



REQUEST FOR LETTER OF INTEREST  
CONTRACT# ELE/211020

# ■ Professional Electric Design & Engineering Services

City of Ocala

January 28, 2022



gai consultants®

Robert Andrews  
Buyer  
City of Ocala  
randrews@ocalafl.org



**RE: Letter of Interest  
Professional Electric Design & Engineering Services**

Dear Mr. Andrews:

GAI Consultants, Inc. (GAI) is pleased to submit this Letter of Interest for Professional Electric Design & Engineering Services to the City of Ocala (Ocala). We are submitting this Proposal in response to your Request for Letter of Interest (LOI) dated January 7, 2022.

GAI has been serving the energy industry for over 60 years. With a team of dedicated engineering and environmental staff, we provide clients with the technical expertise, depth of experience, and local knowledge required to complete projects within budget and on schedule from the initial planning stages through construction.

**Company Overview.** Founded in 1958 in Pittsburgh, Pennsylvania, GAI has grown to approximately 800 employees located in 26 offices spanning across 12 states throughout the Northeastern, Midwestern, Southeastern and Southwestern regions of the United States (U.S.). Four of our offices are in Orlando, Jacksonville, Tampa, and Palm Beach Gardens, Florida allowing us to provide local service with additional support from our remaining offices.

GAI's business structure is such that our engineering, environmental, and cultural resources staff are all integrated. This enables us to work closely with one another across multiple disciplines to support Ocala while maintaining efficiency and flexibility to adapt to current conditions. In addition, GAI's responsiveness and flexibility to meet the demands and evolution of Ocala projects are highlighted by utilizing a more than 500-person team of technical staff who are experienced in Energy related projects.

GAI is currently ranked 116 out of *Engineering News-Record's* Top 500 Design Firms. Our commitment to proactive employment of the most proficient and motivated talent helps our clients tackle the ever-changing challenges of our industry, technology, and regulatory practices. In the process, GAI has become an engineering and environmental hub of in-house engineers, designers, scientists, biologists, geologists, hydrologists, surveyors, zoologists, cultural resources specialists, and other professionals who are always accessible to our clients. We study, analyze, design, build, inspect, and manage for our clients, pooling our skills and resources to deliver superior client services throughout the U.S.

**The GAI Advantage.** GAI understands that communication is the foundation upon which successful project completion is built. From siting through post-construction, we provide comprehensive services to support our clients' needs. Our mission is to grow responsibly and operate consistently; to anticipate the needs of our clients by observing and always looking forward, and keeping up with changing requirements and improving technologies; and to fully build and support a diverse staff so that they may continue to meet Ocala's needs.

Capitalizing on our experience with other Florida-based municipal electric systems and investor owned utilities, GAI will quickly learn and adapt to be a highly efficient partner of Ocala. GAI has been a valued distribution design consultant to FPL for more than five years and has a thorough understanding of their system and standards. However, we recognize that every utility company has unique methods and challenges. We will build upon our experience by quickly learning Ocala's methods and standards so that we can be an extension of your internal design team.

**Closing.** GAI appreciates the opportunity to submit this Letter of Interest to Ocala. We look forward to working with and assisting Ocala in achieving the established goals for this project. Please call or email me at 412.399.5442 or d.bevilacqua@gaiconsultants.com, if you have immediate questions or if we can be of further assistance.

Sincerely,

**GAI Consultants, Inc.**

David Bevilacqua  
Vice President

Gretchen Horn, MBA, PMP  
Director / Senior Associate





# TABLE OF CONTENTS

<b>Cover Letter</b>	<b>1</b>
<b>Table of Contents</b>	<b>2</b>
<b>A. Proposer's Information and Contact</b>	<b>3</b>
<b>B. Qualifications and Experience</b>	<b>5</b>
Firm Experience: Transmission Line Engineering and Design	5
Firm Experience: Distribution Engineering and Design	6
Firm Experience: Substation and P&C Engineering and Design	7
Firm Experience: General Substation, Transmission, Distribution, & Renewables Planning/Permitting Services	8
Project Manager	9
<b>C. Project Understanding</b>	<b>10</b>
Communication	10
Scheduling and Resource Allocation	10
Project Approach	10
Organizational Chart	14
<b>D. Staffing Plan</b>	<b>15</b>
Leadership	15
Key Staff	17
<b>E. Quality Assurance / Quality Control (QA/QC)</b>	<b>20</b>
<b>F. Similar Projects Completed</b>	<b>21</b>
<b>G. References</b>	<b>29</b>
<b>Appendices</b>	<b>30</b>
Appendix A – Resumes	
Appendix B – Sample Insurance Certificates	
Appendix C – Exhibit B DSBE Utilization Form	

## B. PROPOSER'S INFORMATION AND CONTACT

### CORPORATE INFORMATION

Founded in 1958, GAI is an approximately 600-person, employee-owned, engineering and environmental consulting firm with experience delivering innovative engineering solutions. GAI's extensive team includes 24 office locations spanning across 12 states throughout the Northeast, Midwest, and Southern United States, which will enable us to quickly and efficiently initiate projects for the City of Ocala.

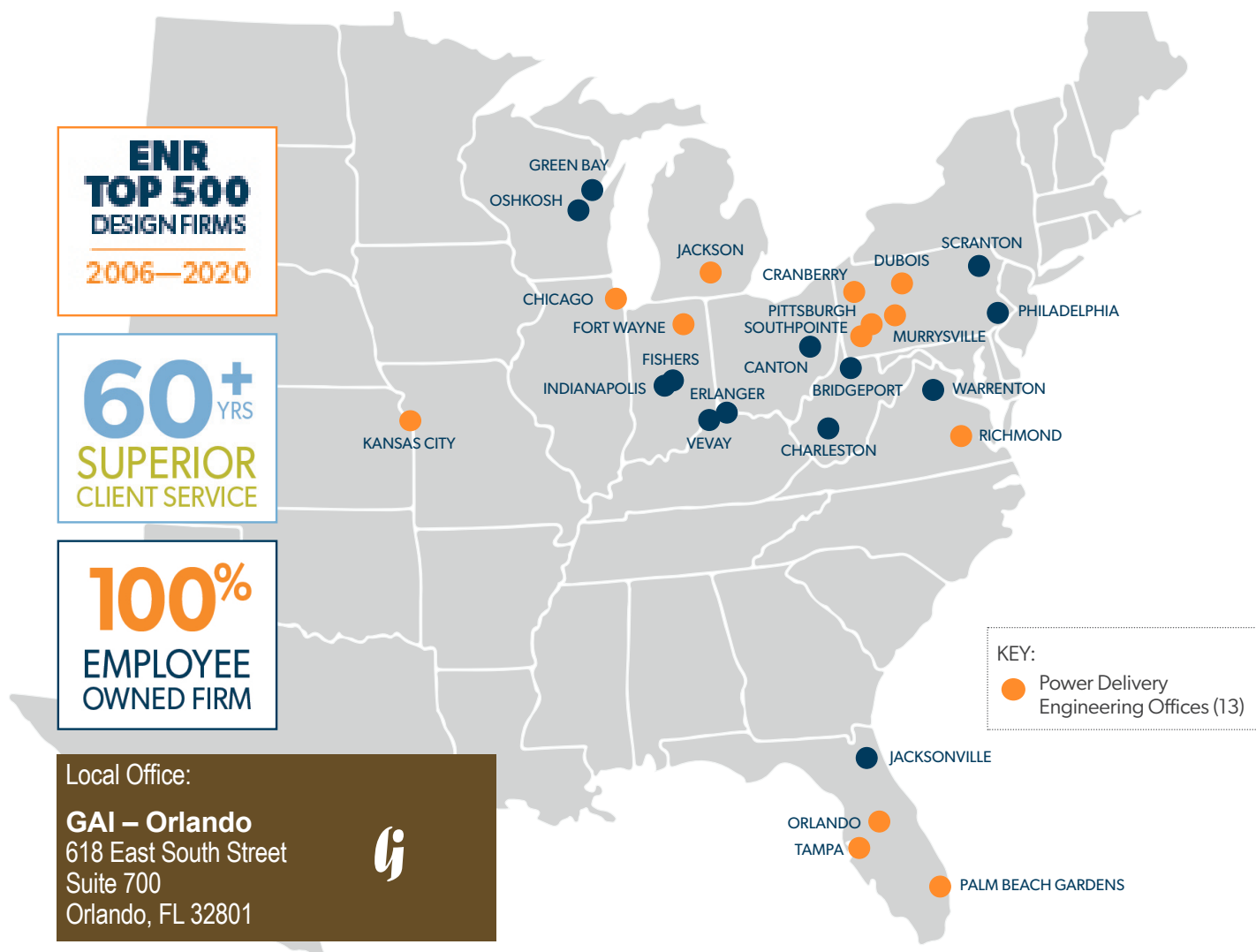
GAI is currently ranked 116 out of Engineering News-Record's Top 500 Design Firms. Our commitment to proactive employment of the most proficient and motivated talent helps our clients tackle the ever changing challenges of our industry, technology, and regulatory practices. In the process, GAI has become

an engineering and environmental hub of in-house engineers, scientists, and other professionals who are always accessible to our clients.

GAI is a corporation organized under the laws of the State of Pennsylvania and authorized to do business within the State of Florida. Our Federal ID Number is 25-1260999. Ms. Gretchen Horn, PMP will serve as the Project Manager. Ms. Horn's qualifications can be found on Page 9 under Section B. Qualifications and Experience.

### BRIEF HISTORY

Founded in 1958 by Carnegie Mellon University engineering graduate students, GAI developed a strong professional reputation in foundation engineering by supporting the needs of nationally recognized industrial







and energy clients. In the late 1960s, and in response to urban growth and mounting environmental regulations, GAI diversified into energy, transportation and land development while adding niche services in survey, environmental studies, and cultural resources—setting GAI apart from more traditional engineering firms. Strategic decisions to open offices located near our clients in growing markets throughout the U.S. led to the rapid growth of our firm. To take advantage of the “building boom” in central Florida following the opening of Walt Disney World, in 1982 GAI opened a subsidiary in Orlando, Florida through the acquisition of Thigpen & Treon, Inc. GAI Consultants-Southeast, Inc. opened at 1833 Edgewater Drive in Orlando, offering site development, structural, and transportation engineering and surveying services. In a corporate-wide consolidation effort, GAI Consultants, Inc. merges with its subsidiary, GAI Consultants-Southeast, Inc., to reorganize the company’s processes for providing premier engineering consulting services to its clients. In 2010, GAI began construction on a new office building located at 618 E. South Street for its Orlando operations. The sustainable facility was designed for LEED® certification and is the first privately-developed green office in Orlando, Florida. The GAI Building opened for business in April 2011.

## SIMILAR CONTRACTS

GAI has similar Contracts with many other utilities including, but not limited to, the following:

1. Utilities Commission of New Smyrna Beach
2. Florida Power & Light
3. Kissimmee Utility Authority
4. JEA
5. Orlando Utilities Commission
6. American Electric Power (AEP)
7. Exelon
8. FirstEnergy
9. Dominion Energy

## WHY SHOULD GAI BE SELECTED?

GAI believes that we would be an excellent partner with Ocala for engineering services projects based on the following factors:

1. GAI has been performing Power Deliver Design Services for Electric Utilities for over 30 years and through this experience has a very good understanding of how utilities operate. We recognize that every utility company has unique methods and challenges. We will build upon our experience by quickly learning Ocala's methods and standards so that we can be an extension of your internal design team.
2. Several of GAI’s engineering leads have prior utility experience. This fact, along with other GAI engineers who have worked in staff augmentation roles for utilities, provides us with invaluable knowledge as to the inner workings of a utility.
3. GAI has the right size staff that allows us to always provide top performers for all of our utility clients. This staffing consists of over 100 Power Delivery Engineering and Environmental Staff.
4. GAI strives to assign and maintain consistent staff for each specific client, which results in more efficient and cost-effective designs.
5. GAI has a good mix of experienced staff along with younger engineers, which allows us to provide highly technical, well thought out, and accurate projects at a reasonable cost.
6. GAI has over 25 Power Delivery staff with 15 or more years of experience.
7. GAI has the capability to provide all of the main required services in house without the need for subcontractors.
8. GAI’s standard philosophy is that we want to do our designs the Client’s way and we apply that approach to all of the work that we do for Utilities.
9. GAI’s staff can perform the simplest to the most complex projects ranging from simple pole replacement/analysis to new greenfield EHV substation design and everything in between.

