

Expression of Interest

Redundant Water and Sewage Systems EOI Design Services

Coonskin Complex and Camp Dawson Facility

Solicitation No. CEOI 0603 ADJ1700000004

August 31, 2016

08/31/16 13:29:45
WV Purchasing Division



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August 31, 2016

Construction and Facilities Management Office
West Virginia Army National Guard
Attention: Colonel James W. Dean II
1707 Coonskin Drive, Charleston, WV 25311

Re: Expression of Interest | Redundant Water and Sewage Systems EOI Design
Services | Solicitation No. CEOI 0603 ADJ1700000004



gaiconsultants.com/communitysolutions

Dear Colonel Dean,

From Vision to Ribbon, a project must be shepherded through multiple stages which often require the knowledge and expertise of a number of skilled specialists. This commitment to delivering results is the primary mission of GAI Consultants, Inc. (GAI). We endeavor to balance imagination, creativity, and reliability by combining all the skills necessary to envision, design, plan, and manage your project to get the results you want, on-time and on-budget.

GAI is a 900+ person engineering, landscape architecture, planning and environmental consulting firm with over 55 years of experience delivering innovative engineering solutions to our clients. Through engineering expertise and broad, deep knowledge of regulatory processes, we transform ideas into reality with solutions that make a real difference to our clients. We are extremely proud of the legacy of work that we have championed in West Virginia over the last 27 years, and we look forward to the opportunity to continue that relationship for the next quarter of a century and beyond.

As you read on, you will discover what separates GAI from our competition is the wide variety of services that we can offer our clients under one "roof." Our unique business unit structure affords us the ability to assemble a specialized team of professionals with a combined technical knowledge encompassing the fields of engineering, landscape architecture, transportation, and land use planning, development, zoning, urban design, public outreach, and civic engagement and process. Because of this, we are confident we are far better positioned than most, to deliver at a very high level creative, yet pragmatic solutions to any type of project that we might be asked to perform.

As you will see in our qualifications, we have completed multiple projects from across the region involving similar, if not identical services to the ones identified in your request for qualifications. Locally, GAI is part of the design team that is completing updates to the Charleston Civic Center, of which, a portion of GAI's charge was to modify, redirect, and extend water and sewer services to accommodate the proposed Civic Center expansion. One of the most critical aspects of the utility improvements was the relocation of the Charleston Sanitary Board's main city sewer line, an antiquated 30-inch vitrified clay pipe structure at an existing depth of over 20 feet. To relocate this line, two 36-inch sanitary lines were directional bored for over 400 lineal feet, at a depth of over 20 feet, with two concrete valve vaults constructed, one at each end, price tag for the main sanitary sewer line modifications alone: \$2.8 million.

Another GAI project that is set to bid for construction within the month is the Valley Park Master Plan Improvements. Working for the Putnam County Commission, GAI has prepared construction plans and specifications for over 50 acres of parks and recreation development at the iconic Wave Pool, including water and sewer service extensions for a new community building and pool house, maintenance facility, and a combination concessions/restroom/press box structure. Working closely with the Putnam County Parks and Recreation Commission, GAI expects to break ground this fall to approximately \$7 million in parks, recreation, and infrastructure improvements for the largest park facility in Putnam County.

Our past history and familiarity with West Virginia and the National Guard combined with our intimate knowledge of the project requirements will prove to be a valuable asset to the West Virginia Army National Guard, and will ensure the successful completion and implementation of this important infrastructure improvements project. This continued relationship demonstrates our capability to work collaboratively with our clients—Concept to Construction—advancing vision into tangible projects that will surely benefit the West Virginia National Guard and the soldiers, airmen, and civilians that use the Coonskin Facility and Camp Dawson to live and work on a daily basis.

Because our employees are also active and retired members of the West Virginia National Guard, we feel we are also stakeholders in all NGB/DoD projects we are asked to be involved in. We value the relationship we have built with the National Guard over the years and take the trust that we are given by you very seriously. We look forward to speaking with you further about our qualifications and how the GAI team can help turn all of your potential projects into a reality. Please feel free to contact Todd, your local liaison, with questions at r.schoolcraft@gaiconsultants.com or 304.926.8100.

Sincerely,

GAI Consultants, Inc.

R. Todd Schoolcraft, PLA, ASLA, LEED®GA
Senior Landscape Architect

James Greene, PE
Director of Engineering



96 %

OF OUR CLIENTS
WOULD RECOMMEND GAI

— by independent survey



Firm Information

Streamlining Solutions

GAI is a 900+ person engineering and environmental consulting firm with over 55 years of experience delivering innovative engineering solutions. Through engineering expertise and broad, deep knowledge of regulatory processes, we are transforming ideas into reality_® with solutions that make a real difference to our clients.

