STATEMENT OF QUALIFICATIONS

Design-Build
Route 7 and Battlefield Parkway Interchange

State Project No.:  0007-253-009, P101, R201, C501, B601
Federal Project No.:  STP-5A01(704)
Contract ID Number:  C00106573DB101
3.2 Letter of Submittal
January 31, 2018
Mr. Stephen D. Kindy, P.E.
Alternate Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: Letter of Submittal | Design Build | Route 7 and Battlefield Parkway Interchange | Town of Leesburg, VA | State Project No.: 0007-253-009, P101, R201, C501, B601 | Federal Project No.: STP-5A01(704) | Contract ID Number C00106573DB101

Dear Mr. Kindy:

3.2.1 Corman Construction, Inc. (Corman), 12001 Guilford Road, Annapolis Junction, MD 20701 is the legal entity who will execute the contract with VDOT and submits the following:
- One original Statement of Qualifications (SOQ) with full supporting documentation
- One CD-ROM containing the entire SOQ in a single cohesive Adobe PDF file
- 10 abbreviated copies of our original SOQ

<table>
<thead>
<tr>
<th>3.2.2 Point of Contact</th>
<th>Secondary Point of Contact</th>
<th>3.2.3 Principal Officer of Legal Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Szympruch, PE</td>
<td>Lou Robbins, PE, DBIA</td>
<td>Arthur C. Cox, III</td>
</tr>
<tr>
<td>Vice President of Engineering &amp; Estimating</td>
<td>Vice President Design-Build Corman Construction, Inc.</td>
<td>President</td>
</tr>
<tr>
<td>Corman Construction, Inc.</td>
<td>12001 Guilford Road</td>
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<td>301-343-5476 -Cell</td>
<td>703-772-8566 -Cell</td>
<td>410-792-9400 -Telephone</td>
</tr>
<tr>
<td>301-953-0384 -Fax</td>
<td>301-953-0384 -Fax</td>
<td><a href="mailto:ccx@cormanconstruction.com">ccx@cormanconstruction.com</a></td>
</tr>
<tr>
<td><a href="mailto:sszympruch@cormanconstruction.com">sszympruch@cormanconstruction.com</a></td>
<td><a href="mailto:lrobbins@cormanconstruction.com">lrobbins@cormanconstruction.com</a></td>
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3.2.4 Corporate Structure: Corman will be the design-build contracting entity for this project. Corman is a corporation titled in Delaware and a wholly-owned subsidiary of CG Enterprises, Inc. and will be the sole major participant firm and responsible party to the design-build contract with VDOT. Corman will hold all financial responsibility for the contract.

3.2.5 Lead Contractor: Corman Construction, Inc. | Lead Designer: Rummel Klepper & Kahl, LLP
3.2.6 Affiliated and/or Subsidiary Companies Table (Attachment 3.2.6) is in the Appendix.
3.2.7 Certification Regarding Debarment Forms (Attachments 3.2.7(a) and 3.2.7(b)) are signed and are in the Appendix.
3.2.8 Corman’s VDOT Prequalification Evidence (C097-Active) is in the Appendix.
3.2.9 Surety Letter is in the Appendix.
3.2.10 SCC and DPOR information are in Attachment 3.2.10 and supporting documentation are in the Appendix.
3.2.11 Corman is committed to achieving a 13% DBE participation goal for the entire value of the contract.

Sincerely,

CORMAN CONSTRUCTION, INC.

[Signature]

Arthur C. Cox, III, President
3.3 Team Structure
3.3 TEAM STRUCTURE

With a track record of successfully delivering over $2 billion in design-build (DB) roadway and bridge projects, Corman comes to VDOT with the hands-on experience and top-notch personnel needed to effectively execute the design and construction, as well as manage the risks of the Route 7 and Battlefield Parkway Interchange Design-Build Project. During our 15-year design-build history, Corman has exceeded owners’ expectations in the on-time, on-budget delivery of high-quality projects, while meeting some of the most strenuous maintenance of traffic and environmental commitments. Out of these ventures, over $1 billion have included contractor-led QC programs.

Through the years, Corman has built a solid reputation of strategically aligning with the design-build partners most suited to meet the specific needs and requirements of the project at hand. For the Rt. 7 / Battlefield project, we selected Rummel, Klepper & Kahl, LLP (RK&K) as our lead design firm with the added depth of sub-consultants: Cardno, Inc., ERM & Associates, LLC, H & B Surveying and Mapping, LLC, Rhodes & Harwell, Inc., Quinn Consulting Services, Inc., Schnabel Engineering, LLC, Specialized Engineering, and Undeland Management. Together these firms make up the Corman | RK&K DB Team.

The Corman | RK&K DB Team will deliver success with seasoned professionals and resources, providing the highest level of quality to ensure that the project will be completed within our promised budget and schedule.

Over the last several years, Corman has successfully worked with RK&K on the following design-build projects:

<table>
<thead>
<tr>
<th>PROJECTS (* Award Winning)</th>
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<tbody>
<tr>
<td>* Intercounty Connector Contracts A &amp; B (Montgomery County, MD)</td>
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<td>* Rt. 29 Solutions (Charlottesville, VA)</td>
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<tr>
<td>* I-64 / Rt. 623 Widening &amp; Interchange (Short Pump, VA)</td>
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<td>* MD Rt. 216 US 29 to I-95 (Howard County, MD)</td>
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<tr>
<td>* Frederick Douglass Bridge and South Capitol Street over Anacostia River (Washington, DC)</td>
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<tr>
<td>Military Highway Widening &amp; Continuous Flow Intersection (CFI) Reconstruction (Norfolk, VA)</td>
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<tr>
<td>Salisbury Bypass Bridge Reconstructions (Salisbury, MD)</td>
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Four of the above Design-Build (DB) projects included Schnabel as the lead Geotechnical Engineer. H & B was the lead surveyor on the I-64 / Route 623 Widening & Interchange DB Project with Corman/RK&K. As evidenced above, the Corman | RK&K DB Team have strong pre-established working relationships going back 15 years, and therefore understand each other’s strengths and abilities. This existing relationship will assist in getting the Route 7/Battlefield Project off to a fast start and ensure smooth communication between the lead contractor and designer.

3.3.1 KEY PERSONNEL

The Corman | RK&K DB Team has assembled a team of highly-qualified and experienced individuals, and structured them accordingly for optimal performance. These key staff and design firms come together with a shared past history on award winning successful projects, have established working relationships, and are ready to hit the ground running. Though our task leaders and technical staff are responsible for items such as design, public involvement...
and/or construction, everyone is ultimately responsible for the total success of the project. The chart below introduces our Key Personnel (resumes in Appendix - Attachment 3.3.1):

<table>
<thead>
<tr>
<th>Design-Build Project Manager</th>
<th>Scott Szympruch, PE - Corman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Assurance Manager</td>
<td>John Vicinski PE - Quinn</td>
</tr>
<tr>
<td>Design Manager</td>
<td>Owen Peery, PE - RK&amp;K</td>
</tr>
<tr>
<td>Construction Manager</td>
<td>Kyle Kern - Corman</td>
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<tr>
<td>Lead Utility Coordination Manager</td>
<td>Mike Woods - Cardno</td>
</tr>
</tbody>
</table>

Our key personnel team is comprised of experienced design-build professionals that will manage the project risks through personal accountability and competence. Each individual is a seasoned professional with at least 21 years of experience within the industry and proven design-build experience. In addition, our Design Manager has served in the same position on two recent and successful Corman DB projects for VDOT: Route 29 Solutions and I-64 / Route 623 Widening and Interchange Projects.

**Value Added Design and Construction Staff**

In addition to the key personnel listed, we have assembled a *value added* team of professionals to lead design disciplines and construction management. They were selected because of their proven expertise in engineering, and construction on past VDOT design-build projects. Listed below you will find short biographies on each of these professionals. Each individual was hand-selected based on their experience relative to the Rt. 7 / Battlefield project’s scope and complexities, as well as their familiarity working together. A **DB** has been placed next to the names of the individuals with design-build experience.

**DB** Stakeholder Coordination Manager (SCM), John Undeland, PE *Underland*, has more than 20 years’ experience with some of the region’s most high-profile, high-stakes projects. Due to the critical nature and project risk of not properly keeping the driving public, elected officials and local community groups informed and engaged, we have asked John to lead this effort. John has worked in a similar capacity with Corman and/or RK&K on numerous high-profile, design-build projects including the Intercounty Connector, Woodrow Wilson Bridge, and the Frederick Douglass Bridge and South Capitol Street over Anacostia River. He has also led public outreach efforts for the Tappan Zee/Cuomo Bridge replacement in New York and the New York Avenue Bridge project in Washington, D.C. For his work on transportation projects in the Washington, D.C. metropolitan area, John has been honored with two Thoth Awards for Community Relations from the Public Relations Society of America. John will report to the DBPM with an open line of communication to the VDOT PM.

**DB** Design/Construction Integrator (DCI), Lou Robbins, PE, DBIA *Corman*, has been involved with regional design-build projects since 1986 and has over 45 years of experience. He has led design-build teams as the General Contractor (GC), Lead Designer, and Quality Control Manager. Lou’s unique experiences as both the lead designer and GC will greatly assist in coordinating the efforts of the Corman | RK&K DB Team to ensure the project’s success in meeting VDOT’s requirements. He will review all design submittals for conformance to project requirements, constructability and specific project scheduling needs. Lou lives in NOVA near the Project and is familiar with the project environs. He has worked with RK&K on over a dozen projects and knows their staff’s strengths and weakness, allowing him to spend the time on the areas that need him the most. This association has included many of those listed on the Organizational Chart, including the DM. Lou will report to the DBPM. He is also a current member of VTCA’s DB committee.

**DB** Right-of-Way Manager, Craig Anderson (ERM), has over 15 years’ experience in ROW acquisition and will lead preparing the ROW Acquisition and Relocation Plan. Craig, and ERM Associates, are a VDOT Pre-qualified Right-of-Way consulting firm. He is working with Corman on the DB I-64 Widening Exits 200-205 facilitating utility relocations. He has performed ROW services, similar to Rt. 7 / Battlefield, for the following municipal / utility clients: Loudoun Water, Fairfax Water, City of Falls Church, and Prince William County. This experience will enhance his ability to expedite ROW easements on this new project. Craig will report to Owen Peery, the Design Manager (DM).

**DB** Safety Manager, Steve Simpson, CSP, CHST *Corman*, reports to Kyle Kern, Construction Manager (CM). Steve will provide regular oversight of plans and field activities to provide a safe environment for VDOT, construction workers and the traveling public. Steve, has over 30 years of experience, and over six years working on DB projects, including three with RK&K – Fall Hill Avenue & Mary Washington Blvd., Extension for VDOT CSX’s Arkendale to Powell’s Creek third track installation, and Rehabilitation of 11 bridges on Rt. 13 in Salisbury, MD. He will provide all needed safety training for the project and aid in developing a job-specific safety plan to address unique project hazards that will enhance our standard Corman policies, including subcontractor protocols. Steve has the authority to stop work which does not meet Corman’s strict safety requirements.
Roadway Engineer, John McDowell, PE, Associate DBIA (RK&K), brings his more than 37 years of experience in the transportation field, focusing on complex roadway and intersection design for this contract. John’s interchange projects include: the preliminary design of the Route 7 and Route 9 interchange (a barbell roundabout); interchange design for the I-395/Boundary Channel Drive improvements; preliminary design of the Jones Branch Connector/I-495 Express Lanes interchange; final design of I-10/Hammond Boulevard PARCLO in Jacksonville, FL; and design of the I-95/I Turner Butler Boulevard directional interchange in Jacksonville, FL. He is currently developing a preliminary design for converting the existing interchange of Route 7 and Route 123 into a raised roundabout interchange. He will report to Owen Peery, DM, and serve as the second point of contact for the design team. Based in RK&K’s Fairfax office, John will lead the roadway design work. He is serving as Project Manager for the Richmond Highway Multimodal Improvements in Fairfax County for VDOT, as well as providing Quality Control for the DB I-64 Widening / Rt. 623 Interchange Improvements with Corman. John also has experience working with the Town of Leesburg and Loudoun County on roadway projects in the vicinity of the Rt. 7 / Battlefield Parkway interchange and understands the issues related to accommodating design in the right-of-way, including utility relocations and properly maintaining traffic during construction.

Structural/Bridge Engineer, John (JJ) Farley, PE (RK&K), will report directly to the DM and will be in charge of structural engineering for the project, including but not limited to bridge, foundation, and retaining and sound wall designs. John, with 24 years of experience, will lead production efforts for all structural engineering plans, estimates, and specifications for the project including the phased demolition of the existing bridge. He will also review structural shop drawings and assist the DBPM, CM and DM during construction, as needed, for structural engineering project questions that arise. John will collaborate with the entire design and construction team leadership for constructability characteristics, inter-operability of bridge/roadway/utilities/drainage aspects, and project cost control. John is currently leading the design of the Great Bridge Boulevard Bridge over I-64 and all noise barriers, signs structures, retaining walls and drainage structures on Corman’s joint venture DB High Rise Bridge Project for VDOT.

Traffic Management, Stuart Samberg, PE, PTOE, (RK&K), is an experienced transportation and traffic engineer. Stuart is familiar with all aspects of transportation planning and brings 12 years of experience, predominately in the Commonwealth of Virginia, to this contract. He has experience with Corman on other recent design-build projects, including the Route 29 Solutions Project in Charlottesville and the I-64 Widening project in Goochland and Henrico Counties.

Stuart has been the lead traffic or MOT engineer for multiple interchange projects, including designs for Single Point Urban Interchanges such as Route 29 at Rio Road and I-40 Business at Macy Grove Road in Forsyth County, NC. Stuart will report to Owen Peery, DM, and collaborate with the Construction MOT Manager, John Burgess to resolve any unexpected MOT issues during construction.

Geotechnical Engineer/Pavement Design, Ed Drahos, PE (Schnabel), will be in charge of all aspects of geotechnical engineering and evaluation for the project, including but not limited to bridge, retaining wall and soundwall foundations; evaluation of potentially unsuitable soils; cut slope stability, embankment stability and settlement, pavement design and geotechnical construction considerations. He will also assist the DM and CM during construction, as needed, for earthwork and geotechnical project questions. Ed has over 25 years of experience in geotechnical engineering related directly to similar transportation projects for VDOT and various localities in Virginia. He has teamed with Corman on several DB projects including Military Highway CFI, Route 1 at Fort Belvoir, Route 29 Solutions, and is currently the Lead Geotechnical Engineer on the Corman/RK&K I-64 High Rise Bridge Project. Ed will report to Owen Peery, DM.

Drainage/Hydraulics Design Engineer, Brian Finerfrock, PE (RK&K), reports to Owen Peery, DM, and has more than 15 years of advanced drainage and hydrologic and hydraulic analysis experience in the NOVA area. He spent six years serving as the VDOT River Mechanics Engineer in the NOVA District. His project experience includes overseeing drainage design and H&HA on the Battlefield Parkway Design-Build project during his tenure at VDOT. Brian also has extensive experience leading and overseeing complex drainage designs for VDOT and local clients. He is DEQ certified as a SWM administrator and plan reviewer, and has established relationships with Town of Leesburg staff. Brian’s relevant consultant DB experience includes I-64 Widening / Rt. 263 Interchange Improvements, the Route 29 Solutions (both with Corman), and the Route 250 Bypass Interchange at McIntire Road.

Erosion and Sediment Control Engineer, Alice Ortman, PE (RK&K), is experienced in erosion and sediment control design and other water resources engineering services for transportation projects. She will report to Owen Peery, DM. Alice has 14 years’ experience in stormwater, erosion and sediment control design and other water resources engineering services for transportation projects. She served eight years at VDOT as an Associate Hydraulic and River Engineer. Alice’s experience includes the design of roadway drainage
systems, stormwater management design, stormwater pollution and prevention plans, and erosion and sediment control plans for both rural and urban projects, as well as Hydrologic and Hydraulic Analyses (H&HA's) and scour computations. She was the Hydraulic Engineer for the VDOT DB I-64 Widening / Rt. 623 Interchange Improvements Project with Corman.

**Lead Environmental Design & Permitting Coordinator, Ricky Woody, II, PWS (RK&K),** has 28 years’ experience providing project management and preparation of various NEPA documents, securing wetlands and water quality permits and promoting compliance with environmental clearances for both large and small transportation projects. He has a strong foundation in environmental resource studies which is required for successful document/permit approvals. Ricky has experience in performing project reviews and providing corrective action recommendations to remain compliant with project specific environmental commitments. He has been involved in numerous VDOT projects providing environmental engineering and services and has managed all environmental aspects of several major and minor infrastructure projects, including the DB projects of the High Rise Bridge / Widening, I-64 Widening / Rt. 623 Interchange Improvements, Route 29 Solutions, all with Corman, as well as the King Street Improvements, Woodrow Wilson Bridge, Manassas Bypass, and Fairfax County Parkway. Ricky will report to Owen Peery, DM.

**Utility Design Engineer, Jeffrey Kapinos, PE (RK&K),** will be responsible for utility impact analysis and utility relocation design. He will verify and mitigate conflicts; determine costs and responsibilities; conduct utility field inspections; review third party utility relocation designs; verify and modify designs, as necessary, based on field conditions and construction activities; and ensure continuity of service. He will work hand in hand with Lead Utility Coordination Manager, Mike Woods. Jeff was the Lead Utility Engineer on the VDOT DB I-64 Widening / Rte.623 Interchange Improvements Project with Corman, the City of Fairfax drainage and utility relocation project in the Old Town District, and the utility projects along State Route 3 in King George County. Jeff, while reporting directly to Owen Peery, DM, will interact closely with the Lead Utility Coordination Manager, Mike Woods.

**3.3.2 ORGANIZATIONAL CHART**

The Corman | RK&K DB Team organizational chart, at the end of this section, illustrates our “chain of command” and notes key personnel team members. Solid lines identify the reporting relationships of our team members in managing, designing and constructing the project, and illustrate clear reporting lines from the DBPM to the design and construction team. Dashed lines represent indirect reporting between Design and Construction team, and obligations to the owner and/or Corporate Management. The chart also shows that a clear separation exists between QA and Construction QC inspection and field/laboratory testing.