## B. QUALIFICATIONS AND EXPERIENCE

The following pages contain summaries of our core competencies along with information on recent projects that we have completed in each of the three main Power Delivery engineering disciplines: (1) Substation and Protection & Controls; (2) Transmission Line; and (3) Distribution. We have also included a section describing our general Substation, Transmission, Distribution & Renewables Planning/ Permitting service capabilities. *Please note that we hold confidentiality and publicity agreements with many of our clients and therefore cannot disclose the respective clients or their confidential information for many projects. However, we have provided references including names, utility affiliations, telephone numbers and email addresses for each of the three disciplines later in this document.*

### Services: Transmission Line Engineering

- Evaluation of alternative power delivery options
- Route selection based on terrain
- Structure spotting optimization
- Clearance criteria selection from National Electrical Safety Code
- Development of loading criteria
- Conductor comparison and selection
- Ruling span and finite element modeling
- PLS-CADD, PLS-POLE, PLS-TOWER modeling and analysis
- LIDAR survey data and clearance requirements verification
- Conductor temperature calculation
- Transmission line modeling
- Thermal rating and survey clearance studies
- Clearance violation reporting
- Lattice steel tower modeling, analysis and retrofit design
- Civil and environmental permitting
- 3-pole, H-frame, and single pole design
- Steel and concrete pole procurement

## FIRM EXPERIENCE: TRANSMISSION LINE ENGINEERING AND DESIGN

Power line design requires skill in computer modeling, corridor mapping, design, foundation investigations, and construction oversight. In addition to transmission line design, GAI provides comprehensive services for new above-ground lines and structures (34.5kV to 765kV) including access road design, routing and siting, expert witness testimony, geotechnical studies, foundation design, and permitting. We also specialize in underground design, tower retrofit design; reconductoring and uprating projects; and failure investigations.

### ADDITIONAL TRANSMISSION PROJECT EXPERIENCE

In addition to the projects listed below, GAI understands the unique characteristics that are associated with Florida transmission lines. These characteristics include special soils (sand and organic matter), the use of concrete structures, flat topography and hurricane loading.

- Wood pole design
- Standards development
- Design for and coordination with distribution and third-party attachments
- Hardware, material and conductor procurement
- Optical Ground Wire (OPGW) selection and procurement
- OPGW splice location selection and specification
- Damper recommendations and procurement
- Galloping evaluation and recommendations
- Geotechnical investigations Foundation retrofit recommendations and design
- Drilled pier, pin and pipe pile, and mat foundation design
- Underground design, routing and permitting
- Construction specification and Plan and Profile (P&P) drawing preparation
- Expert witness testimony
- Public Utility Commission application development
- Review and evaluation of underground and overhead utilities in transmission line corridors



## FIRM EXPERIENCE: DISTRIBUTION ENGINEERING AND DESIGN

Distribution lines, critical to the nation's electric infrastructure, support the on-demand electricity that flows directly from substation to consumer. The electric utilities responsible for installing and maintaining distribution grids need dependable distribution solutions and they trust GAI with their design, upgrade, expansion, and overhead to underground conversion projects.

GAI has comprehensive abilities in overhead line/structure, underground line/manhole, infrastructure hardening, and overhead to underground conversion design. We deliver efficient and reliable power delivery results. Our skilled specialists also analyze structures and line load, and design underground rerouting.

Our project experience in system line upgrades and overhead to underground installations is valuable for clients pressed to meet the high demand for new lines, expansions, and hardening. GAI's line analysis and design capabilities include route selection, pole loading analysis, equipment selection, and design engineering.

### Services: Electric Distribution Lines

- System/Line upgrades and reliability improvements
  - Reconductoring
  - Automated device installation – AFS and Intellirupters
  - Hardware/Equipment replacement including fuses, cap. banks, insulators and crossarms
- Fuse coordination studies
- Substation relay coordination with distribution field devices
- Overhead feeder/lateral design
- Underground feeder design
- Route evaluation and selection
- Line and transformer loading analysis
- Infrastructure hardening
- Feeder prioritization and modifications
- Surveying
- Structural analysis
- Equipment selection
- Project estimating (labor, material, engineering)
- Work order inspections
- Determination of IED Locations, settings, and fuse sizes

- Review of circuit upgrade projects for overlap with concurrent programs such as NIDT and third-party attachment to avoid duplicating work. Feeder modifications
- Transmission line structure distribution underbuild accommodations
- Material procurement
- Environmental and governmental permitting
- Temporary Road Closure Permits
- Soft Dig Coordination
- Regulatory compliance
- Structural design (new manholes and expansions)
- Commercial and residential development
- Right-of-Way acquisition assistance
- Distribution system modeling and studies
- Roadway lighting design
- System protection and coordination
- Construction monitoring
- Underground rerouting
- Overhead to underground conversions





## FIRM EXPERIENCE: SUBSTATION AND P&C ENGINEERING AND DESIGN

Substations and switchyards are the cornerstones of electric transmission and distribution and maintain the flow of energy from power stations to consumers. GAI's electrical substation project experience includes greenfield siting and permitting, upgrades and uprating, and electrical automation and control system design. We bring value to clients pressed to meet the demands for new and expanded substations. GAI's capabilities in substation analysis and design include site selection and development, equipment selection, and layout. Our start-to-finish involvement begins with project initialization and continues through energization of the substation. Upgrading substations involves structure and foundation reinforcement and equipment upgrades to protective relays and panels,



auxiliary equipment, obsolete or over-dutied circuit breakers, aged or overloaded transformers, and bus conductors. GAI's skilled teams find solutions when repair needs escalate.

### Services: Substation and Protection & Controls Engineering and Design Capabilities

- Replacement of aged/overloaded power transformers, high/low voltage switches and circuit breakers, rigid and flexible bus conductors, auxiliary equipment and protective relays and panels
- Emergency replacement of failed power transformers, high voltage and low voltage circuit breakers, switches and auxiliary equipment
- Design for up to 500kV substations and substation additions including 230kV, 69kV, and 12kV constructions
- Bus, switch, arrester support structure design and procurement
- Equipment specification and review including FAT
- Substation construction scoping document(s) preparation
- Oil containment design
- Ground grid and shielding design and analysis
- Design of lightning protection systems
- Reinforcement of existing substation structures/foundations
- Protective relaying and control systems design, including Supervisory Control and Data Acquisition (SCADA)
- Protective relay settings development
- One line, Elementary Wiring, and Point to Point Wiring Diagrams, Relay Panel Development

- Renewable integration and collector station design
- Preparation of Issued for Construction documents including drawings, specifications, bill of materials and standards
- Power system studies including fault analysis and relay coordination
- Access control, security, and lighting design
- Survey
- Grading and drainage design
- Control building design
- Engineering and design of site access roads
- Design/installation of rigid, strain and slack buses and associated structures
- Environmental permitting and regulatory compliance for new, rebuilt, and upgraded substations
- Geotechnical investigations, testing, and design
- Installation of metal-clad and gas insulated switchgear
- Civil design and siting
- Foundation and steel structure design
- Cost estimating
- Conceptual studies, feasibility analyses and investigations
- Substation capacity analysis and transformer rating
- Substation sound studies and mitigation
- Standards development



## **FIRM EXPERIENCE: GENERAL SUBSTATION, TRANSMISSION, DISTRIBUTION, & RENEWABLES PLANNING/PERMITTING SERVICES**

GAI guides clients through the complexity of federal, state, and local agency environmental and permitting regulations. Our established agency relationships and precise study processes advance small projects as well as large regional efforts. Whether new gas and electric corridors, infrastructure rehab, or brownfield redevelopment, GAI conducts detailed environmental studies in the initial project planning stages to keep permitting, planning, and construction on schedule.

We anticipate environmental and developmental issues that can put a project on hold and conduct comprehensive assessments that address impacts to wetlands and floodplains, terrestrial and aquatic natural systems, vegetation and wildlife, cultural resources and socioeconomics, air and water quality, noise levels, aesthetics, and geologic and hazardous conditions. Our professionals identify issues to avoid and minimize impacts where possible, prepare permit applications, and develop mitigation plans for unavoidable impacts. We develop cost-effective solutions to meet regulatory requirements while keeping projects on schedule.

GAI's environmental services encompass siting and master planning, as well as permitting. Our environmental specialists evaluate alternative sites, handle site inspections and features inventories, and rank sites by their potential for successful development—for energy facilities, industrial plants, commercial and retail centers, trails, transmission line corridors, and more. GAI's master plans identify infrastructure, layout, and access needs. Clients benefit from extensive scheduling, cost estimating, and regulatory agency approval experience.

With sophisticated Geographical Information System (GIS) capabilities, the database systems GAI creates streamline the National Environmental Policy Act (NEPA) process through large volume data sharing that optimizes the regulatory review process. We work extensively with regulatory agencies to obtain permits and clearances for all types of facilities.

GAI's in-house cultural resource services complete the full-service package we bring to environmental assessment (EA), study, planning, or engineering efforts.

## **GENERAL FLORIDA EXPERIENCE**

GAI has performed over 750 assessment and permitting projects and over 1,000 listed species evaluations. For these projects, GAI has:

- Performed Wetland Delineations
- Prepared State/Federal/Local Permit Applications
- Conducted RTE Species Evaluations (Sand Skink, Gopher Tortoise, Sandhill Crane, Scrub-Jay, Bald Eagle)
- Performed Mitigation Planning, Vegetation Management, and Cultural Resources Investigations

The projects have been primarily in Central Florida for the last 25+ Years. As a result, GAI is very familiar with Federal, State and Local Agency Regulations and Staff (USFWS, USACE, SFWMD, SJRWMD, FDEP, Osceola County). GAI has also worked with FDEP Siting Office for Co-location of Utilities in Transmission Corridors. Our Florida presence provides us with comprehensive insights with regard to regulatory factors and local concerns that influence siting decisions.

## **COMPANYWIDE SITING AND PERMITTING EXPERIENCE**

GAI has over 30 years of Siting/Permitting experience for lines and substations. Over the past 5 Years, GAI has performed over 60 Siting Studies in 9 States (PA, OH, WV, VA, KY, IN, TN, MD, WI) and over 250 permitting projects. GAI has also prepared CPCN, LON, and LOI filings for KyPSC, OPSB, PaPUC, VaSCC, WVPSC, MdPSC, WiPSC, NJBPU and provided CPCN Expert Witness Testimony in 3 States.

## **RENEWABLES PERMITTING EXPERIENCE**

GAI has provided services to renewable energy clients for over 27 years. We have successfully supported over 150 renewable energy projects, including permitting over 20 wind and solar projects. Additionally, because of our experience in electric power generation and transmission line, we understand the required permitting protocols and established industry practices. We have the history, knowledge, and expertise that clients trust to make their projects a success, and we approach these challenges seeking complete solutions. GAI's comprehensive renewable services include: design, engineering, construction monitoring, mapping, modeling, permitting, environmental services, and compliance.

## PROJECT MANAGER



**Gretchen Horn, MBA, PMP –  
Tampa, FL**

Ms. Horn, a Director/Sr. Associate and GAI's Transmission and Distribution Line Division Leader, has over 30 years of experience and specializes in project management for transmission, distribution, and substation projects. She is a licensed Project Management Professional (PMP) focusing on project planning, establishing goals that promote timely and efficient delivery, and monitoring project activity. Ms. Horn has managed over 200 transmission line and substation projects. These projects include transmission line design, substation and line siting, civil substation design, permitting, substation electrical and protection and controls (P&C) design, material procurement, and substation and line construction.

Prior to joining GAI, Ms. Horn worked for FirstEnergy/Allegheny Power, and was responsible for the complete oversight and coordination of transmission line and substation projects from initial project planning and continuing through the energization. Her responsibilities included: determination of critical path activities, development of schedules, leading the development of project estimates, ensuring the completion of projects within budget, coordination of activities across a multi-function team, including permitting, design, and construction, and management of project-related technical reviews. Ms. Horn received her MBA from Duquesne University, and her BS in Mechanical Engineering from Pennsylvania State University.

### Relevant Experience

- **138kV Line located in Pennsylvania (PA).**

Managed the siting, design, and permitting of a new greenfield 4.5-mile line from the existing Universal station to the existing Plum station. The design utilized double circuit custom steel structures and single circuit custom structures for under crossing locations. The design featured 1.5 miles of underground transmission line located mid-project and required the design of custom self-supporting steel riser pole structures. The siting study included consulting with an EMF specialist to minimize EMF of the new line for siting restraints. GAI conducted a siting study, prepared a report, and testified at PUC hearings in support of the

route. GAI also completed the required environmental and cultural resources studies and permit applications as well as the railroad and highway crossing permits.

- **138kV Line located in Ohio.** Rebuild of 12.8-miles of 138kV transmission line utilizing pre-engineered and custom structures. Managed the design of the transmission line, standard and custom structures, and pier foundations for the custom monopoles. Prepared the construction specifications books, P&Ps, and bill of material. Assisted the client with design solutions related to property-owner requests.
- **Wind Energy Center Transmission Line Project,** located in Colorado, for confidential client. Project Director. GAI completed the transmission line design per the client's engineering standards. Tasks included: transmission line design and structure design criteria based upon national, state, and regional requirements; primary and alternative route development; foundation loadings; pipeline grounding studies; electro-magnetic fields (EMF) and audible noise studies; drawings for permit applications; construction support; fault current study analysis; right-of-way clearing requirements; grounding methodology based upon soil conditions; and as-built drawings.
- **138kV Transmission Line Project** located in West Virginia (WV) and PA. Managed the design and construction of this 138kV transmission line project. The new line was a 14.3-mile long double-circuit





## C. PROJECT UNDERSTANDING

GAI has been performing Power Delivery Design Services for Public Utilities for over 30 years for a number of public utilities and through this experience has a good understanding of how public utilities operate. However, even with all of this experience, we know that no two utilities are alike and that we need to ask a lot of questions early on whenever we initiate work so that we do it your way.