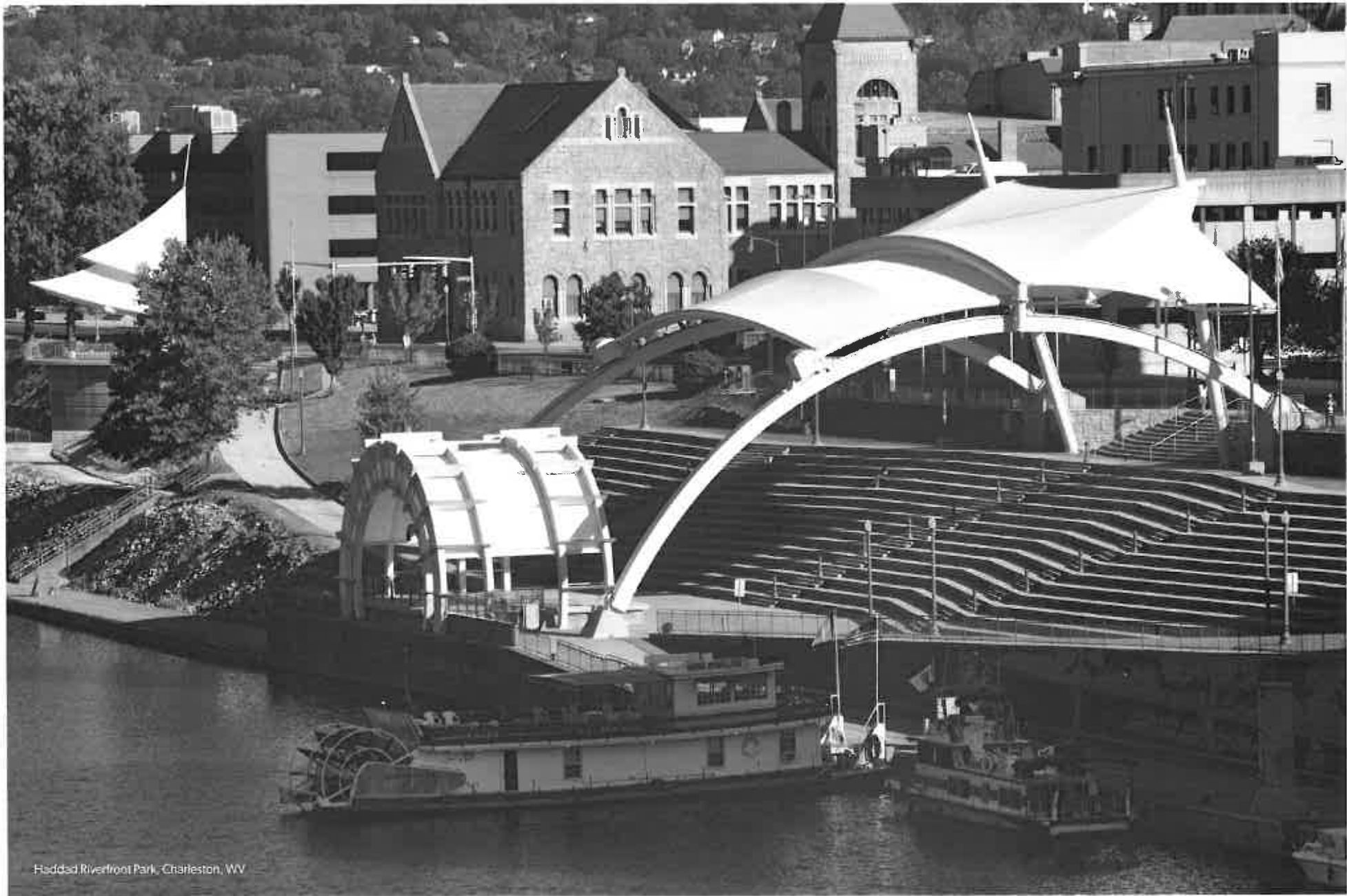
With an award-winning and respected professional reputation in multiple engineering, environmental, and technical practice areas, GAI distinguishes itself by our solid reputation of providing excellent customer service along with innovative yet practical solutions.

Our work in the following disciplines provides innovative and cost-saving solutions for clients in municipal, as well as energy, transportation, water, government, real estate, and industry.

Adding Value

- Government engineering and design services
- Real estate and economic advisory services
- Land development and landscape architecture
- Environmental engineering and studies
- Transportation planning and design
- Cultural resources management
- Geotechnical and structural engineering
- Transmission line engineering
- Surveying/GIS/GPS
- Mechanical and electrical engineering
- Construction management, inspection, and testing
- Water resources and wastewater management
- Utility management consulting
- LEED engineering and planning
- Design-build delivery system





Haddad Riverfront Park, Charleston, WV



Office Locations

GAI's strategic locations in West Virginia communities and surrounding states place your projects within reach of multiple GAI offices that can provide capabilities, expertise, and support throughout the duration of the project.

The GAI office location and point of contact that will directly administer this contract is:

GAI – Charleston, WV

R. Todd Schoolcraft, PLA, ASLA, LEED® GA

Senior Landscape Architect/Local Liaison

300 Summers Street, Suite 1100

Charleston, WV 25301

D 681.245.8878

T 304.926.8100

F 304.926.8180

r.schoolcraft@gaiconsultants.com

www.gaiconsultants.com/communitysolutions



Project Approach



Todd



Jim

GAI proposes to execute this project primarily utilizing two corporate offices: GAI Charleston leading the Coonskin Facility efforts, and GAI Southpointe leading the charge for the Camp Dawson designs. **Todd Schoolcraft, PLA, ASLA, LEED® AP**, will be the Local Liaison for the C&FMO, with **Jim Greene, PE** serving as Project Manager.

Todd brings a history of work on military installations, DoD and NGB projects, including the Building 5 Command Group Renovations, Zone II, Camp Arifjan, Kuwait, and the Aerial Port of Debarkation (APOD) Consolidation Project, Kuwait City International Airport, Kuwait. Both projects include water and sanitary sewer improvements, integrating mechanical/electrical upgrades, site grading and drainage, site security and lighting, and both projects involve the

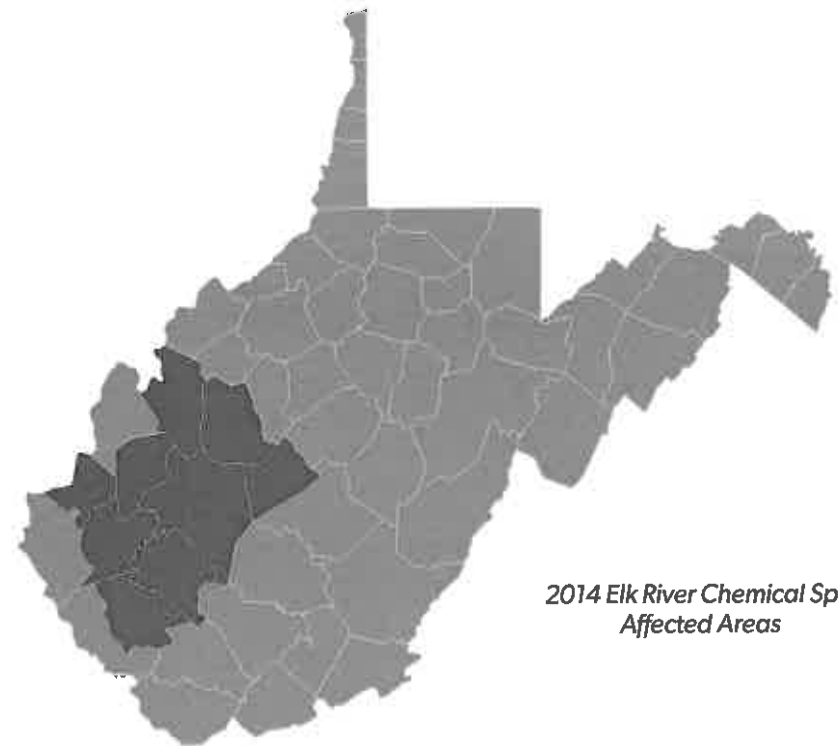
multi-disciplinary integration of various in-house professionals that we refer to as Integrated Site Design.