**Functional Relationships - Integrate to Facilitate**

Design-build unites the contractor and designer more than just contractually. It integrates innovative design and construction techniques that benefit schedule and cost, which ultimately lead to client satisfaction. Our Design/Construction Integrator (DCI), Lou Robbins, PE, DBIA, will ensure the required interface between Corman’s management/field crews and the designers occurs in a timely manner with the concerns of each openly discussed. Having a dedicated DCI work on the project during the early design stages eliminates subsequent delays or rework, streamlines reviews, and eliminates potential construction field issues, thereby guaranteeing a superior project on time and on budget. Through our DBPM and CM, we will create a firm relationship that sets the foundation to interact and partner with VDOT and third-party stakeholders. Additional ways in which our team will be fully integrated include:

- Inter-disciplinary design reviews prior to milestones to ensure design disciplines are coordinated
- Corman constructability reviews of design, especially for MOT, Utilities, Drainage and Bridge Foundation Plans
- Weekly schedule meetings to review the previous weeks work and develop the three week look ahead, and monthly scheduling meetings to review CPM progress during design development and construction
- Weekly foreman meetings to discuss the schedule, safety and coordination
- Morning huddles with the crews to set the safety and production goals for the day
- Weekly progress meetings with the owner to review and discuss quality, submittals, and progress payments once construction begins
- Monthly partnering meetings with all stakeholders for issue resolution

**Design-Build Project Manager (DBPM) Scott Szympruch, PE (Corman)** is responsible for project design and construction, quality management, safety and environmental compliance, contract administration, and all other services required including procuring/furnishing materials, equipment, services, and labor required by the contract documents. He will attend all monthly progress meetings and be available to VDOT.
as required. Scott also has the expertise/experience to supervise and exercise control of the work, and accepts responsibility for the final work product. **Scott is VDOT’s primary point of contact and will coordinate, integrate, and administrate the Corman | RK&K DB Team, including design, construction, quality assurance, MOT, safety, and utilities.** He will be responsible for meeting our contract obligations and avoid/resolve disputes per the RFP. Scott will supervise the DM, DCI, CM, QAM, Lead Utility Coordination Manager, and manage/coordinate any public outreach and public meetings through John Undeland. He will be involved with preconstruction, design, construction, and punch out and will answer questions from stakeholders, citizens, elected officials, etc. Scott will assist with constructability reviews, safety audits, and oversee the quality management program, purchasing, and construction operations.

**Quality Assurance Manager (QAM), John Vicinski, PE (Quinn),** reports directly to the DBPM and will have direct, independent access to VDOT. He will ensure all work is performed in conformance with contract requirements, Minimum Requirements for QA and QC on Design-Build and Public-Private Transportation Act Projects, approved designs, and “approved for construction” plans/specifications. He will be responsible for development and adherence to the QA Plan, QA inspection and testing of all materials used and work performed. As an independent entity, John will audit and monitor Corman’s Construction Quality Control Program. He will have the ability to stop construction, enforce compliance with all specifications, and issue/require resolution of all Non-Conformance Reports (NCRs). John will manage all aspects of the QA program including the QA inspector and independent QA testing firm and testing technicians. The QA team will conduct independent and concurrent tests and analysis of the work with the construction quality control team. He will maintain project quality records and approve and submit pay estimates. In addition, John will submit monthly written reports to the VDOT project manager and Corman’s Executive Committee. John is a current member of the DB committee for VTCA and former member of the ECLC.

**Design Manager (DM) Owen Peery, PE (RK&K),** will also report directly to the DBPM. He will be responsible for providing a quality engineering product, meeting design milestones, continuous Corman | RK&K DB Team coordination and ensuring the Design QA/QC Manager and independent reviewers are not tasked with other project responsibilities. Owen will develop and oversee a rigorous QC and QA program to ensure design work is performed in accordance with the contract, current VDOT Policies, Procedures and Guidelines. He will manage the design elements including roadway, structural, hydraulic, traffic, MOT, ROW, utilities, environmental, and geotechnical. Owen will allocate and assign resources, oversee H & B Surveying & Mapping for surveying, coordinate design and review schedules, develop and implement corrective measures, if necessary, and integrate environmental compliance measures into the design. He will coordinate design and construction with each discipline lead to achieve commitments. Owen will remain involved once construction starts to oversee any plan modifications, ensure field changes/modifications meet the approved design(s), revisions are documented in As-Built plans, response to Requests for Information (RFIs), review shop drawings, and review construction / MOT activities with the CM as work progresses to see if there are unrealized opportunities or needs for change. Owen has been the Design Manager on several other Design-Build projects for VDOT and Corman.

**Construction Manager (CM), Kyle Kern (Corman)** will report directly to the DBPM. Kyle has 29 years of the hands-on experience it takes to manage construction, including QC activities, to ensure materials and work meet contract requirements and “approved for construction” plans/specifications. He will manage the onsite construction team comprised of Project Controls, Construction QC Manager, superintendents, and project field staff including scheduling, safety, environmental compliance, utilities and MOT. **Kyle will only be assigned to this project and be onsite full time throughout construction.** He will play a key role in conjunction with the Design/Construction Integrator and Design QA/QC Manager in design constructability reviews, and work with DCI Lou Robbins to coordinate between the design and construction forces with regard to environmental commitments, utilities, ROW, and MOT. Along with his staff, Kyle will focus on ensuring construction is performed safely, and along with our Construction QC Manager, that materials and work are in accordance with the approved plans/contract documents. He will coordinate with the DM during construction for the accurate and timely issuance and review of any RFIs and shop drawings, as well as field visits, preparation of as-builts and plan revisions. Kyle was the CM on several past Corman DB projects including I-70 Reconstruction, Frederick, MD, Rehabilitation / Reconstruction of 11 bridges in Salisbury, MD (designed by RK&K), and CM Structures ICC-A in Gaithersburg, MD.

**Lead Utility Coordination Manager (LUCM), Mike Woods (Cardno),** reports directly to the DBPM and is responsible for coordination of all utility relocations. With 32 years of experience working with utility engineering and coordination services, Mike will coordinate utility relocation design, review/recommend approval of utility relocation plans and estimates, and ensure inspection of utility relocation construction. He will review
utility relocation designs prepared by a PE for contract utility relocations and to verify/modify designs based on field conditions and construction activities. Mike will verify conflicts, determine cost responsibilities, conduct utility field inspections, coordinate utility relocation design, review/recommend approval of utility relocation plans and estimates and ensure inspection of utility relocation construction and provide regular updates to the VDOT Project Manager. He worked on the VDOT side of the Route 29/Rio Road project and the Intercounty Connector with RK&K. Mike is currently working with Corman / RK&K on VDOT’s largest DB project to date – Replacement of High Rise Bridge, Chesapeake, VA.

**Keys to Success**

Proper communication and coordination between the many parties involved in this project (i.e. Corman | RK&K DB Team, VDOT, review agencies, all stakeholders) are the keys to success. This cooperation will be based upon open and honest communication plus frequent meeting and updates. The Corman | RK&K DB Team will have internal weekly meetings during the design phases with key construction and design staff present. Tracking sheets will be developed to track progress of utilities, various design disciplines efforts, and environmental and design approvals. Once construction starts, the design participants will be reduced to the DM, DCI, Design QA/QC Manager, and key design discipline leaders. Added to the weekly meetings as the construction begins will be the superintendents, field surveyors, MOT Manager and Construction QC Manager. Key stakeholder representatives including Business and Commercial establishments, Town of Leesburg, County Staff, utility companies, EMS responders, etc. maybe invited to these weekly meetings. Monthly meetings will also be held with the Corman | RK&K DB Team, as well as VDOT, QAM, stakeholders and others required to enhance the partnering effort and resolve any pertinent issues.

Quality assurance efforts will be coordinated with, but independent of the day-to-day QC and construction efforts. The QAM, John Vicinski, PE, will be given timely notice of all construction activities so his QA staff can be onsite at the appropriate and required times to document compliance. He will have access to all meetings and records he feels are required to provide independent assurance that the construction complies with all contractual and design requirements. John will report directly to the DBPM and provide VDOT and the project’s Executive Committee with the reports and assurances required. He will have unrestricted access to the construction and fabricator sites/facilities. A representative of Corman’s management team will contact the QAM monthly to confirm the project is in compliance.
3rd Party Stakeholders
VDOT, Dominion Virginia Power, Comcast, Verizon, Columbia Gas, County Water & Sewer, Loudoun County, Town of Leesburg, Federal Aviation Administration, County Public Schools, Homeowners, Local Commercial Retail Businesses, Commuters, Pedestrians, Cyclists, Fire, EMS, Police

Stakeholder Coordination Manager
- John Undeland (UM)

Design-Build Project Manager
- Scott Szympruch, PE (CCI)

Executive Committee
Arthur C. Cox, III – President (CCI)
Miriam “Mimi” Kronisch, PE, CCM (RKK)

Design Management
- Design Manager
  Owen Peery, PE (RKK)
  John McDowell, PE, Assoc. DBIA (RKK)
  John (JT) Farley, PE (RKK)
  Barry Bradt, PE, PTOE (RKK)
  Brian Finferd, PE (RKK)
  Ed Drakos, PE (S)
  Heather Henke, PE, PTOE (RKK)
  Mark Mastalerz, RLA (RHI)

Quality Control
- Design QA/QC Manager
  Eric Mellor, PE (RKK)
  Zackary Traywick (CCI)
  QC Inspection
  QC Lab

Construction Management
- Construction Manager
  Kyle Kern (CCI)
  Project Controls / DBE Compliance
  Dusan Golac (CCI)
  Safety Manager
  Steve Simpson, CSP, CHST (CCI)
  Superintendents & Foremen
  Richard Young (CCI)
  Construction Environmental Controls
  Jeff Walton (CCI)
  MOT Manager
  John Burgess (CCI)

Quality Assurance
- QA Manager
  John Vicinski, PE (RQ)
  QA Inspection
  QA Lab
  Specialized Engineering

Right of Way
- ROW Manager
  Craig Anderson (ERM)
  Appraisals / Offers / Negotiations / Title Reports / Settlements

Design/Construction Integrator
- Lou Robbins, PE, DBIA (CCI)
  Lead Utility Coordination Manager
  Mike Woods (CM)

LEGEND
- Key Personnel
  CCI = Corman Construction
  Q = Quinn Consulting (DBE)
  RKK = Rummel, Klempner & Kahl
  RHI = Rhodes & Harwell (DBE)
  S = Schnabel Engineering
- Value Added
  CN = Cardno
- Direct Report
  ERM = ERM & Associates
  UM = Undeland Management
- Indirect Report
  HB = H&B Surveying (DBE)
  SE = Specialized Engineering
3.4 Team Experience
3.4 TEAM EXPERIENCE
The Corman | RK&K DB Team have successfully teamed on similar past, complex projects including two highly successful VDOT Design-Build projects – Route 29 Solutions in Charlottesville and I-64 / Rt. 623 Interchange in Short Pump, VA. We are currently working together on two other VDOT DB projects – Military Highway in Norfolk VA, and High Rise Bridge in Chesapeake VA. This work history will enhance the Corman | RK&K DB Team’s ability to identify, openly discuss and solve issues as they arise on the project.

Corman Construction, Inc. (Corman) will serve as the Lead Design-Build Contractor. A privately-held family business since 1920, Corman is a licensed heavy civil contractor specializing in highway, bridge, restoration, and heavy utility construction. Corman prides itself as a “Best in Class” contractor where our “A” ratings confirm the quality in our projects. Known for unparalleled partnering, Corman delivers projects on-time and on-budget without lingering disputes. We hold employee and public safety to a high standard and our 0.86 EMR ranks Corman in the top of the upper quartile of civil contractors validating our commitment to quality. Throughout the last few years, Corman received 20 local and national awards on three design-build projects. Other honors include the 2016 VTCA Transportation Contractor Safety Award Honorable Mention, 2011 Maryland Washington Minority Contractors Association Prime Contractor of the Year Award, and the 2011 ARTBA Women Leadership in Transportation Glass Hammer Award. Corman has constructed projects in Virginia for over 30 years.

Corman has successfully delivered over $2B of design-build roadway and bridge projects, many of similar scope and complexity to this project, including those for VDOT, DDOT, NCDOT, and MSHA. Current or recent VDOT Design-Build projects (with some setting a precedent regarding the first of its kind in Virginia) include:

- I-64 Widening / Replacement of High Rise Bridge, Chesapeake VA – VDOT’s first use of ATCs in the selection process and largest VDOT DB project to date
- Route 29 Solutions, Albemarle, County, VA – VDOT’s First Project with a Responsible Charge Engineer as a Key Personnel and second flash track project
- Military Highway (CFI), Norfolk, VA – Virginia’s First Continuous Flow Intersection
- I-64 / Route 15 DDI, Zion Crossroads, VA – Virginia’s First Diverging Diamond Interchange

Rummel, Klepper & Kahl, LLP (RK&K), will serve as Lead Designer and will provide overall project management for all design activities. RK&K is ranked 76th on the 2017 Engineering News Record’s listing of the “Top 500 Design Firms,” and serves an array of federal, state, and local clients from four Virginia offices and multiple offices throughout the Mid-Atlantic and Southeast US. RK&K has provided professional engineering and construction support services on assignments to be procured and administered in accordance with design-build, public-private partnership (P3), general engineering consultant (GEC) or program management consultant (PMC) for more than for 20 years. With more than $2.7B of design-build projects in the region, the firm has significant design-build and alternative delivery project experience. Services on design-build projects have included, but are not limited to: providing complete location survey, supplemental survey, updating existing plans, developing right of way and construction plans, roadway design, hydraulic and drainage design, stormwater management design, traffic engineering and analysis, utility design, structure and bridge design, geotechnical and geophysical services, preparations of environmental documents (NEPA), permit drawings, public involvement, constructability reviews, cost estimating, schedules, special provisions, project audits, claims support services, development / preparation of RFQs and RFPs, and engineering support in the evaluation of SOQs and EOIs. RK&K has relevant experience delivering road and bridge DB projects as well as a solid reputation of strategically aligning teams to meet the specific needs and requirements of this project.

Our Team has carefully selected sub-consultants to further enhance our team capabilities. RK&K has enjoyed long standing relationships in the design arena with Schnabel, H & B, and Rhodeside & Harwell, and look forward to delivering another successful project. In addition, H & B, Rhodeside & Harwell, and Quinn bring W/DBE participation to our team. Corman has worked with all the sub-consultants listed in the Organizational Chart!
3.5 Project Risks
3.5 PROJECT RISKS
The Corman | RK&K DB Team will employ the Construction Management Association of America (CMAA) endorsed approach to risk management through a Risk Register, which includes a list of identified risks, potential impacts, and mitigation for each. A robust risk management process considers risks throughout the project’s life and delivery procedures. Our Team’s risk management process has already sprung into action and will evolve throughout design and construction, positioning us to respond quickly and effectively as issues unfold.

The Corman | RK&K DB Team will employ a five-step risk management approach to the project including the following stages:

1. **Identify** – name risks facing the project, determine cause and effect, and categorize risks
2. **Assess** – assign probability of occurrence, severity of impact, and determine response
3. **Analyze** – quantify risk severity, determine risk exposure, establish risk tolerance level, and determine risk contingency (applicable during preliminary design and pricing)
4. **Manage** – define response plans and actions, establish ownership of risk, and manage response (after NTP)
5. **Monitor / Review** – monitor/ review/ update risks, monitor response plans, update risk exposure, analyze trends, and produce reports (after NTP, during design, during construction)

We have reviewed the available information for the project, visited the site during various traffic and weather conditions, and jointly discussed the major risks. With the mindset of project risk being defined as an issue that has the potential to impact the project schedule, budget, or both, the team has identified the three most unique/critical risks facing the design-build team during the course of the project:

**Risk No. 1 – Maintenance of Traffic**

**Risk Identification:** Maintenance of Traffic (MOT) is a risk because an improperly executed plan could lead to driver frustration, gridlock, the potential for crashes, and the subsequent erosion of public confidence in VDOT.

**Why this Risk is Critical:** Route 7 currently carries over 84,000 vehicles per day and is a major commuter route between Loudoun County and the greater Washington, DC area. Battlefield Parkway carries more than 20,000 vehicles per day and connects Route 7 to growing residential and retail areas, and the Dulles Greenway. Since the proposed improvements are being constructed on top of the existing Route 7 travel lanes, significant care must be taken to maintain traffic flow while the interchange improvements are safely constructed.

All types of travelers will be impacted including commuters, shoppers, family activities, and delivery drivers. Driver frustration often results in them taking chances that further increase delays and the likelihood of crashes. Creating delays and bottlenecks in the construction zone will also entice drivers to use alternate roads that may increase congestion and hazards on these other routes. For example, drivers may use Potomac Station Drive where John W. Tolbert Jr. Elementary School and Harper Park Middle School are located. The interaction of school access, a school crossing and additional commuters and shoppers may result in an untenable conflict between the activities. Also, Route 7 is designated as a National Highway System (NHS) roadway, and VDOT requires that the level of service of the road not be significantly degraded by construction.

**Risk Impact to the Project:** There are three tenets to a successful MOT plan:

- **Safety** is paramount – this is reflected to the traveling public and the construction team. The MOT plan must reflect an orderly and well executed plan so traffic can flow through the construction zone, while minimizing potential harm to everyone;
- **Mobility** is important because construction must ensure that traffic can pass through the work zone efficiently, minimizing any temptation for motorists to engage in risky driving or diverting to local residential streets; and **Access** must be considered as people and businesses need to continue their activities as road improvements are constructed.

The Rt. 7/Battlefield Parkway MOT plan must be prepared to enhance these important tenets. The Corman | RK&K DB Team will devise a MOT plan with these major considerations in mind. As it is developed and executed, we will focus on the following challenges:

1. Gridlock due to traffic not being able to pass through the construction zone. Vigilant oversight of traffic flow will ensure that traffic keeps moving due to planned or unforeseen encroachments into the travel lanes.
2. Monitoring traffic flow continuously to identify congestion impacts that can result in delay and economic consequences to commuters and businesses. We will incorporate adaptability into our MOT plan to swiftly react to unforeseen conditions.
3. Preventing crashes and provisions for emergency vehicle access so the health and welfare of the community is not compromised.
4. Maintaining a positive public opinion of the project to prevent a diminished perception of VDOT and the design-build team and/or an outcry to their elected officials.