GAI understands that communication is the foundation upon which successful project completion is built. From siting through post-construction, we provide comprehensive services to support our clients' needs. Our mission is to grow responsibly and operate consistently; to anticipate the needs of our clients by observing and always looking forward, and keeping up with changing requirements and improving technologies; and to fully build and support a diverse staff so that they may be able to meet Ocala's needs. We recognize that every utility company has unique methods and challenges. We will build upon our experience by quickly learning Ocala's methods and standards so that we can be an extension of your internal design team.

### COMMUNICATION

GAI proposes to meet at a location of Ocala's convenience for a kick-off meeting prior to the start of each Project. GAI performs routine internal meetings with the Project Manager and task leaders to communicate project requirements, schedule milestones, and to review resource needs. This approach will aid in the cost-effective execution of the Project and establish priorities so that Ocala's schedule is met.

Close communication between Ocala and GAI will be necessary to efficiently manage each Project. GAI's team will keep in regular contact with Ocala through participation in weekly conference calls to facilitate and communicate Project details including overall status and status of deliverables. These conference calls can be led by GAI, if requested, and conducted using conference call-in numbers or Teams conferencing, which will allow sharing of the desktop to display data for discussion. During the conference calls, GAI will update Ocala regarding the status of engineering activities and coordinate with Ocala to identify information needs and proposed engineering changes that could result

in changes to Project timelines. GAI will discuss implications of design changes with Ocala's team to develop strategy adjustments, as necessary.

### SCHEDULING AND RESOURCE ALLOCATION

GAI is aware of demanding schedules in order to meet engineering deadlines and to keep projects on track for ultimate completion. Our team is highly motivated and takes a great deal of pride in their work. Our teams have a "do what it takes" attitude to meet the client's needs. To coordinate, forecast, and manage the Project schedule, GAI has established a Project Controls group to assist our Project Managers in monitoring costs and job status reporting. This group utilizes Deltek Vision, GAI's enterprise management software, to monitor the progress, cost, and schedule of each Project.

If required by Ocala, GAI can utilize Microsoft Project scheduling and resource allocation software to track project milestones, as requested. GAI will work with Ocala to refine schedules, as needed, at the initiation of each Project and continuing through construction. Project updates will be provided to Ocala throughout the life of each Project, as requested.

### PROJECT APPROACH

GAI uses a Task Order Contract Approach for managing and completing projects of a similar nature to those for Ocala. We have also provided a Sample Project Plan for a transmission line project. GAI's typical approach includes the following:

#### Implementation Strategies

In performing all of the Ocala projects that are assigned to GAI, we will execute a management and project plan (see sample plan below) that meets three objectives. The first objective is to make sure that all project decisions are made in consultation with Ocala. The second objective is to develop and implement a project plan that results in both a timely and cost-effective solution. The third objective is to make sure that all of our work is performed in compliance with the applicable codes and regulatory agency requirements.

#### Project Progression Vision

In applying the Project Plan, we see each project as a series of progressive steps. Depending on the project



type and complexity, there may be up to six main project tasks, which are: (1) Document Review and Scoping; (2) Project Initiation; (3) Preliminary Design/Analysis; (4) Final Design/Analysis and Reporting; (5) Construction Period Services; and (6) Project Closeout. These tasks along with the applicable subtasks have been developed such that there is a natural transition between each subsequent task. We typically scope our projects with these six tasks in mind.

### Unique Experience to Avoid Pitfalls

Our experience, staff size, and well-rounded capabilities, both on a staff and on a company level, prepare us well to avoid some common pitfalls such as not having sufficient staff to meet project schedules or not having the specific expertise to perform a project. We also have a dedicated scheduling group that assigns resources to match project needs.

As shown in the sample plan, we would have regular project status meetings. These meeting would be both internal and external with Ocala. During each project meeting, we would discuss: (1) work that was just completed; (2) work and deliverables that are to be completed in the near term (within the next month); and (3) long term work and deliverables. By focusing our attention on these three different work phases, we are able to avoid common scheduling issues.

### Project Queuing Approach

GAI is attentive to all projects that are requested by our clients and, through the use of the project plan; we make the necessary staff assignments to make sure that we provide a quality product on time. In addition, in the case of Ocala work, we will have a dedicated team that is assigned to work on Ocala projects.

### Description of Techniques to Be Employed

We propose to use the Project Plan below to manage, initiate, and complete projects for Ocala. We will provide the services requested by Ocala on an as-needed basis. After receiving a service request from Ocala, we would develop a project specific plan that would take into consideration both a regulatory and strategic approach that would include assessing the permit application requirements and the forecasted time to receive the permit approvals prior to construction.


## Sample Design Schedule Project Plan (Transmission Line Project)

### Task 1: Document Review and Scoping

1. Obtain project-related documents from Ocala with a brief description of the project scope.
2. Review documents and relevant codes/specifications/local requirements.
3. Meet and/or discuss with Ocala the project requirements and engineering services that are to be provided.
4. Prepare and submit proposal in accordance with the scoping meeting. The proposal will include a scope of services along with a list of deliverables, a project schedule, and an estimated cost.

### Task 2: Project Initiation

1. Establish the key project personnel and the method for project communication.
2. Setup weekly, bi-weekly or monthly status meetings.
3. Initiate critical path activities related to project. These activities may include, but are not limited to: obtaining all required mapping.; contacting local authorities to determine local permitting requirements; initiating field investigations and/or performing a field reconnaissance; coordinating with subcontractors, particularly MBE/WBE subcontractors; and identifying long lead time material orders.
4. Conduct and complete field activities such as: cultural resource investigations; water body identification; wetland delineations; rare, threatened and endangered species investigations; and ground survey.
5. Prepare and submit report to document findings from field activities as required.
6. Initiate permitting.
7. Initiate distribution or transmission line routing and siting and/or design depending on the project requirements.
8. Develop a plan for performing a geotechnical investigation either at the substation site or at select transmission line structure locations.

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9. Submit weekly, bi-weekly, or monthly project status reports to Ocala and meet with Ocala to discuss project status.
  10. Prepare and distribute minutes from project status meetings.

### **Task 3: Preliminary Design / Analysis**

1. Finalize route alternatives and identify preferred route based on Ocala's planning guidelines.
2. Discuss route selections with Ocala and make adjustments, as needed, to route evaluation report.
3. Conduct public meetings to discuss and receive feedback on route alternatives. Revise alternatives based on Ocala response to public comments.
4. Prepare and submit application to the Public Utility Commission.
5. Conduct geotechnical investigations and prepare and submit draft geotechnical exploration report.
6. Prepare preliminary draft permit applications based on preferred route, substation site grading plans and/or plan and profile sheets for transmission line design and submit to Ocala for review.
7. Submit weekly, bi-weekly, or monthly project status reports to Ocala and meet with Ocala to discuss project status.
8. Prepare and distribute minutes from project status meetings.
9. Order long-lead material items based on preliminary design and Ocala's comments.
6. Prepare procurement packages for any custom steel structures that are required for transmission line.
7. Prepare and submit bill of materials, construction drawings, and construction specifications to Ocala for review.
8. Review and accept vendor calculations and shop drawings for any custom steel/concrete structures.
9. Design foundations to support steel poles, towers, or other structures.
10. Prepare and submit foundation design drawings and specifications to Ocala for review and comment.
11. Revise and submit final foundation drawings and specifications to Ocala for distribution to Contractors.
12. Submit weekly, bi-weekly, or monthly project status reports to Ocala and meet with Ocala to discuss project status.
13. Prepare and distribute minutes from project status meetings.
14. Finalize and submit all documents to Ocala. Provide additional copies of documents as required by Ocala.


### **Task 4: Final Design / Analysis Reporting**

1. Finalize and submit permit applications, incorporating Ocala's review comments.
2. Finalize site grading plans based on Ocala's comments.
3. Revise and resubmit transmission line design based on Ocala's comments.
4. Perform noise analysis as required based on changing conditions. Submit results from noise analysis to Ocala.
5. Incorporate noise abatement techniques into design, as applicable.

### **Task 5: Construction Period Services**

1. Receive and distribute necessary permits and clearances to Ocala.
2. Attend and participate in pre-bid meetings with Contractors.
3. Respond to Contractor questions and Requests for Information.
4. Review and accept submittals from the Contractor who is awarded the project.
5. Develop and track project schedules using scheduling software such as Microsoft Project and/or Primavera.
6. Perform construction monitoring including, but not limited to, examination of Erosion and Sedimentation controls that are being utilized; examination and acceptance of drilled shaft excavations; examination and acceptance of fill operations and retaining wall construction; examination of excavation and backfill





for direct embedded poles; monitoring of concrete placement for foundations; review and acceptance of materials delivered to job site; and monitoring of transmission line construction.

7. Submit weekly, bi-weekly, or monthly project status reports to Ocala and meet with Ocala to discuss project status.
8. Prepare and distribute minutes from project status meetings.
9. Review and acceptance of Contractor invoices.
10. Submit Substantial and Final Completion letters.

#### **Task 6: Project Closeout**

1. Prepare record drawings and specifications.
2. Submit final record drawings and specifications to Ocala both electronically and in print form.
3. Conduct final project meeting.
4. Prepare and distribute minutes from final meeting.

*The actual timeline for these tasks is project dependent and will be confirmed with Ocala stakeholders at the beginning of the project.*





## Overall Project Manager

Gretchen Horn, MBA, PMP\*

## Health & Safety

William Gourdie, CSP, CET

## QA/QC

David Bevilacqua

## TRANSMISSION, & DISTRIBUTION DESIGN, SUBSTATION AND PROTECTION & CONTROLS ENGINEERING AND PLANNING/PERMITTING

### Transmission Project Manager

James Walbert, PE, MBA

#### Key Support Staff

Steve Miller, PE, MS, MBA	Ryan Maurer, PE
Michael Horn, PE*	Juan Morel*
Pat Clevenger, PE	Luis Pagen-Irizarry*
Loren Dalla Betta, PE	

+25 Additional Support Staff  
(Engineers, Specialists and Drafters)

### Distribution Project Manager

Kymberly Chudomel, PE, CAPM

#### Key Support Staff

Mike Ambs	Donald Nilsson*
Patricia McLeod	Brandon DeVasil
David DeAngelo, EIT	Arden Groover*

+20 Additional Support Staff  
(Engineers and Drafters)

### Substation and Protections & Controls Project Manager

Stephen Anthony, PE

#### Key Support Staff

Steve Miller, PE, MS, MBA	Kris Johnsen, PE
Joseph Veychek	Chase Sessions
David Bierl, PE	Abner Llerena, PE *
Robert Steinmetz, PE	Alexandria Brunstad, MBA
Michael Miller	Charles Forsythe
Ronald Walter, PE	

+20 Additional Support Staff  
(Designers/Technicians)

### Substation, Transmission, Distribution & Renewables Planning/Permitting Manager

DJ Silverberg, MS, PWS, REP, GTA\*

#### Key Support Staff

George Reese, MS, CE	Kathleen Donnelly*
Lisa Keck	Mary McAuliffe*
Leah Jackson	Renee Thomas, MS*

+40 Staff Available to Assist with Siting and Permitting with-  
in GAI (8 Available Staff in Florida)

#### Key:

\* Florida Staff

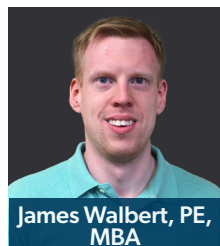
## D. STAFFING PLAN

Supporting Gretchen Horn is GAI's Power Delivery team which has over 30 years of experience in the electric utility industry and has completed thousands of projects. Below are bios of the team leaders followed by summaries of our key support staff.

In addition to our Power Delivery Engineering Services staff, GAI can provide the following additional staff to support your projects: Archaeologists, Biologists, CADD Technicians, Civil Engineers, Construction Inspectors, Ecologists, Electrical Engineers, Environmental Engineers, Environmental Scientists, Foundation/Geotechnical Engineers, GIS Specialists, Geologists, Land Surveyors, Landscape Architects, Mechanical Engineers, Urban/Regional Planners, Structural Engineers, Technicians/Analysts, Transportation Engineers, and Water Resources Engineers.

Our Orlando office houses approximately 135 employees, with over 200 diversified staff located throughout our Florida offices. GAI will provide much of the distribution and transmission line design from our three Power Delivery Engineering offices in Florida (Tampa, Orlando and Palm Beach Gardens). However, depending on the volume of work, some assistance may also come from our 10 other Power Delivery Engineering offices as shown on the map below. Substation design currently would be provided from our Pittsburgh, Chicago, Kansas City and Jackson, Michigan offices, but we have plans to add substation staff in either Palm Beach Gardens or Orlando in 2022. Environmental assistance on projects would be provided out of our Orlando office where we have 8 available staff with another 30+ staff available in our other offices.