Jim has over 30 years of civil engineering experience. He has been involved in hundreds of projects throughout his career including: water and sewer line designs; stormwater management and erosion control design; federal, state and local permitting; conceptual site and utility plans; master plans, construction cost estimates; hydrologic and hydraulic studies; design of water quality infiltration trenches, dry wells and infiltration basin.

Project Understanding

Our team has reviewed the detailed scope of work described in the RFQ. The January 2014 Elk River chemical spill of MCHM occurring upstream of the West Virginia American Water intake created a potable water crisis for

300,000 residents within a nine county area of Charleston, which included the Coonskin military installation. Recent, and historic flooding in various parts of West Virginia, including the Cheat River Valley, has often-times adversely effected many sanitary sewerage systems in the effected areas, more recently the Kingwood PSD wastewater facilities across the river from the Camp Dawson complex. These recent events precipitated the need for the West Virginia National Guard to develop a redundant plan for water and sewer services for the future, should the need again arise. The National Guard must be situated to continue their mission in times of crisis, and uninterrupted water and sewer services is critical to that mission.



2014 Elk River Chemical Spill
Affected Areas

Data Collection, Inventory & Analysis Stage



*National Guard Personnel Assist WV American Water
in Sampling and Testing of MCHM-Effectuated Waters.*

GAI proposes to visit both facilities to become more familiar with the existing conditions at each site. We expect to meet with the local stakeholders to gain intimate knowledge of the utility and infrastructure challenges at each site. GAI will collect all pertinent data on current consumption levels, loads, and conditions of existing operating water and sewer systems. Coordination with the local public utilities and consideration of the number of personnel working at each site will be critical to assessing current and future demand and loads.

Also in the data collection stage, GAI will deploy our environmental engineers and hydro-geologists to sample any existing well sources at each site to ascertain flow rates for a 24-hour period. Historical data regarding underground aquifers in the area, typical recharge/recovery rates, and water quality and hardness factors will also be evaluated.

Geotechnical Investigation

GAI will conduct a geotechnical investigation of each proposed utility and infrastructure improvements site, with the objective being to determine the properties of the surface and subsurface soil and rock conditions at each site. Tasks that may be required to complete the investigation include digging test pits; core borings; and laboratory testing of selected soils samples. The geotechnical exploration program will compile and summarize the data, then provide analysis and recommendations for design elements including in situ considerations, permissible slopes, grading, soil percolation rates, stormwater runoff, soil compaction requirements, foundation recommendations, and pavement designs.

Once all existing data has been collected, GAI will revisit the previously prepared water/sewer infrastructure studies to update the data and information, to include improvements and associated demand increases that have occurred at Coonskin and Camp Dawson since the studies were originally prepared.

Based on all available data, and after analyzing flow rates, water quality, existing infrastructure capabilities, and other factors, GAI will present the most viable, cost-effective options to the C&FMO staff, with recommendations for implementation of the proposed improvements.

Construction Document Stage

Once an option for redundant water and sewer improvements for each site has been agreed to by the C&FMO staff, GAI will begin preparing detailed construction plans.

Field Survey

GAI will deploy survey teams to topographically map and model each well or water source, and sanitary holding/treatment facility site at both Camp Dawson and Coonskin, so that detailed site plans may be prepared for the necessary redundant facilities. Also, any mapping necessary to complete pipeline corridors for connectivity to existing facilities, and any necessary access roads or other infrastructure needs, will be collected in the field at that time.



Construction Plans

Construction plan sets will be prepared for separate, turnkey, complete, stand alone utility systems for each specific utility system. Elements that may be a part of the final plans include:

- Water wellhead sites
- Water intake facilities
- Water treatment facilities
- Water distribution lines
- Sewer treatment package plants
- Sewer storage facilities
- Sewerage conveyance lines
- Pumps and lift stations
- Valves/switching mechanisms
- Any necessary accessory plans such as access roads, power service, gas service, mechanical/electrical improvements, site layout, grading and drainage, revegetation plans, and associated details

Permitting

GAI will provide permitting services to support the proposed improvements in the construction documents. Permits that are anticipated, depending upon the final location selected for each water and sewer facility, may include a WVDOH MM-109 Permit; County or City Floodplain Permit; WVDEP Construction Stormwater permit; USACE Permit; and/or US Fish & Wildlife, among others.

Bid Documents and Technical Specifications

GAI will work with the C&FMO and WV State Purchasing to prepare all Bidding and Contract Documents, either in AIA format or EJCDC format, whichever is preferred. Information typically included would be general project information, all necessary bidding documents including the Advertisement for Bids, Instructions to Bidders, Bid Form, Unit Cost Bid Schedule, and Bid Bond Form.

Contract Documents may include the Owner/Contractor Agreement, Performance Bond and Payment Bond forms, Standard General Conditions of the Contract, and any Supplemental General Conditions.

GAI employs the latest versions of Masterspec to customize and tailor the Technical Specifications to each specific task. Finally, all the prepared documents will be presented to the C&FMO in hard-copy and electronic format during the design process.

Cost Estimating

GAI has extensive experience in cost estimating utility and infrastructure upgrades of varying scales and complexity. Our team will utilize past projects bid history, consultation with fabricators and contractors, and detailed estimates (crew size, material, equipment, hour-estimates) for the proposed infrastructure improvements to provide accurate estimates for the project. GAI works regularly with a variety of contractors, through design-build projects and design-bid-build projects, and we can tap into discipline specialists throughout the company as needed to solicit a myriad of historical cost data and expertise.