The Corman | RK&K DB Team is poised to manage and be responsive to the challenges that will inevitably occur during construction. Of primary importance will be to facilitate traffic flow with the least disruption to the traveling public. Constructing a new bridge and embankment on top of the existing active intersection will require temporary pavements and employing several MOT stages. Complicating this strategy are several challenges:

- Temporary construction easements may be needed to reroute traffic with temporary pavements. We will negotiate these easements with the adjacent property owners timely.
- Transmission towers are immovable and several utilities are present along Route 7 and Battlefield Parkway. Our MOT team will prepare an MOT plan that will “thread the needle” to avoid utilities and minimize impacts to their right of way.
- Responsible environmental stewardship is a hallmark of our responsible and conscientious team, especially considering there is a stream crossing just west of the intersection. The footprint of any temporary embankments and pavements will be kept within the limits of construction of the proposed road to prevent the need for additional environmental permitting.

Since each of these factors could impact the schedule, cost and the success of this project, each will be managed as the project is designed and moved into construction.

Risk Mitigation Strategies and Team Experience That will Ensure Successful Delivery of the Project: As part of design development, the designers and construction personnel will work shoulder-to-shoulder to design a MOT plan that will safely and efficiently handle traffic while the project is built. Since preparing an effective MOT plan is much like solving a jigsaw puzzle, a multi-phase MOT plan will be developed that will create temporary traffic shifts while the bridge and overpass embankments are constructed in phases. This is where the shoulder-to-shoulder approach is essential to success as the designers can interact with those constructing the project to ensure staging strategies can be developed without impacting Corman’s ability to construct the improvements.

Our team has worked together in the past resulting in highly successful, complex projects that were completed efficiently and with the least impact to the traveling public. The Route 29 Solutions / Rio Road Grade Separated Intersection in Charlottesville, VA completed 57 days early and earning a $7+ Million incentive bonus, is a prime example. This success was a result of our team taking the following steps which will also be used on the Battlefield project as appropriate:

- Developed a detailed Work Zone Traffic Impact Study (WZTIA) that included queue lengths and signal timings for detour routes for the partial closure of the Rio intersection.
- Implemented temporary signals and detour signing and routes ahead of the partial closure so that driver behavior could be changed and they would get used to the new routes. This allowed us, in conjunction with VDOT, to refine signal timings ahead of this major phase of the work.
- Worked with VDOT in developing graphics and information for a Get Around Map that was distributed through public outreach and local businesses. It showed how to get to businesses in the area and/or how to travel through the area during the partial closure.
- Developed an Incident Management Plan with pre-selected messages, signage and implementation plans for potential incidents. This covered smaller, localized incidents all the way to regional incidents that included advance messaging as far away as Northern Virginia.

As we undertake the planning for our MOT strategy, we will first consider time-of-year implications of our work. While daily commuter and business traffic is ongoing throughout the year, we see this area as being particularly congested during the holiday season when shoppers frequent the Leesburg Corner Premium Outlet, the Battlefield Center and other shops near the Route 15 Leesburg Bypass at Fort Evans Road and Edwards Ferry Road, as well as businesses at the intersection of Route 7 and Battlefield Parkway, including Lowes Home Improvement and Marketplace at Potomac Station. Since Battlefield Parkway provides roadway connections to these businesses, we will consider traffic flow and access as essential to minimizing business economic impacts and patron frustration. We will implement lane closures and traffic stoppages to minimize construction impacts. This will be closely coordinated with VDOT NRO and the Town of Leesburg to ensure that construction has the least impacts during these periods.
Our MOT approach has already started with strategy sessions to evaluate ways to build the proposed improvements on top of the existing congested roadway and intersection. We will reroute the traffic flow to temporary roadway just east of the intersection so that the bridge and a portion of the embankments can be built. Subject to a traffic operational analysis, we propose a temporary five-lane roadway section that will fit between the proposed bridge structure/roadway embankment and the existing transmission tower located at the southeast quadrant of the intersection, approximately 270-ft. from the centerline of Battlefield Parkway. This will allow two-way operation of the roadway without the need for utility relocations as the bridge and west side of the interchange is built. As we develop temporary pavements that will encroach on adjacent properties and utilities, our team will be out in front of the process by contacting the property and utility owners to discuss their requirements and concerns, as well as to negotiate an agreement that satisfies all involved. Since the proposed traffic shift will be one of the first steps in the project construction, we will immediately contact these parties and initiate discussions as to how we can come to agreement on constructing the temporary road. We will be able to start upon Notice-to-Proceed as we have already identified a strategy for constructing the project and have an initial scheme for building the temporary roads.

While our strategy is to maintain traffic at the intersection, there is a substantial grid of adjacent roadways (as depicted in the map to the right) that we expect local travelers may use to avoid the construction zone. Therefore, as part of our MOT success strategy, we will review those route alternatives to determine ways to facilitate traffic flow and discourage traffic through neighborhoods or places of high pedestrian traffic. For example, Potomac Station Drive runs between a residential area and two schools. Since pedestrian traffic could be significant, we will work with VDOT and the town to develop a plan to discourage cut-through traffic along this road during construction. One strategy may be to work with VDOT NRO to adjust traffic signals on alternate routes to enhance throughput during construction.

Environmental concerns will be mitigated by keeping the proposed roadway improvements within the footprint of the proposed final roadway improvements where the project encroaches on environmentally-sensitive areas. To ensure we are not surprised by an unforeseen issue, we will coordinate with our environmental teammates throughout design to make sure that no additional environmental concerns arise.

Of principal concern with any MOT strategy is to minimize traffic flow impacts. Our team of traffic professionals will engage throughout design to minimize traffic impacts. This will involve using traffic models to evaluate the impacts of any proposed traffic shifts or lane reductions. Using the requirements set forth in the TOSAM manual, the design team will develop models, such as VISSIM to predict traffic flow and demonstrate that the proposed MOT strategy will not create undue inconvenience to the traveling public.

Role of VDOT and other Agencies: Our strategy is to minimize the amount of involvement needed by VDOT, Town of Leesburg, and Loudon County in developing, implementing and managing our MOT plan. The most significant involvement is to be a partner in reviewing our MOT strategies to ensure concurrence that the strategy is acceptable to them.

Risk No. 2 – Utility Impacts on Schedule

Risk Identification: There are a significant number of utility facilities within the project corridor. While none individually will pose a significant project risk, all coupled together will cause the existing utilities to be a significant risk to the schedule. The culmination of the following utility impacts creates a significant schedule risk:

- The magnitude of relocations
- Number of utility owners involved
- Location of existing facilities with regard to preferred MOT phasing
- Number of other VDOT and private projects with similar relocation timeframes (Route 7 widening to the east for example)
- Time, sequencing, and right-of-way necessary

Why this Risk is Critical: The risk to the project will come in the Corman | RK&K DB Team’s ability to manage and coordinate the number of relocations necessary through the Route 7 corridor. The existing gas main in the median area, as well as the aerial facilities along the south side of Route 7, will require significant coordination to manage the sequencing and impacts to the project schedule. Additional schedule impacts will be
timely securing necessary utility right-of-way that may require multiple owners to occupy a relatively small joint corridor. Sequencing relocations will also take close coordination between owners and the Corman | RK&K DB Team that may not be under our complete control.

Risk Impact to the Project: Utility relocations can significantly impact the critical path of construction, but yet are outside of the direct control of the Corman | RK&K DB Team. This results in an inability to fully manage the risks associated with schedule delays. To keep the project moving may require us to perform work out of sequence, perform clearing, grading or duck bank installation work for the utility companies, confirm utility relocations prior to starting many ROW acquisition efforts, redo drainage design or installations, etc.

Risk Mitigation Strategies and Team Experience That will Ensure Successful Delivery of the Project: Engaging utility stakeholders early will be paramount to mitigating the risk associated with the utility relocations. The ability to identify right-of-way needs and manage schedules, well in advance of the need to clear the corridor for roadway construction, will determine the success of the mitigation. Our utility team will:

- **Perfect the design to avoid all possible utility conflicts as a mandate and not a goal.** On our Military Highway project, numerous offsets to a 16-in. gas transmission main would have been required based on the RFP and our initial drainage designs. Upon discussions with the utility, and understanding the limited resources available locally to perform the relocation work, we redesigned the drainage to install parallel drainage truck lines with no offsets of the large diameter gas main required. This strategy (designing around the utilities) also worked well on the Route 29 Solutions Project where our designers avoided relocation of a gas distribution line alongside the Route 29 SB which was shown in the RFP conceptual plans. Relocating that line would have seriously impacted the schedule.

- With **Right-of-Way** being at a premium, it will be important for the team to be innovative in the approach to the utility relocations. Creating a joint-use utility corridor that establishes specific locations for each affected party, while maintaining the integrity of their facilities, will be the first critical step. This strategy was also used successfully on our Route 29 Solutions Project.

- Utilizing innovative approaches, such as **joint-use conduit systems** installed by the design-builder vs. the several individual utilities for communication relocations will help to minimize the need for multiple right-of-way and potential delays of the utilities performing their own work. This will put some control of the schedule / phasing back under the Corman | RK&K DB Team’s control. We have found on past VDOT Design-Build projects (Fall Hill and Route 1 near Ft. Belvoir) that the utilities only have so much staff available to perform installations, and there is no guarantee they have adequate resources to meet the schedule demands of all the area’s ongoing projects. Having the design-builder install the conduit in joint ROW / Easements helps avoid this resource issue as we found on our Route 29 Solutions Project.

- Another mitigation strategy that worked well on our VDOT Military Highway project was a **dedicated full-time utility coordinator** leading the communication between the designer, utility owners and construction operations, holding **weekly utility coordination meetings** from the initial NTP to the completion of all utility conflicts. We will staff the Rt. 7 / Battlefield Project with this same full-time individual to address utility issues immediately as they become known. These meetings will include drainage, roadway and structural designers, and permitting leads, as well as the construction team and QA/QC, ROW team members. The coordinators task will be to ensure communication of needs and resources, as well as eliminating as many conflicts as is possible during the design phase.

- **Maintain the Lead Utility Coordination Manager presence on site well into the actual construction** to ensure communication and coordination does not end with the issuance of the relocation plans. Their work will continue through design into the actual construction and project close out.

- **Prioritize the utility relocations** of all utilities and ensure they are working together and reviewing each other’s work and signing off as the project progresses.

- **Integrate the Lead Utility Coordination Manager into the design team** – have him work in the designer’s office, review the design, MOT and ROW.

- **Develop the schedule** and sequencing / phasing with input from the Lead Utility Coordination Manager and utility companies.

By working closely with the utility stakeholders to jointly establish scheduling and phasing, as well as the utilities construction needs and resources, the Corman | RK&K DB Team can facilitate construction of a system that will allow control of the schedule and construction to be in our hands rather than the utility stakeholder. While some aspects of the utility relocations will still need to be accomplished by the stakeholder forces, minimizing this work to the extent possible will mitigate this risk.
Role of VDOT and other Agencies: VDOT’s role will be to assist in the dialogue with the utility stakeholders in emphasizing the use of the joint utility corridor and potential conduit system.

**Risk No. 3 – Stakeholder Outreach**

**Risk Identification:** VDOT’s public reputation is the key stakeholder outreach risk. With traffic a perennial issue to Leesburg/Loudoun stakeholders (both jurisdictions having approximately doubled in population since 2000), communicating how the project may affect traffic, and steps we are taking to mitigate such impacts, is essential. Additionally, constituencies directly affected by construction need to be involved and continuously informed.

**Why this Risk is Critical:** While the project currently enjoys strong support from the public and elected officials, it can turn negative rapidly if outreach is not handled skillfully. The following can harm VDOT’s public reputation:

- Excessive traffic congestion
- Negative publicity
- Increased complaints to VDOT
- Poor relations with the Leesburg Town Council and Loudoun County Board of Supervisors
- Harm to the working relationship with Town and County transportation staff
- Harm to VDOT and the Corman | RK&K DB Team’s public reputation
- Potential legal challenge

Adverse outcomes of these above could delay project delivery and increase cost.

**Risk Impact to the Project:** To mitigate, it is important to identify the key external audiences we need to engage, and address them in ways most effective to each. The following are the primary constituencies:

**Route 7 and Battlefield Parkway Users:** With Route 7 and Battlefield Parkway (connecting to the Dulles Greenway) being major commuting routes, keeping traffic moving is critical. Informing commuters in advance of impactful changes is paramount to project success. Loudoun County is one of the most auto-reliant suburban counties in Northern Virginia. The majority of local commuters do not have many appealing alternatives to driving Route 7 and the Battlefield Parkway. First responders who rely on the corridor to access emergencies, including the Loudoun County Volunteer Rescue Squad, the Leesburg Volunteer Fire Department and the Leesburg Police Station, are among those we need to reach.

**Direct-Impact Neighborhoods:** While adjacent properties are primarily commercial, several hundred single-family homes are located off Battlefield Parkway less than a half-mile north and south of Route 7. While they will ultimately benefit from the project, they face the prospect of two years of construction noise, delays, and other impacts. Involving and informing HOAs early and often is essential.

**Large Entities (Leegate Development, Businesses, Schools, Places of Worship, Etc.):** Effective interaction with the Leegate mixed-use development, which in addition to providing right of way to the project, will add nearly 500 residential units, almost 500,000 SF of office, major retail and a large hotel at the Rt. 7 / Battlefield Parkway junction, is a key priority. The project area also includes small and big box businesses and shopping centers, including Lowes and Best Buy, that will be impacted by traffic and/or changed access to their properties. The area also includes places of worship, including the 5,000-congregant Cornerstone Chapel, which hosts sessions on weekends and weekday evenings. Nearby schools include Tolbert Elementary and Harper Middle, which could be impacted by cut-through traffic seeking to avoid construction impacts. These schools and places of worship have sizeable and passionate constituencies that can generate negative public and/or political pressure if their transportation needs are not being met adequately or safely.

**Risk Mitigation Strategies and Team Experience That will Ensure Successful Delivery of the Project:** VDOT’s successful cultivation of external stakeholders to date sets the stage for a productive future relationship. Through public meetings, HOA briefings, elected official outreach, the webpage and other mechanisms, fundamentals are in place to maintain and enhance positive relations with the public and other stakeholders.

With the transition from planning to design and construction, we propose a Design Advisory Group in which members are selected for their proximity to and interest in the project. This group would meet with project designers during the initial months of design. We propose evening meetings to be bi-monthly or at key milestones during the initial six months of the project. Subject to VDOT preference, we would act as behind-the-scenes, take-care-of-the-details advisors, while a VDOT project manager is the public-facing facilitator of the group, but if VDOT desires, we can also be the public-facing facilitator. Engaging stakeholders in a defined and disciplined process can:
Empower stakeholders to have a genuine impact on matters, such as the appearance of noise barriers, landscaping and potentially more significant design elements with minimal to no cost and schedule impact.

Identify and clarify points of sensitivity early, enabling them to be addressed with care and deliberation, before they have major schedule or budget impacts.

Generate public Good Will and establish a “favorability bank” that can be drawn against during particularly impactful construction.

Participants who are satisfied with the process can become third-party advocates.

A well-executed advisory process gives supporters additional reasons to back the project, wins over fence-sitters and reasonable opponents and can leave those remaining in opposition fewer in number and isolated.

Successful design stakeholder processes require transparency, the setting of realistic expectations and a clear definition of the process. The following are key to a successful stakeholder involvement process:

- **Define Scope** – Clearly explain what is on and off the table to stay on point and does not produce recommendations that are out of scope and budget.
- **Define Membership** – Identify and approach representative stakeholders and seek elected official input on who should sit on the panel. To be productive, limit panel to a workable size; approximately eight members.
- **Define Calendar** – Communicate that when the stakeholder panel can have input is necessarily brief and finite so that the design can solidify to keep the project on schedule.
- **Define How Input will be Considered** – In exchange for volunteering their time and effort, stakeholders deserve to know how their input will be considered, so explicitly explaining how VDOT and the Corman | RK&K DB Team will evaluate recommendations is essential.

Once the design matures to the point where major changes are not possible, we advise continuing the working group, but operating it on an informational rather than participatory basis. It would also meet less frequently, possibly quarterly. The group would continue to serve as one of the primary conduits to the community on progress milestones, advance notice about upcoming construction work and other updates.

Additionally, HOA and elected official briefings and an augmented webpage are proposed to keep these constituencies informed of the project’s status, particularly during construction. Special effort must be employed to provide advance notice to businesses about access changes well prior to going into effect. To inform the broader public, we propose three primary strategies:

1. Foster positive and informative news coverage by hosting periodic briefings with outlets, such as the *Loudoun Times-Mirror, Loudoun Now* and *Inside NOVA*. This will generate accurate news coverage that informs the public about the project. Cultivate positive relationships with reporters when they are not under deadline. One-on-one briefings, or providing input and constructive comment on their other stories, can pay dividends in terms of story tone and balance when reporters are covering controversial aspects, such as an aggrieved resident asserting unfair treatment or an interest group claiming violation of environmental regulations. Such discussions would be with VDOT’s prior approval and participation.

2. Extensive deployment of dynamic message signs will inform the public about upcoming construction and heighten awareness. We recommend clever, amusing messaging to get the public’s attention and cultivate goodwill, such as "TEXTING & DRIVING IS CLEVER, SAID NO ONE EVER."

3. Social media to reach the broader public. We propose drafting a series of messages to be disseminated via VDOT’s Twitter handle (@VaDOTNOVA). We also recommend to explore creating a Facebook page, but caution that in doing so sets the public expectation that it will be updated regularly and that comments will be responded to quickly.

The team has extensive experience managing public outreach for a variety of VDOT projects. Undeland Management has performed services on projects, such as the Woodrow Wilson Bridge including VA Approach Spans, VAC, MD 210 MB-3, Route 1 Tie-in to Woodrow Wilson Bridge Urban Deck VA-4, and I-95 Telegraph Road Interchange Improvements with Corman, and I-395 Seminary Road ramps. Corman’s DB projects with major outreach efforts are: Route 29 Solutions, High Rise Bridge-Phase 1, Military Highway CFI, Frederick Douglass Bridge and South Capitol Street over Anacostia River, and the Intercounty Connector Contracts A & B.

