VOLUME I

Proposal for Design and Construction Services in Response to:

Rehabilitation of Poor Creek Pump Station Force Main PPEA
PPEA # 13-0041
City of Petersburg, Virginia

ELECTRONIC COPY
Submitted: July 1, 2013
July 1, 2013

Tangela Innis, CPPB, MBA, VCO
Purchasing Agent
City of Petersburg - Purchasing Office
103 W. Tabb Street
Petersburg, VA 23803

RE: PPEA Proposal #13-0041
Rehabilitation of the Poor Creek Pump Station Force Main

Dear Ms. Innis,

Faulconer Construction Co., Inc. (FCC) in association with G. L Howard, Inc. (GLH) and Draper Aden Associates, Inc. (DAA), are pleased to submit our combined credentials, technical approach and pricing in response to your solicitation for the above referenced project. We are confident that our team’s approach provides the least risk, most expeditious solution and best value to meet the City’s immediate need to address the problems associated with the Poor Creek Pump Station Force Main.

As you review our qualifications, please note that FCC, well as GLH and DAA, are all known for their esteemed reputation statewide in civil construction, construction management and civil engineering, and are well prepared to take on this assignment.

In accordance with the PPEA Guidelines, we respectfully request that Volume II of this proposal which contains detailed project descriptions, cost and schedule estimates, corporate financial statements and other proprietary information, remain proprietary and confidential.

Our team acknowledges the receipt of Addendum #1 dated May 31, 2013.

We thank you for the opportunity to submit our proposal and qualifications. Should you have any questions or need additional information, please do not hesitate to contact me at 434-294-0033 or 434-906-5257.

Sincerely,

Mr. Edwin F. Stelter, LEED AP, DBIA

Design-Build Principle
Faulconer Construction Company, Incorporated
PPEA Proposal Submission Certification

Pursuant to PPEA Public-Private Education Facilities and Infrastructure Act of 2002 adopted by the Council of the City of Petersburg on January 8, 2008:

The undersigned certifies that the signatory below has the authority to submit this PPEA proposal and that this proposal is made pursuant to the City of Petersburg’s Guidelines regarding requests made pursuant to the Public-Private Education Facilities and Infrastructure Act of 2002 (Guidelines), agreeing to the terms of the Guidelines. The undersigned also certifies that the information contained in its proposal is accurate and complete and tenders to the City of Petersburg a cashier’s check in the amount required by the Guidelines.

_ Faulconer Construction Company, Incorporated_

By: [Signature] David H. Galloway
Title: Vice President
Date: July 1, 2013
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Through the development of a formal teaming agreement, the team of Faulconer Construction Co., Inc., G. L. Howard, Inc. and Draper Aden Associates, Inc., has the knowledge, experience, and resources to meet the City of Petersburg’s goals of investing in its aging infrastructure to prevent future failures to the Poor Creek Pump Station Force Main. With combined corporate experience of 160 years, our team’s history includes executing multiple projects of comparable nature throughout the Commonwealth of Virginia.

We offer highly qualified key personnel who have worked on similar projects, many of whom have hands on experience. Our key personnel have developed well established relationships that are advantageous to project communications and coordination.

Our comprehensive management approach includes well-defined roles and responsibilities, an emphasis on safety, disciplined project controls procedures, clear communications, and responsive customer interactions. We take our commitments to projects seriously, work with integrity, and provide the best value to our customers.

Faulconer’s extensive experience in management, excavation and utilities; G. L. Howard’s experience with excavation and utility system construction; and Draper Aden’s years of experience in the design of utility systems, guarantee that this project will be the beneficiary of the highest standards of performance with regards to safety, quality and schedule.

With proven past performance, Faulconer, G. L. Howard and Draper Aden, assure the City of Petersburg that we have the capability to meet the needs of the City and deliver quality work safely and on time. The proposed work capitalizes on Faulconer’s, G. L. Howard’s and Draper Aden’s combined strengths. It’s what we do every day.
Section 1 – Qualifications and Experience

Volume I

Guidelines Section IV.A.1

a. Legal Structure of the Firm and Team (IV.A.1.a.)

a. Identify the legal structure of the firm or consortium of firms making the proposal. Identify the organizational structure for the project, the management approach and how each partner and major subcontractor in the structure fits into the overall team.

Faulconer Construction Co., Inc. (FCC or Faulconer) has assembled a well-qualified Project Team for the Rehabilitation of the Poor Creek Pump Station Force Main PPEA project. Through the development of a formal teaming agreement, the Team of Faulconer, G. L. Howard, Inc. (GLH or G.L. Howard), and Draper Aden Associates, Inc. (DAA or Draper Aden) offers the City of Petersburg proven design and construction services with the technical skills needed to meet your objectives in a cost-effective manner. We are organized to operate as an integrated team, able to draw knowledge and strengths from individuals and firms who have worked together and with the City on numerous projects in the past. At the same time, we are able to provide the City with single source responsibility for the project with leadership that will get the job done.

Legal Structure

Faulconer will serve as the lead general contractor and hold the contract with the City of Petersburg, and is the ultimate party responsible for the management and execution of this PPEA proposal. G.L. Howard is our dedicated subcontract partner with Draper Aden Associates as our dedicated design engineer for the project.

Organizational Structure

Faulconer will serve as the primary point of contact with the City of Petersburg during the Conceptual Review and Detailed Review Phases of the PPEA review process. Following the review and selection process, Faulconer will be the private entity to enter into the Interim and Comprehensive agreements as the prime contractor with the City.

Faulconer’s primary responsibility is for overall project oversight, including management, scheduling, estimating, managing and coordinating the activities of the supporting team members. G. L. Howard, through their intimate familiarity with the City of Petersburg utility system and in particular, this force main, will be actively involved in design development, constructability reviews, estimating and will perform the work as proposed. Draper Aden Associates will lead the engineering and design effort for the Team. They (GLH and DAA) possess a thorough understanding of the City’s sanitary sewer system needs specific to this area, even to the extent that they completed a Condition Assessment Report (dated January 18, 2011 and updated June 22, 2011) for this very force main. Their intimate knowledge of the area, its characteristics, regulatory issues and the long term interests of the community will create the greatest opportunity for your goals, desires, and budget to be met.
Owing to the fact that this proposed work capitalizes on Faulconer’s, G.L. Howard’s and Draper Aden’s collective knowledge, resources and strengths, we can assure the City that our team’s capabilities will allow for a quick, efficient and cost effective solution to the Poor Creek Pump Station Force Main’s problems. Furthermore, through this contract structure, we have removed the silos that often leave an owner at risk when design and construction firms are working separately on the same project. By removing these risks and through the collaborative culture of each firm, we will deliver the best value to the community and the City.

The project’s overall organizational structure chart showing how each partner and major subcontractor fits into the overall team can be found below.
Management Approach

The proposed Design-Build Team has been carefully assembled to provide the City with a single entity that can address all aspects of the Poor Creek Sewer Force Main Rehabilitation PPEA project. Team members have been selected for the unique contribution each has to offer. The result is an integrated Design-Build Project Team that can provide the City with confidence that a project meeting the City’s objectives can be implemented within an acceptable budget and within the desired schedule.

Our team brings together strong construction management skills, extensive design experience, and local knowledge of the City and the resources necessary to allow the project to move forward. We assembled our team based on the value that our combined innovative resources can offer.

Both FCC and GLH have developed an approach to completing Design-Build projects that has proven successful on many other projects completed by alternative procurement methods. Our management approach is focused on making all parties, including the Owner, a partner and stakeholder in the project outcome by establishing shared goals (quality, timely delivery, performance and safety) and balancing these goals with individual objectives (cost, ease of operation, service life). Team members must possess a solid reputation, shared vision, and a can-do attitude. More importantly, however, the integration of FCC, GLH and DAA will allow for creativity and innovation to solve problems quickly, definitively and at the least cost and greatest value.

The success of this collaborative approach depends upon trust, open communication, and respect for other team members. Each party will actively participate in the entire design-build process from conceptual design through substantial completion to allow the design and construction effort to proceed concurrently. By operating in this manner, the team can react quickly to unforeseen conditions and arrive at timely win-win solutions that balance the best interests of the owner with those of the designer and the contractors.

FCC will lead the overall Design-Build effort and the construction phase consultant coordination. We understand that unless the development of the project is well thought out and well executed, the project will not be successful. The leadership and the individuals assigned during the scope and cost development stages of this project will determine its ultimate success.

DAA will lead the design effort and will be pro-active and innovative in managing design phase subconsultants and coordinating with the City and other Design-Build Team members. Their past efforts have included independent overviews of previous studies and reports, as well as development of detailed design solutions. Through their proximity to the City of Petersburg and their past activities for the City, Draper Aden Associates has developed an understanding of the needs and goals of the community.
The Design-Build Team will initially meet with the City of Petersburg to review the project, scope, and goals. Furthermore, the Team will hold bi-weekly design meetings that will involve subcontractors, equipment suppliers and field personnel to ensure proper and timely coordination of all aspects of the project. The Team would propose to have meetings with the City of Petersburg monthly at a minimum to review status of the design and to receive any input from the City. Upon commencement of construction, bi-weekly meetings would be held onsite to review construction, upcoming work, and any activities that would affect sewer system or pump station operations. DAA would be in charge of all design with input from the team, as well as the permitting and coordination with all regulatory agencies.

Our project philosophy emphasizes your involvement and interaction in the planning, design and construction process. We treat each project as a unique challenge and recognize that each client has its own goals, objectives, and preferences. We will actively seek out the opinions of your personnel to complete the project on time, within budget, and to provide a facility that is flexible, easy to operate and maintain, and that is neighbor-friendly. This project delivery system, by its very nature, allows for a high degree of owner input in the project scope, based on the actual impact of cost and schedule.

**b. Team’s Experience (IV.A.1.b.)**

b. Describe the experience of the firm or consortium of firms making the proposal and the key principals involved in the proposed project including experience with projects of comparable size and complexity. Describe the length of time in business, business experience, public sector experience and other engagements of the firm or consortium of firms. Include the identity of any firms that will provide design, construction and completion guarantees and warranties, and a description of such guarantees and warranties.

Faulconer’s extensive experience in management, excavation, utilities, plant work and structural concrete; G.L. Howard’s experience in sanitary sewer, water, storm sewer utilities and trenchless rehabilitation; and Draper Aden’s years of experience in the designing utility systems, guarantee that this project will be the beneficiary of the highest standards of performance with regards to safety, quality and schedule. The following pages include each firm’s background and experience as well as information on the key personnel proposed for this project.
Faulconer Construction Company, Inc. (FCC or Faulconer) has been in business for over 65 years. Following the end of World War II in 1946, Faulconer was named as the successor company to Rhinehart and Dennis, a large construction firm that performed projects nationwide and which had its origin in Charlottesville in the late 1800’s. Faulconer was formally incorporated in 1954 and the Sanford family began its current ownership position in 1961.

The company has been one of the most prominent civil contractors in central Virginia for many years. Our firm’s experience is extensive and encompasses all facets of the civil infrastructure spectrum. We have completed large, fast track projects for private, industrial, retail and government based customers and is fortunate to have repeat customers on many of its projects. Our depth of experiences combined with our experience through history has helped shaped a company that can adapt to almost every situation that might arise.

Our headquarters is in Charlottesville, Virginia and we have regional offices located in Raleigh, North Carolina and Culpeper, Virginia. We perform work throughout the Mid-Atlantic States with the majority of contracts occurring in Virginia and North Carolina. Our company holds contracting licenses in Virginia, North Carolina, South Carolina, Tennessee and West Virginia.

We currently employ approximately 300 people. This includes degreed Engineers and Registered Professional Engineers. We also have a full time Director of Safety on staff and utilize state-of-the-art estimating (HCSS), takeoff (AGTEK) software, PRIMAVERA Contract Manager and P6 Scheduling systems. We own or lease approximately 200 pieces of major construction equipment and an additional 95 smaller vehicles and rolling stock. Operationally, our company traditionally self performs approximately 80% of our volume of annual revenue. To that point, we are currently operating 17 pipe crews in addition to our grading, concrete and specialty crews.