Another method GAI utilizes to control construction costs and ensure a construction contract is awarded the first time a project advertises for bids, is unit costs and additive and deductive alternates. From our recent successful bidding of the Charleston Civic Center (currently in construction) and the new Edgewood Elementary School (construction completed in the Fall of 2014) we

have the most current, applicable unit costs at our disposal for the purposes of estimating redundant water and sewerage improvements for the Camp Dawson and Coonskin facilities.

Bidding Stage

GAI will coordinate with the C&FMO and WV Purchasing during the bidding efforts. GAI is positioned to lead the Pre-Bid Conference, address Requests For Information (RFI's) from the bidders/contractors, issue addenda, check references and make a recommendation to the C&FMO regarding selection of a contractor or contractors. GAI also has established a lengthy list of highly-regarded contractors that follow GAI designed projects, anticipating a quality set of bid documents that can be expected from our design professionals. This will ensure a high level response and competitive bids will be received at the WV Purchasing office.

Construction Monitoring

With GAI's office location in the BB&T Building on Summers Street in Charleston, GAI can be available on-call and at the Coonskin site in 10 minutes or less. And with our Bridgeport, WV office and Southpointe, PA offices, we are within an hour's drive of Camp Dawson. In addition to construction administration services, GAI does offer full-time resident inspection services if the project scope warrants such oversight. GAI also has the latest materials testing equipment necessary to monitor and test soils compaction, asphalt compaction, concrete slump testing, pressure air testing, cylinder fabrication, and other testing.



Clink Multi-modal Transit Facility, Fort Wayne, IN



Engineering | Civil

Firm Experience and Practice Concentration
Individual Staff Experience



Engineering – Civil

Municipal Engineering

- Sanitary sewer design
- Water main design
- Feasibility studies, reports, and estimates
- General development coordination
- Mapping
- Development reviews
- Capital improvement program development

Construction Related Services

- Pre-construction meetings
- Contract administration
- Construction observation
- Materials testing
- Record drawings

Stormwater Management

- Comprehensive stormwater management plans
- Detention/retention facilities
- Stormwater conveyance
- Stormwater utility development
- Floodplain zoning and administration
- Ordinance development
- FEMA submittals
- Water quality analysis and design
- Environmental permits



Sanitary Sewer Evaluation and Rehabilitation (SSER)

- Sanitary sewer smoke testing
- Flow monitoring
- Dye water flooding
- CCTV of sewer main and laterals
- Home inspection
- Pilot studies
- Cured-in-place pipe lining
- Sewer relaying

Survey Services

- Preliminary/final platting
- Boundary survey
- ALTA survey
- Construction staking
- Topographic and utility surveys

Wastewater Collection/ Treatment

- Facilities planning
- Wastewater collection and treatment
- Industrial pre-treatment
- Operator training/start-up services
- Infiltration/inflow studies
- Sewer system evaluation studies
- Lift stations
- Sanitary sewer design

Water Supply/Distribution

- Master planning and systems analysis
- Water distribution and treatment
- Water booster stations
- Water supply and storage
- Rate analysis
- Hydrogeology and wells
- Water main design





Keesler Air Force Base Central Energy Plant Design Build

GAI Consultants was contracted by VOA Associates to provide assistance on a design-build project for a new Central Energy Plant (CEP) at Keesler Air Force Base. GAI was responsible for structural, civil, and landscape architecture design services for a new 15,000 s.f. CEP and first floor electrical addition. The project was awarded through the Naval Facilities Engineering Command Southeast.

The new CEP, which also supports the Keesler Medical Center, replaces existing systems and consolidates them in a facility designed and constructed to reduce the risk of hurricane damage to essential generators, electrical switchgear, transformers, chillers, boilers, and cooling towers. Flooding from Hurricane Katrina completely shut down the Keesler Medical Center when almost all of the key systems centered in basement and outside areas took on water and could not be operated until they dried. This project provides a "survivable" CEP that can withstand extreme weather events.

GAI utilized "Dr. Checks" to address comments from federal government agencies involved in the project. In addition, GAI's landscape architects developed landscape and irrigation designs for the new plant.

Lasting Benefits

GAI developed an "Early Start" package so construction could begin on the CEP foundation prior to completion of final design. Designing a "survivable" CEP ensures military personnel that critical operations will not be interrupted during extreme weather events.

LOCATION: Biloxi, Mississippi

CONSTRUCTION COST: \$20M

COMPLETION: 2008

REFERENCE:

VOA Associates, Inc.
4798 New Broad Street, Suite 100
Orlando, Florida 32814
407.425.2500

PERSONNEL: Bob Schanck, PE



Fort Campbell Military Installation

This project was executed under a \$5,000,000 – five year A&E Environmental HTRW Services Indefinite Delivery Contract with the USACE Louisville District and has included various CERCLA assessments, site inspections and remedial investigations; restoration planning; and natural and cultural resource projects in support of the District's mission within the Great Lakes and Ohio River Division Mission boundaries. The contracts general scope of services includes performing environmental studies, designs and support for compliance issues under RCRA, CERCLA, and other federal programs, and state and local environmental laws and regulations; conducting site surveys and assessments; performing NEPA documentation; conducting natural and cultural resource surveys; performing risk assessments and fate and transport analysis; conducting surface/subsurface soil, sediment and rock sampling/testing; conducting water sampling/testing; conducting HTRW laboratory analyses; and providing engineering evaluations/cost analysis for remediation work.