**Role of VDOT and other Agencies:** VDOT’s role could be the public-facing leader of the project, if desired, with the Corman | RK&K DB Team doing the legwork and providing back up.
Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

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## ATTACHMENT 3.1.2

**Project: 0007-253-009**  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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<td>NA</td>
<td>Section 3.2.10.2</td>
<td>no</td>
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<td>Full size copies of DPOR Registration (Key Personnel)</td>
<td>NA</td>
<td>Section 3.2.10.3</td>
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<td>Full size copies of DPOR Registration (Non-APELSCIDLA)</td>
<td>NA</td>
<td>Section 3.2.10.4</td>
<td>no</td>
<td>N/A</td>
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<tr>
<td>DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal</td>
<td>NA</td>
<td>Section 3.2.11</td>
<td>yes</td>
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<tr>
<td>Offeror’s Team Structure</td>
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<td>Identity of and qualifications of Key Personnel</td>
<td>NA</td>
<td>Section 3.3.1</td>
<td>yes</td>
<td>3, 5-7</td>
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<td>Key Personnel Resume – DB Project Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.1</td>
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<td>Key Personnel Resume – Quality Assurance Manager</td>
<td>Attachment 3.3.1</td>
<td>Section 3.3.1.2</td>
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<td>Key Personnel Resume – Design Manager</td>
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<td>Section 3.3.1.3</td>
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<td>Key Personnel Resume – Construction Manager</td>
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<td>Section 3.3.1.4</td>
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<td>Key Personnel Resume – Utility Coordination Manager</td>
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<td>Section 3.3.1.5</td>
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## Statement of Qualifications Checklist and Contents

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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<tr>
<td>Organizational chart</td>
<td>NA</td>
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<td>Organizational chart narrative</td>
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<td><strong>Experience of Offeror’s Team</strong></td>
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<tr>
<td>Lead Contractor Work History Form</td>
<td>Attachment 3.4.1(a)</td>
<td>Section 3.4</td>
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<tr>
<td>Lead Designer Work History Form</td>
<td>Attachment 3.4.1(b)</td>
<td>Section 3.4</td>
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<td>73-75</td>
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<td><strong>Project Risk</strong></td>
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<tr>
<td>Identify and discuss three critical risks for the Project</td>
<td>NA</td>
<td>Section 3.5.1</td>
<td>yes</td>
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</table>
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO.  C00106573DB:01
PROJECT NO.:  0007-253-009

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 – December 8, 2018 (Date)

2. Cover letter of (Date)

3. Cover letter of (Date)

__________________________
SIGNATURE

1/31/18
DATE

Arthur C. Cox, III
PRINTED NAME

President
TITLE
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 subsidiary companies of the Offeror are listed below.

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate (Parent)</td>
<td>CG Enterprises, Inc.</td>
<td>12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>Affiliate (Sister)</td>
<td>Corman Marine Construction, Inc.</td>
<td>711 East Ordnance Road, Suite 715, Baltimore, MD 21226</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>CK Constructors, A Joint Venture</td>
<td>12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>Intercounty Constructors Joint Venture</td>
<td>120 White Plains Road, Suite 310, Tarrytown, NY 10591</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>MD 200 Constructors, A Joint Venture</td>
<td>450 Dividend Drive, Peachtree City, GA 30269</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>Wagman, Corman, McLean Joint Venture</td>
<td>3290 North Susquehanna Trail, York, PA 17406</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>Corman-Wagman, A Joint Venture</td>
<td>12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>KC Constructors, A Joint Venture</td>
<td>450 Dividend Drive, Peachtree City, GA 30269</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>Corman-E.V. Williams, a Joint Venture</td>
<td>12001 Guilford Road, Annapolis Junction, MD 20701</td>
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<tr>
<td>Affiliate (Joint Venture)</td>
<td>LANE/Corman Joint Venture</td>
<td>14500 Avion Parkway, Suite 200, Chantilly, VA 20151</td>
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<tr>
<td>Affiliate (Joint Venture)</td>
<td>Kiewit-Corman-Greenbelt, a Joint Venture</td>
<td>7250 Parkway Drive, Suite 310, Hanover, MD 21076</td>
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<tr>
<td>Affiliate (Joint Venture)</td>
<td>Corman-Branch, A Joint Venture</td>
<td>12001 Guilford Road, Annapolis Junction, MD 20701</td>
</tr>
<tr>
<td>Affiliate (Joint Venture)</td>
<td>Granite-Parsons-Corman Joint Venture</td>
<td>120 White Plains Road, Suite 310, Tarrytown, NY 10591</td>
</tr>
</tbody>
</table>
ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

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

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

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

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

______________________
Signature

1/31/18
Date

______________________
President
Title

Corman Construction, Inc.

______________________
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature ____________________________ January 4, 2018 ____________________________
Date Partner ____________________________
Title ____________________________

Rummel, Klepper & Kahl, LLP ____________________________
Name of Firm ____________________________
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

[Signature] [January 31, 2018] [President]
[Name of Firm]

[Signature] [Date] [Title]
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

[Signature]
Director
Title

1/9/2018
Date

Rhodeside & Harwell, Incorporated
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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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 1-15-18 Title

Cardno, Inc.

Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

[Signature]  [Date]  [Title]

Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009 , P101, R201, C501, B601

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

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

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

Edward G. Drahos
Signature / Edward G. Drahos, PE

1-9-18
Date

Senior Vice President
Title

Schnabel Engineering, LLC
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature

Date

Title

Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature
January 9, 2018
President
Date
Title

H&B Surveying and Mapping, LLC
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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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 proposal.

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

Signature ___________________________ 1/9/2018  VP of Business Development

Date  Title

DIW Group, Inc. t/a Specialized Engineering

Name of Firm
CERTIFICATE OF QUALIFICATION

CORMAN CONSTRUCTION, INC.

Vendor Number: C097

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; MINOR STRUCTURES; UNDERGROUND UTILITIES

Issue Date: March 31, 2017

This Rating and Classification will Expire: March 31, 2018

Suzanne FR Lucas, State Prequalification Officer
Don E. Silles, 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.
January 31, 2018

Virginia Department of Transportation
Alternate Project Delivery Office
1401 East Broad Street
Richmond, VA 23219
Attn: Mr. Stephen D. Kindy, P.E.

Re: Corman Construction, Inc. – Surety Qualification
Request for Qualifications – A Design-Build Project
Route 7 and Battlefield Parkway Interchange
From: 0.75 Miles W. of Battlefield Pkwy Along Rte. 7
To: 0.75 Miles E of battlefield Pkwy Along Rte.7
From: 0.25 Miles S of Rte. 7 Along Battlefield Pkwy
To: 0.40 Miles N. of Rte. 7 Along Battlefield Pkwy
Contract ID No.: C00106573DB101
State Project No.: 0007-253-009, P101, R201, C501, B601
Federal Project No: STP-5A01(704)

Dear Mr. Kindy:

As Surety for Corman Construction, Inc., Fidelity and Deposit Company of Maryland and Zurich American Insurance Company with A.M. Best Financial Strength Ratings “A+” and Financial Size Category “XV” are capable of providing 100% Performance Bond & 100% Labor and Materials Payment Bond in the anticipated amount of $42,000,000.00 and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

If Corman Construction, Inc. is short-listed and/or awarded a contract for the referenced project and requests that we provide the necessary Bid and Performance and Payment Bonds, we will be prepared to execute the bonds subject to our acceptable review of the contract terms and conditions, bond forms and any other underwriting considerations at the time of the request.

Fidelity and Deposit Company of Maryland and Zurich American Insurance Company are proud to have represented Corman Construction, Inc.’s as its surety for over twenty (20) years. Based on Corman Construction, Inc.’s financial strength and track record, we are prepared to consider jobs of $150,000,000 single/$400,000,000 aggregate total program.

Our consideration and issuance of bonds is a matter solely between Corman Construction, Inc. and ourselves, and we assume no liability to third parties or to you by the issuance of this letter.

We trust that this information meets with your satisfaction. If there are further questions, please feel free to contact me.

Sincerely,

[Signature]

Robert A. Chlada,
Attorney-in-Fact

Gallagher CRS
11311 McCormick Road | Suite 450
Hunt Valley, MD 21031
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by DAVID MCVICKER, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Joseph A. PIERSON, Robert A. CHILADA, Cynthia M. CHARVAT, Dennis C. OURAND, Steven A. DZURIK, JR., John J. MARKOTIC and Diane S. LOUGHRY, all of Hunt Valley, Maryland, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and utterly, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 15th day of May, A.D. 2017.

ATTEST:

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

By: Joshua Lecker
Assistant Secretary

Vice President
David McVicker

State of Maryland
County of Baltimore
On this 15th day of May, A.D. 2017, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, DAVID MCVICKER, Vice President, and JOSHUA LECKER, Assistant Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019
EXTRACT FROM BY-LAWS OF THE COMPANIES

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

CERTIFICATE

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,
this 31st day of January, 2018.

Michael Bond, Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT ALL REQUIRED INFORMATION TO:

Zurich American Insurance Co.
Attn: Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
ATTACHMENT 3.2.10

State Project No. 0007-253-009

SCC and DPOR Information

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

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Information (3.2.10.1)</th>
<th>DPOR Information (3.2.10.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corman Construction, Inc.</td>
<td>F046798-7 Foreign Active/In Good Standing 12001 Guilford Road Annapolis Junction, MD 20701 Class A Contractor H/H 20701 2701014794 10.31.19</td>
<td></td>
</tr>
<tr>
<td>RK&amp;K</td>
<td>K000417-8 Limited Liability Partnership Active/In Good Standing 12600 Fair Lakes Circle Suite 300 Fairfax, VA 22030</td>
<td>ENG 0411000577 2.28.18</td>
</tr>
<tr>
<td>Quinn Consulting Services, Inc.</td>
<td>0492551-7 Incorporated Active/In Good Standing 14160 Newbrook Dr. Suite 220 Chantilly, VA 20151</td>
<td>ENG 0407003733 12.31.19</td>
</tr>
<tr>
<td>Rhodeside &amp; Harwell, Inc.</td>
<td>0278356-1 Incorporated Active/In Good Standing 510 King St., Ste. 300 Alexandria, VA 22314</td>
<td>LA 0407004045 12.31.19</td>
</tr>
<tr>
<td>Cardno, Inc.</td>
<td>F188215-0 Foreign Active/In Good Standing 10988 Richardson Road Ashland, VA 23005</td>
<td>LS, ENG 0411001139 2.28.18</td>
</tr>
<tr>
<td>ERM &amp; Associates, LLC</td>
<td>S431583-6 LLC Active/In Good Standing N//A</td>
<td>N/A N/A N/A</td>
</tr>
<tr>
<td>Schnabel Engineering, LLC</td>
<td>S088912-3 LLC Active/In Good Standing 9800 Jeb Stuart Parkway Suite 100 Glen Allen, VA 23059</td>
<td>ENG 0411000322 2.28.18</td>
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### 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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<td>Quinn Consulting Services, Inc.</td>
<td>John Vicinski, PE</td>
<td>Chantilly</td>
<td>VA</td>
<td>4609 Marble Rock Ct. Chantilly, VA 20151</td>
<td>PE</td>
<td>0402026380</td>
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<td>RK&amp;K</td>
<td>Owen Peery, PE</td>
<td>Richmond</td>
<td>VA</td>
<td>2100 East Cary St. Suite 309 Richmond, VA 23223</td>
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<td>Monitor Indicator:</td>
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R/A Name: CT Corporation System

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<tr>
<th>Street: 4701 Cox Road, Suite 285</th>
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<tr>
<th>City: Glen Allen</th>
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<th>Accepted AR#: 217 16 8866</th>
<th>Date: 11/08/17</th>
<th>HENRICO COUNTY</th>
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| Current AR#: 217 16 8866 | Date: 11/08/17 | Status: A Assessment Indicator: 0 |

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(Screen Id:/Corp_Data_Inquiry)
RECEIPT

RE: RUMMEL, KLEPPER & KAHL, LLP

ID: K000417 - 8

DCN: 17-06-28-0508

Dear Customer:

This is your receipt for $50.00 to cover the fee for filing the annual continuation report for the above-referenced registered limited liability partnership.

The annual continuation report was filed on June 28, 2017.

If you have any questions, please call (804) 371-9733 or toll-free in Virginia, 1-866-722-2551.

Sincerely,

Joel H. Peck
Clerk of the Commission
The undersigned, on behalf of the partnership set forth below, pursuant to Title 50, Chapter 2.2, Article 9.1 of the Code of Virginia, states as follows:

1. The name of the partnership, which is registered as a registered limited liability partnership in Virginia, is:
   RUMMEL, KLEPPER & KAHL, LLP

2. The partnership's SCC ID number is K000417 - 8.

3. The jurisdiction in which the partnership is registered as a registered limited liability partnership is MARYLAND.

4. The principal office address of the partnership according to the records of the Commission is:
   81 W MOSHER ST
   BALTIMORE, MD 21217
   (Mark the appropriate box.)
   ☑ The address listed above is the current address of the partnership's principal office.
   ☒ The address listed above is not the current address of the partnership's principal office. The current address, including the street and number, if one is associated with the location, is:
   700 East Pratt Street, Suite: 500
   Baltimore, MD 21202
   (a post office box is not acceptable – see Instructions)

Signed on behalf of the partnership by the following partner, receiver or trustee:

(signature)
Mark M. Durner
(printed name)
Partner
(title)

SEE INSTRUCTIONS ON THE REVERSE
The State Corporation Commission will be closed Friday, January 12, 2018 in observance of Lee-Jackson Day, a state holiday. The SCC will also be closed Monday, January 15, 2018 in observance of Martin Luther King Jr. Day. We will resume normal business on Tuesday, January 16, 2018.

CORPORATE DATA INQUIRY

CISM0180

CORP ID: 0492551-7

STATUS: 00 ACTIVE

STATUS DATE: 12/01/08

CORP NAME: QUINN CONSULTING SERVICES INCORPORATED

DATE OF CERTIFICATE: 10/24/1997

PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF INCORPORATION: VA VIRGINIA

STOCK INDICATOR: S STOCK

MERGER IND: S SURVIVOR

CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y

MONITOR INDICATOR:

CHARTER FEE: 50.00

MON NO:

MON STATUS: MONITOR DTE:

R/A NAME: JOHN H QUINN JR

STREET: 2208 S KNOLL ST

AR RTN MAIL:

CITY: ARLINGTON

STATE: VA ZIP: 22202-2134

R/A STATUS: 4 ATTORNEY

EFF. DATE: 10/24/97 LOC: 106

ACCEPTED AR#: 217 14 2844 DATE: 09/14/17 ARLINGTON COUNTY

CURRENT AR#: 217 14 2844 DATE: 09/14/17 STATUS: A ASSESSMENT INDICATOR: 0

YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES

17 100.00 5,000

(Screen Id:/Corp_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 18, from 6 p.m. until 10 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

ATTENTION: CISIWeb will be unavailable beginning Saturday, January 20, at 5:45 a.m. through 3:00 p.m., for system maintenance. We apologize for the inconvenience and thank you for your patience.

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<th>STATUS DATE: 12/12/16</th>
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<tr>
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<td>GOOD STANDING IND: Y MONITOR INDICATOR:</td>
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<td>CHARTER FEE: 25.00 MON NO:</td>
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<tr>
<td>R/A NAME: CORPORATION SERVICE COMPANY</td>
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<td>STREET: 100 SHOCKE SLIP AR RTN MAIL:</td>
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<tr>
<td>CITY: RICHMOND STATE: VA ZIP: 23219-0000</td>
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<td>R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 01/01/18 LOC: 216</td>
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<td>CURRENT AR#: 217 17 5546 DATE: 11/27/17 STATUS: A ASSESSMENT INDICATOR: 0</td>
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<td>YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES</td>
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<td>17 130.00</td>
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(Screen Id:/Corp_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 18, from 6 p.m. until 10 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

ATTENTION: CISIWeb will be unavailable beginning Saturday, January 20, at 5:45 a.m. through 3:00 p.m., for system maintenance. We apologize for the inconvenience and thank you for your patience.

CISM0180

CORPORATE DATA INQUIRY

CORP ID: F188215 - 0 STATUS: 00 ACTIVE STATUS DATE: 12/13/11

CORP NAME: Cardno, Inc.

DATE OF CERTIFICATE: 12/13/2011 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: DE DELAWARE STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX ROAD, SUITE 285 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
ACCEP'TED AR#: 217 18 1081 DATE: 12/08/17 HENRICO COUNTY
CURRENT AR#: 217 18 1081 DATE: 12/08/17 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
17 100.00

(Screen Id:/Corp_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 18, from 6 p.m. until 10 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

ATTENTION: CISIWeb will be unavailable beginning Saturday, January 20, at 5:45 a.m. through 3:00 p.m., for system maintenance. We apologize for the inconvenience and thank you for your patience.

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<td>LLC ID: 5431583 - 6</td>
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<td>LLC NAME: ERM &amp; ASSOCIATES, LLC</td>
<td>STATUS DATE: 12/03/12</td>
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DATE OF FILING: 12/03/2012  PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF FILING: VA VIRGINIA  MERGER INDICATOR:  
CONVERSION/DOMESTICATION INDICATOR:  
PRINCIPAL OFFICE ADDRESS  
STREET: 7047 WINTERGREEN CT  
CITY: WARRENTON  STATE: VA ZIP: 20187-0000  
REGISTERED AGENT INFORMATION  
R/A NAME: CRAIG J. ANDERSON  
STREET: 15 MAIN STREET  
CITY: WARRENTON  STATE: VA ZIP: 20186-0000  
R/A STATUS: 1 MEMBER/MANAGER  
EFF DATE: 11/30/16  LOC: 130 FAUQUIER COUNTY  
YEAR FEES PENALTY INTEREST BALANCE  
17 50.00  

(Screen Id:/LLC_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 18, from 6 p.m. until 10 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

ATTENTION: CISIWeb will be unavailable beginning Saturday, January 20, at 5:45 a.m. through 3:00 p.m., for system maintenance. We apologize for the inconvenience and thank you for your patience.

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<td>LLC ID:</td>
<td>5088912 - 3</td>
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<tr>
<td>LLC NAME:</td>
<td>Schnabel Engineering, LLC</td>
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DATE OF FILING: 12/19/2002 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF FILING: VA VIRGINIA MERGER INDICATOR: S SURVIVOR
CONVERSION/DOMESTICATION INDICATOR:
PRINCIPAL OFFICE ADDRESS
STREET: 9800 JEB STUART PARKWAY
SUITE 200
CITY: GLEN ALLEN STATE: VA ZIP: 23059-0000
REGISTERED AGENT INFORMATION
R/A NAME: CT CORPORATION SYSTEM
STREET: 4701 COX ROAD, SUITE 285
CITY: GLEN ALLEN STATE: VA ZIP: 23060-0000
R/A STATUS: 5 ENTITY AUTHORIZ EFF DATE: 10/04/13 LOC: 143 HENRICO COUNTY

YEAR FEES PENALTY INTEREST BALANCE
17 50.00

(Screen Id:/LLC_Data_Inquiry)
CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0796273 - 1 STATUS: 00 ACTIVE STATUS DATE: 12/09/16
CORP NAME: Undeland Associates Inc.