## LEADERSHIP



### **Project Manager I James Walbert, PE, MBA – Transmission Line Division Leader (Pittsburgh, PA)**

Mr. Walbert specializes in civil engineering and design of steel, concrete, and wood structures, including foundations. His experience covers transmission line design, maintenance, and rehabilitation of existing transmission lines. He is proficient in AutoCAD, Microstation, Microsoft Office, PLS-CADD,

PLS-Pole, MFAD, Vortex, and Vibrec and has worked with Autodesk Civil 3d, Autodesk Robot, MathCAD, ProjectWise, PLS-TOWER, RISA, and STAAD.



### **Project Manager I Kymberly Chudomel, PE, CAPM– Electric Distribution Line Division Leader (Chicago, IL)**

Ms. Chudomel specializes in civil and structural engineering for the design of electrical distribution and transmission lines and related facilities. Her experience includes, but is not limited to, analysis and design of lattice steel towers, transmission line rebuilds, greenfield lines, distribution line rebuilds including underground, developing design criteria and specifications following the National Electrical Safety Code (NESC) requirements, and the use of the PLS programs.



### **Project Manager I Stephen Anthony, PE, MSEE – Substation and Protection & Controls Division Leader (Pittsburgh, PA)**

Mr. Anthony, an Engineering Director and GAI's Substation and Protection & Controls Division Leader, has over 16 years of experience. He is a Professional Engineer in MD, DC, VA, MA, CA, TX and PA who specializes in managing substation and protection & controls engineering projects. Mr. Anthony has experience in a full range of Substation projects from equipment replacement to large intricate multi-year substation expansions. At PEPCO, he directed an organization of over 50 technical supervisors, engineers, and designers on P&C, Physical Design, Procurement, Financials, Construction Support and Project Close-out. He is highly proficient in Substation Equipment Specification and Evaluation, as well as Witness Testing and Implementation. Mr. Anthony is proficient in ETAP, ASPEN and WINIGS. He received his MS in Electrical and Electronics Engineering – Power System Engineering from George Washington University and his BS in Electrical Engineering from the University of Maryland.





**Project Manager I DJ Silverberg,  
MS, PWS, REP, GTA – Planning/  
Permitting Manager (Orlando,  
FL)**

Mr. Silverberg, Environmental Manager, has over 33 years of experience in providing ecological assessment and permitting support services to municipal and private utility clients throughout the state of Florida. His clients have ranged from small towns and cities, to counties and regional utility authorities. The projects are just as varied, including potable water facilities and pipeline corridors, to water reclamation facilities, wastewater force main corridors, and reclaimed water main corridors. Mr. Silverberg also has extensive experience with the ecological components of Consumptive Use Permitting, solid waste facility permitting, and permitting of solar farms. He has also been involved in PD&E and design of new roadway corridors.



**Project Manager I George Reese,  
MS, CE – Power Delivery  
Environmental Business Sector  
Leader (Pittsburgh, PA)**

Mr. Reese, Environmental Director and Vice President, has over 33 years of experience and leads GAI's Power Delivery – Environmental Business Sector. Through this sector GAI provides services ranging from siting and routing, licensing, site design, engineering and geotechnical, cultural resources, environmental studies and permitting, endangered species surveys, habitat restoration, construction support, and facilities management support. He specializes in siting and permitting of power delivery facilities, environmental impact analysis and National Environmental Policy Act (NEPA) documentation, expert witness testimony, and vertebrate ecology.

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**CONTRACTUALLY COMMITTED CORE STAFF:**

THE CORE GAI TEAM MEMBERS IDENTIFIED  
IN THE ORGANIZATIONAL CHART ARE 100%  
AVAILABLE FOR ANY PROJECT AND ARE  
COMMITTED TO START WORK IMMEDIATELY.

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## KEY STAFF

GAI is aware of demanding schedules that are required to meet project deadlines. Our team is highly motivated and takes a great deal of pride in their work. Our teams have a “do what it takes” attitude to meet the client’s schedule within or under budget while providing high-quality design. GAI will assign the necessary resources to ensure that all projects are completed on schedule. Below is list of the key staff who are available to support each Division Leader.

KEY TRANSMISSION LINE ENGINEERING AND DESIGN STAFF				
Name	Role/Office Location	Years of Experience		Credentials
		Firm	Total	
Steven Miller, PE, MBA	Project Manager Pittsburgh, PA	34	36	MBA, 2011, Point Park University MS, Civil Engineering, 1986, Washington State University BS, Civil Engineering, 1984, Washington State University PE: PA, VA
Michael Horn	Project Manager <b>Tampa, FL</b>	7	38	BS, Civil Engineering PE: <b>FL</b> , CO, IN, KY, GA, MI, NC, OH, PA, WI and WV
Pat Clevenger	Engineering Lead Pittsburgh, PA	16	16	BS, Civil Engineering BS/MS, Physics PE: PA
Loren Dalla Betta	Engineering Lead Murrysville, PA	10	10	BS, Civil Engineering PE: PA
Ryan Maurer	Sr. Project Engineer Pittsburgh, PA	9	9	BS, Civil Engineering PE: PA
Juan Morel	Sr. Project Engineer <b>Orlando, FL</b>	6	10	MS, Construction Management BE, Civil Engineering and Surveying EIT
Luis Pagan Izarry	Project Design Technical Specialist <b>Orlando, FL</b>	4	7	BS, Mechanical Engineering EIT
+ 25 Additional Support Staff: Engineers, Specialists, and Designers				

KEY ELECTRIC DISTRIBUTION LINE STAFF				
Name	Role/Office Location	Years of Experience		Credentials
		Firm	Total	
Kym Chudomel, PE, CAPM	Engineering Lead Chicago, IL	4	15	BS, Civil Engineering PE: IL, IN, and MA CAPM
Mike Ambs	Design Leader Jackson, MI	10	23	Coursework at Jackson Community College
David DeAngelo	Design Leader Pittsburgh, PA	11	11	BS, Civil Engineering EIT
Donald Nilsson	Sr. Designer <b>Palm Beach Gardens, FL</b>	2	5	BA, Business Administration Management BS, IRSC Digital Media
Brandon DeVasil	Design Engineer Pittsburgh, PA	6	6	BS, Chemical Engineering
Patricia McLeod	Lead Technician <b>Palm Beach Gardens, FL</b>	4	36	AS, Architecture Drafting & Design
Arden Groover	Sr. Designer <b>Palm Beach Gardens, FL</b>	3	3	
+ 20 Additional Support Staff: Engineers/ Drafters				

KEY SUBSTATION AND P&C ENGINEERING AND DESIGN STAFF				
Name	Role/Office Location	Years of Experience		Credentials
		Firm	Total	
Joseph Veychek	Substation Manager Pittsburgh, PA	6	30	BS, Electrical Engineering
David Bierl, PE	Protection & Controls and Settings Manager Jackson, MI	6	20	BS, Electrical Engineering PE: NJ, MI
Robert Steinmetz, PE	Protection & Controls Manager Chicago, IL	3	13	BS, Electrical Engineering PE: IL, <b>FL</b> , MD, MI and OH
Michael Miller, PE	Protection & Controls Lead Engineer Pittsburgh, PA	<1	30	BS, Electrical Engineering PE: PA
Ronald Walter, PE	Sr. Structural Manager Pittsburgh, PA	4	30	BS, Civil Engineering PE: PA
Kris Johnsen, PE	Sr. Project Structural Engineer Pittsburgh, PA	2	17	BS, Civil Engineering PE: PA
Chase Sessions	Substation Manager Kansas City, KS	2	9	BS, Electrical Engineering
Abner Llerena, PE	Senior Engineer <b>Palm Beach Gardens, FL</b>	4	4	BS: Electrical Engineering PE: <b>FL</b> , MI



### KEY SUBSTATION AND P&C ENGINEERING AND DESIGN STAFF (CONTINUED)

Name	Role/Office Location	Years of Experience		Credentials
		Firm	Total	
Alexandria Brunstad	Sr. Substation Specialist Pittsburgh, PA	7	10	MBA BS, Electrical Engineering
Charles Forsythe	Sr. Substation Specialist Chicago, IL	3	12	AAS, CAD Technology
+ 20 Additional Support Staff: Designers/Technicians				

### KEY SUBSTATION, TRANSMISSION, DISTRIBUTION, & RENEWABLES PLANNING/PERMITTING STAFF

Name	Role/Office Location	Years of Experience		Credentials
		Firm	Total	
Lisa Keck	Siting Studies Pittsburgh, PA	25	40	BS, Civil and Environmental
Leah Jackson	Civil and Environmental Permitting Pittsburgh, PA	9	11	BS, Biological Science
Gordon Spears	Environmental Permitting <b>Orlando, FL</b>	8	39	BS, Environmental Design Authorized Gopher Tortoise Agent
Kathleen Donnelly	Environmental Permitting <b>Orlando, FL</b>	2	32	BS, Environmental Engineering
Mary McAuliffe	Environmental Permitting <b>Orlando, FL</b>	2	32	BS, Biology Certified Gopher Tortoise Agent UMAM Training & Wetland Delineation Green Building NPDES Inspector
Renee Thomas, MS	Environmental Permitting <b>Orlando, FL</b>	3	30	MS, Biological Sciences BS, Biological Sciences Authorized Gopher Tortoise Relocation Assistant PADI - Scuba Certified
+ 40 Staff Available to Assist with Siting and Permitting within GAI				



## E. QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

GAI understands the importance of providing our clients with on-time, cost-effective, high-quality professional services. The continued success of our firm is directly related to our ability to continue to meet the cost, quality, and schedule requirements of our projects. We achieve this goal through our experienced professional staff and by utilizing our Quality Management System (QMS). The system is flexible so that it allows GAI to meet the needs of individual clients.

GAI's experienced professional staff deliver high quality services by utilizing our Quality Management System (QMS). GAI's QMS is based upon a continuously improving project delivery strategy that incorporates processes and procedures that describe how professional services are planned, executed, checked, verified, and delivered to our clients. The system is flexible so that it allows GAI professionals to deliver diverse services that our clients demand.

Documenting project and client requirements are critical to delivering a quality design. The Project Manager and Technical staff review the technical or design service parameters to determine that sufficient information is available to begin technical or design activities. These parameters may be defined in the proposal, contract, or purchase order for basic services or designs, or there may be a more detailed, comprehensive series of documents for complex projects. Technical staff may develop a Technical Memo and a Technical Data Memo. The Technical Memo summarizes the scope of services, critical resources, design approach, and type and style of technical documents being produced. The Technical Data Memo summarizes the key input data and the design criteria for a project. Technical staff define and communicate the applicable technical requirements to the technical team members.

GAI's philosophy for resolving project issues is simple – plan well and work hard to avoid them in the first place. GAI works hard to avoid these issues by following formal quality procedures to deliver technical designs in a logical, organized manner, and follow client and regulatory requirements.

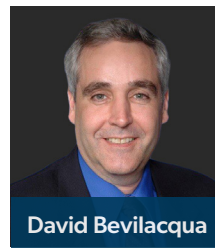
The following procedures describe how GAI verifies that technical design documents are accurately prepared, technically correct and in compliance with client and

regulatory requirements:

- PD03-01-01 Checking Technical Work
- PD03-01-02 Calculation Procedure
- PD03-01-03 Technical Specifications
- PD03-01-04 Reports
- PD03-01-05 Quantity Take off and Probable Construction Cost Estimates
- PD03-01-06 Construction Consultation

In the rare event that project issues arise, responsiveness and communication is the key for GAI Project Managers to work closely with our client partners to understand issues and actively resolve concerns. This is achieved through regular status meetings and good documentation of decisions, requirements and deliverables.

GAI performs all its professional services in accordance with generally accepted professional standards and practices.



**QA/QC Principal I David Bevilacqua**

As part of our overall commitment to quality, Mr. Bevilacqua will provide oversight and direction for the Quality Management System. QA/QC reviews will be conducted by qualified technical staff in each discipline in accordance with our QMS program.

## F. SIMILAR PROJECTS

### TRANSMISSION LINE ENGINEERING AND DESIGN

#### PROJECT TITLE: 138KV TRANSMISSION LINE REBUILD – OH

**Year Completed:** Ongoing

**Contract Cost:** \$2,445,000

**Scope of Services:** GAI has completed the design of the first two phases of this project and is currently working on the design of the third and final phase. Our scope of work includes the design of 55 miles of double-circuit transmission line to replace an existing steel lattice tower line in the rolling hills of eastern OH. Our design utilizes both pre-engineered steel monopoles and custom-designed steel monopoles with concrete pier foundations. Our tasks include the following: PLS-CADD modeling of the line; preparation of steel pole load tables and drawings for bid; design of concrete foundations utilizing MFAD software; preparation of P&P drawings; preparation of stringing charts; preparation of construction bid packages; material ordering in the client's internal system; engineering assistance during construction; and preparation of record drawings.

After engineering was completed and steel poles were procured, there were multiple instances where property owners demanded changes to the line route and to the locations of structures on their property. GAI successfully worked with the client's right-of-way agents to develop acceptable solutions that satisfied the landowners' requests and allowed the purchased poles to be utilized at alternate locations, which helped to keep the project within budget and on schedule.