This Phase I Archaeological Survey was conducted to assist Fort Campbell in the fulfillment of its Programmatic Agreement with the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Offices (SHPO) of Kentucky and Tennessee regarding the evaluation of historic properties including archaeological resources. The goal of the project was to determine the presence or absence of archaeological sites within 788 acres of active military training grounds, within the cantonment, and near the Sabre Heliport area. Seven discrete locations were designated for archaeological survey, totaling 788 acres, which constituted the project's Area of Potential Effect (APE). The archaeological survey was performed within the APE in accordance with Section 106 of the National Historic Preservation Act (NHPA). Background research was conducted and a Statement of Expected Finds was produced. This was followed by a pedestrian reconnaissance and geomorphology assessment of the potential for identifying deeply-buried sites. GAI and AEROSTAR personnel excavated shovel test pits (STPs) on a 20-meter grid within the seven study areas. Radial STPs were excavated around positive STPs. A few areas with good ground surface visibility were also surface collected. The study identified 77 loci that produced artifacts including 23 archaeological sites (two of which were previously recorded) and 54 isolated finds. The Phase I Archaeological Report passed through agency review quickly with no comments received from either Fort Campbell or the Kentucky Heritage Council (State Historic Preservation Office).



LOCATION: Christian County, Kentucky
and Montgomery County, Tennessee

PROJECT COST: \$248,000

COMPLETION: 2010

REFERENCE:

Aerostar Environmental Services, Inc.
for USACE Louisville District
Philip Elson
11781 St Johns Industrial Pkwy N
Jacksonville, Florida 32246
904.565.2820

PERSONNEL: Ben Resnick, MA, RPA, MBA



Greensburg National Guard Readiness Center

The project consisted of renovations and a minor addition to the National Guard Readiness Center in Greensburg, PA. GAI Consultants provided a structural evaluation of the existing building to include several lintels, construction specifications review, foundation and structural details, and steel shop drawing review during construction.

LOCATION: Greensburg, Pennsylvania

PROJECT COST: \$5,000

COMPLETION: 2013

REFERENCE:

KTH Architects

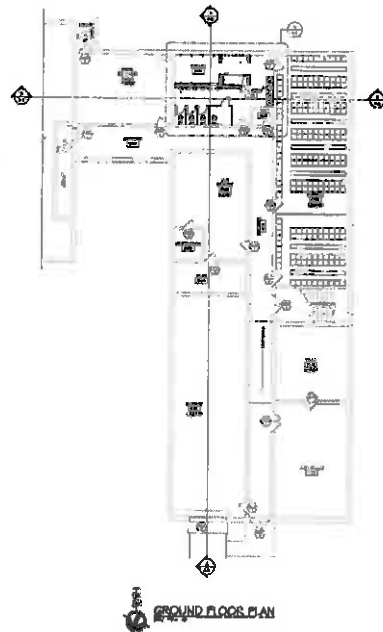
Jerry Bankovich

1741 Kiwanis Trail

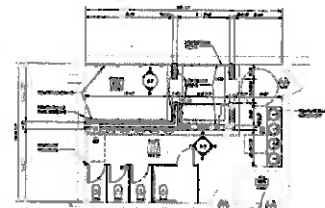
Dubois, Pennsylvania 15801

(814) 371-1541

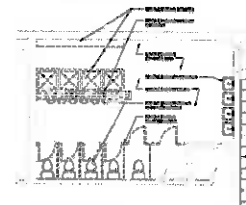
PERSONNEL: Scott Kunselman, PE



GROUND FLOOR REFLECTED CEILING PLAN



ENLARGED FLOOR PLAN



GROUND FLOOR DEMOLITION PLAN



Nathan J. Goff Armory, Clarksburg, Harrison County



Brushfork Armory, Bluefield, Mercer County



Weston Armory, Weston, Lewis County

West Virginia Army National Guard Historic Research Survey

GAI Consultants completed an architectural and historical resource survey report for the West Virginia Army National Guard (WVARNG) in April of 2012. The survey involved documentation of six West Virginia Army National Guard Armories (Nathan J. Goff, Harrison County, Cecil H. Underwood, Mercer County/Brushfork, Weston, Jonah E. Kelley, and L.M. Gatens) constructed between 1958 and 1964 in Doddridge, Lewis, Kanawha, Mercer, and Mineral Counties. During field survey, each armory was photographed using a high resolution camera, field notes were taken to document architectural elements, and the armories were marked on a USGS map. West Virginia Historic Property Inventory Forms (WVHPI), including detailed site plans and descriptions of the resources, were completed for each armory and included with the report. A historic context was also completed for the report, and background research was conducted at the West Virginia and Regional History Collection holdings in Wise Library at West Virginia University and the West Virginia State Archives at the West Virginia Division of Culture and History in Charleston. Additionally, GAI collected information from local libraries and armory employees, where possible. GAI assessed the architectural and historic integrity of each armory.

GAI recommended that five armories are potentially eligible for the National Register of Historic Places (NRHP) under Criterion A in the areas of Community Planning and Development and Military, but not individually eligible under Criterion C. While these armories are local representatives of a unique American architectural legacy, their potential significance may be obtained not individually, but rather from the collective whole being representative of the style, period, and type. The sixth armory was recommended not eligible for the NRHP, as it exhibits numerous non-historic additions and alterations and no longer retains its historic integrity.

LOCATION: Doddridge, Lewis, Kanawha, Mercer, Harrison and Mineral Counties

PROJECT COST: \$7,400

COMPLETION: 2014

REFERENCE:

West Virginia Army National Guard
Charleston Armory
1703 Coonskin Drive
Charleston, West Virginia 25311

PERSONNEL: Eric Scuoteguazza



Coast Guard Station Mayport Survey

The Coast Guard Station Mayport project consisted of a complete boundary and design survey of the entire property for the purpose of adding an additional building and dock improvements. GAI Consultants performed the survey in a timely manner locating all improvements with elevations and produced CAD files for the design team. Coast Guard Station Mayport is an active port with operations for multiple sized ships. The security required to enter base required back ground checks and a safety meeting before any work could be started. The survey crews performed their work in GAI uniforms with ID badges. The improvements were designed and built a year later after our survey.