DATE OF CERTIFICATE: 09/24/2015 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND: Y
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: CORPORATION SERVICE COMPANY

STREET: 100 SHOCKOE SLIP AR RTN MAIL:
2ND FLOOR
CITY: RICHMOND STATE: VA ZIP: 23219-0000
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 01/01/18 LOC : 216
ACCEPTED AR#: 217 12 3936 DATE: 08/04/17 RICHMOND CITY
CURRENT AR#: 217 12 3936 DATE: 08/04/17 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
17 100.00

(Screen Id:/Corp_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 18, from 6 p.m. until 10 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

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STATE OF FILING: VA VIRGINIA MERGER INDICATOR: |
CONVERSION/DOMESTICATION INDICATOR: |
PRINCIPAL OFFICE ADDRESS |
STREET: 612 HULL STREET STE 101B |
CITY: RICHMOND STATE: VA ZIP: 23224-0000 |
REGISTERED AGENT INFORMATION |
R/A NAME: TIMOTHY H GUARE |
STREET: TIMOTHY H GUARE PLC |
6802 PARAGON PL STE 100 |
CITY: HENRICO STATE: VA ZIP: 23230-0000 |
R/A STATUS: 4 MEMBER OF VSB EFF DATE: 07/02/09 LOC: 143 HENRICO COUNTY |
YEAR FEES PENALTY INTEREST BALANCE |
17 50.00 

(Screen Id:/LLC_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, January 18, from 6 p.m. until 10 p.m. for system maintenance. We apologize for the inconvenience and appreciate your patience.

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

EXPIRES ON
10-31-2019

NUMBER
2701014794

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

CORMAN CONSTRUCTION INC
12001 GUILFORD RD
ANNAPOLIS JUNCTION, MD 20701-0160

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

*CLASSIFICATIONS* H/H
NUMBER: 2701014794 EXPIRES: 10-31-2019

CORMAN CONSTRUCTION INC
12001 GUILFORD RD
ANNAPOLIS JUNCTION, MD 20701-0160

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

RUMMEL KLEPPER & KAHL LLP
700 E PRATT ST STE 500
BALTIMORE, MD 21202

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9940 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

PROFESSION: ENG
RUMMEL KLEPPER & KAHL LLP
900 RIDGEFIELD DR STE 350
RALEIGH, NC 27609

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

0411001046
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

QUINN CONSULTING SERVICES INCORPORATED
14160 NEWBROOK DR
STE 220
CHANTILLY, VA 20151

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APPLIED SCIENCES
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003733 EXPIRES: 12-31-2019
PROFESSIONS: ENG
QUINN CONSULTING SERVICES INCORPORATED
14160 NEWBROOK DR
STE 220
CHANTILLY, VA 20151

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

(ATTACH HERE)
See attached.

"RK&K" and "RK&K Engineers" are registered trade names of Rummel, Klepper & Kahl, LLP, a Maryland limited liability partnership. This message contains confidential information intended only for the person or persons named above. If you have received this message in error, please immediately notify the sender by return email and delete the message. Thank you.
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9060 Mayland Drive, Suite 400, Richmond, VA 23238
Telephone: (804) 367-8500

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

PROFESSIONS: LS, ENG

CARDNO INC
10988 RICHARDSON RD
ASHLAND, VA 23005

Status can be verified at http://www.dpor.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
SCHNABEL ENGINEERING, LLC
9800 JEB STUART PKWY STE 100
GLEN ALLEN, VA 23059

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
BOARD FORAPELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000322 EXPIRES: 02-28-2018
PROFESSIONS: ENG
SCHNABEL ENGINEERING, LLC
9800 JEB STUART PKWY STE 100
GLEN ALLEN, VA 23059

Status can be verified at http://www.dpor.virginia.gov
H & B SURVEYING & MAPPING LLC
612 HULL ST
SUITE 101B
RICHMOND, VA 23224

Status can be verified at http://www.dpor.virginia.gov
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0407004748

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

PROFESSIONS: ENG

DIW GROUP INC
SPECIALIZED ENGINEERING
4845 INTERNATIONAL BLVD
#104
FREDERICK, MD 21703

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)
(DETACH HERE)
## Brief Resume of Key Personnel anticipated for the Project.

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>SCOTT SZYMPRUCH, PE, VICE PRESIDENT OF ENGINEERING &amp; ESTIMATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>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):</td>
<td>CORMAN CONSTRUCTION, INC. – FULL TIME</td>
</tr>
<tr>
<td>d. Employment History:</td>
<td>With this Firm 17 Years With Other Firms 4 Years</td>
</tr>
</tbody>
</table>

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):

**Corman Construction, Inc., Vice President of Engineering & Estimating / DBPM**

2017-Present

Scott is responsible for in house engineering and design work. He works with design-build projects from their inception to assist and review design activities. Scott also manages estimating and project selection activities for Corman and Corman Marine.

**Corman Construction, Inc., Corman Mid-Atlantic Division Manager / DBPM**

2013-2016

Scott oversaw engineering and project management, including schedules, resources, manpower, temporary designs, budget and change orders.

**Corman Construction, Inc., Project Manager/Sponsor / DBPM**

2011-2013

Scott was assigned to projects where he oversaw start up, long-range planning/scheduling, design, cost analysis/ monthly reviews, owner relationships, change orders/claims reviews and steered projects toward successful final completion.

**Corman Construction, Inc., Project Manager/Construction Manager**

2004-2011

Scott was assigned onsite on projects, including two design-builds where he provided project management, supervision, professional engineering designs, field layout, subcontract negotiations/ administration, quality control, materials control/procurement, safety management, environmental compliance management, cost accounting and scheduling for compliance and successful completion.

**Corman Construction, Inc., Sr. Project Engineer**

2000-2003

Scott was assigned onsite on road and bridge projects, including one Design-Build where he developed schedules, worked with superintendents and worked with owners on submittals, payments and RFIs.

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

   **University of Maryland, College Park, MD | BS | 1995 | Civil Engineering**

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

   **Professional Engineer | VA | #0402041661**

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.)

<table>
<thead>
<tr>
<th>Project:</th>
<th>Design-Build Route 1 Improvements at Fort Belvoir, Lorton, VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dates:</td>
<td>July 2013-Sept. 2017</td>
</tr>
<tr>
<td>Project Role:</td>
<td>Design-Build Project Manager</td>
</tr>
<tr>
<td>With Current Firm?:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As Design-Build Project Manager (July 2013-Jan. 2017) | Project Executive (Jan. –Sept. 2017), Scott oversaw construction from start up to close out. He managed the project team, equipment, material, and labor procurement, objectives and goals, work plans, and budgets and resources, procured/coordinated subcontractors, monitored schedules, conducted progress meetings, minimized exposures and risks, mitigated issues, reviewed/approved deliverables, RFIs, and change orders, administered contracts, oversaw budget, safety, and quality compliance, met obligations and avoided/resolved disputes under the contract, and steered the project to successful completion per contract. Scott and the design team coordinated “Pardon our Dust” meetings where he spoke and answered questions/inquiries about the project. This project constructed and/or widened Route 1 from 4-6 lanes for 3.68 miles, a multi-use trail, bicycle lanes and safer crosswalks, route realignment, intersection improvements, bridge demolition/construction, including underpass, retaining walls, noise walls, street lighting, stormwater management, drainage, utility relocations, right of way acquisition, and traffic signals. Led coordination with relocation of overhead utilities (Dominion / Verizon and Cox) facilities for the entire length of the project. The project was constructed in coordination with VDOT, Fairfax County, and the Army Garrison at Fort Belvoir, was highly visible to local authorities and was a major focus of local and federal elected officials, with an emphasis on MOT, stakeholder...
similarities to Rt. 7 / Battlefield Project: **Design-Build, roadway, survey, bridge and retaining walls, environmental permitting, commitments, compliance, mitigation, geometechnical, E & S control, hydraulics and SWM, landscaping, roadway lighting, traffic control devices, transportation management plan, extensive MOT, ROW acquisition, utility relocations, stakeholder coordination, public involvement/public relations, QA/QC, construction engineering and inspection, overall Project management**

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</thead>
<tbody>
<tr>
<td>Project Role:</td>
<td>Project Manager</td>
<td>With Current Firm?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**As Project Manager**, Scott provided project management, supervision, professional engineering designs, field layout, subcontract negotiation / administration, quality control, materials control / procurement, safety management, environmental compliance management, cost accounting and scheduling for compliance and successful completion. He oversaw all construction, including contract administration, procuring and furnishing all materials, equipment, services, and labor timely. Scott also staffed / oversaw onsite personnel and managed a team of 13. He conducted daily job schedule and safety meetings with the General Superintendent and Safety Manager, and created, updated, and modified the schedule. Scott oversaw interaction with the owner's representative, Potomac Crossing Consultants (PCC), including correspondence and change orders. He facilitated monthly partnering meetings with the owner, General Engineering Consultant (GEC) and Section Designer. Scott participated in extensive coordination with adjacent Woodrow Wilson Bridge projects by attending weekly scheduling meetings with the GEC.

The project was constructed adjacent to heavily-traveled I-95/495 Capital Beltway. Two-phase construction included segmental bridge, placed two 2,300-ft. long, 145-ft. wide CIP concrete bridge decks, demolished/ removed a six-lane structure and foundation construction of inner loop bridges. There was noise construction, utility relocations, lighting, coordination with local parks, and environmental compliance. Mt Vernon and Jones Point Park Trail was within and across project limits and required public access and maintenance at all times. There was an urban residential community requiring constant communication with residents and close attention to noise, dust and traffic ordinances. **Client: Maryland Department of Transportation | State Highway Administration | Cost: $82 Million**

**Similarities to Rt. 7 / Battlefield Project:** **Survey, bridge and retaining walls with architectural treatments, E & S control, roadway lighting, transportation management plan, utility relocations, stakeholder coordination, public involvement, construction engineering and inspection, overall Project management**

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<td>Project Role:</td>
<td>Design-Build Construction Manager</td>
<td>With Current Firm?</td>
<td>Yes</td>
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</table>

**As Design-Build Construction Manager**, Scott oversaw construction of the entire project, contributed to partnering and progress meetings, worked with environmental teams on environmental stewardship, and coordinated inspections/resolutions with our independent QC team. During procurement, he authored the schedule and was a leader in conceptual design development. Upon Notice to Proceed, Scott led the design development task force undertakings and provided constructability reviews. He worked with design-build coordinators and construction project engineers leading the roadway, bridge, drainage, environmental, utility and subcontracting areas. Scott participated in the geotechnical task force team efforts and oversaw drilling. He provided professional engineering designs (support of excavation and temporary work) and supervised field layout, construction, quality control, and safety management. Scott was involved in the CPM schedule, oversaw the Construction Quality Manager and coordinated with adjacent projects. He coordinated with the Quality Assurance Manager regarding quality compliance, scheduled and allocated resources for materials, equipment, services, and labor. Scott participated in public meetings where he answered questions/inquiries relevant to the project. This project constructed 7.2 miles of controlled-access tri-lane divided highway with motorists entering/exiting through three interchanges. Two major interchanges – I-370/Metro Access Road and Shady Grove Road – were constructed in phases to accommodate the two lanes of traffic in each direction while the roadway was widened to the inside and outside, making three lanes in each direction. Major utility relocations were completed at 106 locations, including water, sewer, power/ electrical, cable lines, and fiber optic (underground and overhead), and coordinated/relocated critical transmission lines for Columbia and Williams Gas. The MAR Interchange was redesigned from a three-level to a two-level eliminating retaining walls and saving the owner millions of dollars long-term. There was also stormwater management/drainage systems, 130,000 SF retaining and MSE walls, and community outreach to approximately 10,000 residents surrounding the corridor. This is a Corman and RK&K project. **Client/Owner: Maryland State Highway Administration | Cost: $483.4 Million**

**Similarities to Rt. 7 / Battlefield Project:** **Design-Build, ATCs, roadway, survey, bridge and retaining walls with architectural treatments, environmental permitting, commitments, compliance, mitigation, and sound barrier, geotechnical, E & S control, hydraulics and SWM, landscaping, roadway lighting, traffic control devices (including, among other things, overhead sign structures), Intelligent Transportation Systems, transportation management plan, ROW acquisition, utility relocations, stakeholder coordination, public involvement/public relations, QA/QC, construction engineering and inspection, overall Project management**

* 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. **N/A**
**ATTACHMENT 3.3.1**

## KEY PERSONNEL RESUME FORM

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
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<tbody>
<tr>
<td>a. Name &amp; Title: JOHN VICINSKI, PE, DBIA, VICE PRESIDENT</td>
</tr>
<tr>
<td>b. Project Assignment: QUALITY ASSURANCE 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): QUINN CONSULTING SERVICES, INC. (FULL TIME)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 9 Years With Other Firms 25 Years</td>
</tr>
</tbody>
</table>

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):

**Quinn Consulting Services, Inc., Vice President Design-Build Quality Assurance** 2008-Present

- **Quality Assurance Manager.** John is a professional engineer and design-build professional with over 34 years of experience in transportation and heavy construction including quality assurance management and inspection on interstates, primary and secondary roads, and rural roadways. Since joining Quinn Consulting, he has worked as a Quality Assurance Manager (QAM) on VDOT and FHWA Design-Build projects where he has written, overseen, and implemented project-specific QA/QC Plans that conformed with the VDOT Minimum Requirements for Quality Assurance and Quality Assurance and Quality Control on Design-Build and Public-Private Transportation Projects.

**Alpha Corporation, Vice President and Director of Transportation Services** 1995-2008

- **Vice President/Director of Transportation Services** and managed up to 25 contracts simultaneously primarily providing CEI services on design-build, district-wide, and project specific projects for VDOT and other transportation clients.

**Education:**
- **University of Pittsburgh at Johnstown, Johnstown, PA | BS | 1982 | Civil Engineering**
- **Technology Preservation College, Cranberry, PA | Diploma | 1980 | Civil Engineering**
- **Morristown College, Morristown, NJ | A.A. | 1978 | General**

**Active Registration:** Year First Registered/ Discipline/VA Registration #:
- **1992 | Professional Engineer | VA #402-026380**
- **2001 | Professional Engineer | MD #4737559**
- **1992 | Professional Engineer | PA #PE043306E**

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

- **Note your role, responsibility, and specific job duties for each project, not those of the firm.**
- **Note whether experience is with current firm or with other firm.**
- **Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.**

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

| Project: Design-Build Route 1 Improvements at Fort Belvoir, Lorton, VA | Dates: March 2014-Dec. 2017 |
|----------------------------------------------------------|
| Project Role: Quality Assurance Manager | With Current Firm?: Yes |

As **Quality Assurance Manager**, John was responsible for the QA and oversight of the construction operations, including the QA testing technicians. He checked test, daily, safety, and environmental reports; determined and certified to VDOT whether the materials and work complied with the Contract Documents; conducted preparatory inspection meetings prior to the start of any new work; oversaw and directed the independent QA testing and inspections; and compared the QA and QC tests to ensure they were within the tolerances established by VDOT’s Minimum QA/QC Requirements Manual. John monitored the contractor’s QC program to ensure it was per the contract, the Minimum Requirements for QA/QC on Design-Build and Public-Private Transportation Act Projects, reviewed working plans/shop drawings, for preparatory meetings, and QA inspection of all materials used. **Reported to Scott Szympruch DBPM as he will on this new project.**

This project widened US Route 1 to relieve heavy traffic near the Ft. Belvoir military installation. It constructed and/or widened Route 1 from 4-6 lanes, a multi-use trail, route realignment, intersection improvements, bridge demolition/construction, retaining walls, noise walls, street lighting, stormwater management, drainage, utility relocations, right of way acquisition, and traffic signals. There were improvements to accommodate bicycles and pedestrians, pedestrian signals, bicycle lanes, sidewalks, curb ramps and safer crosswalks. MOT included daily lane closures along US Route 1 and shifting traffic to the newly-constructed southbound lanes as the northbound lanes were constructed. The project was constructed in coordination with VDOT, Fairfax County, and the Army Garrison at Fort Belvoir, was highly visible to local authorities and was a major focus of local and federal elected officials, with an emphasis on MOT, stakeholder communication, protecting the environment, and historical significance. **Corman was the Design-Build Lead Contractor in a joint venture partnership. Client: Federal Highway Administration | Eastern Federal Lands Highway Division | Cost: $82 Million Construction Value**

Similarities to Rt. 7 / Battlefield Project: Design-Build, roadway, survey, bridge and retaining walls with architectural treatments, environmental permitting, commitments, compliance, mitigation, geotechnical, E & S control, hydraulics and SWM, landscaping, roadway lighting, traffic control devices (including overhead sign structures), Intelligent Transportation Systems,
transportation management plan, extensive MOT, ROW acquisition, utility relocations, stakeholder coordination, public involvement/public relations, quality assurance and quality control, construction engineering and inspection, overall Project management

| Project: Design-Build Route 27/244 Interchange, Arlington, VA | Dates: March 2012-Aug. 2015 |
| Project Role: Quality Assurance Manager | With Current Firm? | Yes |

As **Quality Assurance Manager**, John oversaw all of the QA oversight and testing, monitored the QC program for compliance with the project-specific QA/QC plan and VDOT Minimum Requirements for QA/QC on Design-Build & Public-Private Transportation Act Projects. He monitored the contractor’s QC program to ensure it was per the contract, reviewed working plans/shop drawings, for preparatory meetings, and QA inspection of all materials used.

This project replaced the Washington Boulevard Bridge over Columbia Pike which has many architectural/aesthetic features including a concrete block pattern on retaining and abutment walls, decorative pylons in each corner, haunched steel fascia girders with a two-tone paint scheme to mimic the previous arch, a relief pattern incorporated into the vertical outer surfaces, and medallions with images reflecting the historical significance of Freedmen’s Village. Reconfigured several ramps to improve access, replaced a box culvert that conveyed Long Branch through the center of the interchange, and constructed a sidewalk and shared-use path. **Client:** Virginia Dept. of Transportation | State Highway Administration | Cost: $50 Million

**Similarities to Rt. 7 / Battlefield Project:** VDOT Design-Build, roadway, survey, bridge and retaining walls with architectural treatments, environmental permitting, compliance, mitigation, geotechnical, E & S control, hydraulics and SWM, landscaping, extensive MOT, roadway lighting, traffic control devices (including overhead sign structures), transportation management plan, ROW acquisition, utility relocations, stakeholder coordination, public involvement/public relations, QA/QC, construction engineering and inspection, Project management

| Project: Design-Build Fairfax County Parkway, Northern Virginia | Dates: Feb. 2010-March 2013 |
| Project Role: Quality Assurance Manager | With Current Firm? | Yes |

As **Quality Assurance Manager**, John oversaw QA and QC staff to ensure the project was completed per contract and the VDOT Design-Build Minimum Standards. He facilitated preparatory meetings before new activities were begun, documented asphalt and aggregate testing within the FHWA QL Pay System, and coordinated QA laboratory testing services as required. He monitored the contractor’s QC program to ensure it was per the contract, the Minimum Requirements for QA/QC on Design-Build and Public-Private Transportation Act Projects, reviewed working plans/shop drawings, etc., and QA inspection of all materials used.