GAI has worked closely with the project team throughout the lifecycle of this project. We have remained engaged during construction to provide assistance, answer questions, and execute design changes in real time.

**Key Project Staff:** Michael Horn, Gretchen Horn and Ryan Maurer



138KV Transmission Line Rebuild – OH

#### PROJECT TITLE: 69KV LINE REBUILD – OH

**Year Completed:** Ongoing

**Engineering Fees:** \$310,000

**Scope of Services:** GAI provided engineering design, environmental support, and permitting for the redesign of the single circuit 69kV line, including replacement of 565 wood pole structures with 498 new wood pole equivalent steel poles and custom steel poles on drilled pier foundations. The approximate 26-mile line rebuild was broken up into six sections beginning and ending at switches or substations. The new line was designed for 959.6 ACSR/TW "Suwannee" conductor, one Alumoweld shield wire, ADSS communication underbuild, and distribution underbuild for a large portion of the line.

**Key Project Staff:** Loren Dalla Beta

## PROJECT TITLE: VARIOUS TRANSMISSION PROJECTS – FL

**Year Completed:** 2015

**Engineering Fees:** \$750,000

**Scope of Services:** GAI provided engineering and design services for multiple 115, 138, and 230kV transmission lines in FL. The designs included structure replacements, line rebuilds, and greenfield line designs with wood, square concrete and spun concrete self-supporting and guyed structures. Deliverables included plan and profile drawings, construction specifications, bills of material, permit drawings and coordination and support during construction.

**Key Project Staff:** Juan Morel, Ryan Maurer and James Walbert



Various Transmission Projects – FL

## PROJECT TITLE: 345KV UNDERGROUND TRANSMISSION LINE – PA

**Year Completed:** 2016

**Engineering Fees:** \$300,000

**Scope of Services:** GAI provided engineering and design services for nine miles of overhead 345kV underground transmission line utilizing high pressure fluid filled pipe type cable and two miles of overhead 345kV on steel poles and existing lattice towers through congested city streets. GAI's services on this project included the following: line routing and siting; surveying and mapping; underground condition evaluations; geotechnical exploration; environmental permitting, including National Pollutant Discharge Elimination Systems, Erosion & Sediment Control Plans, stormwater, and rare, threatened, and endangered species investigations; architectural and archaeological investigations; manhole design; drawing preparation; construction specification preparation; and construction support.

GAI's project team included engineering, environmental survey and permitting, and support through construction. We were able to successfully route and design the underground transmission line through city streets, which were heavily congested with existing utilities. The project management and coordination of our fully engaged staff with the client and construction teams allowed for the completion of this very complex project on schedule and within budget.

**Key Project Staff:** Gretchen Horn and Steven Miller



345kV Underground Transmission Line



## DISTRIBUTION ENGINEERING AND DESIGN

### PROJECT TITLE: OPEN ENDED DISTRIBUTION DESIGN SERVICES – FL

**Year Completed:** Ongoing (Contract through 2023)

**Contract Cost:** \$10,000,000

**Scope of Services:** Since 2014, GAI has been providing distribution engineering design services to Florida Power & Light on a work order basis under a Master Services Agreement. Current services include:

- Lateral Hardening projects to improve overall reliability of FPL distribution system. This includes general system analysis and redesign of problem areas to enhance circuit performance.
- Major Projects services including new business development projects such as residential URD plans and various commercial projects related to new malls, business parks and office buildings.
- Storm Hardening design services to increase the overall strength and reliability of FPL's distribution grid. These designs typically involve new concrete poles and hardware replacements to withstand various storm categories.
- AFS (Automatic feeder switch) installation projects that enhance the overall performance of FPL's distribution grid. These switch installations allow FPL to isolate outages due to various issues and maintain power to a larger number of customers.
- Riser projects that involve installing new riser poles that are used for overhead to underground conversions.
- Underground Extension projects including directional boring from terminal poles to pad mounted facilities such as transformers and switch devices.
- Permit services for each of the above project types when needed.

**Key Project Staff:** Steven Miller, Gretchen Horn, David DeAngelo, Mike Ambs, Donald Nilsson, Brandon DeVasil, Patricia McLeod, Arden Groover



Open Ended Distribution Design Services – FL

### PROJECT TITLE: OVERHEAD TO UNDERGROUND ELECTRIC DISTRIBUTION CONVERSION – FL

**Year Completed:** 2019

**Engineering Fees:** \$95,000

**Scope of Services:** GAI provided engineering and design services for a conceptual study of the conversion project. The project involved a study to determine the cost and feasibility of relocating the overhead electric distribution to underground in a residential neighborhood. GAI developed a conceptual plan for converting the existing line, identified existing utilities, researched potential environmental constraints, and coordinated with governing agencies. Deliverables included a conceptual layout of the new design, cost estimates for the project, parcel detail template, and a summary report.

**Key Project Staff:** John Jaskot and Brandon Miller





## **PROJECT TITLE: MULTIPLE DISTRIBUTION DESIGN PROJECTS – IN**

**Year Completed:** 2020

**Contract Cost:** \$1,100,000

**Scope of Services:** GAI has provided distribution design services to our client in Indiana as part of a Master Services Agreement. Over 70 projects have been completed over the life of the contract including overhead line replacements, relocations, and reconductors; underbuild designs for transmission line rebuilds; and overhead to underground conversions. GAI provides engineering and design services and utilizes the client's online design tool as well as PLS-CADD for pole analysis and line design when needed. Deliverables include work plans, plan drawings, permit drawings, bills of material, and record drawings of the as-built information. GAI also supports the client during construction on an as-needed basis.

**Key Project Staff:** Mike Ambis

## **PROJECT TITLE: POLE EVALUATIONS / ANALYSIS FOR FUTURE THIRD PARTY ATTACHMENTS – IN**

**Year Completed:** 2019

**Engineering Fees:** \$225,000

**Scope of Services:** GAI provided pole evaluations/analysis for future Third Party Attachments and replacement of polyconductor with new bare conductors for a transmission line project located in Indiana. Systems/Software used included: Work Management Information System – Bill of Materials; G-TECH – Drawing System; HODS – Transformer Loading Analysis; O-Calc – Pole Loading Analysis; SAG 10; and Google Earth.

**Key Project Staff:** Brandon DeVasil

## **PROJECT TITLE: STAFF AUGMENTATION – PA**

**Year Completed:** Ongoing

**Engineering Fees:** \$200,000 Annually

**Scope of Services:** GAI provided pole evaluations/analysis for future Third Party Attachments and replacement of polyconductor with new bare conductors for a transmission line project located in Indiana. Systems/Software used included: Work Management Information System – Bill of Materials; G-TECH – Drawing System; HODS – Transformer Loading Analysis; O-Calc – Pole Loading Analysis; SAG 10; and Google Earth.

**Key Project Staff:** Kymberly Chudomel, Pete Strini

## SUBSTATION AND P&C ENGINEERING AND DESIGN

### PROJECT TITLE: VARIOUS SUBSTATION AND P&C PROJECTS – FL

**Year Completed:** Ongoing

**Engineering Fees:** \$1,000,000

**Scope of Services:** The project scope of services involved designing for a variety of asset replacement/modification and substation expansion work. Services included, but were not limited to, the following:

- **Power Transformer Increased Capacity Projects** Projects involved engineering design services for the installation of foundations; conduit; grounding materials; fault interrupting switches; power transformers ranging from 28 to 55MVA; bus tie breakers ranging from 13.8 to 23kV; load management system transformers; 4" x 4" integral web bus work and risers; high voltage and low voltage bus support structures; lightning shielding; station service transformers; and station security monitoring systems. GAI also performed all of the protection & control design services, which involved modifying existing bus differential panels; transformer differential panels; overcurrent panels; potential junction boxes; AC and DC load centers; and SCADA cabinets.
- **Distribution Feeder Breaker Replacement Projects** These projects involved engineering design services for the replacement of 20 distribution feeder breakers and seven distribution bus tie breakers ranging from 13.8 to 23kV; low voltage bus work; conduit; grounding; and low voltage disconnect switches. GAI also performed the protection & control design services, which involved the installation of new potential junction boxes; feeder communication relays; AC and DC load centers; and station service transformers.
- **Substation Expansions and Capacity Increase Projects** These projects involved upgrading transmission level substations where GAI engineered substation physical drawings (i.e. site plan, ultimate electrical plan, high voltage electrical plan, high voltage electrical sections, low voltage electrical plan, low voltage electrical sections, circuit schedule, conduit schedule, foundation drawings, conduit drawings, grounding drawings, etc.) and upgraded the P&C systems (i.e. relaying philosophy drawings,



Various Substation and P&C Projects – FL

one-line drawings, three-line drawings, SCADA drawings, communication drawings, load center drawings and panel arrangement drawings).

Additionally, GAI designed for and specified equipment to be used as part of project execution adhering to client standards and specification.

**Key Project Staff:** Joseph Veychek, David Bierl and Alexandria Brunstad

## PROJECT TITLE: 69KV SUBSTATION EXPANSION PROJECT – PA

**Year Completed:** 2020

**Engineering Fees:** \$275,000

**Scope of Services:** The project scope of services involved designing a 69kV auto-sectionalizing scheme that required an expansion of the substation by over 50 percent. The scope of services involved electrical design, structural design, material procurement, and constructability analysis. The project included a new high side bus, new auto sectionalizing high side disconnect switches, new P&C system panel for auto-sectionalizing, one (1) SEL-9192 modem for remote access relaying, and one (1) SEL-3530 RTAC communication processor.

Per the client's request, GAI went beyond the initial scope and created a sequential build-out document to coincide with a staggered construction schedule. GAI met with client stakeholders, including construction, to develop this document. In addition to design tasks, GAI also ordered material including long-lead-time items.

In the course of analysis, GAI uncovered a safety concern with respect to the existing station grounding. We then modelled the existing ground grid against a modified/expanded grid and incorporated additional grounding into our design to maintain step and touch potential to safe limits.

**Key Project Staff:** Stephen Anthony, David Bierl and Joseph Veychek



69 kV Substation Expansion Project – FL

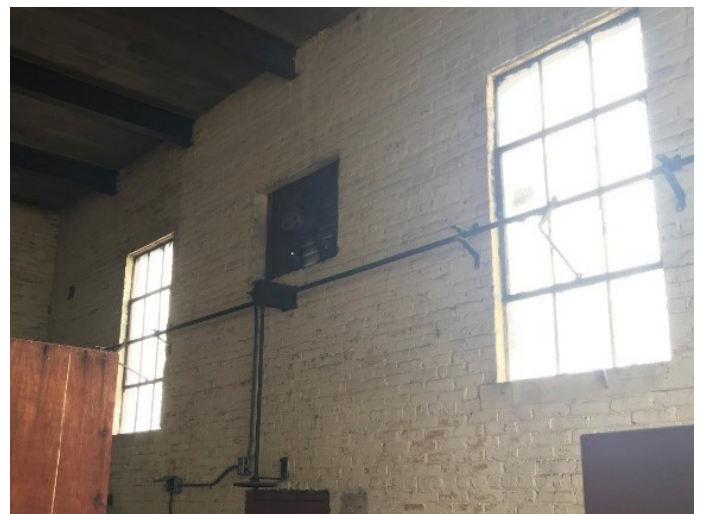
## PROJECT TITLE: 26/4KV SUBSTATION UPGRADE PROJECT – FL

**Year Completed:** 2021

**Engineering Fees:** \$133,000

**Scope of Services:** The project scope of services involved investigating and designing for replacing the existing unit subs with two (2) new 8.6 MVA 26.4/4.16kV transformers and two rows of 4.16kV switchgear with arc suppression. Each switchgear included three (3) feeder bays and a bus tie breaker between transformer main buses. GAI was faced with two significant design constraints for this project: 1) The brick and mortar control building was historically protected; built in the early 1900's using period material that is culturally significant resulting in a structure that could not be demolished, relocated, or have its outward appearance materially changed in any way and 2) the station supplied critical loads and at no point could both transformers be de-energized simultaneously and drop customer load. These constraints caused GAI to do significant structural assessments of the existing building to ensure it could be re-purposed to house new switchgear and, electrically, caused GAI to design a multi-step sequential build out using mobile transformers and ten defined outage steps so as not to de-energize both transformers.

GAI lead several site visits with structural engineers, operations personnel and other client stakeholders to develop the scoping and timeline for project completion. In addition to design tasks, GAI worked with several equipment manufacturers to procure long lead time material. One of GAI's value-add services is



26/4kV Substation Upgrade Project – FL



our extensive partnership with dozens of equipment manufacturers to develop custom solutions. In particular, GAI worked closely with a switchgear manufacturer that could meet the electrical clearances of the historical building while implementing arc suppression technology for crew safety. GAI introduced the client to Switchgear Power Systems, a partner that GAI had worked with extensively in the past to educate the client and secure buy-in collectively on the technology before implementing.