LOCATION: Mayport, Florida

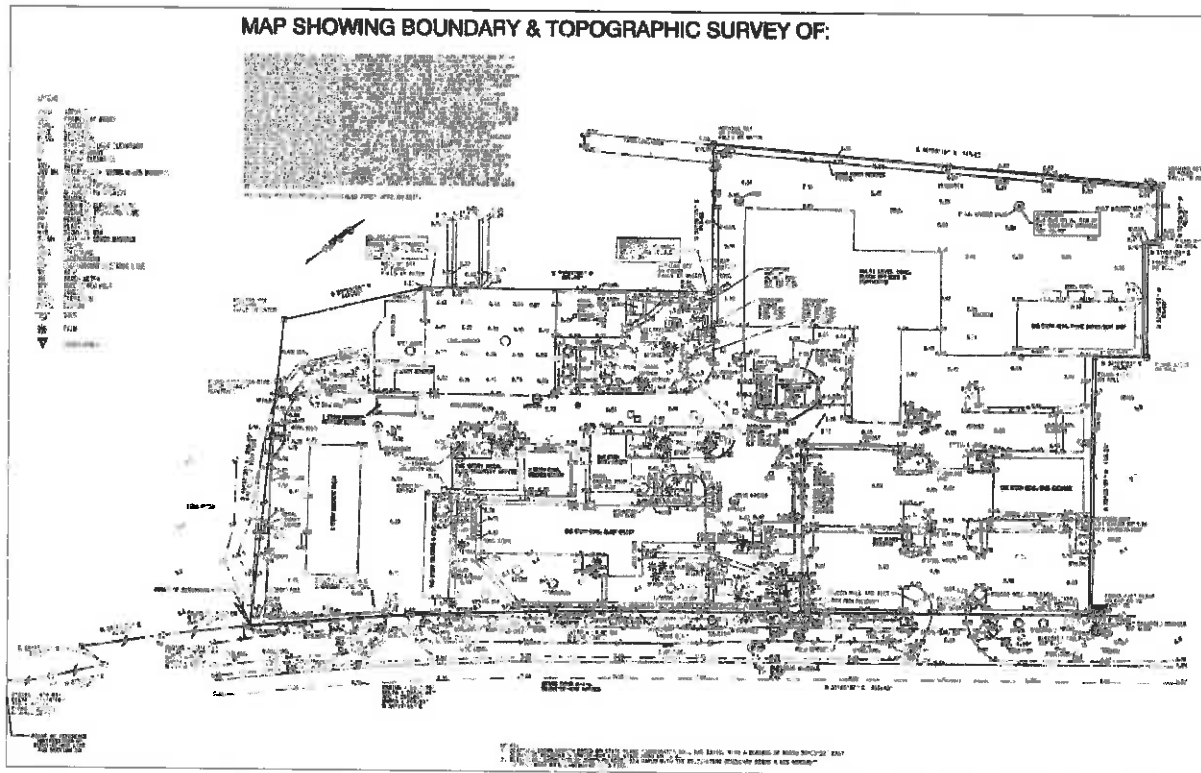
PROJECT COST: \$5,500

COMPLETION: 2006

REFERENCE:

Aerostar Environmental
John Kaiser
11181 St Johns Industrial Pkwy N
Jacksonville, Florida 32246
407.839.0224

PERSONNEL: Joe Lek





Huttonsville Correctional Facility Waste Water Treatment Plant Improvements

GAI Consultants, through Silling Associates Architects, designed process improvements for the Huttonsville Correctional Facility's 200,000 gallon per day wastewater plant. The wastewater plant was constructed in the mid-1990s as part of a large expansion project. Since that time, increasing monthly flow rates, elevated wastewater temperatures, grease, and trash have caused critical operational concerns. GAI worked with correctional facility staff to explore these issues and formulate a retrofit that would not adversely impact plant operations during construction.

GAI initially performed extensive research to compare historical wastewater flow to precipitation events, to determine if stormwater inflow and infiltration (I&I) was a contributing factor. Results of that study indicated that I&I was not a substantial contributor to the increased flow. The solution came in the form of a partially buried 50,000-gallon reinforced concrete, surge tank/basin sized to handle the excessive peak flows noted in historical flow monitoring records.

The partially buried tank was not exposed to direct sunlight, had an open top, and acted as a stilling basin to assist in cooling the wastewater. At the entrance to the surge basin, a new screen system was installed to improve removal of the growing amount of trash encountered in correctional facility wastewater, while still allowing the important organic matter to continue on to the treatment process. The proposed facility retrofits were designed to be constructed adjacent to the existing plant and supplement its operation without impacting the current and successful treatment system.

Value Added Innovations

An oil and grease separator was added to the end of the surge basin to remove oils and grease. By installing this filter at the end of the tank system, cooling time was maximized to allow the oils and grease to better coalesce, so more could be captured, improving removal rates.

LOCATION: Randolph County, West Virginia

COMPLETION: 2010

REFERENCE:

Silling Associates Architects
Bill Wimer
304.558.6055

PERSONNEL: Jim Greene, PE





36" and 48" Water Transmission Line Replacement

GAI Consultants provided engineering services, including surveying, permitting, a geotechnical investigation, and an environmental overview, for Segments 5B and 6 of this water transmission line replacement project in Hernpsfield Township and South Greensburg Borough, PA. A proposed 36-inch water line is replacing the existing 20-inch asbestos cement main along Hunter Road between an interconnect tee in Kicker Way and Garden Street. The interconnect installation on Kicker Way was Segment 5A of the project. GAI's services also included a proposed 48-inch water transmission line to be located along Western Avenue between Kicker Way and the South Greensburg Pump Station.

Despite geographical challenges that included existing mine voids and the close proximity to local streams, state roads, and railroad tracks, GAI was able to optimize the location of the new waterlines and minimize costs for the client.

Lasting Benefits

With GAI's help, the installation of a reliable and maintainable water transmission system in this community will provide decades of service to MAWC customers in numerous communities.

LOCATION: Westmoreland, Pennsylvania

PROJECT FEE: \$466,500

COMPLETION: 2015

REFERENCE:

Municipal Authority of Westmoreland
County (MAWC)

124 Park and Pool Road
New Stanton, Pennsylvania 15672

Tom Ceraso
724.755.5873

PERSONNEL: Jim Greene, PE



WVU Evansdale Master Plan

GAI Consultants performed evaluation of storm damage, sanitary and water system infrastructure, for West Virginia University's 150-acre Evansdale Campus in Morgantown as part of the University's capital improvement program for the campus. Work included relocation design for various utilities to avoid building new facilities and upgrades to provide the additional service capacity needed for the project. The plan included design of stormwater management upgrades to control development-generated runoff and included sustainable stormwater provisions to address water quality. The work also included design of parking lot expansions to replace spaces lost due to the building construction implemented during the capital improvement program.