This project constructed a six-lane divided limited access highway; the Franconia-Springfield Parkway interchange improvements; a shared-use path along a portion of relocated Rolling Road; sound barriers along relocated Rolling Road and Ramp D; and a new bridge over the Fairfax County Parkway while maintaining traffic on the Parkway below. **Client/Owner:** Federal Highway Administration | Virginia Dept. of Transportation | Cost: $22 Million

**Similarities to Rt. 7 / Battlefield Project:** VDOT Design-Build, roadway, survey, bridge and retaining walls with architectural treatments, environmental permitting, compliance, mitigation, geotechnical, E & S control, hydraulics and SWM, landscaping, roadway lighting, traffic control devices (including overhead sign structures), transportation management plan, extensive MOT, ROW acquisition, utility relocations, stakeholder coordination, public involvement/public relations, QA/QC, construction engineering and inspection, Project management

* 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. **N/A**
**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><strong>a. Name &amp; Title:</strong> OWEN L. PEERY, PE, DIRECTOR, TRANSPORTATION</td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong> DESIGN MANAGER</td>
</tr>
<tr>
<td><strong>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):</strong> RK&amp;K (FULL TIME)</td>
</tr>
<tr>
<td><strong>d. Employment History: With this Firm 30 Years With Other Firms 4 Years</strong></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>
</tr>
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</table>
| **RK&K, Director, Transportation**  
Owen leads RK&K’s transportation efforts throughout Virginia, has been the Design Manager on several design-build projects, and assisted VDOT preparing Design-Build and P3 contract documents. He has 34 years of combined experience in civil design and project management where he has been the Project Manager, Design Manager and/or Lead Project Engineer on a wide range of transportation and civil engineering projects for VDOT, local transportation agencies, and private sector clients through planning, design and construction. He also has extensive inter-agency, stakeholder, utility and owner coordination required experience with urban improvements. Additionally, he is a current member of the VTCA Design-Build Committee and has formerly served as a member of the VTCA Engineering Consultant Leadership Committee (ECLC). His extensive experience assures VDOT that he is more than capable of leading the design management of the Route 7 and Battlefield Parkway Interchange project to a successful conclusion. |
| **e. Education:** Name & Location of Institution(s)/Degree(s)/Year/Specialization:  
Virginia Military Institute | Lexington, VA | BS | 1983 | Civil Engineering |
| **f. Active Registration:** Year First Registered/ Discipline/VA Registration #:  
2009 | Professional Engineer | VA | #0402 046882 |
| **g. Document the extent and depth of your experience and qualifications relevant to the Project.** |
| **a. Note your role, responsibility, and specific job duties for each project, not those of the firm.** |
| **b. Note whether experience is with current firm or with other firm.** |
| **c. 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.) |

<table>
<thead>
<tr>
<th>Project:</th>
<th>Design-Build Route 29 Solutions – Rio Road Grade Separation Intersection (GSI), Albemarle, VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Role:</td>
<td>Design-Build Design Manager</td>
</tr>
<tr>
<td>Dates:</td>
<td>Jan. 2015-Jul. 2017</td>
</tr>
<tr>
<td>With Current Firm?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As **Design Manager** for Route 29 / Rio Road Grade Separated Intersection (GSI), Owen was responsible for leading and overseeing the design and construction services portions of the project. This complex project that included numerous design sub consultants and specialists, consisted of a complex **SPUI** grade separated intersection to allow traffic to move efficiently on the Route 29 corridor, and the construction of four through lanes underneath Rio Road to carry traffic north or south. Owen coordinated the structural engineering design with other project elements including roadway, storm water and maintenance of traffic. The innovative bridge design on this project, the first of its kind in Virginia, was designed with the superstructure functioning as a compression strut, allowing the bridge abutments to be an integral part of the retaining walls below the bridge and reducing the overall length of the bridge. Owen led and coordinated the individual design disciplines including the coordination of bridge and roadway designs, drainage, utilities, right-of-way, and environmental permitting and compliance, which reported directly to him. Owen worked closely with the project’s DBPM to ensure the project design was completed in accordance with the contract documents. Through construction he coordinated the review and response to shop drawings, RFIs and field questions. He was also able to ensure that project stayed within budget and on schedule. He was also the Q4/QC Manager for this Corman and RK&K project. Client: Virginia Department of Transportation | Cost: $46.3 Million |

**Similarities to Rt. 7 / Battlefield Project:** VDOT Design-Build; roadway; survey; bridge and retaining walls with architectural treatments; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; ITS; transportation management plan; extensive MOT, ROW; utility

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*List only three (3) relevant projects*
As Design Manager, Owen led a multi-disciplined team through design and construction, with RK&K providing full-time quality assurance during construction. Traffic was maintained through this busy corridor at all times, while constructing additional through lanes to the median, thus widening of I-64 in both directions. The interchange improvements included upgrading the existing traffic signal, widening the I-64 westbound ramp to Route 623 to provide an additional turn lane, adding a left turn lane on Route 623 to I-64 eastbound, and widening the I-64 eastbound off ramp to Route 623 to provide an additional turn lane. Owen worked closely with the project’s DBPM to ensure the project design was completed in accordance with the contract documents. He also provided VDOT with design plans for review and approval. In addition to being the DM on this project, Owen also served as Design Quality Manager establishing and overseeing the Quality Assurance/Quality Control (QA/QC) Program for design, including design review, VDOT review coordination, specifications and constructability. Through construction he coordinated the review and response to shop drawings, RFIs and field questions. The management of a multi-discipline team, phasing of construction and the successful delivery of a design-build project are directly relevant to the Route 7 project. This is a Corman & RKK project. Client: Virginia Department of Transportation  |  Cost:  $33 Million

**Similarities to Rt. 7 / Battlefield Project:**  VDOT Design-Build; roadway; survey; bridge and retaining walls; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; ITS; transportation management plan; ROW; utility relocations; stakeholder coordination; public involvement/public relations; QA/QC; construction engineering and inspections; shop drawing review; RFIs, as-built drawings, overall Project management

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**Project: VDOT Route 250 Bypass Interchange at McIntire Road, City of Charlottesville, VA**

**Dates:**  Mar. 2006-Nov. 2012

**Project Role:** Design Manager

**With Current Firm?**  Yes

Owen served as Design Manager on this new diamond-shaped, grade-separated interchange that eliminates an existing at grade T-intersection, improving connectivity and alleviating congestion by providing a free-flowing traffic pattern through this area. He was responsible for planning, environmental documentation, preliminary engineering, final engineering public outreach and coordination between federal, state and local agencies to complete this project that included roadway design; interchange layout and design; bridge design; environmental studies; traffic data collection and analysis; drainage design, stormwater management and hydraulics, and landscape/hardscape design and engineering support during construction. In conjunction with the City’s project manager, he led a City Council-selected Steering Committee through the process, including the analysis of 15 interchange options during the planning stage. Owen led an outreach program that included directing the Steering Committee through over 40 public meetings and outreach opportunities for public design input. Public outreach was so critical to this project that, under Owen’s direction, RK&K maintained a project web site that contained all project information, that was linked to the City and VDOT web sites, and that was updated nearly real-time keeping the community apprised of information and updates.

Like the Route 7 / Battlefield Parkway project, MOT was complex and critical as the interchange had to be constructed in the middle of an existing at-grade intersection while maintaining existing traffic capacity and lanes on the intersecting roadways; coordinating/maintaining access to the regional rescue squad; and maintaining community access. Owen supervised the preparation of landscaping planting plans and cultural resource mitigation commitments. The roadway design was optimized to limit right-of-way requirements, avoid parkland and historic property acquisition, to best-fit the roadway profiles to the existing topography and provide a grade separation at this urban intersection. The project opened ahead of schedule. Client: Virginia Department of Transportation  |  Cost:  $25 Million

**Similarities to Rt. 7 / Battlefield Project:**  VDOT Design-Build; roadway; survey; bridge and retaining walls with architectural treatments; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; ITS; transportation management plan; ROW; utility relocations; stakeholder coordination; public involvement/public relations; QA/QC; construction engineering and inspections; shop drawing review, overall Project management

* 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. N/A
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

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<tbody>
<tr>
<td>a. Name &amp; Title: KYLE KERN – SENIOR SUPERINTENDENT</td>
</tr>
<tr>
<td>b. Project Assignment: CONSTRUCTION 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): CORMAN CONSTRUCTION, INC. (FULL TIME)</td>
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<tr>
<td>d. Employment History: With this Firm 29 Years With Other Firms 0 Years</td>
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<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>
</tr>
<tr>
<td>Corman Construction, Inc., Senior Superintendent</td>
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<tr>
<td>Assigned to roadway and bridge projects, including four design-bids, Kyle develops work plans that comply with contract specifications, oversees material procurement and supplier coordination, reviews the schedule with management teams, advises / directs field crews, and schedules / manages subcontractors, construction, equipment, safety, and quality control. He coordinates field activities with the Quality Control team and inspects construction for compliance and schedule adherence.</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
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<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
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<tr>
<td>2014</td>
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<tr>
<td>2014</td>
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<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>a. Note your role, responsibility, and specific job duties for each project, not those of the firm.</td>
</tr>
<tr>
<td>b. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>c. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
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<tr>
<td>(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.)</td>
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<tbody>
<tr>
<td>Project Role:</td>
<td>Road, Burtonsville, MD</td>
<td>With Current Firm?</td>
<td>Yes</td>
<td></td>
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</tbody>
</table>

As Construction Manager for this new-grade separated Single Point Urban Interchange (SPUI) constructed at the intersection of US 29 with East Randolph Road, a major North/South route connecting the Baltimore and Washington Beltways, part of an overall grade separation effort by MSHA to eliminate all grade crossing on the busy roadway, Kyle oversaw the entire project, including roadway widening, stormwater management ponds, utility relocations (electric, phone, cable, signals), MSE wall, bridge and piping crews and coordinated the traffic switches. Project included two bridges and nine retaining walls with decorative finishes. New bridge was constructed over an active roadway (US 29) similar to the Battlefield Project over US 7. The superstructure consists of structural steel beams and cast-in-place deck with decorative ashlar stone-line concrete parapet walls. Each end of the ridge is signalized and lined with decorative street lighting. The retaining walls, varying 3-ft. to 20-ft. high and 100-ft. to 600-ft. long, support the ramps leading to the structure and consist of 54,200 SF of MSE walls with decorative limestone and ashlar stone finishes with pilasters spaced at 50-ft. intervals and ashlar-lined cast-in-place end transitions ranging up to 100-ft. long. The second bridge accommodates a future ramp from Musgrove Road to Southbound US 29. Kyle developed work plans that complied with contract specifications, oversaw material procurement and supplier coordination, reviewed the schedule with management teams, advised / directed field crews, and scheduled / managed subcontractors, construction, equipment, safety, and quality control. He ensured that materials used and work performed met contract requirements, approved for construction plans/specifications, and ensured safety and environmental compliance. Kyle coordinated field activities with the Quality Control team and inspected construction for compliance and schedule adherence. **Client: Maryland Department of Transportation / State Highway Administration | Cost: $19 Million**

**Similarities to Rt. 7 / Battlefield Project:** Roadway; survey; bridge and retaining walls with architectural treatments; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; transportation management plan; utility relocations; stakeholder coordination; public involvement/public relations; QA/QC; construction engineering and inspections; overall Project management
As **Construction Manager** for this project that designed/reconstructed/widened a two-mile section of dual-divided I-70 and replaced two narrow bridges on I-70, Kyle oversaw field work, including roadway widening on South Street, cross slope correction, MSE and retaining walls, utility relocations, traffic signals, stormwater management, bridge construction, lane closures, and traffic switches.

The roadway was widened one lane in each direction to eliminate traffic backups from merging lanes. On- and off-ramps were reconfigured as dedicated lanes to maintain flow from exiting and merging traffic. Work involved complex horizontal and vertical geometry and phased construction of the roadway, ramps, and bridge, including phased construction of cross culverts spanning I-70. There were MSE and decorative retaining walls, utility relocations (sanitary, CCTV, and gas), and new traffic signals. Kyle developed work plans that complied with contract specifications, oversaw material procurement and supplier coordination, reviewed the schedule with management teams, advised/directed field crews, and scheduled/managed subcontractors, construction, equipment, safety, and quality control. He ensured that materials used and work performed met contract requirements, approved for construction plans/specifications, and ensured safety and environmental compliance. Kyle coordinated field activities with the Quality Control team and inspected construction for compliance and schedule adherence. Project was completed on time and on budget. **Client:** Maryland Department of Transportation | **Cost:** $37.5 Million

**Similarities to Rt. 7 / Battlefield Project:** **Design-Build; roadway; survey; bridge and retaining walls with architectural treatments; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; ITS; transportation management plan; utility relocations; stakeholder coordination; public involvement/public relations; QA/QC; construction engineering and inspections; overall Project management**

<table>
<thead>
<tr>
<th>Project</th>
<th>Dates</th>
<th>With Current Firm?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-Build I-70, Phase 2D, Frederick, MD</td>
<td>June 2012-Nov. 2013</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As **Construction Manager**, Kyle supervises field operations, evaluates safety exposures and risks, and participates in developing the project-specific safety program, work plans, and Job Hazard Analyses. He ensures that materials used and work performed meet contract requirements, approves for construction plans/specifications, and ensures safety and environmental compliance. Kyle conducts weekly safety inspections with the project manager and project engineer, submits weekly Safety Inspection Reports, oversees quality control compliance and project close out. He coordinates labor, equipment, and subcontractors, schedules, and conducts pre-construction staff meetings establishing goals and responsibilities. Kyle reviews scope to identify any specialized safety training needs, reviews Toolbox Talks, Take Fives, Morning Huddles, and Site Inspections weekly. The project consists of rehabilitating eleven (11) 40-year old concrete and steel beamed bridges on the Salisbury bypass which leads to Ocean City, MD. Bridges are being reconstructed in phases with northbound traffic relocated to share the southbound lanes of the bypass in the first phase during the winter months, thereby limiting traffic impacts during the busy summer tourist season. It also includes the design and construction of the Maintenance of Traffic (MOT) required to complete the bridge rehabilitation, design and construction of potential stormwater management facilities, and relocating utilities, as needed. **This is a Corman and RK&K project. Client:** Maryland State Highway Administration | **Cost:** $23.9 Million

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<thead>
<tr>
<th>Project</th>
<th>Dates</th>
<th>With Current Firm?</th>
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<tbody>
<tr>
<td>Design-Build Rehabilitation of Eleven (11) Bridges on US 13 (Salisbury Bypass), Wicomico County, MD</td>
<td>June 2017-Present</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* 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.**

<table>
<thead>
<tr>
<th>Current Assignment</th>
<th>Role</th>
<th>Anticipated Duration</th>
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<tbody>
<tr>
<td>DB Rehabilitation of Eleven (11) Bridges on US 13 (Salisbury Bypass)</td>
<td>Construction Manager</td>
<td>Current thru June, 2018</td>
</tr>
</tbody>
</table>
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
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<tbody>
<tr>
<td>a. Name &amp; Title: MIKE WOODS, ASSISTANT VICE PRESIDENT, PRINCIPAL</td>
</tr>
<tr>
<td>b. Project Assignment: LEAD UTILITY COORDINATION 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): CARDNO, INC. (FULL TIME)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 20 Years With Other Firms 12 Years</td>
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  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):

  **Cardno, Inc., Assistant Vice President, Principal**  1998 – Present
  Mike is manager of Cardno’s Richmond, Virginia office, which provides subsurface utility engineering and utility coordination services to clients in Virginia, Maryland, Delaware and West Virginia. He has extensive experience in the area of utility engineering as it relates to highway projects. Mike is keenly aware of the VDOT policies and procedures related to utility coordination and involvement.

  **Virginia Department of Transportation (VDOT), Transportation Engineer, Right-of Way and Utilities / Location and Design Divisions**  1986-1998
  During his 12 years at VDOT, Mike worked in both the Right of Way and Location and Design Divisions. Most importantly, during his 6 years in the Utilities Section, he was responsible for the relocation of utilities that were determined to be in conflict with the roadway design. Mike is thoroughly familiar with the VDOT UFI process and all aspects of the relocation process. Utilizing many of the tools developed with the Department, Mike has helped to create many of the procedures used by Cardno today.

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<tr>
<th>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
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<tbody>
<tr>
<td>Virginia Commonwealth University, Richmond, VA</td>
</tr>
<tr>
<td>Virginia Polytechnic Institute, Blacksburg, VA</td>
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</tbody>
</table>

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

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

  a. **Note your role, responsibility, and specific job duties for each project, not those of the firm.**

  b. **Note whether experience is with current firm or with other firm.**

  c. **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.)

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<tbody>
<tr>
<td>Project Role:</td>
<td>Utility Coordination Manager</td>
<td>With Current Firm?</td>
<td>Yes</td>
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As **Utility Coordination Manager**, Mike provided oversight to Cardno’s efforts on behalf of VDOT for this individual task order which was assigned under the Statewide Utility Field Inspection and Utility Coordination contract with VDOT. He verified conflicts, determined cost responsibilities, coordinated utility relocation design, reviewed/recommended approval of utility relocation, plans and estimates, and ensured inspection of utility relocation construction. Mike managed the Cardno team that provided Utility Coordination and Utility Relocation Inspection support on behalf of the owner for this design-build contract. He supervised the Utility Relocation Inspection services to ensure that all relocations were being performed according to the approved utility relocation plans to include limitations on right-of-way and the strict parameters of the contract and ensuring compliance with the VDOT Utilities Manual. Mike reviewed utility relocation designs prepared by a PE for contract utility relocations and verified / modified designs, if necessary, based on field conditions and construction activities.