We have provided services to a client base which includes universities/colleges, institutions, state agencies, healthcare providers, non-profit organizations, private corporations, school systems, sports teams and private entities. Through the years, we have established a reputation for progressive, high-quality construction services by possessing a strong set of capabilities and a proven track record for not only meeting project schedules but also assisting owners, general contractors, and construction managers “push” other trades to maintain their performance schedules.

“I knew that when the site work portion of the project (Scott Stadium expansion) was awarded to FCC that it would be a success.”
Phil Kirby, Vice President
Barton Malow Company
**Safety**

Accountability for the safety of our employees, partners, and customers starts with our Owner and is embraced by all levels within our organization. With our Safety Program Project Zero, we have put **safety above all other aspects of our business, including schedule and production**, even to the extent that we allow each and every individual the authority and responsibility to stop work without fear of reprisal should they question the safety of any given activity. This has led to a consistently outstanding safety record as illustrated by our EMR (Experience Modifier Rate).

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<th>Faulconer Construction’s EMR Rate (Experience Modifier Rate)</th>
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<tr>
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The Director of Safety, Mr. Bob Zehringer, is the company’s ultimate safety resource and is completely autonomous from all project operations. His responsibilities include conducting and reviewing site hazard surveys, providing technical assistance to the project teams, reviewing and monitoring subcontractor activities, ensuring corrective action when required, and safety training and orientation. Bob is also responsible for championing site specific safety plans and programs in concert with the project Teams.

Furthermore, as a part of our corporate edict and Project Zero, all Superintendent level and up personnel, who are involved with daily operations, are required to have a minimum of OSHA 30-Hour Training, and all Foreman level personnel are required to have a minimum of OSHA 10-Hour training. Additionally, Faulconer continuously trains our personnel in areas such as; VDOT’s Work Zone Traffic Control Training Program (WZTCTP), Federal Railroad Administration Roadway Worker Certification, AHA Heartsaver First Aid, Explosives and Seismograph Training and Safety and VDOT’s Erosion and Sediment Control Contractor Certification Program (ESCCC).

**Design-Build Experience**

Faulconer is no stranger to design-build, having worked on numerous infrastructure projects as a dedicated key subcontractor and equity partner alongside our design or GC partners. The work has included complete civil packages on military installations, transportation projects and waste water treatment facilities. Furthermore, we currently have two DBIA (Design-Build Institute of America) Designated Design-Build Professionals™, one of which currently serves on the Virginia Transportation Construction Alliance (VTCA) Design-Build Committee.

One example of a success in adding value during the design-build process is that on a recent waste water treatment plant project in Stewarts Draft, VA we were working as a dedicated

“Our flagman noted that your employees were the most professional and cooperative group he had ever provided protection for. I concur with this statement...”

David A. Becker, Senior Design Engineer
Norfolk Southern Railway Company
subcontractor with CDM Smith and recommended changes to a joint layout plan on a concrete structure that saved significant time and cost without sacrificing quality. Another example of our commitment to providing the best value to a project is that on a current project in Montgomery County, VA, we teamed with CH2M Hill to design and construct five miles of a truck climbing lane for VDOT on I-81. Early in the project we identified a horizontal alignment change that saved the project team approximately $1M without sacrificing schedule, quality or safety.
G.L. Howard, Inc. was formed in January 1961 and is a family owned corporation with William E. Howard being the primary shareholder. The corporation has been active in underground pipeline construction including sanitary sewer, storm sewer, pipebursting, boring and tunneling, waterlines, natural gaslines, blasting, sheeting and shoring, demolition, clearing and pump stations. G.L. Howard, Inc. has never failed to complete a project nor have they ever had to surrender any type of bond. G. L. Howard, Inc. has been quite active with the City of Richmond Department of Public Utilities and Works Department throughout the years and has been called upon at various times to help the City in emergency repairs and projects of unique difficulty. They have completed several contracts for the annual sewer replacement and repair services conducted by the City's Wastewater Division and also held contracts for annual gas and water. G.L. Howard, Inc. currently holds one contract for the City, annual sewer repair and replacement services contract, with the Division of Wastewater Treatment.

G.L. Howard, Inc. has a Virginia State business license, number 2701 007128 Class A, which expires May 31, 2014. G.L. Howard, Inc. is a SWaM certified corporation and also use SWaM subcontractors if at all possible on all of our projects. Their SWaM certification number is 697915.

G.L. Howard, Inc. is presently working (10) full pipe crews and (1) small cleanup crew. At this time our current size is approximately three fourths (3/4) of our possible operating capacity. G.L. Howard, Inc. has the ability to create additional crews and stock them with appropriate equipment in a short period of time.

G.L. Howard, Inc. is a full service sanitary sewer, water, storm sewer and trenchless rehabilitation utility contractor. Since incorporation in 1961, the company has grown in size and scope to its current state as a well-respected and reliable contractor involved in projects that prove to be difficult due to depth, logistics, timeframes, and/or size.

G.L. Howard, Inc. is family owned and operated and is involved in the support of the central Virginia community through various charities and professional organizations.

The motto that best describes the attitude and determination of G.L. Howard, Inc. is “Whatever it takes” and our employees embody the “can do” spirit that we expect. Our approach to tough jobs and
difficult conditions provide our clients with a level of confidence that is unsurpassed in the construction industry. Our commitment to safety and the use of cutting edge technologies has proved well founded and beneficial in countless ways.

Services Provided:
- Clearing and Grubbing of R-O-Ws
- Select Clearing and/or Mulching
- Rock Drilling and Blasting
- Sanitary Sewers
- Storm Sewers
- Waterlines and Force Mains
- Pump Stations and Value Vaults
- Horizontal Boring / Cased and GBM Method
- Pipe Bursting and Insertion
- Horizontal Directional Drilling
- Bypass Pumping
- Sheeted Pits and Engineered Excavations
- Emergency Repairs / Response

“I rank G. L. Howard as one of the top 5 best pipe bursting contractors in the U.S.”
- Mike Shultz
  T.T. Technologies
Draper Aden Associates, Inc. was established in 1972, Draper Aden Associates is a leading Virginia-based consulting engineering firm with experience in facilities planning and engineering design for municipalities, government agencies, cultural institutions, and private clients. Our offices are located in Blacksburg, Charlottesville, Hampton Roads, and Richmond, Virginia. We provide civil, environmental, geotechnical, solid waste, and structural engineering; surveying and subsurface utility engineering; site planning and engineering; and construction inspection services. Draper Aden Associates is a SWaM certified small business enterprise in the Commonwealth of Virginia.

Draper Aden Associates’ trained professionals are experienced and knowledgeable in all areas critical to site planning and civil engineering. Our experience and knowledge have enabled us to grow into one of the top engineering firms in the Mid-Atlantic. Engineering News-Record listed us as one of the Top 500 Design Firms in their April 2011 issue. For three consecutive years, Trenchless Technology listed us as one of the top 50 trenchless engineering companies in North America. Additionally, our company was ranked number 10 in Virginia Business magazine’s 2012 List of Leaders for architectural and engineering firms.

In-House Teams
• Civil/Utilities Engineering
• Ecological Services
• Environmental Services
• Geotechnical Engineering
• Landscape Architecture
• Site Planning and Engineering
• Structural Engineering
• Subsurface Utility Engineering
• Surveying / Mapping
• Waste Resource Engineering

Specialty Services
• Alternative Wastewater Treatment Systems
• Construction Administration & Inspection
• Environmental/Computer Modeling
• Funding Assistance
• Geographic Information Systems (GIS)
• Geological/Hydrogeological Services
• Ground Penetrating Radar (GPR)
• Materials Testing Laboratory
• Stormwater Management
• Sustainable Design/Low Impact Development
• Water Supply Planning

CADD Systems
• 2012 Civil 3-D
• 2012 Architecture
• 2012 Revit
• 2011 Carlson Survey

GIS Software
• ESRI ArcGIS™ Suite
• Innovyze’s InfoNET™
• DHI’s MIKE URBAN
Draper Aden Associates Office Locations

**Blacksburg Corporate/Regional Office**
2206 South Main Street
Blacksburg, Virginia 24060
Phone: 540-552-0444
Fax: 540-552-0291

**Hampton Roads Regional Office**
703 Thimble Shoals Boulevard, Suite C-2
Newport News, Virginia 23606
Phone: 757-599-9800
Fax: 757-599-3684

**Charlottesville Regional Office**
700 Harris Street, Suite E
Charlottesville, Virginia 22903
Phone: 434-295-0700
Fax: 434-295-2105

**Richmond Regional Office**
8090 Villa Park Drive
Richmond, Virginia 23228
Phone: 804-264-2228
Fax: 804-264-8773

All design phase services for the Poor Creek Sewer Force Main Replacement/Rehabilitation PPEA project will be performed by our in-house resources located in our Richmond Regional Office.
Draper Aden Associates Utilities Engineering

Our Utilities Engineering Team has completed hundreds of projects in the areas of wastewater treatment and collection, water source development, pumping, treatment, transmission, storage, and distribution. This experience includes master planning, preliminary design, final design, bid assistance, construction management, project inspection, facility start-up, and value engineering. We offer our clients extensive insight into what is buildable and realistic, as well as what can be done to improve facility design and operation. The utilities engineering services we offer you include:

- Preliminary Engineering Reports for Wastewater and Water Systems
- Funding Assistance
- Vulnerability Assessments and System Audits
- Wastewater Pretreatment Program Development
- Wastewater Collection and Treatment
- Watershed Management Engineering
- Water Supply Planning and Resource Development
- Water Treatment, Distribution, and Storage
- Fire Protection
- Systems Modeling and Rate Analyses
- Trenchless Technology Assessment/Implementation
- Permitting and Easement Acquisition
- Bid Assistance and Contract Administration
- Construction Administration and Inspection
- Operations and Maintenance Assistance
Draper Aden Associates' field services programs provide clients with a better method to obtain accurate operational data from existing water distribution and wastewater collection systems. Our teams of professional engineers have years of experience assessing and evaluating field data and have a unique understanding of how water and sewer systems operate during seasonal climate changes in various regions. Several members of our team have completed the Pipeline and Manhole Assessment Certification Program (PACP/MACP) provided by the National Association of Sewer Service Companies (NASSCO). Our in-depth understanding of how utility systems are designed to operate, along with years of design, modeling, and trenchless rehabilitation experience allows Draper Aden Associates to make sound engineering decisions to improve the overall performance of utility systems. The following is a comprehensive list of our Utilities Field and Design Services provided by Draper Aden Associates’ Infrastructure Evaluation and Rehabilitation Division:

**Field Services**
- Smoke and Dye Testing
- Flow Monitoring Analysis
- Deploy Robotic Pipeline Inspections Cameras (RedZone)
- Valve Exercising Program
- Manhole Inspections using Scanners (accessible areas only)
- Conventional Manhole Inspections (inaccessible areas only)
- Rainfall Inspections/Observations
- Groundwater Monitoring
- Construction Inspection
- Hydrant Flow Testing
- Leak Detection Services
- Pipe Lamping/Video Capture
- Night Time Flow Isolation

**Design Services**
- Sewer Modeling (Mike Urban, InfoWorks CS)
- Pipeline Inspection Review/Evaluation
- Inflow/Infiltration Studies
- Sewer System Capacity Analysis
- Trenchless Rehabilitation vs. Replacement Evaluation
- Flow Data Analysis/Reporting
- Infrastructure Rehabilitation Design
- Sewer System Evaluation Studies (SSES)
- Conventional Replacement Design
- Water System Distribution Design
- Trunk Sewer Design
- Collection Systems Design
- Trenchless Rehabilitation Design
Draper Aden Associates Surveying and Construction Stakeout Services

Our Surveying Team is among the most respected in the southeast, and is comprised of experts in providing surveying services that meet stringent Federal and State requirements. We understand the importance of timely and accurate surveying for all types of projects. With a proven track record, Draper Aden Associates’ Surveying Team can meet the immediate needs for a variety of projects in a timely and cost-conscious manner.

Draper Aden Associates has performed literally thousands of surveys, and we utilize current and advanced technologies in surveying through the on-going education and training of our personnel and the acquisition of state-of-the-art equipment. As a result, we offer our clients numerous value-added services including terra (3D) modeling, scan to BIM technology, 3rd generation GPS mapping, control for GPS grading and earthwork, and robotic survey stakeout and base mapping.