Structurally, GAI performed extensive analysis and calculation to bring the existing historic building up to modern codes including ASCE 07-16 and the current edition of the Florida Building Code which included an increased wind speed based on a building risk category of IV since the substation is an essential facility. GAI's solution included a roof replacement, brick repointing, several channel replacements, and a removal of the entire interior slab in which the switchgear would sit atop while simultaneously maintaining the perimeter wall foundations so as not to disturb the existing historic brick walls.

Using our experienced staff, vendor contacts, and new technology, we were able to design a solution that that met all the project constraints and implemented a 41 week project initiation to closeout schedule that addressed the client's key issues for this critical project.

**Key Project Staff:** Stephen Anthony, PE – Project Manager and Substation Design Lead; Bob Steinmetz, PE – P&C Lead; Kris Johnsen – Structural Lead

## **PROJECT TITLE: 345/115 (BES) TRANSFORMER REPLACEMENT PROJECT**

**Year Completed:** 2021

**Engineering Fees:** \$130,000

**Scope of Services:** The project scope of services involved replacing a failed transformer at a critical Bulk Electric System (BES) station. Engineering services included designing for a new 345/115kV 168/224 MVA transformer with new foundation and oil containment, new 345kV disconnect switch to replace the current limiting high side circuit switcher, 18 new bus supports and insulators, new control cables and conduit, new station grounding while relaying upgrades for LOR's and new sudden pressure tripping were engineered. The scope of services included the following: electrical



345/115 (BES) Transformer Replacement Project

design, grounding design, structural design, material procurement, and constructability analysis and construction support.

GAI lead several site visits with relay technicians, field mechanics and other client stakeholders to develop the scoping and timeline for project completion. In addition to design tasks, GAI also ordered material including long-lead-time items.

As a value add, while performing the transformer replacement engineering, at the client's direction, GAI also worked to address a long standing clearance concern with an existing breaker and designed a solution to raise the legs of the breaker stand by 7" to eliminate the clearance issue.

**Key Project Staff:** Stephen Anthony, David Bierl and Anthony Hathcock

## **ADDITIONAL SUBSTATION AND PROJECT & CONTROLS PROJECT EXPERIENCE**

In addition to the projects listed above, GAI understands the special Florida design considerations for storm hardening and contamination such as raised control enclosures above flood plain; flood monitoring and SCADA alarming; and mobile substation dispatch and response plans. GAI also understands the special design requirements such as the need for HVAC for protective relaying and designing for hurricane winds and flooding. Lastly, GAI understands the unique grounding (soils) and structure types that apply to Florida projects.





## GENERAL SUBSTATION, TRANSMISSION, DISTRIBUTION, & RENEWABLES PLANNING/PERMITTING SERVICES

### PROJECT TITLE: VICTORY POINTE – CITY OF CLERMONT – FL

**Client:** City of Clermont, Florida

**Year Completed:** 2018

**Engineering Fees:** \$30,000

**Scope of Services:** The City of Clermont contracted with GAI Consultants to modify their master storm water system in downtown to address water treatment deficits and facilitate future development. The modifications to master storm water system include basin area changes, runoff diversions to new storm system, additional treatment volume and provisions for future growth. An area referred to as West Lake was developed into a large 4 stage storm water treatment area. West Lake outfalls to Stage 2 (an inundated marsh area), which outfalls to stage 3 (a filter marsh), and finally to a rubble/riprap lined stream that outfalls into Lake Minneola. The design also included walkways, overlooks, and event space for uses during city functions and for triathlon events. GAI's environmental tasks included:

- Wetland and surface water delineations
- Qualitative wildlife assessments
- Agency site reviews
- State ERP permitting
- USACE Section 404 permitting
- Compensatory wetland mitigation design

**Key Project Staff:** DJ Silverberg, Gordon Spears

### PROJECT TITLE: HAMLIN (FKA SOUTHWEST) WATER RECLAMATION FACILITY – FL

**Client:** Hamlin (FKA Southwest)

**Year Completed:** 2020

**Engineering Fees:** \$86,000

**Scope of Services:** GAI assisted in the preliminary study, and subsequent design and permitting, of a 15.0 Million Gallon per Day [(MGD) initial construction of a 5.0 MGD system] advanced wastewater treatment facility on a 50-acre site located at Conserv II RIB Site 6 in western Orange County Florida. GAI reviewed site conditions with respect to ecological factors that could

potentially limit the development of this site as a water reclamation facility (WRF). GAI conducted qualitative and quantitative surveys for listed plant and animal species, state and federal agency coordination, and prepared the necessary documentation and reporting to US Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission to support permitting of the project.

GAI's tasks included:

- Qualitative field investigations for RTE species
- Quantitative field surveys for sand skink and gopher tortoise
- FDEP Environmental Resource Permitting
- Coordination with the USFWS regarding sand skink
- Prepared USFWS Habitat Conservation Plan (HCP) for sand skink
- Prepared USFWS Incidental Take Permit (ITP) for sand skink
- Coordination with the FFWCC regarding gopher tortoise
- Prepared gopher tortoise management plan
- Excavation, capture, and relocation of gopher tortoises to an off-site recipient area

**Key Project Staff:** DJ Silverberg, Gordon Spears

### PROJECT TITLE: LAKE DOWN NUTRIENT REDUCTION FACILITY – FL

**Client:** Orange County Public Works Department

**Year Completed:** 2016

**Engineering Fees:** \$30,000

**Scope of Services:** GAI provided ecological consulting services to Orange County Public Works Department for an alum treatment facility located near the town of Windermere, Florida intended to improvement the water quality of Lake Down. A study of Lake Down Sub-basin 15 in 2009 found that this single basin contributed 49.4% of the runoff generated phosphorous loadings to Lake Down and 27% of the total annual phosphorous inputs. The goal of the project was to substantially reduce the loading of Total Phosphorus (TP), Total Nitrogen (TN), and Total Suspended Solids (TSS) into Lake Down and the Butler Chain of Lakes. GAI's work included:

- Qualitative field investigations for RTE species
- Delineation of jurisdictional wetlands and other surface waters

- SFWMD Environmental Resource Permitting
- USACE Section 404 Permitting
- Compensatory wetland mitigation design and negotiation
- Coordination with the USFWS regarding sand skink
- Coordination with the FFWCC regarding gopher tortoise
- Prepared gopher tortoise management plan
- Excavation, capture, and relocation of gopher tortoises to an off-site recipient area

**Key Project Staff:** DJ Silverberg

## MISCELLANEOUS PROJECT EXPERIENCE

### PROJECT TITLE: SCOPE OF WORK DEVELOPMENT FOR ENGINEER-PROCURE-CONSTRUCT PROJECTS – MULTIPLE STATES

**Year Completed:** Ongoing

**Engineering Fees:** \$6,000,000

**Scope of Services:** GAI provides engineering services to develop scope of work documents for our client to provide to bidders to gather lump sum turnkey proposals for large scale electric transmission projects. The documents describe the scope of the transmission line, distribution line, and substation work to be completed as part of each projects. Detailed explanations of the contractor's responsibilities for siting, routing, permitting, design and construction are included along with references to the client's standards and work practices.

**Key Project Staff:** Steven Miller, Gretchen Horn, Loren Dalla Betta, Michael Horn, James Walbert, Kym Chudomel, David Bierl and Joseph Veychek

### PROJECT TITLE: INDEPENDENT CONSTRUCTABILITY REVIEWS OF TRANSMISSION LINE AND SUBSTATION RELOCATION PROJECTS - MULTIPLE STATES

**Year Completed:** Ongoing

**Engineering Fees:** \$1,000,000

**Scope of Services:** GAI's client has periodically requested that we perform constructability analyses of multiple competing proposals for selected transmission system expansion projects. GAI's typical analysis entails a desktop-only review of these conceptual proposals utilizing publicly available data and includes a high-

level preliminary routing assessment, preliminary cost estimation, and a preliminary schedule analysis. Project types that are evaluated include new and/or uprated transmission lines, new high voltage substations, substation expansions, and various combinations of these facilities.

**Key Project Staff:** Michael Horn, Stephen Anthony, Joseph Veychek, David Bierl and Steven Miller

## G. REFERENCES

### 1. TRANSMISSION ENGINEERING AND DESIGN

#### Mark Allan

Dominion Energy  
Director - Project Delivery & Execution  
Telephone: 804.257.4711  
E-mail: mark.allen@dominionenergy.com

### 2. DISTRIBUTION ENGINEERING AND DESIGN

#### Russel Profaizer

Duquesne Light Company  
GM Underground and Safety Team  
Telephone: 412.393.2922  
E-mail: rprofaizer@duqlight.com

### 3. SUBSTATION AND PROTECTION & CONTROL

#### Jason Rinehart

JEA  
Telephone: 904.665.6000  
E-mail: e.rineja@jea.com

### 4. SUBSTATION, TRANSMISSION, DISTRIBUTION & RENEWABLES PLANNING/PERMITTING

#### Jennifer Cummings

Orange County Public Works  
Environmental Program Supervisor  
Telephone: 407.836.7795  
E-mail: jennifer.cummings@ocfl.net



# APPENDIX A RESUMES



gai consultants®

# RESUME

## GRETCHEN HORN, MBA, PMP

PROGRAM MANAGER  
Director / Senior Associate



### EDUCATION

MBA, Duquesne University, 1994

BS, Mechanical Engineering, 1988,  
Pennsylvania State University

### REGISTRATIONS

Project Management Professional  
(PMP)

Ms. Horn specializes in project management for substation and transmission line projects. She focuses on project planning, establishing goals that promote timely and efficient delivery, and monitoring project activity.

Ms. Horn has managed over 200 transmission line and substation projects. These projects include substation and line siting, civil substation design, permitting, transmission line design, substation electrical and protection and controls design, material procurement, and substation and line construction.

While at Allegheny Power, Ms. Horn was responsible for the complete oversight and coordination of transmission line and substation projects from initial project planning and continuing through the energization. Some of her responsibilities included the following: determination of critical path activities; development of schedules; maintaining and directing the execution of project schedules; leading the development of project estimates; ensuring the completion of projects within budget; coordination of activities across a multi-function team including permitting, design, and construction; and management of project related technical reviews. Additionally, Ms. Horn managed the efforts of external environmental and engineering consulting firms including conducting regularly scheduled status meetings, serving as the liaison between internal and external parties, and establishing and maintaining consultant milestone submittals and internal technical and constructability reviews.

### RELEVANT EXPERIENCE

- **138kV Line located in Pennsylvania (PA).** Managed the siting, design, and permitting of a new greenfield 4.5-mile line from the existing Universal station to the existing Plum station. The design utilized double circuit custom steel structures and single circuit custom structures for under crossing locations. The design featured 1.5 miles of underground transmission line located mid-project and required the design of custom self-supporting steel riser pole structures. The sighting study included consulting with an EMF specialist to minimize EMF of the new line for siting restraints. GAI conducted a siting study, prepared a report, and testified at PUC hearings in support of the route. GAI also completed the required environmental and cultural resources studies and permit applications as well as the railroad and highway crossing permits.
- **138kV Line located in Ohio.** Rebuild of 12.8-miles of 138kV transmission line utilizing pre-engineered and custom structures. Managed the design of the transmission line, standard and custom structures, and pier foundations for the custom monopoles. Prepared the construction specifications books, P&Ps, and bill of material. Assisted the client with design solutions related to property-owner requests.
- **Wind Energy Center Transmission Line Project, located in Colorado, for confidential client.** Project Director. GAI completed the transmission line design per the client's engineering standards. Tasks included: transmission line design and structure design criteria based upon national, state, and regional requirements; primary and alternative route development; foundation loadings; pipeline grounding studies; electro-magnetic fields (EMF) and audible noise studies; drawings for permit applications; construction support; fault current study analysis; right-of-way clearing requirements; grounding methodology based upon soil conditions; and as-built drawings.
- **138kV Transmission Line Project located in West Virginia (WV) and PA.** Managed the design and construction of this 138kV transmission line project. The new line was a 14.3-mile long double-circuit steel and wood pole line constructed in PA and WV. Managed the line routing study and the development of an application for a Certificate of Public Convenience and Necessity (CPCN) for the line; managed the design and construction project team including external consultants; and developed and managed schedule and budget.



# RESUME

## JAMES WALBERT, PE, MBA

### TRANSMISSION LINE PROJECT MANAGER

#### Senior Engineering Manager



#### EDUCATION

MBA, 2019, Point Park University

BS, Civil Engineering Technology,  
2013, Point Park University

#### REGISTRATIONS

Professional Engineer (PE):  
PA # PE088718

Mr. Walbert specializes in civil engineering and design of steel, concrete, and wood structures, including foundations. His experience covers transmission line design, maintenance, and rehabilitation of existing transmission lines. He is proficient in AutoCAD, Microstation, Microsoft Office, PLS-CADD, PLS-Pole, MFAD, Vortex, and Vibrec and has worked with Autodesk Civil 3d, Autodesk Robot, MathCAD, ProjectWise, PLS-TOWER, RISA, and STAAD.

