJECT

- Structures and Bridges
- Transportation Management Plan
- Stakeholder Coordination
- Public Involvement
- Retaining Walls

- Narrative describing Retaining Walls
- Public Involvement
- Stakeholder Coordination
- Transportation Management Plan
- Structures and Bridges
- Public Involvement
- Retaining Walls

If a project includes multiple phases, segments, elements, and/or contracts, the relevancy of that work can be considered accordingly. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.
**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Replacement of I-86 Bridge over SR 415</td>
<td>Name: State of New York Transportation Department</td>
<td>Name of Client/Owner: State of New York Transportation Department Phone: (434) 529-6298 Project Manager: Christopher Giles Phone: (607) 324-8480 Email: <a href="mailto:Christopher.giles@dot.ny.gov">Christopher.giles@dot.ny.gov</a></td>
<td>11/2010</td>
<td>11/2010</td>
<td>$4,087</td>
<td>$4,224</td>
</tr>
<tr>
<td>Location: Painted Post, NY</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 affiliate or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**PROOF OF QUALITY PERFORMANCE**

- Construction was completed on schedule including the additional scope of work by the owner.
- Limited impacts to the traveling public and surrounding communities and business including Corning Glass and Ingersoll Rand.
- Proactive safety awareness and planning prior to beginning demolition of the existing bridge.

**OVERVIEW OF PROJECT**

As the Lead Contractor, Chemung was responsible for all aspects of the sequence of construction including: roadways, demolition of existing bridge, structures, maintenance of traffic, and quality control. Traffic studies identified this has a heavily traveled crossover bridge. Particular attention to the installation of the soil nail wall system was coordinated with owner’s designers to maintain the project schedule.

**CHEMUNG’S RESPONSIBILITIES INCLUDED**

- Structures and Bridges
- Multi-Phase Bridge Sequences
- Reinforced Earth Systems
- Heavily Traveled Corridor
- Stakeholder Coordination

**RELEVANCY TO THE WARRENTON SOUTHERN INTERCHANGE US 15/17/29 PROJECT**

- Structures and Bridges
- Multi-Phase Bridge Sequences
- Reinforced Earth Systems
- Heavily Traveled Corridor
- Stakeholder Coordination

**LESSONS LEARNED**

- **Innovative Solutions** – Chemung brought their expertise to the designer when finalizing design of the geosynthetic reinforced earth system.
- **Phased Construction** – The construction required in depth planning to maintain ease to traffic while demolition the existing and construction of the new bridges. This work was completed during non-peak traffic times to minimize disruptions for the public and ensure a safe working environment for the construction team members.
- **Public Safety** – Roundtable committee management interactions with key stakeholders on phased safety matters to maintain proactive solutions to project issues.
- **Public Awareness** - Weekly communication between all stakeholders allowed for quick resolution of any issues to prevent future delays.
ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate 66/U.S. 15 Interchange Reconstruction</td>
<td>Virginia Department of Transportation</td>
<td>Phone: 703-259-2960</td>
<td>Project Manager</td>
<td>Christiana Briganti-Dunn, PE, CCM</td>
<td>Phone: 703-259-2960</td>
<td>Email: <a href="mailto:christiana.briganti@VDOT.Virginia.gov">christiana.briganti@VDOT.Virginia.gov</a></td>
</tr>
</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

PROOF OF QUALITY PERFORMANCE
- The plans were approved with virtually no comments from VDOT.
- Construction was completed three months ahead of schedule.
- Michael Baker received additional services during the design phase for the analysis of noise barrier requirements and the development of landscape design plans.

OVERVIEW OF PROJECT
Michael Baker provided design services for the reconstruction of parallel bridges at the Interstate Change 66 (I-66) and U.S. Route 15 (James Madison Highway) in conjunction with changing the interchange from a conventional diamond to an innovative diverging diamond interchange. Interstate 66 is classified as an Urban Interstate and Route 15 as an Urban Principal Arterial road system. The proposed bridges will service up to 58,000 vehicles per day in the design year of 2036. The purpose was to accommodate the widening of I-66, improve traffic operations, and add traffic lanes and pedestrian facilities to Route 15.

The bridges are jointless two-span structures with full integral abutments utilizing prestressed concrete built-T (PCBT) girders. This configuration provides for durability, low maintenance, and constructability.