We are fully capable of providing construction stakeout surveys for a variety of projects ranging from large heavy construction projects (municipal facilities, water and sewer lines, floodwalls, multi-floor buildings, highways, landfills, airports, and commercial sites) to green box convenience centers, cell towers, and other miscellaneous small survey projects. Our surveyors have also provided topographic, boundary, and right-of-way acquisition surveys for projects that range from large complicated reservoirs to smaller single parcel projects for subdivisions, towns, and cities.
Draper Aden Associates Subsurface Utility Engineering

Subsurface Utility Engineering (S.U.E.) is an engineering process for accurately locating and mapping underground utilities by utilizing new and existing technologies. Draper Aden Associates has been performing S.U.E. for over a decade. Our staff has experience with colleges and universities, Departments of Transportation, on-call systems, municipalities, numerous utility companies, and consulting firms throughout the eastern United States.

Draper Aden Associates offers all Quality Levels of S.U.E. (A-D), each of which can be an effective way to determine the location of underground utilities in certain situations. However, the Quality Level A services that we can provide will ensure accurate utility locations reducing potential construction delays. With the use of our System 3000 Vacmaster Vacuum Excavation Truck, Draper Aden Associates can provide our clients with superior Level A utility locating. This indispensable tool will allow you to reduce or eliminate unexpected utility conflicts with an accurate horizontal and vertical location of existing utilities. The actual excavation is less invasive, environmentally sound, and will not damage existing utilities.

We provide Quality Level A Subsurface Utility Engineering capabilities – the most accurate way to account for existing utilities and provide you a better set of plans.
Draper Aden Associates Environmental Services

Protecting the environment and complying with the many local, state, and federal environmental regulations impacts all of us daily - whether you are a manufacturer, developer, farmer, or government entity.

The Environmental Services Team at Draper Aden Associates offers a balanced approach to addressing the environmental issues that confront you. Our staff of engineers, environmental scientists, geologists and soil scientists has the knowledge and experience to assist in effectively managing your environmental programs and projects. Some of our environmental services include:

- Geophysical Services
- Regulatory Compliance Assistance
- Compliance Monitoring/Data Management
- Audits/Assessments
- Land Use and Management
- Landfill Gas and Groundwater Monitoring
- Permitting and Planning
- Soil Science and On-Site Wastewater Disposal
- Groundwater Development/Use/and Protection
- Water Supply Planning
- Brownfields and Funding Assistance
- Remediation – Mandatory and Voluntary
- Ground-penetrating Radar Surveys
- Electrical Resistivity Surveys
- Electromagnetic Surveys
- Seismic Refraction/Surface Wave Surveys
Draper Aden Associates Additional Service Areas

Geotechnical Engineering and Construction Services

Laboratory Testing Facilities

Site Planning and Engineering

Structural Engineering
Relevant Project Experience - Faulconer

Valley Road Collector Sewer
Charlottesville, VA
Owner: City of Charlottesville,
Dept. of Public Utilities, Trip Stakem,
434-970-3908
A/E: Draper Aden Associates,
Mike Haggerty, 804-264-2228
Completion Date: January 2014
Construction Cost: $5,937,464
Project Description: Faulconer is contracted directly with the City of Charlottesville on this project designed by Draper Aden. Faulconer is self-performing in excess of 80% of the work in-house. The project includes 7,500 linear feet of Sanitary Sewer, ranging from 12” to 30” and some in excess of 20 feet deep, along Rock Creek from Fifth Street to Jefferson Park Avenue. The project also includes 1,500 linear feet of 8” water main. Our work is made up of demolition, erosion and sediment control, earthwork, shoring, storm sewer, sanitary sewer, waterline system, sanitary bore, temporary construction entrances, surveying, etc. The project involves trenching through backyards of residential neighborhoods along Rock Creek Road, as well as down narrow dead-end street of Valley Road. Additionally there are two boring locations: one under Fifth Street, the second under Norfolk Southern Railroad Tracks intersecting Valley Road.

UVA - CAS & ITE Utility Relocation Package
Charlottesville, VA
Owner: University of Virginia, Chuck Davis,
434-243-1064
A/E: Bohlin Cywinski Jackson, Darrell Kauric,
412-765-3890
Completion Date: July 2010
Construction Cost: $4,003,000
Project Description: Faulconer Construction was contracted by W.M. Jordan who was acting as a CM at Risk for the construction of two new academic buildings at the University of Virginia. The scope of work included over 400 LF of storm sewer, 2,300 LF of sanitary sewer, 3,200 LF of water and chilled water lines, 500 LF of electrical duct bank, traffic and pedestrian control, utility demolition and site restoration. The routing of the utilities through heavily traveled areas required us to constantly maintain and monitor the flow of pedestrian and vehicular traffic around the work zones while maintaining a safe work area. The sanitary sewer scope included extensive bypass pumping to maintain existing flows and services, and trench excavations as deep as 28 feet. Numerous utility conflicts, anticipated
and unanticipated, were encountered and successfully dealt with throughout the project. Ninety percent of the work was required to be completed over a two month period, however due to final tie-ins to the building the project's actual completion is over an 18 month period.

**North Anna Power Station – Unit 3 Site Separation Activities**
Mineral, VA
Owner: Dominion Virginia Power, Dean Price, 540-894-2147
A/E: Bechtel Power Corporation, Steve Cimbalista, 540-894-2688
Completion Date: June 2013
Construction Cost: $17,950,000

The North Anna Implementation and Separation Activities project is being constructed to remove and relocate existing utilities and buildings from the proposed site for future Nuclear Reactor No. 3. Faulconer is the prime contractor directly contracted to Dominion Virginia Power. The work includes: general earthwork/sitework, including installation of erosion and sediment controls, 97,786 CY of fill and 40,786 CY of cut, demolition of certain roadway and structures, clearing and grubbing, stripping, rough grading, construction of drainage basins, drainage piping and outflow structures, general and structural site fill and compaction, final grading, roadway construction and asphalt paving, 5,560 LF storm pipe, 42 structures, 7,900 LF HDPE fused domestic water, 8,000 LF HDPE Fused fire line, 4,400 LF HDPE fused sanitary sewer, 30,000 LF HDPE & 20,000 LF PVC communications and electrical ductbank including 56 structures. Some other aspects of the work included installation of a precast communication and precast outage structure, a Salt/Sand Storage building, and a 400 LF pre-cast concrete underground utility tunnel.
Other Relevant Project Experience (Design-Build Projects) - Faulconer

Louisa County Zion Crossroads WWTP Effluent Outfall PPEA
Zion Crossroads, VA
Role: Prime Owner Contact: Dean Rogers (Louisa County Water Authority), General Manager, (540) 967-1122
Initial/Final (Estimated) Contract Value: $1,034,300/$8,641,000

VDOT I-81 South Truck Climbing Lane
Christiansburg, VA
Role: Equity Partner (with CH2M Hill) Owner Contact: Bobby Phlegar, PE (VDOT), Construction Program Manager, (540) 378-5083
Initial/Final Contract Value: $14,475,000 (Faulconer’s self-performed portion)

Stuarts Draft WWTP Phase I
Stuarts Draft, VA
Role: Dedicated Subcontractor (under CDM Smith) Owner Contact: William Monroe, PE (Augusta County Service Authority), Director of Engineering, (540) 245-5670
Initial/Final Contract Value: $1,252,600 / $1,343,302

Stuarts Draft WWTP Phase II
Stuarts Draft, VA
Role: Dedicated Subcontractor (under CDM Smith) Owner Contact: William Monroe, PE (Augusta County Service Authority), Director of Engineering, (540) 245-5670
Initial/Final Contract Value: $988,225 / $1,304,808

UVA North Grounds Mechanical Plant
Charlottesville, VA
Role: Design-Assist Subcontractor (under Martin Horn) Owner Contact: Mike Vanderweide (UVA), Project Manager, (434) 982-0370
Initial/Final (Current) Contract Value: $4,500 (Design Assist Fee) / $800,000 (Estimated Construction Value)
Holly Hill Child Psychiatric Hospital
Raleigh, NC
Role: Design-Assist Subcontractor (under Balfour Beatty)
Owner Contact: Christian Pikel (Universal Health),
Initial/Final (Current) Contract Value: $13,700 (Design Assist Fee) /
$2,000,000 (Estimated Construction Value)

New River Air Station P705/710 Parking Garage, Ordinance Loading Area, Hanger and Apron Expansion
Jacksonville, NC
Role: Design Assist Subcontractor (under Mortenson)
Owner Contact: Victor Gargano (NAVFAC), (757) 322-8277
Initial/Final Contract Value: $8,188,000

New River Air Station MV22 Hanger/Parking Garage
Jacksonville, NC
Role: Subcontractor (under Haskell)
Owner Contact: Keith Logan (NAVFAC), (757) 322-4080
Initial/Final Contract Value: $5,529,000 / $6,064,000

Fort Pickett National Guard Regional Training Institute - Phase I
Blackstone, VA
Role: Dedicated Subcontract Partner (with Barton Malow)
Owner Contact: Kevin Arthur (US Army Corps of Engineers), Contracting Officer’s Representative, (434) 292-6651
Initial/Final Contract Value: $2,829,000

Fort Pickett National Guard Regional Training Institute - Phase II
Blackstone, VA
Role: Dedicated Subcontract Partner (with Barton Malow)
Owner Contact: Kevin Arthur (US Army Corps of Engineers), Contracting Officer’s Representative, (434) 292-6651
Initial/Final Contract Value: $2,198,000
Relevant Project Experience – G.L. Howard

**Strawberry Hill Force Main Pipeline Replacement**
County of Henrico, Virginia
Prime or Subcontractor: Prime
Contact: County of Henrico, Department of Public Utilities
Mr. Lee O. Maddox, III
Contact Telephone Number: (804) 727-8730
Nature of Work: Sanitary Sewer Utilities
Final Contract Amount: $2,942,065.27
Completion Date: March 2006

**Maple Avenue 30-inch Force Main**
County of Henrico, Virginia
Prime or Subcontractor: Prime
Contact: County of Henrico, Department of Public Utilities
Mr. Lee O. Maddox, III
Contact Telephone Number: (804) 727-8730
Nature of Work: Sanitary Sewer Utilities
Final Contract Amount: $3,298,216.00
Completion Date: November 2006

**Gambles Mill Sanitary Sewer Outfall Improvements (42, 48 and 52-inch Gravity Sewer)**
County of Henrico, Virginia
Prime or Subcontractor: Prime
Contact: County of Henrico, Department of Public Utilities
Mr. Lee O. Maddox, III
Contact Telephone Number: (804) 727-8730
Nature of Work: Sanitary Sewer Utilities
Final Contract Amount: $7,413,234.70
Completion Date: August 2008

**Hanover Air Park Sewer Rehabilitation**
County of Hanover, Virginia
Prime or Subcontractor: Subcontractor
Contact: Prime Contractor: Tri-State Utilities, Inc.
Mr. Andy McSweeny
Contact Telephone Number: (757) 366-9505
Nature of Work: Sewer Rehabilitation
Final Contract Amount: $226,319.00
Completion Date: September 2009
Monumental Floral Gardens, Phase 2 Sewer
County of Henrico, Virginia
Prime or Subcontractor: Prime
Contact: County of Henrico, Department of Public Utilities
Mr. Lee O. Maddox, III
Contact Telephone Number: (804) 727-8730
Nature of Work: Sewer Rehabilitation
Final Contract Amount: $1,915,939.04
Completion Date: March 2010

Lower Opossum Creek Sewerage Improvements
County of Hanover, Virginia
Prime or Subcontractor: Prime
Contact: County of Hanover, Department of Public Utilities
Mr. Gary Craft
Contact Telephone Number: (804) 365-6236
Nature of Work: Sewer Utility Improvements Final Contract Amount: $2,842,259.35
Completion Date: June 2010

Middle Chickahominy River Sewerage Improvements Interceptor Sewer
County of Hanover, Virginia
Prime or Subcontractor: Prime
Contact: County of Hanover, Department of Public Utilities
Mr. Gary Craft
Contact Telephone Number: (804) 365-6236
Nature of Work: Sewer Utility Improvements Final Contract Amount: $2,109,743.55
Completion Date: November 2010