#### RELEVANT EXPERIENCE

- **NERC Remediation Projects, located throughout Florida (FL), for confidential client.** Analyzed six existing 138kV and 230kV transmission lines for NERC clearance violations based on LiDAR survey. Analyzed the clearance violation using PLS-CADD and recommended a solution such as structure replacement, mid-span structure installation utilizing concrete or steel poles, and changing existing phasing. Developed and compiled the work summary, location maps, guying diagrams, staking tables, sag charts, and custom drawings into a construction package. Used client software and procedures to order material, file permit applications, and request information such as environmental assessments. Work included field visits to obtain pictures and notes verifying LiDAR data, assess site conditions, and compare to catalog of existing hardware.
- **Fault Current Mitigation and Overhead Ground Wire (OHGW) Upgrade Projects, located in FL, for confidential client.** Analyzed six 138kV transmission lines for structural integrity due to an upgrade in OHGW size. Provided structure replacement and modification solutions to failing structures. Developed and compiled the work summary, location maps, guying diagrams, staking tables, sag charts, and custom drawings into a construction package. Used client software and procedures to order material, file permit applications, and request information such as environmental assessments. Work included field visits to obtain pictures and notes verifying LiDAR data, assess site conditions, and compare to catalog of existing hardware.
- **138kV Transmission Line Rebuild Project, located in Ohio (OH), for confidential client.** Rebuild of 138kV transmission line utilizing pre-engineered and custom structures. Performed the planning, structure spotting, blowout, ground clearance checks, standard and custom structure design, damper study, and material procurement. Utilized MFAD to design 20 pier foundations for the custom monopoles. Reviewed and accepted the manufacturer's steel pole drawings and calculations. Prepared the construction specifications books, P&Ps, and bill of material.
- **138kV Mid Vol Switch install Project, located in West Virginia (WV), for confidential client.** Design of a 138kV tap line from the existing 138kV to a mining customer's new substation. The design included single circuit construction and utilized one pre-engineered prop structure, one pre-engineered deadend, and one custom three-way phase-over-phase switch with davit arm construction. Additionally, the scope of work included the sag study and resag of approximately 1.5-miles of existing line that was previously installed at too high of a tension. Performed the planning, structure spotting, blowout, ground clearance checks, standard and custom structure design, damper study, and material procurement. Utilized MFAD to design one pier foundation for the custom switch and verify embedment depths for pre-engineered structures. Reviewed and accepted the manufacturer's steel pole drawings and calculations. Prepared the construction specifications books, P&Ps, and bill of material.
- **69kV Transmission Line Reroute Project, located in WV, for confidential Client.** Reroute of two 69kV transmission lines from existing 69kV Substation to the new 69kV/138kV Substation, utilizing pre-engineered structures and three custom structures. Design included routing new lines around a heavily congested substation with minimal outages. Performed the planning, structure spotting, blowout, ground clearance checks, standard and custom structure design, damper study, and material procurement. Utilized MFAD to design three pier foundations for the custom monopole and custom H-frame structure. Reviewed and accepted the manufacturer's steel pole drawings and calculations. Prepared the construction specifications books, P&Ps, and bill of material.
- **138kV Loop Transmission Line Project, located in OH, for confidential client.** Design of a new greenfield two-mile double-circuit transmission line utilizing single pre-engineered structures with polymer braced post insulators. Performed the planning, structure spotting, blowout and ground clearance checks, standard and custom structure design, damper study, material procurement, and access road location selection. Reviewed and accepted the manufacturer's steel pole drawings and calculations. Prepared the construction specifications books, P&Ps, highway crossing permits, and bill of material.

# RESUME

## KYMBERLY CHUDOMEL, PE, CAPM

DISTRIBUTION LINE PROJECT MANAGER  
Senior Engineering Manager



### EDUCATION

BS, Civil Engineering, 2006,  
University of Maine

### REGISTRATIONS

Professional Engineer (PE): IL, IN,  
MA

Certified Associate in Project  
Management (CAPM)

Ms. Chudomel specializes in civil and structural engineering for the design of electrical transmission lines and related facilities. Her experience includes, but is not limited to, analysis and design of lattice steel towers, transmission line rebuilds, greenfield lines, distribution line rebuilds including underground, developing design criteria and specifications following the National Electrical Safety Code (NESC) requirements, and the use of the PLS programs.

### RELEVANT EXPERIENCE

- **Facility relocation project for confidential client due to the widening of Route 132 in Illinois (IL).** Designed distribution line relocation. Developed and submitted Illinois Department of Transportation Permit.
- **Clearance projects for confidential client in Chicago, IL** with designed solutions.
- **NERC clearance projects for transmission lines that crossed over confidential client distribution in IL.** Some solutions required overhead distribution to be designed underground.
- **Pothole replacement in Chicago, IL for confidential client.** Overhead lines were connected into existing underground distribution after new switches were installed and designed through new conduits. City of Chicago OUC permits developed and coordinated conduit location with existing underground utilities.
- **County, Township, and City permits for confidential client for storm hardening, GRID, EIMA, and DSM projects.**
- **Confidential client distribution reconductoring projects in California.** Distribution lines were modeled with proposed wire and additional future ADSS wire. Existing wood structures were replaced with steel poles when structurally deficient.
- **Multiple 69kV rebuild projects for confidential client in Indiana (IN).** Project Manager and Lead Engineer. Upgraded existing wood pole lines to steel poles and added fiber optic ground wire to all lines. Railroad, state highway, and Federal Aviation Administration (FAA) permits were required.
- **Multiple switch pole projects for confidential client in IN.** Lead Engineer and Task Manager. Switches were inserted into existing wood pole lines.
- **Multiple wood pole replacement projects for confidential client in IN.** Lead Engineer and Task Manager. Designed the upgrade of existing wood poles to steel poles.
- **Lattice Steel Tower Analysis and Reinforcement for PT Freeport in Indonesia.**
- **Greenfield Line Project for a mining company in Pennsylvania (PA).** Task Manager and Lead Engineer. Developed wood pole standard structures, Construction Specifications, and criteria based on industry standards.
- **138kV rebuild in West Virginia (WV) and Ohio (OH) for confidential client.** Lead Engineer and Task Manager. Existing 69kV double circuit lines on existing lattice steel towers and wood pole h-frames were rebuilt to 138kV double circuit lines on new lattice steel towers and single steel poles on concrete foundations. The line required special design of a 3100 ft horizontal span river crossing to provide required clearance over the Ohio river.
- **69kV Rebuild in Indiana for confidential client.** Task Manager and Lead Engineer. Single steel pole with distribution underbuild and skip span design.
- **Scope of Work development for confidential client.** Developed the transmission line scope sections associated with multiple projects being bid to Engineer-Procure-Construct (EPC) contractors.
- **138kV tower analysis and retrofit for confidential client.** Analyzed steel lattice tower to proposed loads and developed suitable retrofit.
- **Transmission line relocation of multiple 115kV and 230kV lines for confidential client due to a planned High Speed Rail.** Developed re-routes and designed steel pole structures to accommodate new highway and railroad crossings.
- **34.5kV sub-transmission lines located in New Hampshire (NH), Vermont (VT), and Rhode Island (RI).** The existing wood pole lines were refurbished and reconductored for National Grid. Lead Engineer.

# RESUME

## STEPHEN ANTHONY, PE, MSEE

### SUBSTATION PROJECT MANAGER

GAI Engineering Director, Substation Protection & Controls Division Manager



#### EDUCATION

MS, Electrical and Electronics Engineering – Power System Engineering, 2011, George Washington University

BS, Electrical and Electronics Engineering, 2006, University of Maryland

#### REGISTRATIONS

Professional Engineer (PE): MD, DC, VA, MA, CA, PA

GAI Engineering Director, Stephen Anthony, specializes in managing Substation and Protection & Controls Engineering projects. Mr. Anthony has experience in a full range of Substation projects from equipment replacement to large intricate multi-year substation expansions. He currently directs an organization of over 30 technical managers, engineers and designers on Protection and Controls design, Physical design, Procurement, Financials, Construction Support and Project Close-out. He is highly proficient in Substation Equipment Specification and Evaluation, as well as Witness Testing and Implementation.

#### RELEVANT EXPERIENCE

##### *Portfolio Project Management and Oversight*

- Responsible for design coordination and achievement of client projects in excess of 5 million USD annually. Providing monthly/yearly forecasting as well as schedule adherence.
- Provide engineering design, direction, support, and selection of cost-effective reliability improvements, incorporating the application of industry standards and practices relating to engineering, procurement and construction of electrical substations.
- Design, review, approve and QA/QC check of substation design drawings from primary physical design to secondary protective relay schematics and wiring.

##### *Substation and Protection & Controls Engineer*

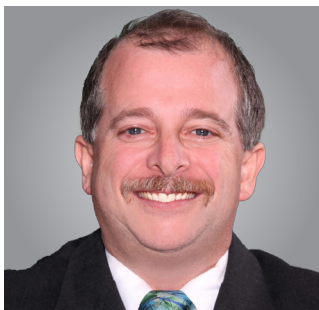
*Director overseeing GAI's support of client's multi-million, multi-year portfolio of projects.*

- Substation Upgrade Project, Western PA. Engineer of record for the upgrades at the substation performing final QA/QC checks and sealing of the designed Issue for Construction (IFC) package. The physical upgrades included the replacement of a 69-8.87kV 11/14 MVA transformer including a sound wall, adding SATEC transformer metering and SCADA to the transformer alarms. This scope involved the design of all one-line diagrams, electrical plan and section views, conduit plan and details, grounding plan and details, BOM development, nameplates, AC and DC schematics, wiring diagrams, civil structural design and foundation details as well as sound calculations.
- Substation Upgrade Project, Pennsylvania. Engineer of record for the upgrades at the substation performing final QA/QC checks and sealing of the designed Issue for Construction (IFC) package. The upgrades included the expansion of the existing station with a new ground grid and the installation of a two (2) 115kV MOABs, bus work, dead-end structures, and 4kV distribution outside ladder tray and all associated protection and controls. This scope involved the design of all one-line and three-line diagrams, electrical plan and section views, conduit plan and details, grounding plan and details, BOM development, nameplates, AC and DC schematics, wiring diagrams, civil structural design and foundation design. The above station also included an AC, DC load and grounding study/calculations.
- Substation Expansion Project in Maryland: Lead design engineer for a four (4) bay breaker-and-one-half substation expansion. Performed design for overall single line, physical layout and developed P&C philosophy. Created specifications for bulk electric equipment and performed economic cost evaluation for two 500/230kV Transformers, eleven 500kV breakers, six 230kV breakers, over 20 disconnect switches, relaying, CCVT's and other misc. materials. Designed, Reviewed, approved and red-lined design drawings for compliance to client standards and specifications, as well as IEEE, NEC and NESC. Coordinated design, construction and close out efforts between engineering, construction and construction management, as well as subcontracted engineering and construction firms. Project duration of five (5) years with total project cost of 80 million USD.

# RESUME

## DJ SILVERBERG, MS, PWS, REP, GTA

PLANNING/PERMITTING SERVICES MANAGER  
Environmental Manager



### EDUCATION

MS, Biological Sciences (Ecology),  
1988, Florida Institute of  
Technology

BS, Biological Sciences (Marine),  
1985, Florida Institute of  
Technology

### REGISTRATIONS

Professional Wetland Scientist  
(PWS): #000272

Environmental Professionals of  
Florida: Registered Environmental  
Professional (REP): #239

Authorized Gopher Tortoise  
Agent, Florida Fish & Wildlife  
Conservation Commission, #GTA  
09-00004-F, March 2009

Mr. Silverberg, a Professional Wetland Scientist since 1995, has been conducting ecological consulting studies since 1987. He has conducted preliminary land use assessments, wetland delineations, and listed species evaluations for over 600 sites throughout Florida (FL), and wetland jurisdictional delineations for local, state, and federal regulatory programs. Permit applications for all levels of the U.S. Army Corps of Engineers (USACE) Permit Program, the FL Department of Environmental Protection (DEP), and various FL Water Management District Environmental Resource Permit programs.

Mr. Silverberg specializes in client and regulatory agency interaction, technical writing, wetland delineation, plant identification, and project management. He provided technical review and guidance to the National Aeronautics and Space Administration (NASA) and Kennedy Space Center contractors regarding compliance with state and federal wetland and protected species regulatory programs. He has also identified and mapped plant communities, including seagrasses, through photointerpretation and field investigation. Mr. Silverberg conducted habitat mapping analysis and prepared a restoration plan for the Indian Trails Water Control District in Palm Beach County, FL, and designed and supervised implementation of a 557-acre wetland creation, restoration, and enhancement project in the upper St. Johns River floodplain west of Melbourne, FL.

### RELEVANT EXPERIENCE

Mr. Silverberg has over 25 years of experience in providing ecological assessment and permitting support services to municipal and private utility clients throughout the state of Florida. His clients have ranged from small town and cities, to counties and regional utility authorities. The projects are just as varied, including potable water facilities and pipelines, to water reclamation facilities, wastewater force mains, and reclaimed water mains. Mr. Silverberg also has extensive experience with the ecological components of Consumptive Use Permitting, solid waste facility permitting, and permitting of solar farms.