The roadway widths vary along the bridge as a result of the diverging diamond interchange (DDI) geometry. The left turn lanes flare on the bridge. The overall bridge width was set constant using the maximum turning lane width and a minimum 2-foot-wide shoulder on the turn lane side. Corrosion resistant reinforcing (CRR) was utilized in the concrete deck slab. The deck parapet is BR27C to meet the required TL-4 crash test level requirement and minimize the barrier width.

The overall width of the proposed bridges is 60 feet 4 inches and 79 feet 6 inches for the northbound and southbound structures, respectively. The northbound bridge carries three 12-foot-wide through lanes, a turn lane varying from 0 feet to 14 feet wide, 2-foot-wide (minimum) west shoulder, and a 1-foot-wide east shoulder. The southbound bridge carries two 12-foot-wide through lanes, a 12-foot-wide combined through and turn lane, a turn lane varying from 14 feet to 12 feet wide, a 14-foot-wide shared use path, a 1-foot-wide west shoulder and a 2-foot-wide (minimum) east shoulder.

Both abutments are a part of the jointless deck system. The foundations are supported by steel piles and MSE walls at the abutments to retain the earth. Multi-column piers with squared cap ends were selected. The piers are oriented parallel to the direction of traffic on I-66. The piers are supported on spread footings.

For aesthetic considerations, Ashlar Drystack (by Spec Formliners, Inc.) were used on the vertical concrete faces of the piers, railing pedestal, and MSE walls.

MICHAEL BAKER’S RESPONSIBILITIES INCLUDED
- Structure, bridge, noise barrier, and landscape design plans: Philip Quillin was lead structure and bridge designer and John Fennel was the lead landscape architect, and they will perform the same roles on the Warrenton Interchange.

LESSONS LEARNED
- Bridge, Superstructure - Slight creative changes to geometrics can improve long term viability of the structure. By conventional standards the horizontal road curvature and unusual ramp geometry required curved steel beams or kinked beams at corners, which in turn would require VA Alternative Abutments and steel tooth deck joints, which typically require much more costly maintenance. Using a slight adjustment and gaining approval from VDOT the bridge was designed straight and slightly wider, but with lower maintenance prestressed concrete girders and integral abutments.

- Bridge, Substructure - Aesthetic considerations can actually draw out cost savings. Due to span length, skew, and pier column heights on spread footings, corbels were required in order to use conventional standards. By utilizing aesthetic treatments, columns were designed square and thereby eliminated the need for corbels, which tend to lead to long term maintenance issues.
### LEAD DESIGNER - WORK HISTORY FORM

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Highway Continuous Flow Intersection (CFI), Norfolk, Virginia</td>
<td>Michael Baker International, Inc.</td>
<td>Virginia Department of Transportation</td>
<td>April (estimated)</td>
<td>On-going</td>
<td>$59,000</td>
<td>$59,000</td>
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<td>Location: Norfolk, Virginia</td>
<td>Name: Michael Baker International, Inc.</td>
<td>Phone: 757-396-6800</td>
<td></td>
<td></td>
<td></td>
<td>$2,609</td>
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### ATTACHMENT 3.4.1(b)

**Military Highway and Northampton Boulevard**

**RELEVANCY TO THE WARRENTON SOUTHERN INTERCHANGE US 15/17/29 PROJECT**

- Continuous Flow Intersection Design
- Roadway Design
- Traffic (lighting, signing & Marking) Design
- Drainage & Stormwater Management Design
- Construction Administration including review of DB Team Plans and calculations and Respond to RFQ's
- Transportation Planning
- Utility Relocation Design
- Value Engineering
- Public Involvement Relations

**KEY PERSONNEL**

- Chuck Eastman, PE, Roadway Engineer
- Zach Harris, PE, Traffic Engineer
- Mike Freidank, EIT Design Engineer
- Mitch Johnson PE, DBIA, QA/QC

**PROOF OF QUALITY PERFORMANCE**

"[Michael Baker] continues to focus on tight budgetary constraints... Good job coordinating and providing material for the Design Public Hearing held on 9/30/14... Weekly conference calls have been a valuable communication tool... Current PM and staff doing a good job with a difficult and complex project [with] numerous stakeholders... Invoicing continues to be timely... Good job so far with this difficult and complex project... Cooperation and response time is outstanding... Weekly Progress Reports have been very useful and timely." - Frank Fabian, P.E., VDOT Senior Project Manager