Broadwater Area (BWII) Phase 1 Sanitary Sewer Rehabilitation
County of Henrico, Virginia
Prime or Subcontractor: Prime
Contact: County of Henrico, Department of Public Utilities
Mr. O. Lee Maddox, III
Contact Telephone Number: (804) 727-8730
Nature of Work: Sanitary Sewer Rehabilitation Final Contract Amount: $5,052,367.30
Completion Date: April 2012
### Strawberry Hill (SH01A) Area Sanitary Sewer Rehabilitation

**County of Henrico, Virginia**  
Prime or Subcontractor: Prime  
Contact: County of Henrico, Department of Public Utilities  
Mr. O. Lee Maddox, III  
Contact Telephone Number: (804) 727-8730  
Nature of Work: Sanitary Sewer Rehabilitation  
Final Contract Amount: $1,661,727.35  
Completion Date: April 2012

### Station Street Pump Station Force Main Replacement

**City of Hopewell, Virginia**  
Prime or Subcontractor: Prime  
Contact: Engineer: HDR One Company  
Ms. Jamie W. Bondurant  
Contact Telephone Number: (757) 222-1500  
Nature of Work: Force Main Replacement  
Final Contract Amount: $941,900.00  
Completion Date: May 2012

### Lakeside Boulevard Sewer Rehabilitation

**County of Henrico, Virginia**  
Prime or Subcontractor: Prime  
Contact: County of Henrico, Department of Public Utilities  
Mr. O. Lee Maddox, III  
Contact Telephone Number: (804) 727-8730  
Nature of Work: Sanitary Sewer Rehabilitation  
Final Contract Amount: $441,545.00  
Completion Date: June 2012
Relevant Project Experience – Draper Aden Associates

Poor Creek Pump Station Force Main Condition Assessment
City of Petersburg, Virginia
Fred Burkhardt - 804-733-2353
In 2010, Draper Aden Associates, teamed with G.L. Howard and Nova Data Testing, obtained pipeline wall thicknesses at fourteen (14) specific/predetermined locations along the existing 24-inch Poor Creek Force Main. Nova Data Testing utilized ultrasonic equipment on the exposed pipe to measure the thickness at each of the fourteen (14) test station locations. G.L. Howard was responsible for all excavation, backfilling, and restoration activities. Draper Aden coordinated the field activities, analyzed the data collected and made rehabilitation recommendations. After Draper Aden established the ductile iron pipe class designation from the field data and as-built records, it was determined that approximately 4,500 linear feet of over 12,500 linear feet of force main was significantly deteriorated and needed immediate attention.

Poor Creek Basin Water and Sewer Study
City of Petersburg, Virginia
Fred Burkhardt - 804-733-2353
Draper Aden Associates prepared a Preliminary Engineering Report detailing the recommended upgrades and additional infrastructure to facilitate existing and future demands within the Poor Creek Water and Sewer Basins. Draper Aden Associates used existing zoning data and met with City personnel to discuss potential locations for new development, then forecasted potential water demands and sewer flows. Draper Aden Associates then used these flows to create a computer model of the existing water system to identify locations within the Poor Creek area where system pressure and fire flow deficiencies are present. Draper Aden Associates then used existing sewer system data, including slopes and line sizes, to model the existing sewer system and determine where existing and future deficiencies in the sewer capacities occur. Finally, Draper Aden Associates provided water and sewer upgrade options to address system deficiencies, and offered opinions of probable cost to complete these projects.
Locks Booster Pump Station PER and Design
City of Petersburg, Virginia
Fred Burkhardt 804-733-2353
Draper Aden Associates performed a preliminary engineering report using WaterCAD to analyze the City’s water model with the objective of improving system reliability and efficiency with transferring water to the high pressure zone, as well as improving tank turnover in the low pressure zone. The recommended option involved an upgrade to the City’s Locks pump station, which approximately doubled the capacity of that station to deliver water to the upper pressure zone. The design also included a control valve vault that will significantly improve tank turnover in the low pressure zone. The project also included design of approximately 2,000 LF of 16-inch water main, including all environmental permitting.

Blackwater Creek Interceptor Upgrades
City of Petersburg, Virginia
Fred Burkhardt 804-733-2353
Draper Aden Associates provided surveying, engineering, and ecological services to design approximately 1,820 linear feet of 30-inch gravity sewer from the S. Crater Road Interceptor to the east side of Interstate 95. The scope of services also included extensive wetlands permitting, the preparation of easement plats, traffic control plans, and as-built documents. Construction administration is anticipated to be provided during the construction phase of the project.

Gambles Mill 24-inch Force Main Evaluation
Henrico County, Virginia
David Tostenson - 804-501-4951
Draper Aden Associates performed a partial inspection of the existing 24-inch pre-stressed concrete cylinder force main that was used only in the event of an emergency to transfer wastewater from the Gambles Mill Sewage Pumping Station (GMSPS) to an outlet chamber at Maple Avenue and Cary Street. During pipe
failure in the primary GMSPS 30-inch/36-inch force main, flow was diverted over to this emergency 24-inch force main and evidence of leaking joints and/or broken pipes were noticed along River Road. Several test holes were excavated along River Road in an attempt to discover any problems with this force main; however, no defects or pipe failures were located. Draper Aden Associates subcontracted with Tri-State Utilities to inspect 1,250 linear feet of force main. Draper Aden Associates reviewed the inspection video and recommended that the County rehabilitate this existing 24-inch force main by slip-lining with a new 22-inch (outside diameter) high density polyethylene (HDPE) pipe.

**Gambles Mill Sewer Outfall Rehabilitation (42, 48, and 54-inch Gravity Sewer)**
Henrico County, Virginia
David Tostenson - 804-501-4951
Draper Aden Associates prepared a letter report in April of 2001, which recommended future upgrades and rehabilitation of the deteriorated concrete trunk sewer system downstream of the Gambles Mill Sewer Pump Station 30-inch force main. This project consists of replacing approximately 5,500 linear feet of existing 36-inch and 42-inch gravity sewer throughout a residential area with new 42-inch, 48-inch, and 54-inch corrosion resistant pipes and agru-lined concrete manholes. Draper Aden Associates provided engineering design, environmental services, surveying, subsurface utility engineering, CCTV inspection and cleaning (subcontracted), bidding, and construction phase services for this project. **G.L. Howard, Inc was the construction contractor for this project.**

**Maple Avenue 30-inch Force Main**
Henrico County, Virginia
David Tostenson - 804-501-4951
The project began with a route study to determine the best overall alignment for the new 30-inch force main from Maple and Cary to the outfall chamber near Maple and Paxton. Once the route was selected, DAA proceeded with the survey work and design of approximately 5,000 linear feet of 30-inch force main. This project included a lot of coordination with the City of Richmond staff and with the new Goochland County force main and concrete structure near Maple Avenue and Cary Street. The project also included the preparation of project bulletins and several public meetings to inform the residents/owners along the route. **G.L. Howard, Inc was the construction contractor for this project.**
Monumental Gardens Phase II
Henrico County, Virginia
David Tostenson - 804-501-4951
This project included grouping three (3) separate gravity sewer system evaluation recommendations into one (1) contract document. The three (3) areas include the Cutshaw, Lee, and Fitzhugh sewer systems, Jewish Community Center sewer, and the Lake Avenue area sewer systems. Combined, these three (3) project areas include over 11,600 linear feet of 8-inch gravity sewer to be lined or replaced for over 140 customers. G.L. Howard, Inc was the construction contractor for this project.

County of Henrico Utilities Annual Contract
Henrico County, Virginia
David Tostenson - 804-501-4951
Draper Aden Associates has provided engineering services for water and sewer rehabilitation projects for the Henrico County Department of Public Utilities since 1994. The scope of services under this annual contract included civil engineering services, surveying services (including Subsurface Utility Marking), geotechnical services, environmental services necessary to obtain environmental permits required for project construction, and construction assistance services. Under this annual contract, Draper Aden Associates has been assigned over 150 water and sewer system improvement projects. Replacement projects range from 8-inch water systems to 54-inch gravity trunk sewers. Rehabilitation projects range in size from lining 4-inch gravity sewer laterals up to lining 48-inch gravity sewer mains. Draper Aden Associates has worked with G.L. Howard to design and construct the following projects under this contract:

- Gambles Mill Sewer Outfall Phase I Replacement
- Lincoln Avenue Water and Sewer Project
- Monumental Floral Gardens Sewer Rehabilitation Phase II
- Interstate 95 @ US Route 301 12-inch Sewer Rehabilitation
- Foxhill Townhouses Water Service Replacement Project
- Maple Avenue 30-inch Force Main

Railroad Right-Of-Way Permitting Experience
Various Locations Throughout Virginia
Draper Aden Associates has submitted right-of-entry applications and utility crossing permits to several different railroad companies for many utility projects and clients throughout Virginia. Listed below are a few of our most recent projects, where railroad access and permits were required to complete the design and construction processes. All of the projects listed below required a utility crossing permit from a railroad company and/or its approval authority agency.

- City of Suffolk – Village of Holland Waterline Improvements
- County of Henrico – Lewis Road Sanitary Sewer Improvements
Section 1 – Qualifications and Experience

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- County of Henrico – James River Outfall Rehabilitation Project
- Charlotte County – Heartlands Business Park Water System Improvements
- City of Charlottesville – Valley View Trunk Sewer
- City of Charlottesville – North Fields Phase IV Sewer
- City of Waynesboro – District Homes Trunk Sewer

Sewer Rehabilitation Experience
Various Locations Throughout Virginia

Draper Aden Associates Utilities Team has over 100 years of combined experience evaluating the condition of, making recommendations for, and designing improvements to various types of utilities systems throughout Virginia. Our collective expertise provides you with an in-depth understanding of federal, state, and local regulations, valuable insight into comprehensive utilities system analysis, and innovative design solutions to improve the efficiency of these systems. Through the use of value engineering and the incorporation of new trenchless and trenching technologies, the pumping capacity can be improved to meet the current demands, as well as those in the foreseeable future. The following list of projects illustrates our ability to successfully similar infrastructure rehabilitation upgrades using innovative means and methods such as pipe bursting, cured-in-place pipe lining, slip-lining, jacking and boring, directional drilling, etc.

- Project 7-4 Sewer Rehabilitation, City of Richmond, VA
- University Boulevard Sewer Rehabilitation, Henrico County, VA
- Monumental Floral Gardens Sewer Rehabilitation, Henrico County, VA
- YMCA @Patterson Sewer Rehabilitation, Henrico County, VA
- I-95 & Route 301 Sewer Rehabilitation, Henrico County, VA
- Mapleton Road Sewer Rehabilitation /Replacement, Henrico County, VA
- Wilkinson Road Aerial Creek Crossing Rehabilitation, Henrico County, VA
- Westmoor Drive Sewer Rehabilitation, Henrico County, VA
- Club Road Sewer Rehabilitation, Henrico County, VA
- Normandy Drive Sewer Main Rehabilitation, Henrico County, VA
- Central Gardens Sewer Rehabilitation /Replacement, Henrico County, VA
- Harris Ave Sewer Rehabilitation, Henrico County, VA
- Strawberry Hill (SH-01C Pt 1 & 2) Sewer Rehabilitation, Henrico County, VA
- Patterson Ave & Gaskins Rd 21-inch Sewer Rehabilitation, Henrico County, VA
- Three Chopt Road Sewer Rehabilitation, Henrico County, VA
- Keller-Brawner Sewer Rehabilitation, Henrico County, VA
- Lakeside Blvd Sewer Rehabilitation, Henrico County, VA
- Hawthorne Avenue Area Sewer Rehabilitation, Henrico County, VA
- Skipwith, Donder, Comet, & Dancer Rd Sewer Rehabilitation, Henrico County, VA
- Baldwin, Wood, Sunderland, & Shrewsbury Rd Sewer Rehab, Henrico County, VA
- James River Outfall Sewer Rehabilitation, Henrico County, VA
- Prentis Park Water & Sewer Rehabilitation/Replacement, City of Portsmouth, VA
Mr. Stelter has over 25 years of experience working in the construction industry. He possesses a well-rounded background that includes everything from hands-on experience in the field to direct negotiations with owners and designers on a variety of civil, utility and transportation projects. He currently leads the company in the pursuit and execution of alternative construction delivery methods.