Survey for, and identification of, listed species endemic to the upland and wetland habitats of FL. Worked on several large-scale projects (over 1,000 acres) where surveys were conducted for gopher tortoise, sand skink, Florida sandhill crane, Florida scrub-jay, and Eastern indigo snake, as well as surveys for listed plants. Coordinated with both state and federal wildlife agencies to develop long-term management plans for wildlife species. Conducted several hundred gopher tortoise relocations, and was one of the first consultants in FL to be permitted as an Authorized Agent.

Conducted ecological assessment and wetland delineation; agency jurisdictional reviews (both formal and informal); qualitative and quantitative surveys and assessments for threatened and endangered plant and animal species (Eastern indigo snake, wood stork, Florida sandhill crane, and state and federally listed plant species); preparation of Federal Dredge and Fill Permit and ERP applications and agency coordination; design, implementation, monitoring, and coordination of mitigation for wetland impacts; and preparation of management plans for listed species.

Some of the projects on which he has worked include:

- Orange County, FL Utilities - Water Main & Force Main, Lee Vista to Innovation Place
- Orange County, FL - Continuing Services - South Service Area (SSA)
- City of Kissimmee, Sandhill Road Wastewater Treatment Facility Expansion
- Alaqu Lakes Subdivision, Reclaimed Water Main
- Orange County, FL Utilities – Starwood Reclaimed Water Main
- Turnpike/Plantation Force Main and Reclaimed Water Main
- City of Lady Lake, FL, Wastewater Treatment Facility
- Poinciana Wastewater Treatment Plant No. 1 Expansion
- Area 1 Stormwater Improvements, City of Titusville, FL
- Lady Lake, FL, Consumptive Use Permitting
- Haines City, Reclaimed Water System Improvements & RIB Preliminary Design & Permitting Services
- Orange County, FL, Continuing Services - Engineering Services
- Seminole County, FL, Master Agreement for Environmental Services



# RESUME

## GEORGE REESE, MS, CE

PLANNING/PERMITTING SERVICES

Environmental Director / Assistant Vice President



### EDUCATION

MS, Biology, 1989, Clarion  
University of Pennsylvania

BS, Biological Sciences, 1984,  
University of Pittsburgh

### CERTIFICATIONS/TRAINING

Certified Ecologist (CE), Ecological  
Society of America

Mr. Reese specializes in environmental impact analysis and National Environmental Policy Act (NEPA) documentation, permitting, siting studies, and vertebrate ecology. His ecological specializations are in the areas of population, community and behavioral ecology. He has extensive experience in the design of replacement wetlands and habitats, and has performed endangered and threatened species surveys throughout the Eastern U.S., including designing and developing measures to mitigate impacts to species of concern.

### RELEVANT EXPERIENCE

- **90-Mile, 765kV Transmission Line in VA and WV for confidential client.** Engineering and environmental consulting project for planning, design, and construction of a proposed 90-mile, 765kV transmission line in compliance with federal and state permitting agencies requirements. Responsible for environmental mitigation and management plans, vegetation inventory and clearing plans, timber appraisal, wetland delineations, and permitting aspects of the project.
- **Transmission Line from Confidential Power Station to Confidential Power Station.** Technology evaluation, line siting, and preliminary design for a proposed 260-mile-long, 500 kV transmission line extending across the state. Route selection studies and environmental assessments for 10+ alternative corridors to economically develop an environmentally-friendly route. Document coordinator for the siting study and environmental assessment. Responsible for evaluating existing stream resources throughout the project site for the purposes of determining mitigation potential. GAI is responsible for collecting physical, chemical, and biological data necessary for calculation of Ohio Stream and Wetland Valuation Metric and preparation of the Conceptual Mitigation Plan.
- **Confidential Power Station Disposal Site in PA.** Coal ash/mine refuse disposal facility expansion project requiring 1,900+ feet of stream and associated habitat enhancement design and 3 acres of replacement wetlands design; and multi-agency coordination and consultation with GPU Generation, PaDEP, and PA Fish and Boat Commission. Responsible for construction monitoring for the stream and wetland mitigation.
- **Environmental task manager for confidential 345kV Line, Allegheny County, PA.** Responsibilities included alternatives development, route analysis and selection, agency coordination, field investigations and reports, siting study and environmental assessment report, preparation of PaPUC application and filing materials, public meeting participation and displays, and preparation of environmental permitting.
- **Honduras Transmission Line from Puerto Cortes, Honduras to Apopa, El Salvador, Central America for confidential client.** Responsible for an Environmental Impact Assessment for the proposed 377-kilometer 230kV electric transmission line in Central America. Required the coordination of a large, multidisciplinary international team of consultants working closely with local subconsultants to conduct field investigations and long-term monitoring programs to collect data to develop extensive environmental documentation in both English and Spanish. Documents were prepared for submission to Honduran and Salvadoran permitting agencies, local agencies, and the Inter-American Development Bank.
- **Virginia Power Facilities in NC, VA, and WV for confidential client.** Prepared the natural resources and groundwater sections of Oil Discharge Contingency Plans for 17 power facilities, requiring natural resources identification for risk in potential spill paths, natural resources impacts identification for worst-case discharge, and protection priorities. Responsible for oil discharge contingency plans for 13 power stations in Virginia including identifying natural resources at risk, and mitigation measures.
- **Project Manager for 10 line routing and siting studies for electric transmission lines in VA for confidential client.** Responsibilities included alternatives development, route analysis and selection, agency coordination, field investigations and reports, preparation of filing materials, public meeting participation and displays, and testimony before the VA State Corporation Commission.
- **Project Manager for seven line routing and siting studies for electric transmission lines in KY, MI, IN, and OH for confidential client.** Responsibilities included alternatives development, route analysis and selection, agency coordination, field investigations and reports, preparation of filing materials, public meeting participation and displays.
- **Environmental task manager for confidential client, 345kV Line, Allegheny County, PA.** Responsibilities included alternatives development, route analysis and selection, agency coordination, field investigations and reports, siting study and environmental assessment report, preparation of PaPUC application and filing materials, public meeting participation and displays, and preparation of environmental permitting.



# APPENDIX B

# SAMPLE INSURANCE

# CERTIFICATES



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# INSURANCE

Proof of insurance is provided on the following pages, including Professional Liability.

GENERAL LIABILITY



GAICONSUL1

ABUCZYNSKI

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
9/29/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER License # 60236</b> <b>HDH Group Inc</b> 210 Sixth Avenue 30th Floor Pittsburgh, PA 15222	<b>CONTACT NAME:</b> Andrea Buczynski <b>PHONE (A/C, No, Ext):</b> <b>FAX (A/C, No):</b> <b>E-MAIL ADDRESS:</b> andrea.buczynski@hubinternational.com														
<b>INSURED</b>  <b>GAI Consultants, Inc.</b> 385 E. Waterfront Drive Homestead, PA 15120	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Valley Forge Insurance Company</td> <td>20508</td> </tr> <tr> <td>INSURER B : The Continental Insurance Company</td> <td>35289</td> </tr> <tr> <td>INSURER C : Ironshore Specialty Company</td> <td>25445</td> </tr> <tr> <td>INSURER D : Travelers Casualty &amp; Surety Company of America</td> <td>31194</td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Valley Forge Insurance Company	20508	INSURER B : The Continental Insurance Company	35289	INSURER C : Ironshore Specialty Company	25445	INSURER D : Travelers Casualty & Surety Company of America	31194	INSURER E :		INSURER F :	
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INSURER F :															

### COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		6050488311	10/1/2021	10/1/2022	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMPIOP AGG \$ 4,000,000 OHIO STOP GAP 1 \$ 1,000,000
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		6050441991	10/1/2021	10/1/2022	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N/A	6050442655	10/1/2021	10/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution / Environm		ICELLUW00114564	10/1/2021	10/1/2022	5,000,000
D	Cyber		106456841	1/21/2021	1/21/2022	5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Umbrella coverage is Excess and follows form on the following policies:  
 COMMERCIAL GENERAL LIABILITY (INCL OH STOP GAP) - VALLEY FORGE POLICY NO. 6050488311  
 AUTOMOBILE LIABILITY - OLD REPUBLIC POLICY NO. L243256-21  
 EMPLOYER'S LIABILITY - VALLEY FORGE POLICY NO. 6050442655

### CERTIFICATE HOLDER

### CANCELLATION

Evidence of Coverage

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



*Chet Rios*

ACORD 25 (2016/03)

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		<b>CERTIFICATE OF LIABILITY INSURANCE</b>		Acct#: 2706974		DATE (MM/DD/YYYY) 09/30/2021		
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.								
<b>IMPORTANT:</b> If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).								
PRODUCER <b>Lockton Affinity, LLC</b> P. O. Box 879610 Kansas City, MO 64187-9610				CONTACT NAME: <b>Lockton Affinity, LLC</b> PHONE (A/C, NO Ext): <b>877-320-9393</b> FAX (A/C, No): <b>913-652-7599</b> E-MAIL ADDRESS: <b>EFM@locktonaffinity.com</b>				
INSURED <b>GAI Consultants, Inc.</b> 385 East Waterfront Drive Homestead, PA 15120				INSURER(S) AFFORDING COVERAGE		NAIC #		
				<b>INSURER A: Old Republic Insurance Company</b>		24147		
				<b>INSURER B:</b>				
				<b>INSURER C:</b>				
				<b>INSURER D:</b>				
<b>INSURER E:</b>								
<b>INSURER F:</b>								
<b>COVERAGES</b>		<b>CERTIFICATE NUMBER</b>		<b>REVISION NUMBER</b>				
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.								
INSR LTR	TYPE OF INSURANCE		ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY Claims Occur							EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PROJEC LOC							OTHER
A	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS ONLY NON-OWNED AUTOS		X	X	L243256-21	10/01/2021	10/01/2022	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS- DED RETENTION \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N	N/A				PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) GPBR: 1GL1 Policy provides protection for any and all operations/jobs performed by the named insured where required by written contract. Certificate holder is an Additional Insured where required by written contract. Waiver of Subrogation included by written contract. Insurance is primary and non-contributory.								
<b>CERTIFICATE HOLDER</b>					<b>CANCELLATION</b>			
SAMPLE					SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.			
					AUTHORIZED REPRESENTATIVE 			

ACORD 25 (2016/03)

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Terra Insurance Company  
(A Risk Retention Group)  
Two Fifer Avenue, Suite 100  
Corte Madera, CA 94925



DATE  
01/01/22

## CERTIFICATE OF INSURANCE

### CERTIFICATE HOLDER

This is a specimen certificate of insurance.  
If you require a true certificate of insurance,  
please contact Terra Insurance Company.

This certifies that the "claims made" insurance policy (described below by policy number) written on forms in use by the Company has been issued. This certificate is not a policy or a binder of insurance and is issued as a matter of information only, and confers no rights upon the certificate holder. This certificate does not alter, amend or extend the coverage afforded by this policy.

The policy of insurance listed below has been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions and conditions of such policy. Aggregate limits shown may have been reduced by paid claims.

<b>TYPE OF INSURANCE</b>	Professional Liability
--------------------------	------------------------

<b>POLICY NUMBER</b>	<b>EFFECTIVE DATE</b>	<b>EXPIRATION DATE</b>
222018	01/01/22	12/31/22

<b>LIMITS OF LIABILITY</b>	\$1,000,000 EACH CLAIM
	\$1,000,000 ANNUAL AGGREGATE

### PROJECT DESCRIPTION

For evidentiary purposes only.

**CANCELLATION:** If the described policy is cancelled by the Company before its expiration date, the Company will mail written notice to the certificate holder thirty (30) days in advance, or ten (10) days in advance for non-payment of premium. If the described policy is cancelled by the insured before its expiration date, the Company will mail written notice to the certificate holder within thirty (30) days of the notice to the Company from the insured.

### NAME AND ADDRESS OF INSURED

GAI Consultants, Inc.  
(Pittsburgh)  
385 E. Waterfront Drive  
Homestead, PA 15120-5005

### ISSUING COMPANY:

TERRA INSURANCE COMPANY  
(A Risk Retention Group)

President



# APPENDIX C

## EXHIBIT B DSBE UTILIZATION



gai consultants®

## PROPOSED SUB-CONSULTANTS FOR DSBE UTILIZATION

### PROPOSED SUB-CONSULTANTS FOR DSBE UTILIZATION

Note: The Consultant is required to complete the following form and submit to Procurement with the Letter of Interest if the advertisement references utilization of DSBEs.

*D/SBE categories: Minority Business Enterprise (MBE); Small Business Enterprise (SBE); Woman Business Enterprise (WBE); Veteran Business Enterprise (VBE); Disadvantaged Business Enterprise (DBE)*

Project Description: Professional Electric Design & Engineering Services

Consultant Name: GAI Consultants, Inc.

Expected use of D/SBE firms in work types is planned as follows:

D/SBE Sub-Consultant	Type of Work

☒ I do not propose use of D/SBEs in any work types.

Signature: David J. Bevilacqua

Digitally signed by David J. Bevilacqua  
DN: cn=David J. Bevilacqua, email=D.Bevilacqua@gaiconsultants.com  
Date: 2022.01.27 13:04:11 -0500

Title: Vice President

Date: January 27, 2022