**OVERVIEW OF PROJECT**

Michael Baker provided preliminary engineering design services (40% Plans), design-build (D-B) request for qualifications (RFQ), D-B request for proposals (RFP) development services and design-build post-award support services for the construction of a continuous flow intersection (CFI) at the intersection of Military Highway and Northampton Boulevard. Michael Baker's services included travel demand forecasting, traffic microsimulation, conceptual design, preliminary plan design, preliminary hydraulic & stormwater management design, public involvement, preparation of RFQ and RFP documents including technical requirements and post-award support services consisting of review of plans and design deliverables for multiple submittals, respond to request for Information (RFI's) and construction submittions, engineering support for other design and construction phase activities, project meeting attendance and document control.

Military Highway is a 15-mile, four-lane roadway in eastern Virginia. Due to rapid residential and commercial development in the area, the highway has become highly congested, carrying an average of more than 58,000 vehicles per day.

The purpose of a CFI is to reduce congestion at a signalized at-grade intersection by eliminating the left-turn conflict with oncoming traffic, allowing traffic that is not turning to flow more continuously through the intersection. A signalized left-turn bay is placed several hundred feet before the intersection, allowing the left-turning vehicles to cross over the opposing through movement while it is stopped. The CFI at the intersection of Military Highway and Northampton Boulevard will be the first in Virginia.

Michael Baker planned and coordinated a design public hearing and hosted community meetings to inform the public, obtain input, and generate public support for the new CFI intersection.

The Military Highway Continuous Flow Intersection Project is a three-phase project to widen and improve Military Highway corridor from Lowery Road to Robin Hood Road.

The first phase of the project consisted of providing conceptual design services for the intersection and traffic engineering to assess the potential impacts on traffic flow through the intersection. Michael Baker performed travel demand forecasting and traffic microsimulation in addition to roadway design, signal design and hydraulic design for the new intersection and 1.5 miles of Military Highway.

The second project phase services included preparation of bridging documents and specifications to allow the department to select a D-B contractor to construct the new intersection.

The third phase consist of providing post-award support services involving review of plans and design deliverables for multiple submittals, including Preliminary field inspection (PFI) plans, Field inspection (FI) plans, structures plans, right-of-way (RW) plans and final construction plans (CN), respond to request for Information (RFI’s). Michael Baker also is performing review of design and analysis documents submitted by the design-builder including design calculations, geotechnical reports, noise barrier report, drainage design calculations and reports, Vissim Traffic Models and analysis of the transportation management plans, temporary traffic control and traffic operations plans, construction submissions, engineering support for other design and construction phase activities, project meeting attendance and document control.

**MICHAEL BAKER’S RESPONSIBILITIES INCLUDED**

- Conceptual Design
- Preliminary Design
- Travel Demand Forecasting
- Traffic Microsimulation
- Roadway Design
- Signal Design
- Hydraulic Design
- Surveying
- Public Involvement

**LESSONS LEARNED**

Typically on design build projects the D-B team has flexibility in adjusting the preliminary plans which in some cases can lead to less than optimum designs. Michael Baker’s designers put extensive efforts in creating a highly efficient conceptual and preliminary design of the CFI intersection. The traffic modeling and simulation efforts verified the geometric design for the intersection crossovers was at the optimum location for efficient operation of the CFI intersection. This led to quick approvals of the design from VDOT and the City of Norfolk. Because of Michael Bakers efforts in developing the preliminary design for optimal performance of a new type of intersection in Virginia, Michael Bakers engineers developed the RFP Technical Requirements to strictly follow the proven preliminary design not allowing the DB Team to make modifications and possibly reduce performance of this important arterial Highway Intersection.
### LEAD DESIGNER - WORK HISTORY FORM

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<tbody>
<tr>
<td>Western Wake Freeway Design-Build (R-2635)</td>
<td>Name: Western Wake Freeway Design-Build (R-2635) Location: Wake County, NC</td>
<td>Name: Archer Western (Major) and Granite and Eutaw Joint Venture</td>
<td>Name of Client: North Carolina Turnpike Authority Phone: 919-836-4778 Project Manager: Jason Peterson, PE Phone: 919-836-4778</td>
<td>5/2010</td>
<td>12/2012 (Actual) (13 days early)</td>
<td>$446,440</td>
</tr>
</tbody>
</table>