Applicable Work History

1996–Present, Faulconer Construction Co., Inc., Charlottesville, Virginia: Mr. Stelter started with Faulconer as an assistant superintendent / project engineer and quickly worked his way through the ranks and has worked the last seven years as a Chief Estimator and now as the Director of Innovative Pursuits. Earlier in his career at Faulconer, he was involved with the estimating and project management of a wide range of site construction, utility and highway projects.

In his current role he is responsible for everything from business development through post award negotiations and project execution strategies. He plays a key leadership role in identifying and developing pursuits; bringing together key partners and teams; reviewing and fully executing qualifications and proposals; leading negotiations with owners, contractors and other stakeholders; and staying engaged through post award as necessary to guarantee a successful project for the client.

Having championed the lead on several design-build projects, Mr. Stelter is keenly cognizant of the importance of team collaboration and communication to ensure that all quality metrics, safety standards and client goals will all be met.

1994-1996, McRaven Restorations, Free Union, VA: Mr. Stelter oversaw the restoration of a variety of historical structures. He regularly dealt with complex problems while ensuring historical integrity, quality and cost effectiveness of the final restored product.
Mindy Colden, EIT
Project Manager

Mindy started her career early with Faulconer Construction, joining the firm in 2006 as an intern. While continuing her studies at the University of Virginia and her role as the UVA Cheerleader Captain, she continued to work part-time with Faulconer developing her skills in estimating and project management. Upon graduation in 2008 she joined the firm full-time. Furthermore, her background as a degreed Civil Engineer and having earned her EIT, she has proven herself to be a valuable asset to Faulconer Construction.

Applicable Work History
2006–Present, Faulconer Construction Co., Inc., Charlottesville, Virginia: Mrs. Colden has proven herself to be an excellent communicator and coordinator between subcontractors, suppliers, owners, engineers and architects. She is currently managing several projects in excess of $15M.

She is heavily involved in the scheduling & financial management reporting of her projects, active in project planning meetings and solving unique technical & construction issues. Her responsibilities include the coordination and delivery of submittals, contracts and purchase orders, project scheduling, project billings, and developing and reviewing site logistic and phasing plans. She has excelled at being attentive to customers’ needs and ensuring that quality and safety standards are adhered to. She has successfully managed LEED programs, including those on the South Lawn Early and Final Site projects to achieve project target goals.

Some of Mrs. Colden’s past projects and responsibilities include the following: (Project Name, Location, Value, Year Complete)
- Stonefield - Charlottesville, VA - $22.5M - 2013
- The Haven at Stonefield – Charlottesville, VA - $1.9M – 2013
- Lee Street Connective Elements - University of Virginia - $900K - 2013
- Charlottesville Airport – Charlottesville, VA - $5.4M - 2011
- VDOT Meadow Creek Parkway - Charlottesville, VA - $14.8M - 2011
- Bridgeforth Stadium - James Madison University - $4.1M - 2011
- Emily Couric Cancer Center - University of Virginia - $1.9M - 2011
- South Lawn Final Site - University of Virginia - $6.9M - 2010
- Medical Research Building 6 - University of Virginia - $6.7M - 2010
- Claude Moore Nursing School - University of Virginia - $1.7M - 2009
- Observatory Hill Residence Hall - University of Virginia - $1.5M – 2009
Mr. Zehringer has 36 years of experience working in the safety field, and more than 20 years as a Director of Safety. He and the project management teams develop the detailed Site Specific Safety Programs for Faulconer’s contracts. He is the company’s ultimate safety resource and is completely autonomous from project operations. Additionally, he is a resident of Waynesboro, Virginia.

Applicable Work History

1996–Present, Faulconer Construction Co., Inc., Safety Director: Mr. Zehringer is responsible for job safety inspections, upgrading corporate safety programs, controlling liability cases, manages worker’s compensation cases, conducts safety training (flag persons, excavations, confined space, fall protection, material handling, blasting programs, etc.). He administers the corporate substance abuse program, supervises C.D.L. driver program, and develops safety incentive programs.

1989–1995, English Construction Corporation, Director of Safety: As the Director of Safety for English Construction, Mr. Zehringer performed the same type of work as he does currently for Faulconer Construction. He performed safety inspections for all of the projects and he developed and conducted training programs. He visited construction sites to perform inspections. He was responsible for ensuring that the construction sites were safe and the employees complied with Occupational Safety and Health Administration (OSHA) regulations.

1974-1989, Norfolk Southern Railroad, Construction Superintendent: Mr. Zehringer’s duties as superintendent were to handle the day-to-day operations of the projects. His responsibilities included the keeping key management personnel aware of construction status as well as supervising and directing the assigned crews. He also assisted Foremen with management of materials, equipment, and subcontractors and set regular expectations for production and overall schedule adherence while complying with strict quality standards and promoting a safe work environment.
Section 1 – Qualifications and Experience

Key Personnel – G. L. Howard

William E. Howard - Owner and President:
33 years of experience. Bill has worked full time for the company since 1978 in all phases of the business including equipment maintenance, field operations, crew supervision, project bidding and administration. He oversees all operations of the company and works closely with the office, field and shop personnel on a daily basis. Bill is a second generation heavy construction company owner of the organization started by G. L. "Gilly" Howard over 50 years ago.

Charles "Eddie" Isbell, Sr. - Project Manager:
28 years of experience. Eddie has worked in all aspects of the underground utility business from pipelaying to equipment operation to project supervision. He is responsible for all submittals, contract preparation, subcontracts, bid proposals and project management. Eddie has been in the position of project manager with G. L. Howard, Inc. since January 4, 1999.

Carole B. Miracle - Assistant Project Manager:
22 years of experience. Carole has worked in the construction industry for suppliers as a shipping manager and contractors in office management. She currently assists the project manager and field superintendents with insurance, transmittals, payment requests, project record keeping and communication. Carole has been with G. L. Howard, Inc. since April 11, 1989.

Hugh D. Hawthorne - Vice President and General Superintendent:
30 years of experience. Hugh has worked for the company in every position from laborer to operator to crew foreman and now general superintendent. He has experience in water, gas, sanitary sewer and storm sewer piping and systems. Hugh acts as a direct link between the field superintendents and the office. He is responsible for equipment and personnel logistics and works daily with owners, inspectors and engineers to expedite projects.

Daniel O. Canter - EEO/Safety Officer:
18 years of experience. Dan is in charge of all safety related areas of concern including drug testing, workman’s compensation claims, accident investigation and daily safety requirement compliance. He inspects jobsites, equipment and personnel safety devices and corrects problems as soon as possible. Dan has the authority to shutdown crews that operate outside of company rules and safety regulations. He coordinates his activities with the general and field superintendents. Dan started off as a laborer and worked his way up the ranks over several years and has been employed with G. L. Howard, Inc. since June 3, 1996.
Key Personnel – Draper Aden Associates

Frederick T. Pribble, PE
Utilities Division Manager/Vice President

Mr. Pribble has extensive experience in the management and administration of complex civil and environmental planning/design projects throughout the Commonwealth of Virginia. Projects have included major water and wastewater studies and Preliminary Engineering Reports, water and wastewater facilities design and rehabilitation, rate studies, site development, and recreational facilities.

Poor Creek Pump Station Force Main Condition Assessment, City of Petersburg, VA: Managing Principal for the assessment to identify the ductile iron pipe class designation from the field data (collected through the use of ultrasonic equipment) and as-built records, to determine approximately 4,500 linear feet of the Poor Creek Force Main was significantly deteriorated and needed immediate attention.

Poor Creek Basin Water and Sewer Study, City of Petersburg, VA: Managing Principal responsible for reviewing the existing water and sewer systems within the basin, forecasting of future growth and development of the area, and creating a PER detailing the proposed upgrades and additions to both the water and sewer systems required to facilitate existing and future demands.

Locks Booster Pump Station PER and Design, City of Petersburg, VA: Managing Principal for a PER to analyze the City’s water model, and the design of approximately 2,000 LF of 16-inch water main.

Annual Contract, Henrico County, VA: Managing Principal for over 140 water and sewer system improvement projects. Replacement projects range from 8-inch water systems to 54-inch gravity trunk sewers. Rehabilitation projects range in size from lining 4-inch gravity sewer laterals to lining 48-inch gravity sewer mains.

24 years with the firm
38 years of experience

Education
- B.S./1973/Civil Engineering/Virginia Tech

Professional Registration(s)
- Professional Engineer/1977/VA

Areas of Expertise
- Comprehensive water and sewer studies
- Utility Master Planning
- Water distribution system design
- Water and sewer rehabilitation projects
- Funding Alternatives
- Preliminary Engineering Reports
- Sewage collection system design
- Water and sewer rate analysis
- Feasibility analysis
- Industrial Park Design
- TEA 21 Enhancement Projects
- Water Resource Development

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Section 1 – Qualifications and Experience

Jeffrey S. Tyler, PE
Infrastructure Rehabilitation & Evaluation Team Leader

Mr. Tyler has over 2 decades of professional design and project management experience, as well as several years of experience working as a project engineer and surveying technician. He has served as Project Manager and Project Engineer on numerous general civil and environmental engineering projects for several municipalities throughout the Greater Richmond and Hampton Roads Areas.

Poor Creek Pump Station Force Main Condition Assessment, City of Petersburg, VA: Project Manager for the assessment to identify the ductile iron pipe class designation from the field data (collected through the use of ultrasonic equipment) and as-built records, to determine approximately 4,500 linear feet of the Poor Creek Force Main was significantly deteriorated and needed immediate attention.

Poor Creek Basin Sewer Study, City of Petersburg, VA: Project Manager responsible for reviewing the existing sewer systems within the basin, forecasting of future growth and development of the area, and creating a PER detailing the proposed upgrades and additions to the sewer system required to facilitate both existing and future demands.

Gambles Mill Sewer Outfall, County of Henrico, VA: Utilities Project Manager for the replacement of approximately 5,500 linear feet of existing 36-inch and 42-inch gravity sewer throughout a residential area with new 42-inch, 48-inch, and 54-inch corrosion resistant pipes and agru-lined concrete manholes.

Annual Contract, Henrico County, VA: Client Manager over the last 14 years for over 140 water and sewer system improvement projects. Replacement projects range from 8-inch water systems to 54-inch gravity trunk sewers. Rehabilitation projects range in size from lining 4-inch gravity sewer laterals to lining 48-inch gravity sewer mains.
Mr. Haggerty is a Project Manager on the Utilities Team and is responsible for engineering design and management of water and sewer projects in the Richmond office. He has over 16 years of experience as a project engineer and project manager for utility and site designs of various municipal and institutional projects.

**Annual Contract, Henrico County, VA:** Project Manager for over 140 water and sewer system improvement projects. Replacement projects range from 8-inch water systems to 54-inch gravity trunk sewers. Rehabilitation projects range in size from lining 4-inch gravity sewer laterals to lining 48-inch gravity sewer mains. The following is a representative list of his relevant accomplishments under this annual contract:

- University Boulevard Sewer Rehabilitation
- Monumental Floral Gardens Sewer Rehabilitation
- 9314 Westmoor Drive Sewer Rehabilitation
- YMCA @Patterson Sewer Rehabilitation
- Colwyck Drive Sewer Rehabilitation
- I-95 & Route 301 Sewer Rehabilitation
- Mapleton Road Sewer Rehabilitation /Replacement
- Belle Glade Sewer Rehabilitation
- Wilkinson Road Aerial Creek Crossing Rehabilitation
- Westmoor Drive Sewer Rehabilitation
- Club Road Sewer Rehabilitation
- Normandy Drive Sewer Main Rehabilitation
- Central Gardens Sewer Rehabilitation /Replacement
- Harris Ave Sewer Rehabilitation
- Strawberry Hill (SH-01C Pt 1 & 2) Sewer Rehabilitation
- Patterson Ave & Gaskins Rd 21-inch Sewer Rehabilitation
- Three Chopt Road Sewer Rehabilitation
- Keller-Brawner Sewer Rehabilitation
- Lakeside Blvd Sewer Rehabilitation
- Hawthorne Avenue Area Sewer Rehabilitation
- James River Outfall Sewer Rehabilitation
- Gamble Mill Sewer Outfall
- Maple Avenue 30-inch Force Main
Michael A. Larson, PE
Senior Utilities Project Manager

Mr. Larson serves as a Senior Project Manager, responsible for a variety of water and wastewater projects. His responsibilities include designing pump stations, water and sewer mains and other infrastructure, computer modeling of water and sewer systems, preliminary report preparation, specification editing and cost estimation.