Value Added Innovations

Sustainable stormwater techniques and practices with an emphasis on maintenance and monitoring to ensure long-term functioning of the structures, measures, and programs recommended.

LOCATION: Morgantown, West Virginia

CONSTRUCTION COST: Ongoing

COMPLETION: 2011

REFERENCE:

Michael Stern
Strada LLC
The Ewart Building
925 Liberty Avenue
Pittsburgh, Pennsylvania
412.471.5704

PERSONNEL: James Greene, PE



North Park – Ingomar Road Water Line Replacement

GAI Consultants provided design plans, details, and contract documents for the replacement of an existing eight-inch water line located along Ingomar and Old Ingomar Roads within North Park. Due to the age of the waterline, the Allegheny County Department of Public Works had experienced ongoing maintenance issues trying to address leaks and frequent breaks. GAI provided conceptual layouts, recommendations, and opinion of probable construction costs for three separate alternatives to achieve the County's goals within the budget they had established.

Working in conjunction with the County's Public Works division, GAI identified portions of the waterline that were in need of immediate repair and those that could remain. Supported by a close working relationship with the County DPW and the Allegheny County Parks Foundation, GAI's recommendations for installing the waterline parallel to the existing line avoided the need to clear mature stands of trees within the park.

GAI gathered topographic, property, and utility survey information, and developed waterline plans, profiles and details. Environmental permitting included National Pollution Discharge Elimination System (NPDES) Permits and Pennsylvania Department of Environmental Protection (PADEP) General Permitting for stream crossings. Since Ingomar Road is a state route, GAI was also responsible for PennDOT Highway Occupancy Permitting for the waterline within the Right-of-Way. Throughout construction GAI continued to provide coordination with West View Water Authority (water provider), the County plumbers, and the contractor to address unforeseen field conditions.

Lasting Benefits

By installing the new waterline and avoiding mature trees within the park, repairs that impact the park environment will not be required.

LOCATION: Pittsburgh, Allegheny County, Pennsylvania

PROJECT FEE: \$109,000

COMPLETION: 2015

REFERENCE:

Allegheny County Parks Foundation
Allegheny County Department of Public Works (DPW)
Ron Schipani
412.281.5595

PERSONNEL: Jim Greene, PE





Reynoldsville, Wallace, and Clarksburg Water Supply Extension

GAI Consultants was retained by the WVDEP to prepare construction documents, permit applications, and a feasibility/rates analysis for the Reynoldsville, Wallace, and Clarksburg Water Supply Extension Project. The project serves approximately 80 potential customers.

The intent of the project was to extend the Short Line Public Service District water near Sardis to residents in the communities of Catfish, Hollow, Olive, Marshville, Rockcamp Run, and Little Rockcamp Run. The private water supplies in these communities had been determined to have been partially degraded by pre-1977 mining activities.

The scope of work included a feasibility/rate analysis, design of 9,400 feet of 8-inch waterline, 33,000 feet of 6-inch waterline, 12,200 feet of 2-inch waterline, a 96,000-gallon (nominal) water storage tank, and other appurtenances, selection, surveying, and geotechnical investigation of a water storage tank site, as well as preparation of construction documents, regulatory permit applications, and an engineer's report.

LOCATION: Harrison County, West Virginia

CONSTRUCTION COST: \$2,600,000

COMPLETION: 2011

REFERENCE:

West Virginia Department of Environmental
Protection, Division of Abandoned Mine Lands
Greg Smith, PE
304.457.5271

PERSONNEL: Jim Greene, PE





North Shore Place I and II Office/Retail Building Site

GAI Consultants was involved in the design and construction of two retail/office buildings situated along the Allegheny River on North Shore Drive in the City of Pittsburgh. The approximate 27,000 sq.ft. and 13,400 sq.ft. buildings were an initiative of the North Shore Place Partners, LLC working in cooperation with the Pittsburgh Pirates Major League Baseball club and the Pittsburgh Steelers professional football team.

Site development services included site and grading plans, and utility, storm and sanitary sewer designs. GAI was also responsible for developing design plans and calculations for two water quality infiltration facilities, one underground ADS facility between the buildings and one infiltration trench along the east property line. These facilities will capture roof water runoff from the buildings, and filter and cool the water before it is discharged into the Allegheny River. NPDES permitting and Pittsburgh Water and Sewer Authority permits were also required and GAI worked with the permitting agencies to obtain the proper approvals. GAI remained with the project through construction, providing construction administration services.

LOCATION: Pittsburgh, Pennsylvania

CONSTRUCTION COST: \$25 million

COMPLETION: 2014

REFERENCE:

Continental Real Estate Companies
285 E Waterfront Dr., Ste 150
Homestead, Pennsylvania
412.464.8933

PERSONNEL: Jerry Klodowski



Pennsylvania Air Guard Access Road

The Pennsylvania Department of Transportation retained GAI Consultants to provide highway and bridge design, and to generate an Erosion and Sedimentation (E&S) Control Plan for a 1.1-mile section of this six-lane, limited access expressway. Planned construction included an area to support up to eight traffic lanes and a median strip, with an area of disturbance requiring an Earth Disturbance Permit (EDP) from the Pennsylvania Department of Environmental Protection (PaDEP), Bureau of Soil and Water Conservation. The E&S Control Plan included the design of two large sedimentation ponds, six sediment traps, 10 energy dissipaters, 15 temporary channels with lining, four major stream relocations with riprap or concrete channeling, several thousand feet of filter fence, and other control devices. Section 15 of SR 6060 was the first of five total sections of the Southern Expressway to receive EDP approval.