This project constructed a grade-separated intersection at Route 29 and Rio Road that carries Route 29 thru traffic beneath Rio Road via a **modified Single Point Urban Interchange (SPUI)**. Approximately 1 mile long, it was designed to ease traffic congestion at the intersection. Work included installing a drainage system under the bridge, sidewalks/pedestrian crossings around the intersection, and concrete retaining walls north/south of the intersection and bridge deck. There was significant roadway design for different roadway types and typical sections with a mix of rehabilitation, widening, and new construction. A grade separated interchange was constructed on an existing signalized intersection in a congested urban area where the team maintained traffic, access to adjacent properties, and relocated utilities. **Client: Virginia Department of Transportation | Cost: $46.3 Million**
Similarities to Rt. 7 / Battlefield Project: VDOT Design-Build; roadway; survey; bridge and retaining walls with architectural treatments; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; ITS; transportation management plan; extensive MOT, ROW; utility relocations; stakeholder coordination; public involvement/public relations; QA/QC; construction engineering and inspections; overall Project management

| Project: Route 1 / Route 123 Interchange, Woodbridge, VA | Dates: June 2012 – May 2016 | Contract Manager | With Current Firm? | Yes |

As Contract Manager, Mike provided oversight and guidance for all aspects of the Utility Field Inspection process for the project. The project also resulted in an advance utility relocation contract being advertised in order to facilitate the duct bank construction prior to the roadway advertisement. Mike helped to facilitate the coordination of multiple utility owners while managing the changes from overhead conversions to underground design and construction. This task was performed under the Statewide Utility Field Inspection and Utility Coordination contract with VDOT. Mike was responsible for assisting the Department with Utility Coordination and Utility Field Inspection services for the purposes of coordinating the necessary utility relocations. He verified conflicts, determined cost responsibilities, coordinated utility relocation design, reviewed and recommended approval of utility relocation, plans and estimates, and ensured inspection of the utility relocation construction. Mike reviewed utility relocation designs prepared by a PE for contract utility relocations and verified / modified designs, if necessary, based on field conditions and construction activities.

The VDOT design project was to widen Route 1 and Route 123, adding underground utilities, and construction of a new interchange. Determining that the project was a good candidate for undergrounding of all utility facilities through the entire corridor, an advance combined duct system was installed prior to construction. This was coordinated within the limitations of the acquired right-of-way for Dominion Power, Verizon and Cox Communication throughout the project to facilitate the undergrounding of these facilities. The new interchange built Route 123 over Route 1, and the CSXT railroad, separates through traffic, and connects Route 123 to Belmont Bay Drive east of the railroad. Route 123 was widened from four to six lanes, and Express Drive was raised to connect to the new Route 123/Belmont Bay Drive. Route 1 was widened from four to six lanes, improving Occoquan Road with median and turn lanes from the Route 1. The project eliminated two signalized intersections on Route 1 at Route 123 and Annapolis Way. The project also enhanced access to the Woodbridge VRE/Amtrak Station for vehicles, bikes and pedestrians during the project's first phase. It also constructed an important segment of the Potomac Heritage National Scenic Trail from the intersection at Route 123 and Annapolis Way to the Belmont Bay community. **Client: Virginia Department of Transportation | Cost: $194,000 (Fee)**

Similarities to Rt. 7 / Battlefield Project: Roadway; survey; bridge and retaining walls with architectural treatments; erosion and sediment control; hydraulics and stormwater management; ROW; utility relocations; stakeholder coordination; construction engineering and inspections; overall Project management


As Consultant Utility Manager, Mike was responsible for Cardno’s utility coordination services. Many of the initial tasks related to the Utility Engineering portion of the work were completed including 100% of the Subsurface Utility Engineering required for the project. Mike also administered the creation and initiation of all of the Utility Agreements with the affected utility owners within the project. He verified conflicts, determined cost responsibilities, and coordinated utility relocation design. Mike supervised that the conflict matrices were created for the entire alignment and cost responsibility was determined for a majority of the utility impacts within the project corridor.

The DB project was to construct of a new 55-mile, four-lane divided, limited access highway from the City of Suffolk to Prince George County/Petersburg at I-295. It would have been a tolled expressway to run parallel to the existing US 460 lanes. It was envisioned as a way to accommodate freight vehicles, provide traffic relief, and create another Hampton Roads evacuation route. Ultimately the project was terminated by VDOT due to the environmental concerns within the project corridor. **Client: Virginia Department of Transportation | Cost: $1.4 Million (Fee)**

Similarities to Rt. 7 / Battlefield Project: VDOT Design-Build; roadway; survey; bridge and retaining walls; environmental permitting; geotechnical; erosion and sediment control; hydraulics and stormwater management; landscaping; roadway lighting; traffic control devices; ITS; transportation management plan; utility relocations; stakeholder coordination; overall Project management

* 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. N/A
Solutions-US 29 & Rio Road

**PROJECT NAME:** Constructed a grade-separated intersection at Rt. 29 and Rio Rd. that carries Rt. 29 through traffic beneath Rio Rd via a modified single Point Urban Interchange (SPUI). About a mile long, it eases intersections and streamlines traffic by constructing concrete retaining walls south of the intersection and bridge deck. This intersection is similar to the Rt. 7/Battlefield intersection – Major thru travel and local traffic.

**PROJECT NARRATIVE:** Constructed a grade-separated intersection on an existing signalized intersection in a congested urban area where the team maintained traffic, access to adjacent properties, and relocated utilities.

**ENVIRONMENTAL COMPLIANCE, SAFETY, QUALITY, WORKSHIPS:** Environmental design/permitting including: wetland delineations and stream assessments; determination of wetlands and stream compensatory mitigation requirements; secured rare/threatened/endangered species; and other clearances permits.

**MINIMIZING ROW AND UTILITY IMPACTS | COORDINATION OF COMPLEX UTILITY RELOCATIONS/ADJUSTMENTS:** Use of detours to reduce the number of U-turning vehicles. It included outreach in conjunction with VDOT to publicize the detours and re-timed signals. Traffic impacts were monitored, assessed; determination of wetlands and stream compensatory mitigation requirements; secured rare/threatened/endangered species; and other clearances permits.

**INNOVATIVE DESIGN SOLUTIONS | CONSTRUCTION TECHNIQUES:** For the Rt. 29 grade separated Intersection, an innovative design method was used which was not constructed in Virginia. The abutments were placed on top of the soldier pile retaining wall to minimize the bridge's footprint and keep Rt. 29 open to traffic during construction. Designed the superstructure to act as a strait to support the retaining walls horizontally while supporting traffic vertically. Close this design because of the project's need to minimize the amount of traffic to maintain the bridge's footprint and keep Rt. 29 open to traffic during construction.

**TIME-MANAGED PLANNING & SCHEDULING:** 7/Battlefield Parkway project has similar scheduling. Regarding safety, there are route shields on the intersection approaches to guide motorists, designating the proper lane to enter. A debriefing with VDOT was held for the project, followed by a site visit.

**MINIMIZING TRAVELING PUBLIC, BUSINESS, AND COMMUNITY IMPACTS, INCLUDING CONGESTION DURING CONSTRUCTION:** 7/Battlefield Parkway utilized same utility strategy proposed for Rt. 7/Battlefield, including weekly utility coordination meetings to coordinate utility work. Utilized same utility strategy proposed for Rt. 7/Battlefield, including weekly utility coordination meetings.

**SUCCESSFUL PROJECT DELIVERY:** Utilized same utility strategy proposed for Rt. 7/Battlefield, including weekly utility coordination meetings.

**COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER BUSINESS IDENTIFIED:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER BUSINESS NOT IDENTIFIED:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH OTHER PROJECT TEAM MEMBERS:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH OTHER PROJECT TEAM MEMBERS NOT IDENTIFIED:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH LOCAL GOVERNMENT:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH LOCAL GOVERNMENT NOT IDENTIFIED:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH LOCAL COMMUNITY:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH LOCAL COMMUNITY NOT IDENTIFIED:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH OTHER PROJECT TEAM MEMBERS:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.

**COMMUNICATION STRATEGIES WITH OTHER PROJECT TEAM MEMBERS NOT IDENTIFIED:** There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with area residents, adjacent businesses, other stakeholders, and the public.
Corman was a Lead Contractor JV partner with MD200 Constructors which was structured as a three-way joint venture partnership. Corman was responsible for bridge construction, earthwork, MOT, environmental, utility relocation/coordination, public relations, coordinating with the other ICC projects, and was involved with defining ROW requirements and preparing plans.

PROJECT NARRATIVE: Constructed a new 7.1 mile 6-lane divided highway which is part of a critical link between the I-270/370 technology corridor to the west and the I-95/US 1 commercial corridor to the east. It reroutes commuter traffic from neighborhood streets onto 6 lanes of controlled-access highway, improves mobility/safety, and reduces traffic on major arteries. Design/phased construction of 5 arterial roadways with pedestrian/bicycle shared-use path along the roadway. There were several new intersections, with 5 modified to accommodate new traffic patterns. A major element was a Single Point Urban Interchange (SPUI) at MD 65 with a bridge, major MOT phasing on MD 65, lighting, and complex traffic signalization.

ENVIRONMENTAL COMPLIANCE, SAFETY, QUALITY, AND WORKSHIPS: ICC-B crosses watersheds and Chesapeake Bay Watershed protection area, crowning it the most environmentally-sensitive ICC segment. Support of construction pass and hand planting native species, and seed mixes were used to minimize impacts and reestablished reduced environmental impacts. Developed environmental compliance and awareness training where vendors, subcontractors, suppliers, and construction personnel attended prior to starting work or even being footed on the sites. Proven methods for environmental policies/compliance and streamlined environmental stewardship/monitoring daily activities. When filtering construction water, the project team used a cutting-edge technology to filter material with sand and bag filters and injected an organic Flocculant/coagulant into the waste stream to reduce turbidity within regulatory discharge standards. It is capable of swiftly reducing 2000 NTU sediment laden water to 10 NTU (drinking water clarity) and treated 6 million gallons of construction water. This enabled the project team to return to work right after a rainstorm and facilitated pumping sediment basins to gain capacity and prepare for the next storm. This minimized environmental impacts, enhanced our ability to meet the schedule, and granted excellent compliance ratings.

Soil moisture was a challenge due to an extremely wet season and in situ moisture of native soils. Field personnel raised concerns and our project team managers discussed it with the ICC Team. Geotechnical engineers made recommendations which led to a new specification that allowed soils 2 significant from an environmental, safety, and public relations perspective as dump trucks would have had to transport soil on local roadways.

INNOVATIVE DESIGN SOLUTIONS | CONSTRUCTION TECHNIQUES: Developed two new practices for E&S devices (Double TGOS and new filter plastic material for clean water diversion fence). Implemented ATCs for drilled shafts, support of excavation for major bridge, utility, and roadway construction and revised profiles to minimize impacts. The last 2 miles of roadway were constructed through a special protection area considered the most environmentally-sensitive. Basins were designed not to have a permanent pool of water, which minimized thermal impacts in the summer. Added a thermal element to maintain natural water temperatures prior to discharge preserving aquatic species. Designed/constructed a cooling system for water runoff. Instead of water running from paved surfaces into the cooler streams, the structures directed water runoff into underground SWM facilities where it was cooled down before discharging, minimizing water temperature changes and protecting fish/plants.

MINIMIZING TRAVELING PUBLIC, BUSINESS, AND COMMUNITY IMPACTS, INCLUDING CONGESTION DURING CONSTRUCTION: Maintained multi-modal access with temporary roads and walkways/paths for pedestrians/bicyclists. There were 4 elevated detours and 1 surface detour over the ICC mainline at the major roadway intersections during beam setting and overhead work to eliminate lane closures. MOT was phased at crossings and interchange points. Traffic Control/MOT, including for work in major roadway medians and RFP MOT plan changes for safer conditions and reduced pattern changes. Coordinated signals and construction with bus routes to accommodate transit service.

COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER STAKEHOLDERS: Each stakeholder was assigned a project team “champion.” Some stakeholders had their own team representative “championing” their issues/concerns. This made us aware of any issues in meeting agency needs/requirements. Impacted elected officials were kept up-to-date on construction activities and landscape adjacent to residents along the corridor. Conducted construction schedule update meetings with communities. With residents so close to construction, we kept them informed when working outside normal timeframes and mitigated inconveniences before they became issues.

MINIMIZING ROW AND UTILITY IMPACTS | COORDINATION OF COMPLEX UTILITY RELocations/ADJUSTMENTS: ICC-B crosses through 4 main waterways, wetlands, tributaries, parks/neighborhoods, etc. Working with stakeholders, we minimized ROW impacts through median ROW width reductions via innovative SWM and geometry improvements. Coordinated with over 10 utility companies for major utility relocations in highly-congested areas. 47 utilities were relocated requiring coordination and redesigning prior to relocating. While constructing the highway, temporary relocations were often done and then moved to permanent locations. Maintained continuous systems/services along the 7-mile highway stretch, including electric, cable, phone, broadband, communication lines, signals, lighting, gas, water, and sanitary sewer lines.

SUCCESSFUL PROJECT DELIVERY: Project was completed on time and on budget.

• 27 Published Value Change Proposals were approved resulting in the owner receiving an award winning project and a cost savings for the Lead Contractor
• Received E&S Control quarterly incentives for high E&S ratings, received incentives to minimize environmental impacts, and earned “A” cumulative ratings on over 150 E&S control inspections. The project team earned a 95% conformance rating and met all key project goals.
• Awards: 2012 MDQA Award of Excellence Partnering Silver Award | 2012 ARTBA Globe Environmental Award –Major Highway | 2012 ENR Mid-Atlantic Best Transportation Project
SUCCESSFUL PROJECT DELIVERY: Project was completed on time and on budget

- Received all “A” Performance Ratings over a three-year construction period
- Maintained a “B” Average in Erosion & Sediment Control Inspections and a “B+” Average in Maintenance of Traffic Inspections
- Awards: 2006 MD-QI Award of Excellence for New Bridge Construction | 2006 MD-QI Award of Excellence for Partnering – Interchange Reconstruction

COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER STAKEHOLDERS: Although the formal stakeholder communication program was led by the Owner, Corman maintained close coordination with the adjacent businesses and assisted with communicating with the traveling public through messages on social media.

MINIMIZING ROW AND UTILITY IMPACTS | COORDINATION OF COMPLEX UTILITY RELOCATIONS/ADJUSTMENTS: There were numerous utility relocations including electric, telephone, cable, and ITS signals. During bridge construction, we coordinated traffic control to eliminate a split traffic pattern on Route 29. This reduced mainline reconstruction time by several months while providing a safer travel and work zone. Also redesigned a crucial storm drainage system which avoided potential costly and lengthy delays. Reconstructed and widened East Randolph Road/Chestnut Hill Road to accommodate turning and bicycle-compatible outside lanes.

SIMILAR SCOPE

- Modified SPUI
- Roadway
- Bridge and Retaining Walls
- Architectural Treatments
- Geotechnical
- E & S Controls
- Hydraulics & Stormwater Management Facilities
- Landscaping
- Commercial Areas
- Roadway Lighting
- Temporary Traffic Control Devices
- Temporary MOT
- Utility Relocations
- Stakeholder Coordination
- Project Management

PROPOSED PERSONNEL ON PROJECT

Corman: Kyle Kern

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Name: US 29 & East Randolph Road | Cherry Hill Road
Location: Burtonsville, MD

Name: Jacobs
Name of Client/Owner: Maryland Dept. of Transportation
Phone: 410-841-1031
Project Manager: Jamie Folden
Phone: 410-841-1031
Email: jfolden@sha.state.md.us

Date (Original) 9/6/05
Owner directed changes

Contract Completion Date (Original) 8/31/05

Contract Completion Date (Actual or Estimated)

Original Contract Value $17,549

Final or Estimated Contract Value $19,049

Contract Value (in thousands) $19,049

Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)

Project Narrative: A Single Point Urban Diamond grade-separated interchange at the US Route 29 and East Randolph Road intersection with diamond ramps running along both sides of Route 29 to carry traffic safely between Route 29 and East Randolph Road/Chey Hill Road, realigned Route 29, a major north/south route connecting Baltimore and Washington Beltways, to improve the curvature along mainline and the portion of the work performed only by the Offeror’s firm.

As the Lead Contractor for this project, the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror’s firm.

INNOVATIVE DESIGN SOLUTIONS | CONSTRUCTION TECHNIQUES: Modified traffic control to eliminate a split traffic pattern on Route 29. This reduced mainline reconstruction time by several months while providing a safer travel and work zone. Also redesigned a crucial storm drainage system which avoided potential costly and lengthy delays. Reconstructed and widened East Randolph Road/Chey Hill Road to accommodate turning and bicycle-compatible outside lanes.

ENVIRONMENTAL COMPLIANCE, SAFETY, QUALITY, AND WORKMANSHIP: Nine retaining walls support the ramps leading to the structure and consist of 54,200 SF MSE walls with decorative limestone and ashlar stone finished with pilaster spaced at 50-ft. increments and ashlar-lined cast-in-place end transitions ranging up to 100-ft. long. The two-span, concrete single-point urban diamond bridge has a decorative form-lined poured arch pier with bicycle accommodations and accommodates a future ramp. It consists of a cast-in-place deck with decorative ashlar stone-line concrete parapet walls. Decorative cast-in-place columns with ashlar stone finish embellish each corner and a decorative iron railing rests atop the parapet. Quality workmanship of architectural center arched pier. There was E&S controls and permanent stormwater management ponds for the quantity and quality management associated with roadway improvements and extensive night work to safely accommodate traffic.