Locks Booster Pump Station PER and Design, City of Petersburg, VA: Project Manager for a PER to analyze the City’s water model, and the design of approximately 2,000 LF of 16-inch water main.

Valley Road Sanitary Sewer Rehabilitation PER, Charlottesville, VA: Provided Technical Review for a PER regarding approximately 6,700 LF of sanitary sewer to replace an existing 8-inch to 18-inch vitrified clay pipe.

Stadium Road Sewer Design Phase II and III, Charlottesville, VA: Project Manager for the review of flow records from I/I studies, surveying, mapping, geotechnical services for the design of approximately 8,200 LF of 36-inch diameter trunk sewer.

District Home Creek Trunk Sewer, City of Waynesboro, VA: Client Manager for the upgrade to approximately 13,000 LF of trunk sewer from 12-inch up to 18, 21, and 24-inch, approximately 5,600 LF of 12-inch force main, a 3,200 gpm pump station, 4,000 LF of 16-inch force main and all associated support.

Bookerdale Road Pump Station, City of Waynesboro, VA: Project Manager. Design of a new pump station to replace an existing pump station that was in poor condition and did not have capacity to meet existing flows. The new pump station will have a capacity of approximately 2.0 MGD and includes two submersible pumps with variable frequency drives, and emergency generator, and wet well mixing system.

15 years with the firm
17 years of experience

Education
- B.S./1996/Civil Engineering/Clarkson University
- M.S./2003/Civil and Environmental Engineering/Virginia Tech

Professional Registration(s)
- Professional Engineer/2001/VA

Areas of Expertise
- Water and Sewer Computer Modeling
- Water and Sewer Pipeline Design
- Water/Wastewater Treatment Design
- Pump Station Design
- Preliminary Engineering Studies
- Cost Estimating
- Utility Rate Studies
Jason J. Garofalo, PE  
Utilities Project Engineer/Modeling

As a project engineer, Mr. Garofalo is responsible for design, calculation, and specifications for wells, pumps, water and sewer systems, and treatment plants. He has experience engineering for utility and site designs for various municipal and institutional clients. He is also versed in the preliminary evaluation and modeling of water and sewer systems.

**Poor Creek Pump Station Force Main Condition Assessment, City of Petersburg, VA:** Project Engineer for the assessment to identify the ductile iron pipe class designation from the field data (collected through the use of ultrasonic equipment) and as-built records, to determine approximately 4,500 linear feet of the Poor Creek Force Main was significantly deteriorated and needed immediate attention.

**Poor Creek Basin Water and Sewer Study, City of Petersburg, VA:** Project Engineer responsible for reviewing the existing water and sewer systems within the basin, forecasting of future growth and development of the area, and creating a PER detailing the proposed upgrades and additions to both the water and sewer systems required to facilitate both existing and future demands.

**Gambles Mill Outfall, Henrico County, VA:** Performed pipeline inspections, manhole inspections, and an overall system condition evaluation for over 12,200 linear feet of 36 and 42-inch reinforced concrete pipe.

**Woodcliff Subdivision Sewer Improvements, Henrico County, VA:** Project Engineer for the design of approx. 2,200 linear feet of 8-inch gravity sewer.

**Bradford Mews Pump Station/Force Main System Analysis, Smithfield, VA:** Project Engineer for the performance analysis of the Bradford Mews, Canteberry, Smithfield Plaza and Waterford Oaks pump stations and the force main system connecting them to the gravity sewer system downstream.
Jennifer L. Bunting, PE  
Project Engineer

As a staff engineer, Ms. Bunting is responsible for the video review, system assessment and evaluation, and CAD design of wastewater infrastructure rehabilitation and replacement. Her expertise also includes floodplain analysis, systems modeling, septic system design, stormwater management, and cost estimation.

Annual Contract, Henrico County, VA: Staff/Project Engineer for numerous water and sewer system improvement projects under the Henrico County DPU Annual Contract. The contract involves replacement projects ranging from 8-inch water systems to 54-inch gravity trunk sewers. Rehabilitation projects ranging in size from lining 4-inch gravity sewer laterals to lining 48-inch gravity sewer mains.

Prentis Park Water & Sewer Rehabilitation/Replacement Project, City of Portsmouth, VA: Provided quantity calculations for the design to rehabilitation/replacement of approximately 35,000 LF of sewer and approximately 28,000 LF of water main to be completed in eight phases.

Falls Run Interceptor Sewer Replacement, Stafford County, VA: Project Engineer for the replacement of approximately 12,000 linear feet of existing 18-inch asbestos cement sewer pipe with new 30 and 36-inch sewer lines that parallel Falls Run from Interstate 95 to the existing Falls Run Sewage Pump Station located near the intersection of US Route 17 and US Route 1.

Various Annual Contract Water Projects, City of Charlottesville Department of Public Utilities, Charlottesville, VA: Staff/Project Engineer for numerous completed and ongoing utilities water projects under this annual services contract.
H. Lance James
Senior Project Designer

As a Senior Design Technician, Mr. James is responsible for CAD drafting and design of construction drawings in multiple fields of Civil Engineering including municipal water and sewer projects, landfill projects, site development projects, mapping projects, and surveying projects. His expertise includes AutoCAD/Land Development Desktop, municipal water and sewer drafting/design, base map compilation, site development drafting/design, and easement plat preparation.

**Cumberland County Route 60 Waterline Extension, Cumberland County, VA:** Senior Project Designer for the mapping and engineering design services for approximately 11,000 linear foot water main along Route 60 to Route 45.

**College Park Pump Station and Waterline, City of Staunton, VA:** Senior Project Designer for the detailed design and bidding for a new fire flow booster pump station, 8,000 LF of 16 inch, 12 inch, and 8 inch water main, and an engine driven backup pump.

**Powhatan Route 60 Flat Rock Waterline Booster Station, County of Powhatan, VA:** Senior Project Designer for an analysis of the water distribution system to identify the required flow rate and discharge pressure of the water booster station. The project scope also included the development of a control scheme for the water booster station which would enable the station to operate automatically based on a number of system parameters or remotely through controls located at the County’s operation center.

**Piney River Water and Wastewater System, Lovingston, VA:** Senior Project Designer. The water project included design of 35,500 linear feet of 12-inch, 8-inch, and 6-inch water main and a pressure reducing valve vault. The sewer project included design of a collection system that includes 13,000 LF of small diameter force main, 9,000 LF of force main, and related service laterals and grinder pumps.

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Education

- AAS/Drafting and Design Technology/J. Sargeant Reynolds Community College

Areas of Expertise

- AutoCAD/Land Development Desktop
- Municipal Water and Sewer Drafting/Design
- Base Map Compilation
- Site Development Drafting/Design
- Easement Plat Preparation
Lee O. White, LS
Director of Surveying

As Director of Surveying for Draper Aden Associates, Mr. White is responsible for the coordination of surveying services in all Draper Aden Associates’ offices. Mr. White’s surveying experience encompasses boundary and topographic surveys, hydrographic surveys, design and route surveys, stake-out for numerous major construction projects, geodetic surveys, cadastral surveys, and surveys for wetland delineations. He has worked with a wide range of clients including private and public utility companies, state and local municipalities, land development companies, real estate firms, law firms, the Corps of Engineers, and architectural firms.

Locks Booster Pump Station PER and Design, City of Petersburg, VA: Director of Surveying for the surveying and SUE services associated with a PER to analyze the City’s water model and the design of approximately 2,000 LF of 16-inch water main.

Annual Contract, Henrico County, VA: Director of Surveying for all Draper Aden Associates Henrico County projects performed under current and previous utilities engineering contract.

Hampton Roads Sanitation District Surveying Annual Contract, Hampton Roads, VA: Director of Surveying for all tasks under this annual surveying contract. The initial task included the collection of vertical and horizontal data on 32 pump stations, four pressure control valves, and 750 manholes within the north shore system of the Hampton Roads Sanitation District’s (HRSD) system. The information collected was utilized to update the HRSD GIS Database and will be used to hydraulic models.

Prentis Park Water and Sewer Rehabilitation/Replacement, City of Portsmouth, VA: Project Surveyor/S.U.E. Project Manager for the rehabilitation/replacement of approximately 35,000 LF of sewer and approximately 28,000 LF of water main. Draper Aden Associates provided surveying services for an area that encompassed approximately 194 acres and contains approximately 850 parcels of various sizes.

Education
- Auburn University (Forest Management)
- Southern Union State Junior College/(General Curriculum)

Professional Registration(s)
- Certified Land Surveyor/1988/VA

Areas of Expertise
- Boundary Surveys
- Topographic Surveys
- Hydrographic Surveys
- Design and Route Surveys
- Stake-Out
- Geodetic Surveys
- Cadastral Surveys
Mr. Ingram serves as Survey Team Leader with surveying experience that includes construction stake-out, geodetic control surveying, boundary and topographic surveying, “as-built” surveys for the United States Army Corps of Engineers, as well as utility locations and wetlands delineation.

**Water and Sewer Rate Study, City of Petersburg, VA:** Provided surveying services for a water and sewer rate study for the City of Petersburg.

**Annual Contract, Henrico County, VA:** Survey Team Leader for all of the Henrico County projects performed under current and previous utilities engineering contract. Land Surveying was a component for the following recent projects under this contract:
- Brook Road Water Improvements
- Broadly, Mayfield, and Broad Street Village Fire Flow Enhancement
- River Road Pressure Zone Improvements
- Mapleton Road Sewer Rehabilitation
- Greendale Manor Water and Sewer System Improvements
- Hermitage Farms Water System Improvements
- Dartmouth Avenue and Horsepen Road Area Water Main Replacement

**Manhole Inspections for Sewer Shed Sh-01, City of Richmond, VA:** Survey Project Manager, working for CH2M Hill, for the surveying and inspection of over 500 manholes within one sewer basin in the City of Richmond.
Mr. White serves as the Survey and S.U.E. Project Manager. His surveying experience includes construction stake-out, geodetic control surveying, boundary and topographic surveying, “as-built” surveys for the United States Army Corps of Engineers, as well as utility locations and wetlands delineation. In addition to traditional surveying and utility-locating procedures, Mr. White is experienced in utilizing Subsurface Utility Engineering (including vacuum truck excavation and GPR) processes to accurately locate and map underground utilities.

Prentis Park Water and Sewer Rehabilitation/ Replacement, City of Portsmouth, VA: Project Surveyor/S.U.E. Project Manager for the rehabilitation/replacement of approximately 35,000 LF of sewer and approximately 28,000 LF of water main. Draper Aden Associates provided surveying services for an area that encompassed approximately 194 acres and contains approximately 850 parcels of various sizes.

Annual Contract, Henrico County, VA: S.U.E. Project Manager for the subsurface utility location on numerous water and sewer system improvement projects under the Henrico County DPU Annual Contract.

Hampton Roads Sanitation District Sewer Mapping, Hampton Roads, VA: Survey Project Manager for the collection of vertical and horizontal data on 32 pump stations, four pressure control valves, and 750 manholes within the north shore system of the HRSD system.

Richmond Riverfront, Development and Combined Sewer Outfall Project, Richmond, VA: Lead Party Chief in the construction stakeout for the entire project. Stakeout duties included storm and sanitary sewer under canal, the 14th Street Bridge and associated amenities.

Education
- Auburn University/Civil Engineering Course Work
- J.S. Reynolds Community College/Land Surveying Course Work

Professional Registration(s)
- Land Surveyor In Training/2004/VA

Areas of Expertise
- Subsurface Utility Engineering
- Boundary surveys
- Topographic surveys
- Hydrographic surveys
- Stake-out
- Geodetic surveys
- Design and route surveys

20 years with the firm
20 years of experience
As Director of Geotechnical Engineering and Construction Management, Mr. Piazza is responsible for the performance of subsurface explorations, field and laboratory test programs, data reduction and analysis and design recommendations, technical presentations and project management. In addition, Mr. Piazza oversees all QA/QC, construction inspection, and construction management projects.