#### PROOF OF QUALITY PERFORMANCE

- "This project faced many complex challenges, including its unique features, innovative designs, accelerated construction schedule and extensive public involvement. We appreciated Michael Baker's total team approach and responsiveness to being innovative and extremely efficient while under considerable pressure to stay on schedule and keep the project moving forward. With the company's depth of services, technical know-how and flexibility, NCTA was always able to count on Michael Baker." - Jason Peterson, PE, NCTA Triangle Expressway Project Manager
- "In addition to promoting local and regional growth and development, Western Wake Freeway will reduce traffic and improve travel times for thousands of daily commuters and around Research Triangle Park." - Jason Peterson, PE, NCTA Triangle Expressway Project Manager

#### OVERVIEW OF PROJECT

Michael Baker provided design services as part of the Western Wake Freeway design-build team. The $446 million design-build project was a new location roadway, approximately 12.6 miles in length from NC 55 at SR 1172 to NC 55 near SR 1630. The project was a six-lane controlled access toll road and includes the construction of 33 bridge structures, six interchanges, and numerous box culverts. The project required extensive traffic control planning and sequencing, railroad and utility coordination, and right-of-way acquisition. As part of this project, major arterials such as US 1 and US 64 were widened, resurfaced, and portions reconstructed.

The freeway saves customers up to 20 minutes per full-length trip. The project is the first project in North Carolina designed and built to utilize an all electronic toll collection system, meaning there are no toll booths and no stopping to pay tolls.

#### MICHAEL BAKER’S RESPONSIBILITIES INCLUDED

- Project Management
- Drainage
- Signals
- Roadway Design
- ITS Infrastructure Design
- Lighting
- Bridge Design
- Utility coordination
- Aesthetics

#### LESSONS LEARNED

**Right-of-Way Acquisition:** Through the team’s recent experience with the Western Wake Freeway project, the Team discovered that a designated right-of-way liaison is necessary in providing accurate and timely information to NCTA and their Land Agents. It was essential to the project that the property owners are seen as individuals and that the NCTA, through their Land Agent, provides the most accurate information available during negotiations.

The right-of-way coordination team should begin by releasing selected parcels to NCTA, as the project footprint is finalized, so that the appraisal process and negotiations may begin. The initial focus should target properties located inside the mainline construction area and areas necessary for utility relocations. It is typical for design-build projects to have occasional revisions for additional easements due to the fast track nature of the design process; the Team should notify NCTA of potential revisions as they surface and once finalized, updated plans will be distributed. It should be the Team’s desire to eliminate or reduce claims where possible, as well as minimizing revisions to the claims that have already been appraised, discussed and/or settled with the property owner. To provide clear and concise plans for the NCTA right-of-way agents, the Team has established a modified version of the NCDOT “Utility by Others” plans that are referred to as Project Coordination Plans. The Project Coordination Plans should include the typical data shown in the right-of-way plans along with proposed utilities, erosion control features, roadway detours and other pertinent features to assist the Land Agent with illustrating the claims to property owners.

**Utility Coordination:** During the early phases of design it was evident that a highly effective team of coordinators were needed to handle the amount of utility relocation and coordination that would be required. Our Team planned accordingly for utility coordination and achieved success. A key exercise implemented on this design-build project was the use of Joint Utility and Construction Coordination Meetings (JUCCM). The JUCCM was a weekly or bi-weekly meeting including utility owners, construction personnel and NCTA representatives, to review upcoming activities and provide feedback to improve cooperation. Our utility coordinator used his experience and existing relationships along with diligent communication to effectively coordinate relocations and bring all the utilities together on this project, to optimize all relocations to help keep the project on schedule and on budget.

#### RELEVANCY TO THE WARRENTON SOUTHERN INTERCHANGE US 15/17/29 PROJECT

- Six Interchanges
- Structure and Bridge
- Construction
- Traffic
- Right of Way
- Utilities

#### KEY PERSONNEL

- Dwain Hathaway, PE, Engineer of Record and Structures Manager