MINIMIZING TRAVELING PUBLIC, BUSINESS, AND COMMUNITY IMPACTS, INCLUDING CONGESTION DURING CONSTRUCTION: The project’s objective was to eliminate the at-grade intersection at Cherry Hill/East Randolph Road and Route 29. To accomplish this, there were 9 construction phases incorporating 13 different traffic patterns to maintain traffic at all times. Replanning assured work zones were clean for rush hour and devices were in compliance. Safely performed traffic switches with minimal impact to the traveling public which was well-planned out for seamless execution. There was extensive night work to accommodate traffic. Constructed temporary pavement in the Route 29 median and at the intersection, temporary signage, paving, marking, and traffic signals for each phase, and maintained pedestrian and bicycle access through each phase. Modified traffic control to eliminate a split traffic pattern on Route 29. This reduced mainline reconstruction time by several months while providing a safer travel and work zone. Work was performed without major traffic tie ups.
**LEAD DESIGNER - WORK HISTORY FORM**

**ATTACHMENT 3.4(b)**

### (LIMIT 1 PAGE PER PROJECT)

**a. Project Name & Location**

**b. Name of the prime/general contractor responsible for overall construction of the project.**

**c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.**

**d. Construction Contract Start Date**

**e. Construction Contract Completion Date (Actual or Estimated)**

**f. Contract Value (in thousands)**

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

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**Name: Design-Build Route 29 Solutions & Rio Road Grade Separated Intersection**

**Location: Albermarle, VA**

**Name of Client: VDOT - Route 29 Solutions**

**Phone: 434.422.9860**

**Project Manager: David Covington, PE**

**Phone: 434.422.9860**

**Email: Dave.covington@vdot.virginia.gov**

**Date: 03/15/20**

**Contract Value (Original):**

$116,746*  
*Route 29 Solutions completed ahead of schedule: 12/16/16*  
**Route 29 Solutions project: $39,336**  
**Rio Road completed: 46 days early**

**Contract Value (Estimated):**

$129,827*  
*Route 29 Solutions project: $46,336**  
**Rio Road portion Owner changes and early completion incentive payments: $144,400 - Entire Contract $2,900 - Rio Road**

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**SIMILAR SCOPE**

- VDOT Design-Build
- Modified SPUI
- Roadway
- Survey
- Bridge and Retaining Walls with Architectural Treatments
- Environmental, including Permitting, Commitments, Compliance, Mitigation
- Geotechnical
- E & S Control
- Hydraulics & Stormwater Management
- Structures
- Landscaping
- Roadway Lighting
- Traffic Control Devices
- ITS
- TMP/MOT
- ROW
- Utility Relocations
- Stakeholder Coordination
- Public Involvement/Relations
- QA/QC
- Construction Engineering & Inspection

**PROPOSED PERSONNEL ON PROJECT**

- RKK: Owen Peery, PE, Stuart Samberg, PE, Alice Orman, PE, Ricky Woody, PWS, Barry Brandt, PE, ITQ, Joe Rausen, Brian Finefrock, PE
- Schnabel: Ed Draho, PE

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**RK&K was Lead Designer and Design Manager for Route 29 Solutions, which includes 7 distinct elements bundled into one DB contract. Rt. 29 and Rio Rd. Grade Separated Intersection; Rt. 29 Widening, and Berkmar Dr. Extension. This Work History describes the project for Rt. 29/Rio Rd. element where RK&K was Lead Engineer and worked out of their Richmond and Fairfax, VA offices. Contract required depressed travel lanes and bridge along Rt. 29 in the center of the Rio Rd. intersection to be constructed within 103 days.**

**R&K’s innovative design was completed early allowing LAN/Corman to open the intersection in 57 days; 46 days ahead of schedule.**

**PROJECT NARRATIVE:**

A grade-separated interchange at Rt. 29 & Rio Rd. at Midlothian, substantial volume on the crossing street with a high percentage of turning movements, adjacent shopping/schools, vocal/involved local town, and many utility conflicts. Designed roadway for different types and typical section with a mix of urban construction. Like Rt. 7 Battlefield Parkways, construct a grade-separated interchange on an existing signalized intersection in a congested urban area where the team maintained traffic, access to adjacent properties, and relocated utilities.

**ENVIRONMENTAL COMPLIANCE, SAFETY, QUALITY, WORKSHOP:**

RK&K provided environmental design/permitting including: wetland delineations and stream assessments; determination of wetlands and stream compliance; mitigation requirements; secure rare/threatened/endangered species clearances; and other clearances/permits. Rt. 7/Battlefield Parkway project has similar permitting. Regarding safety, there are shields on the intersection approaches to guide motorists, and design/construction of bike lanes and multi-use paths and on Rio Rd., separating local and through traffic at this intersection, which had high crash rates. For quality/materials, workmanship, retainings were sealed/stained to resemble dry-stacked stone. The Rio Rd. intersection pedestrian crosswalks have a stamped brick pattern for visibility; business entrances within the intersection and have a similar stamped pattern.

**INNOVATIVE DESIGN SOLUTIONS | CONSTRUCTION TECHNIQUES:**

RK&K performed the structural engineering of the Rio Rd. Grade Separated Intersection using an innovative design method not constructed in Virginia. The abutments were placed on top of the bridge’s pile retaining wall to minimize the bridge’s footprint and keep Rt. 29 open in traffic during construction. Designed the superstructure to act as a strut to support the retaining walls horizontally while supporting traffic vertically. Chose this design because of the limited space in the intersection and having to maintain traffic at all times with acquiring additional ROW. The bridge retaining walls were built without acquiring additional ROW.

**MINIMIZING ROW AND UTILITY IMPACTS | COORDINATION OF COMPLEX UTILITY RELOCATIONS/ADJUSTMENTS:**

RK&K performed the structural engineering of the Rio Rd. Grade Separated Intersection using an innovative design method not constructed in Virginia. The abutments were placed on top of the bridge’s pile retaining wall to minimize the bridge’s footprint and keep Rt. 29 open in traffic during construction. Designed the superstructure to act as a strut to support the retaining walls horizontally while supporting traffic vertically. Chose this design because of the limited space in the intersection and having to maintain traffic at all times with acquiring additional ROW. The bridge retaining walls were built without acquiring additional ROW.

**MINIMIZING ROW AND UTILITY IMPACTS:**

- Innovative design solution/permitting: Contacted project team and monitored traffic impacts after implementing each traffic change and made adjustments to fit actual conditions. The Rt. 7/Battlefield Parkway project will require a MOT Plan with temporary roadway pavements and signals, minimize traffic impacts, maintain term demours and a public outreach program that educates and gains support. Through traffic on Rt. 29 was relocated to the outer lanes and temporary pavement while crews worked around the clock under a tight schedule in the median to remove asphalt and land. Over 60,000 CY of dirt was removed while setting 47 concrete beams for the bridge deck. This intersection provided through traffic on Rt. 29 major cross traffic with substantial turning movements in the center of a commercial shopping district. Most initial construction was completed at night without impacting traffic. Once the summer MOT was in place, the project team worked 24 hours a day, 6 days a week. There were major traffic congestion problems, with night closures reducing Rt. 29 to one lane each direction. During the traffic restriction period, 2 lanes of northbound traffic and 3 lanes of northbound traffic were maintained on Rt. 29. In addition, could not cross Rt. 29, but Rio Road remained open on both sides of the intersection and right turns were maintained. Business entrances remained open during both business hours. There was a signed detour for Rt. 29 traffic with portable message boards and a temporary 3-way stop at an intersection. The project was completed 57 days early.

**COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER STAKEHOLDERS:**

- There was an outreach program in place prior to bidding and our project team was involved once selected. We collaborated with local politicians, businesses, merchants and the public. Implemented protocols to communicate with residents, adjacent businesses, and other stakeholders and communicated ahead of the work to avoid surprises. Distributed weekly/monthly newsletter, in person communications, and with night closures reducing Rt. 29 to one lane each direction. During the traffic restriction period, 2 lanes of southbound traffic and 3 lanes of northbound traffic were maintained on Rt. 29. In addition, could not cross Rt. 29, but Rio Road remained open on both sides of the intersection and the right turns were maintained. Business entrances remained open during both business hours. There was a signed detour for Rt. 29 traffic with portable message boards and a temporary 3-way stop at an intersection. The project was completed 57 days early.

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**SUCCESSFUL PROJECT DELIVERY:**

- Project was completed ahead of schedule and on budget. Completed the bridge and through lanes in only 57 days which reopened the Rio Rd. intersection early as a major milestone accomplishment. -- Dave Covington, PE, Regional Program Manager, VDOT
As Prime Consultant, RK&K provided planning, engineering, and construction management services on a new grade separated interchange on the RT. 250 Bypass at the intersection of McIntire Rd. Phase I: Developed Conceptual Alternatives, Detailed Alternatives and a Preferred Alternative through Public Hearing and completed the Environmental Documents. Phase II: Final Design and construction of the City with resolution of procurement. Phase III: Construction management and inspection, and construct engineer in coordination with the contractor. Project elements included environmental/NEPA documentation, public involvement, traffic data collection/analysis, roadway and structural design, traffic engineering, hydraulic and hydrologic analysis and design, graphic/computer renderings, and website hosting. The project was performed with VDOT and the FWA from RK&K and Richmond, VA office.  

**PROJECT NARRATIVE:** Major interchange design features include roadway reconfiguration/reconstruction, new roadway construction, a single span-segmental abutment bridge, 2 box culverts including stream diversion, extensive utility relocations, and retaining walls. RK&K prepared landscaping planting plans and cultural resource mitigation commitments. The roadway design limit was optimized to ROW requirements, avoid partial closures and foot-traffic disruptions during the construction phases. The project was designed to accommodate the existing topography and provide access to the city park. 

**ENVIRONMENTAL COMPLIANCE, SAFETY, QUALITY, AND WORKMANSHIP:** Conducted hydrology calculations conducted for a 2.8-acre lake that was incorporated into the road plans. The final report included an independent hydrologic analysis of the 425-acre watershed, storm event routing for the proposed lake, and HEC-2 analysis of the lake outfall at Schenks Branch. Final reports were then incorporated into the overall design to meet the performance standards during storm events. A Hydrologic and Hydraulic Analysis and scour analysis were conducted for a new bridge over Schenks Branch and to replace a double 8’x8’ box culvert beneath Rt. 250. The RT. 7/Battlefield Parkway has similar issues with an undersized stormwater management pond. E&S plans were developed in multiple phases in the TMP.  

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:** The RT. 250 Bridge Bypass Structure over McIntire Rd. was examined for span lengths and structure styles to lower project costs. The final solution was a single-span bridge using steel plate girders for a lighter, thinner, and more transparent structure which served the need to gain space to downtown Charlottesville. The design of the bridge was type-tested with the structural requirements for aesthetics/durability. The abutments were aligned with McIntire Rd and set parallel to each other to simplify the framing of the bridge. While they were skewed with respect to the superstructure, the fact that they were parallel to each other facilitated the design of the structure/construction. 

**MINIMIZING TRAVELING PUBLIC, BUSINESS, AND COMMUNITY IMPACTS, INCLUDING CONGESTION DURING CONSTRUCTION:** Similar to the RT. 7/Battlefield Parkway, this project converted an at-grade intersection into an interchange. To keep traffic moving, RK&K developed/maintained Synchrony and SimTraffic traffic models assist in planning and maintaining traffic during construction. This allowed the RK&K Team to plan and lay out temporary traffic controls, traffic signal phasing, minimum safe traffic delays. This project had to minimize impacts and footprint due to many constraints. Most significantly, part of the project impacted a city park eligible for the historic register, so minimizing impacts to the park and surrounding neighborhoods were a major part of the purpose and need for the project. Similarly, the RT. 7/Battlefield Parkway bridge will need to be evaluated to determine the most cost-effective structure, considering the required spans, horizontal clearances and how the ramps come together on top of the bridge. Every effort was made to eliminate or minimize the use of joints on the structure; semi-integral abutments were selected and designed to be matched by parallel abutment. 

**COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER STAKEHOLDERS:** The RT. 7/Battlefield Parkway will be prominent in the eye of the public in performing an extensive/thoughful public outreach program. Similarly, RK&K managed/oversaw a tremendous outreach program for this project including administering a Steering Committee hand-appointed by City Council, made up of proponents and opponents of the project, and provided over 40 opportunities for public input into the design. This project would have failed/moved forward if the public direction had not been reached by the Steering Committee. In addition to the program preferred alternative, City Manager, Owen Peery, along with the City’s Project Manager, led the Steering Committee through the evaluation of 15 interchange alternatives to the point where two similar interchange recommendations were recommended to City Council for a final decision. This led to a final consensus and avoided a negative outcome which would have derailed this project and was key to successful completion.  

**MINIMIZING ROW AND UTILITY IMPACTS:** 

**LOCATION:** The RT. 7/Battlefield Parkway corridors are congested with utilities. Similarly, this project had many utility relocations including Natural Gas – 6,300, high and medium pressure gas transmission mains including relocation/reconstruction, relocation/realignment of a 3,200-lf. of sewer mains and lateral, Regional Sewer – replaced 1,300-lf. of 2-in. concrete and clay sewer main with a 30-in. gravity interceptor sewer, including crossing of Schenks Branch and boring 400-ft. under the existing RT. 250, and Water – relocation of 4,600-lf. of water mains. Since conventional construction pile driving would have resulted in unacceptable levels of vibrations being put on the existing water line, and the owner desired no piles in the embankment, an innovative design solution was used. This allowed the entire embankment to be spanning, while pre-drilling the fill 15-ft. of the piles lowered the pile driving vibrations to below the elevation of the utility. The RT. 7/Battlefield Parkway also has many utility issues to address, including relocating overhead lines, maintaining/avoiding underground utility vault, and avoiding/relocating a gas line in the median of RT. 7.

**SUCCESSFUL PROJECT DELIVERY:** Project was delivered on budget and ahead of schedule. The City of Charlottesville demonstrated RK&K's exceptional performance by extending our contract through all phases of planning, design and construction management. "RK&K has raised the bar as to the quality of work the City expects from its consultants. Jeannette Janiczek, the City of Charlottesville’s Project Manager."
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>
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<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>Name: Design-Build US 13/US 158 Widening From US 158 / NC 43 to US 158 Location: Hertford and Gates Counties, NC</td>
<td>Name: E.V. Williams</td>
<td>Name of Client: North Carolina Dept. of Transportation Phone: 919.707.6610 Project Manager: Teresa Bruton, PE Phone: 919.707.6610 Email: <a href="mailto:tbruton@ncdot.gov">tbruton@ncdot.gov</a></td>
<td>7/2012</td>
<td>12/2015* An extension of project limits and scope was requested by the Owner</td>
<td>$56,000</td>
<td>$56,800 $5,300</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/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

SIMILAR SCOPE
- Design-Build
- Roadway
- Survey
- Bridge and Retaining Walls
- Environmental
- Permitting
- Geotechnical
- E & S Control
- Hydraulics & Stormwater Management
- Traffic Control Devices
- MOT
- ROW
- Utility Relocations
- Stakeholder Coordination
- Public Involvement/Relations
- QA/QC

As Lead Designer, RK&K worked from our Raleigh, NC office, with assistance from our Virginia offices to partner with the contractor and deliver this project which included converting an existing intersection into a partial clover leaf interchange with 3 ramps and 1 loop, widening 7.1 miles of roadway from 2-lanes to a 4-lane median divided partial-controlled access freeway, a major water bridge, intersections with restricted left turns, utility relocations, extensive MOT and public outreach.

PROJECT NARRATIVE: The project included multiple types of roadway design. Similar to the Rt. 7/Battlefield project, this project converted a major signalized at-grade intersection to a grade-separated partial clover leaf interchange, mainline widening, and eliminated existing signalized intersections via multiple intersection designs including directional cross-overs and median U-turns to improve safety and traffic flow. The proposed interchange was designed as a partial clover leaf with 3 ramps and 1 loop (southeast quadrant) including dual bridges over NC 43 which were designed with MSE wall abutments and concrete girders. This intersection is similar to the Rt. 7/Battlefield Parkway intersection in that the proposed bridge was built over an active roadway with utility and ROW constraints.

ENVIRONMENTAL COMPLIANCE, SAFETY, QUALITY, AND WORKMANSHIP: Minimized impacts to wetlands, streams, and low swampy areas. Reduced wetland/stream impacts by performing exhaustive studies comparing designs for widening along both sides of the roadway. These studies resulted in an overall decrease in impacts compared to the Department’s original design during the planning phase. Environmental issues are similar relating to the minor stream crossings near the Rt. 7/Battlefield Parkway interchange. Enhanced safety by designing ramps within the interchange to temporarily accommodate mainline traffic during interchange bridge construction, restricting the number of driveways, eliminating left turns at intersections, adding right-turn tapers at intersections, and flattening mainline horizontal curvature. This project resulted in an excellent roadway project: The interchange and intersections operate well and the overall ride very smooth and safe for the traveling public.

INNOVATIVE DESIGN SOLUTIONS | CONSTRUCTION TECHNIQUES: Mitigating existing soil conditions on the northeast side of the Chowan River was a design and construction challenge. These soil conditions include organic “muck” adjacent to a swampy area which reached a depth of 15’ to 20’. After studying several options for stabilizing this area, undercut utilizing a trench box proved to be the best option.

MINIMIZING TRAVELING PUBLIC, BUSINESS, AND COMMUNITY IMPACTS, INCLUDING CONGESTION DURING CONSTRUCTION: Similar to Rt. 7/Battlefield Interchange (left out of Marketplace at Potomac Station), left turns were restricted at intersections, our design team worked with the Department to provide design of adjacent median U-turns to accommodate vehicles in this median. Since this project was converted into a controlled-access facility, the team worked with the Department and property owners to properly and safely locate all accesses along the project. Designed/constructed the 2 ramps (60 mph) along the west side of the interchange to safely accommodate mainline traffic on US 13/158 while the bridges were constructed over NC 43. Special consideration included alignments, grades, sight distance, and turn lane lengths and radii for turning movements. These design elements were critical for maintaining traffic safety for a roadway with heavy commuter and truck volumes.

COMMUNICATION STRATEGIES WITH BUSINESS OWNERS AND OTHER STAKEHOLDERS: RK&K supported the Department at public meetings to address community concerns over an intersection located at a historic area along the project. They were concerned with the design relative to the restriction of left turn lanes. To resolve the issue, RK&K prepared design alternatives and cost estimates and meeting participation. The result was a new design that allowed left turns utilizing a signal and concrete islands.

MINIMIZING ROW AND UTILITY IMPACTS | COORDINATION OF COMPLEX UTILITY RELOCATIONS/ADJUSTMENTS: RK&K worked with the Department and property owners to minimize Right-of-Way impacts to properties and locate driveway access at safe locations. The horizontal alignment was also designed to consider impacts to a major gas transmission line that ran the entire length of the project.

SUCCESSFUL PROJECT DELIVERY: Utility Relocation: Similar to Battlefield Parkway, the numerous utilities, number of utility owners, and project terrain resulted in providing a full-time, aggressive, but respectful utility coordinator. Many compliments were received from the owner and contractor for this effort and performance by RK&K | Design Submittals: Few design submittals resulted in “Revise and Resubmit”. The majority resulted in “Comments as Noted” which proceeded the design process quickly and was critical to obtaining the environmental permit timely so construction could begin as scheduled.