**Flat Rock Pump Station, Powhatan County, VA:** Performed over 100 soil borings and several rock cores for the design of a sewer pump station that corresponded with the water and sewer extensions to the Flat Rock Area of the Route 60 commercial corridor.

**Route 60 Water Booster Station, Powhatan County, VA:** Provided special inspections services for the construction of a 600 gpm water booster station.

**Bookerdale Road, City of Waynesboro, VA:** Provided quality control testing during the construction of a new pump station to replace an existing pump station that was in poor condition and did not have capacity to meet existing flows. The new pump station will have a capacity of approximately 2.0 MGD.

**District Home Creek Trunk Sewer, City of Waynesboro, VA:** Geotechnical Engineer of Record for the upgrade of approximately 13,000 LF of trunk sewer from 12-inch up to 18, 21, and 24-inch, approximately 5,600 LF of 12-inch force main, a 3,200 gpm pump station, 4,000 LF of 16-inch force main.

**Austin Run Gravity Sewer and Pump Station, County of Stafford, VA:** Performed a geotechnical investigation and a subsurface evaluation for the design and construction of a 30 MGD screw pump station at the Aquia WWTP.

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18 years with the firm
21 years of experience

**Education**
- B.S./1990/Civil and Environmental Engineering/Clarkson University

**Professional Registration(s)**
- Professional Engineer/1997/VA
- VDOT Field Certification - Concrete Radiological Health and Safety Training
- OSHA 24 hr Safety Training

**Areas of Expertise**
- Concrete Construction & Testing
- Construction Management
- Foundation Analyses
- Geosynthetics
- Hydraulics & Hydrology
- Landfill Construction Quality Assurance
- Pavement Analysis
- Soils Laboratory Management


Section 1 – Qualifications and Experience

Guidelines Section IV.A.1

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c. Contact Information (IV.A.1.c.)

c. Provide the names, addresses, and telephone numbers of persons within the firm or consortium of firms who may be contacted for further information.

Mr. Ed Stelter, LEED AP, DBIA  
Faulconer Construction Co., Inc.  
PO Box 7706  
Charlottesville, VA 22906  
Phone: 434-295-0033  
Fax: 434-295-0508  
Email: estelter@faulconerconstruction.com

Mr. Frederick Pribble, PE  
Draper Aden Associates, Inc.  
8090 Villa Park Drive  
Richmond, VA 23228  
Phone: 804-264-2228  
Fax: 804-264-8773  
Email: fpribble@daa.com

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d. Most Recently Audited Financial Statement (IV.A.1.d.)

d. Provide a current or most recently audited financial statement of the firm or firms and each partner with an equity interest of twenty percent or greater.

Financial statements for Faulconer Construction are considered proprietary information and are contained within Volume II.

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e. Disqualification Statement (IV.A.1.e.)

e. Identify any persons known to the proposer who would be obligated to disqualify themselves from participation in any transaction arising from or in connection to the project pursuant to the Virginia State and Local Government Conflict of Interest Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2.

Faulconer Construction, G. L. Howard and Draper Aden Associates are unaware of anyone on our Team who would be obligated to disqualify themselves from participation in any contract arising from this PPEA proposal. No Conflict of Interest to our knowledge exists with the Project (Poor Creek Sewer Force Main Replacement/Rehabilitation PPEA project) or with the City of Petersburg.
Section 2 – Project Characteristics
Guidelines Section IV.A.2

a. Description of the Project (IV.A.2.a.)

a. Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that type and intent of the project, the location, and the communities that may be affected are clearly identified.

The City of Petersburg owns and operates the Poor Creek pump station force main, which goes from the Poor Creek pump station to the South Central WWTP and travels mostly along the east side of the Norfolk & Southern Railroad right-of-way. The City of Petersburg owns and operates this force main, which parallels the Norfolk and Southern Railroad right-of-way north of the pump station. This approximately 12,500 linear foot 20 and 24-inch force main distributes wastewater flows to the South Central Wastewater Treatment Plant on the north side of the Appomattox River. The goal of this project is to extend the service life of the existing force main while accommodating future needs of the City.

Detailed and specific project details, descriptions and plans of our proposed solutions can be found within Volume II – Section 2 (Propriety and Confidential).

b. Work to be Performed City of Petersburg (IV.A.2.b.)

b. Identify and fully describe any work to be performed by the City or any other public entity.

The City of Petersburg will be responsible for the following work:

1. Review and approval of contract documents within a mutually agreeable time schedule.
2. Final review and approval of all design, equipment, and material selection within a mutually agreeable time schedule.
3. Direct payments to Norfolk & Southern Railroad for work within the railroad right-of-way.
4. Obtain additional land as needed for additional facilities including all related legal services. The Design-Build team will prepare easement acquisition plats. (Both for permanent utility and temporary construction.)
5. Any third party reviews of the proposal, design documents, or additional inspection will be the responsibility of the City of Petersburg.
6. Direct payments to land owners for any necessary easement acquisitions. Notify property owners where access is required for all field services.
7. Provide DAA with access to all city GIS files.

c. Permits and Approvals Required (IV.A.2.c.)
c. Include a list of all federal, state, and local permits and approvals required for the project and a schedule for obtaining such permits and approvals.

The project Team anticipates the following permits and approvals.

- **Delineation of Waters of the U.S. [wetlands and streams]** - Draper Aden Associates will delineate Waters of the U.S. features within the proposed project corridor. The boundary of such features will be field flagged and GPS located. Deliverables include a wetland delineation map, associated field data station documentation, a brief memo summarizing the findings of our delineation (internal only) and a confirmation request letter to USACE to review and confirm the jurisdictional boundary. Also included is a confirmation site visit to review the findings of the delineation in the field with the regulatory agencies.

- **Chesapeake Bay Preservation Areas** - Review and field confirmation of Resource Protection Areas, if any, located within the project corridor.

- **Permitting** – A completed Joint Permit Application (JPA) will be prepared and submitted to the Virginia Marine Resource Commission (VMRC) who distributes the application to USACE and DEQ for further comment. As part of the JPA, Draper Aden Associates will review and include information regarding threatened and endangered species, if any, as well as documented historical sites known to exist within the project area.

This work does not include optional services such as Phase I Cultural Resource Surveys, National Park Service special use permits or site access permits which may be required from railroad companies operating and maintaining rail lines adjacent to the proposed project corridor.

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**d. Adverse Social, Economic, and Environmental Impacts (IV.A.2.d.)**

*d. Identify any anticipated adverse social, economic, and environmental impacts of the project. Specify the strategies or actions to mitigate known impacts of the project.*

The proposed improvement to this existing force main will have no adverse social and economic impacts. However, as with normal land disturbance activities during construction operations, there will be minor environmental impacts. In the progress of the work, there will be minimal environmental impacts to four (4) low lying and/or wetland areas and will require clearing of minor forested areas. Our project team will address these environmental impacts by designing and installing proper erosion and sediment controls throughout the project area. Strict adherence to erosion and sediment control measures and Corps of Engineers Nationwide Permit 12 requirements will mitigate these impacts.

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**e. Positive Social, Economic, and Environmental Impacts (IV.A.2.e.)**
Section 2 – Project Characteristics

Volume I

Guidelines Section IV.A.2

e. Identify the projected positive social, economic, and environmental impacts of the project.

This project will have a major positive environmental impact by virtually eliminating sanitary sewer overflows during major rainfall events and extend the useful life of the existing force main serving the pump station. In addition, the City will minimize and/or eliminate pipe failures along portions of the force main that have failed in the past years.

f. Proposed Schedule (IV.A.2.f.)

f. Identify the proposed schedule for the work on the project, including the estimated time for completion.

The proposed schedule can be found in Volume II - Section 2 (Propriety and Confidential).

g. Allocation of Risk and Liability (IV.A.2.g.)

g. Propose allocation of risk and liability for work completed beyond the agreement’s completion date, and assurances for timely completion of the project.

Faulconer has a track record for successfully bringing in 100% of our projects on time. To that end and by the design for this procurement method, Faulconer will assume the risk and liability for both the design and construction aspects of the project. This significantly moves risk away from the City of Petersburg.

During final contract negotiations, a mutually acceptable schedule will be agreed upon by the Team and the City to ensure timely completion of the project. Terms of proposed incentives and/or liquidated damages can be negotiated into a contract should the City choose. Once the project proceeds, our Team will accept the risk and liability for schedule delays that are within our own control and expect the City to grant an equitable adjustment to the contract for delays beyond the control of our Team.

The single most significant financial risk to an Owner could be default by the Contractor. Faulconer will provide surety in the form of Performance and Payment Bonds to guarantee satisfactory completion of the work and payment of all subcontractors and suppliers. Should Faulconer default on the contract or otherwise fail to pay its subcontractors and suppliers, the Surety will assume the outstanding contractual obligations to the City, and the subcontractors and suppliers to ensure the project will be completed.

Furthermore, a one (1) year guarantee and warrantee will be in effect upon completion of the work. Any outstanding or persisting issues will be remedied by the project Team.
h. Ownership and Operational Assumptions & Restrictions (IV.A.2.h.)

h. State assumptions related to ownership, legal liability, law enforcement, and operation of the project and the existence of any restrictions on the City's use of the project.

Once the new force main is in service, the City will have full ownership of the new pipelines and will be responsible to operate and maintain these new systems. However, Faulconer will guarantee the work for one (1) year upon the completion of the work. Any outstanding or persisting issues within that one (1) year period will be remedied by the project Team.

If required and necessary, the City will be responsible for paying all right-of-entry and permit fees to Norfolk & Southern Railroad for any force main maintenance or replacement work located within the railroad right-of-way.

i. Phased or Partial Openings (IV.A.2.i.)

i. Provide information relative to phased or partial openings of the proposed project prior to completion of the entire work.

Information regarding project phasing and opening of the project prior to completion of the entire project can be found under this heading in Volume II - Section 2 (Propriety and Confidential).

j. Other Assumptions (IV.A.2.j.)

j. List any other assumptions relied on for the project to be successful.

In order for our Team to provide the most competitive and successful proposal to the City, we have made the following assumptions:

1. Timely review of any report, preliminary layouts and final plans, and submittals by the City of Petersburg.
2. City of Petersburg to assist with any necessary acquisitions of permanent and/or temporary utility easement(s)
3. Timely acquisition of easement(s) by the City of Petersburg.
4. Final operation and ownership of the system by the City of Petersburg.
5. No hazardous or contaminated material will be encountered in the pipeline excavation work.
6. Poor Creek Pump Station flow equalization facility is on-line and operable. This facility will be used to manage flows if necessary.
7. No significant design/materials changes will be made.

Other project assumptions can be found in Volume II - Section 2 (Propriety and Confidential).

**k. Contingencies (IV.A.2.k.)**

*k. List any contingencies that must occur for the project to be successful.*

Project contingencies can be found in Volume II - Section 2 (Propriety and Confidential).
Section 3 – Project Financing

Volume I

Guidelines Section IV.A.3

a. Preliminary Estimate and Estimating Methodology (IV.A.3.a.)

a. Provide a preliminary estimate and estimating methodology of the cost of the work by phase, segment, or both.

See Volume II – Section 3 (Propriety and Confidential) for this information.

b. Development, Financing, and Operation Plan (IV.A.3.b.)

b. Submit a plan for the development, financing, and operation of the project showing the anticipated schedule on which funds will be required. Describe the anticipated costs of and proposed sources and uses for such funds including any anticipated debt service costs. The operational plan should include appropriate staffing levels and associated costs. Include supporting due diligence studies, analyses, or reports.

Based on discussions with City personnel, the City of Petersburg anticipates providing financing for the implementation of the project using local funds commonly used to fund capital improvement and maintenance projects of this nature.

The City will be responsible for monthly progress payments submitted by Faulconer and mutually agreed to by the City. The progress payments will be submitted on a monthly basis with payment due within 30 days.

Based on our Team’s phased approach as described in Volume II - Section 2, Phase I and Phase II services are part of our base project proposal fee, however Phase III services are optional depending on the outcome of the Phase II services.

The City of Petersburg will be responsible for the ongoing operation and maintenance of the sewer line after completion of the project. Faulconer will guarantee the work for one (1) year upon the completion of the work. Any outstanding or persisting issues within that one (1) year period will be remedied by the project Team.

c. List and Discussion of Assumptions (IV.A.3.c.)

c. Include a list and discussion of assumptions underlying all major elements of the plan. Assumptions should include all significant fees associated with financing given the recommended financing approach. In addition complete disclosure of interest rate assumptions should be included. Any ongoing operational fees, if applicable, should also be disclosed as well as any assumptions with regard to increases in such fees.
Based on discussions with City personnel, the Project Team understands that the City will provide 100% of the financing required for the project through funding sources commonly used to fund capital improvement and maintenance projects of this nature. Our Team assumes there are no significant fees or interest rates associated with financing the project.

The City of Petersburg will be responsible for the ongoing operation and maintenance of the sewer line after completion of the project and should anticipate such costs for future operation and maintenance. As stated in the previous section, Faulconer will guarantee the work for one (1) year upon the completion of the work. Any outstanding or persisting issues within that one (1) year period will be remedied by the project Team.

d. Risk Factors (IV.A.3.d.)

d. Identify the proposed risk factors and methods for dealing with these factors.

First and foremost, by entering into a design-build contract for the work, the City of Petersburg significantly reduces its risk by eliminating its exposure to increased construction costs and delays resulting from design errors and omissions. The Team will work closely with the City of Petersburg and other project stakeholders to identify any problems during the design phase. These problems will be dealt with and solutions found prior to the start of construction.

As previously stated, the single most significant financial risk to an Owner could be default by the Contractor. Faulconer will provide surety in the form of Performance and Payment Bonds to guarantee satisfactory completion of the work and payment of all subcontractors and suppliers. Should Faulconer default on the contract or otherwise fail to pay its subcontractors and suppliers, the Surety will assume the outstanding contractual obligations to the City, and the subcontractors and suppliers to ensure the project will be completed.

e. Local, State, or Federal Resource Commitments (IV.A.3.e.)

e. Identify any local, state, or federal resources that the proposer contemplates requesting for the project. Describe the total commitment, if any, expected from governmental sources and the timing of any anticipated commitment. Such disclosure should include any direct or indirect guarantees or pledges of the City’s credit or revenue.

Based on discussions with City personnel, the City of Petersburg anticipates providing financing for the implementation of the project using local funds. Therefore, the Project Team does not contemplate seeking additional project financing from any other local, state or federal source to finance the construction of the project.
**f. Amounts and Terms and Conditions for Revenue Sources (IV.A.3.f.)**

*f. Identify the amounts and the terms and conditions for any revenue sources.*

There are no known revenue sources associated with this project.

**g. Tax-Exempt Financing (IV.A.3.g.)**

g. Identify any aspect of the project that could disqualify the project from obtaining tax-exempt financing.

No known aspect of the project will disqualify the project from obtaining tax-exempt financing.
Section 4 – Project Benefit and Compatibility

Volume I
Guidelines Section IV.A.4

a. Project Benefits (IV.A.4.a.)

a. Identify who will benefit from the project, how they will benefit, and how the project will benefit the City, region, or state.

The Community benefits are both economic and environmental. Economic long-term benefits will be received because these improvements will mitigate any future pipe failures, repair costs, and sewage overflows that impact our environment.

b. Private or Public Support of Opposition (IV.A.4.b.)

b. Identify any anticipated public support or opposition, as well as any anticipated government support or opposition, for the project.

The proposed PPEA approach to this project offers the City a low-risk, fast-track, cost-effective, and short-term solution to meet the City’s desire to improving the life and performance of the Poor Creek Pump Station Force Main. No public or governmental opposition to the project is expected. The Design Build Team has been in contact with Norfolk & Southern Railroad on the proposed improvements and we believe that our proposed design will be considered acceptable to this property owner / manager.

c. Public and Stakeholder (IV.A.4.c.)

c. Explain the strategy and plans that will be carried out to involve and inform the general public, business community, and governmental agencies in areas affected by the project.

If desired, our Design-Build Team will help prepare for and conduct a public meeting on a date designated by the City to explain the importance of the project.

d. Anticipated Benefits (IV.A.4.d.)

d. Describe the anticipated significant benefits to the community and the City, region or state, including anticipated benefits to the economic condition of the City and whether the project is critical to attracting or maintaining competitive industries and businesses to the City or the surrounding region.

Owing to the fact that a sound wastewater conveyance is a vital function for the economic vitality and overall health of the residents of Petersburg, we feel that developing a sound strategy to economically and efficiently repair a failing system while greatly extending the system’s service life is a significant benefit the City and the surrounding community. Our
Design-Build Team has developed a plan that will ensure long-term safe and reliable wastewater conveyance, minimize unnecessary maintenance and repair expenditures, and reduce the likelihood of environmental and health impacts due to the unintentional release of untreated wastewater.

**e. Compatibility with City’s Comprehensive Plan (IV.A.4.e.)**

Describe compatibility with the City’s comprehensive plan, infrastructure development plans, the capital improvements budget, or other government spending plan.

Referencing the City of Petersburg’s Comprehensive Plan: “These utility services are a vital function for the economic vitality and overall health of the residents of Petersburg.” “Reliable existing service to older neighborhoods is important to encourage revitalization efforts.” “The Capital Improvement Program acknowledges the maintenance needs and has earmarks for investment in the aging infrastructure to prevent failure in the system.” Furthermore, regulations require that agencies maintain their systems to prevent environmental degradation.

To that end, this project is compatible with the City’s comprehensive plan, infrastructure maintenance plans and associated maintenance and capital spending.

**f. DBE Participation Plan (IV.A.4.f.)**

Provide a statement setting forth participation efforts that are intended to be undertaken in connection with this project with regard to the following types of businesses: (i) minority-owned businesses, (ii) woman-owned businesses, and (iii) small businesses.

As a former SWaM Contractor, Faulconer has guidelines (found on the following two pages) that it uses for each project the company pursues that requires small business/diversity goals. Faulconer employs this policy of free competition and fair play for all subcontractors and suppliers interested in providing their services to our organization. Furthermore, Faulconer has a long history of providing opportunities to a wide array of Small, Underutilized and Disadvantaged Business Concerns on the federal and state level.

Our dedicated teaming partners, G.L Howard and Draper Aden Associates, are both Virginia Department of Minority Business Enterprise (DMBE) Certified SWaM firms. (GLH and DAA Certification information can be found on the last page of this section.) In addition to already utilizing these two SWaM firms, we will continue to seek other subcontracting and material procurement opportunities that will allow greater participation by SWaM firms.
POLICY: Faulconer Construction Company is committed to supporting and developing business relationships Disadvantaged Business Enterprises. Working with these small, local, or disadvantaged companies is not only beneficial to us but the community as well, and we endeavor to promote employing them each time we are able. Our objective is to become a leader of Supplier Diversity in the construction industry.

Solicitation and Procurement Guidelines

- **Identify Needs and Available Opportunities:**
  - Using the project specifications and plans determine which work or industry trade classifications would pertain to the project needs.
  - Verify that the DBE list on file is current. If the list is not current, obtain new list of Certified DBE vendors from Virginia Department of Minority Business Enterprises (VMDBE) [http://www.dmbe.virginia.gov/swam_reports/dbe_listing.htm.gz](http://www.dmbe.virginia.gov/swam_reports/dbe_listing.htm.gz)

- **Geographic Outreach Area:**
  - Locate project site then use map programs or other means to determine vendors within serviceable distance from project location. Do not limit the search to only a given geographical area. Some specialty firms are not bound by geographical constraints.

- **Past Performance or History:**
  - Routinely contact firms that have historically provided competitive pricing or have successfully supplied or performed work on projects for Faulconer.

- **Direct Contact:**
  - In order to ensure the best coverage and generate the most interest all of the following methods may be used.
    - Direct fax contact.
    - Direct email contact.
    - Direct phone contact.
    - Direct mail contact.

- **Other Methods of Outreach**
  - Attend annual SWaM Fest.
  - Attend yearly DBE Picnic.
  - Host project specific open house if size or scope of project warrants.
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DBE Solicitation Guidelines

- General Advertisements and Outreach:
  - Select a daily newspaper in the closest town or city to the project location.
  - Select at least one or two additional mainstream newspapers from larger metropolitan areas that are traditionally circulated within the projects general region. (It is strongly encouraged to advertise in the Richmond Times Dispatch.)
  - Optionally advertise in the Richmond Free Press (http://www.richmondfreepress.com)
  - Contents of Advertisement:
    - Project name and location.
    - Faulconer’s role in the project.
    - Scope of supplies or services needed.
    - Where plans and specs can be accessed.
    - Proposal due date and time.
    - Offer technical assistance and assistance with obtaining bonding, lines of credit and/or insurance.

Sample Advertisement

INVITATION FOR BID
On mm-dd-yyyy, Faulconer Construction Co., Inc. will be bidding as a prime contractor on the following project and is requesting subcontractors and supplier quotations:

Project Title, Location

The project consists of (Describe scope of work and/or materials sought. Be specific.) clearing & grubbing, erosion control, excavation, surface demolition, building demolition, storm sewer, aggregate stone, concrete flat work, asphalt paving, extensive electrical work, fencing, geotechnical testing, miscellaneous metal items and seeding, etc.

Certified DBEs, Small, Women, and Minority-owned (SWaM) firms are invited to submit proposals on any item(s) that may pertain to its specialty or interest. Faulconer may provide technical assistance and/or assistance with obtaining bonding, lines of credit and/or insurance. Plans/specifications may be reviewed at (Faulconer office location and/or direct web portal link). All quotations are due to Faulconer no later than XX:XX on mm-dd-yyyy.

Call XXX-XXX-XXXX for further info, or fax quote to XXX-XXX-XXXX. Faulconer Construction Co., Inc. is an EOE Employer and Contractor.

Good Faith Tracking

- Solicitations should be made using traceable communication such as fax or email whenever possible. All attempts should be confirmed with fax transmittal logs, if the request was sent by fax or e-mail delivery receipts, if request was made through e-mail.
- All verification is to be kept and available to be submitted with the bid if requested. If contact was made through a non-verifiable method such as the phone all of those types of communication should be tracked using logs.
- If the contact is made by phone, phone logs must include company name, phone number and date/time of effort and outcome, i.e. left voice mail message, phone disconnected, no answer, not interested, too busy, etc. If contact is successful, record of the name of who was spoken to and whether request was accepted or denied must be recorded. These records should be logged and be ready to turn in with bid if requested as well.
# Section 4 – Project Benefit and Compatibility

## Volume I

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<th>SWaM Type</th>
<th>SWaM Cert#</th>
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<th>Company Name/Mailing Address</th>
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<td>S</td>
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<td>G. L. HOWARD, INC. Doing Business As: G. L. HOWARD, INC. Post Office Box 9  Rockville, VA  27145 Contact: WILLIAM E. HOWARD Phone: (600)330-2010 Fax: (804)300-2070</td>
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<td>S</td>
<td>667101</td>
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<td>DRAPER ADEN ASSOCIATES, INC. Doing Business As: DRAPER ADEN ASSOCIATES, INC. 2206 SOUTH MAIN STREET  BLACKSBURG, VA  24601 Contact: JEFFREY LIGHTHISER Phone: (004)264-2229 Fax: (004)264-5773</td>
<td>N</td>
<td>NSP Code and Description 90742 GEOTECHNICAL-SOILS 90779 SURVEYOR SERVICES (NOT AERIAL OR RESEARCH) 91275 QUALITY CONTROL TESTING SERVICES FOR CONSTRUCTION 91842 ENGINEERING CONSULTING 91843 ENVIRONMENTAL CONSULTING 92517 CIVIL ENGINEERING 92551 LAND DEVELOPMENT AND PLANNING ENGINEERING 92586 SURVEYOR SERVICES, LAND 92588 STRUCTURAL ENGINEERING 92598 ENVIRONMENTAL AND ECOLOGICAL SERVICES 95291 UTILITY LOCATOR SERVICE (UNDERGROUND)</td>
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