As part of Section 15, GAI designed the McClaren Road Interchange, providing access from the expressway to the Pennsylvania Air National Guard (PANG) base adjacent to Pittsburgh International Airport. GAI also developed the Findlay Maintenance Facility, providing a model for future maintenance facilities. The Findlay facility is situated at the three-acre waste fill infield area of the McClaren Road loop ramp interchange, and required 1,000 feet of sanitary sewer lateral and camouflage fencing.

LOCATION: Allegheny County,
Pennsylvania

CONSTRUCTION COST: \$25 million

COMPLETION: 1991

REFERENCE:

Pennsylvania Department of
Transportation, District 11-0
45 Thoms Run Road
Bridgeville, Pennsylvania 15017
412.429.5000

PERSONNEL: Bob Schanck, PE



JAMES GREENE, PE

Director of Engineering | Project Manager

Mr. Greene specializes in civil engineering projects, and has over 30 years of experience. He has managed residential, commercial, industrial and recreational site development projects. He has completed water and sewer line designs; stormwater management and erosion control design; federal, state and local permitting; conceptual site and utility plans; master plans, construction cost estimates; hydrologic and hydraulic studies; design of water quality infiltration trenches, dry wells and infiltration basins.

Mr. Greene is a registered professional engineer in West Virginia, Pennsylvania and Ohio. He has managed numerous projects in West Virginia most notably The Highlands near Wheeling, WV for a period of twelve years from the beginning of the design, permitting and construction until 2010 with a previous firm. The Highlands is a 1,100 acre mixed use development home to Cabela's, Cabela's Distribution Center, Walmart, Target, JC Penney, Marquee Cinema and AT&T call center. Mr. Greene was instrumental in attending the design development meetings in Minnesota (Target) and Texas (JC Penney) to help secure those tenants.

Mr. Greene is active in the National Association of Industrial and Office Properties (NAIOP) and the International Council of Shopping Centers (ICSC) and has attended the ICSC Las Vegas spring convention numerous times including developing display booths to help attract tenants for his clients. Mr. Greene has also attended the ICSC Ohio/West Virginia/Western PA Idea Exchange event in Columbus, Ohio.

- Stormwater Management Detention Basin Design, Pittsburgh, Pennsylvania. Pittsburgh Air National Guard Base. Designed stormwater management detention basin for 100-acre drainage area near the Pittsburgh International Airport.
- The Highlands located in Triadelphia, West Virginia. Managed and designed master planning, conceptual site plans, earthwork analysis, final construction plans, permitting, utility design, stormwater management design of 14 basins, erosion and sedimentation control design, 3-D renderings, construction cost estimates, roadway design, surveying, bid phase services and construction phase services for an 1,100 acre Commercial and Industrial Park. Total earthwork moved approximately 15M cubic yards.
- Parking Lot Design, Clarion, Pennsylvania. Clarion University of Pennsylvania. Managed the design of a 200-space parking lot for student parking facility, including underground stormwater management facility.

Education

- B.S. Civil Engineering 1985, Pennsylvania State University

Registrations/Certifications

- Professional Engineer: Pennsylvania, No. PE [REDACTED] West Virginia, No. [REDACTED] Ohio, No. [REDACTED]

Skills

- Civil Engineering
- Conceptual Design
- Water and Sewer Design
- Stormwater Management

Education

- Master's Certificate, 2009, Project Management, University of Pittsburgh, Katz Graduate School of Business
- B.S. Civil Engineering, 1988, Point Park University

Training/Courses

- Construction Quality Management for Contractors Certificate, U.S. Army Corps of Engineers, September 2010

Affiliations

- Southwestern Pennsylvania Engineering Outreach (SPEO), Board Secretary
- Point Park University Engineering Technology Industrial Advisory Committee



DAVID TROIANOS, PE

Senior Engineering Manager

Mr. Troianos brings 27 years of experience in project management, construction management, design, marketing, and engineering-related responsibilities for a wide range of civil engineering projects. His expertise include managing water, wastewater, and sewer system investigations, studies, designs and capital improvement projects. He has worked with the Allegheny County Sanitary Authority (ALCOSAN), the Pittsburgh Water and Sewer Authority (PWSA), various Municipalities, the Sports and Exhibition Authority (SEA), the Urban Redevelopment Authority (URA), the Pennsylvania Department of Transportation (PennDOT), the City of Pittsburgh Division of Engineering and Public Works Departments, in the management, review, investigation, and development of designs for site development, water, storm, and sewer facilities and systems for capital improvement and emergency projects throughout the region.

- PWSA Consultant Engineer for Capital Improvement Program Oversight and Construction Management, Pittsburgh, PA. Pittsburgh Water and Sewer Authority (PWSA). Project Director. Provided office management oversight of Consultants Downtown Pittsburgh office for CIP Program and Construction Management Contract. Managed engineering and administration staff located in the Downtown Pittsburgh office. Programmed and ensured adequate construction management and inspection staffing of on-going PWSA construction projects. Consulting Engineer Project tasks work included maintaining, updating, and compiling Capital Improvement Program (CIP) budgets; reporting to the PWSA Executive Director and Board on the CIP program status for budgets, design and construction status; Managed construction change order process for projects, and ensured projects were funded at correct levels; Tracked CIP, DISC, and PennVEST expenditures for design and construction projects.
- Transmission Waterline from Ellsworth Borough to Cokeburg Borough, Charleroi, PA. The Authority of the Borough of Charleroi. The project provided bid phase, PENNVEST administration, and construction management and resident inspection services for the installation of 12,600 lineal feet of 12-inch diameter HDPE waterline from Ellsworth to Cokeburg Borough in Washington County. The project included open cut excavation, boring and directional drilling operations for the installation of the 12-inch transmission main. The project also included the construction of meter vaults, air release/vacuum valves, hydrants, gate valves, pressure reducing valves, service connections and roadway reconstruction.



PATRICK GALLAGHER, MBA

Corporate Real Estate Market Leader

Mr. Gallagher is the office manager of GAI's Southpointe, Pennsylvania office as well as the head of GAI's Corporate Real Estate Development Market Sector for GAI's 25 corporate offices. Mr. Gallagher is also the NE Real Estate/ Municipal Market Sector Manager and is in charge of the day-to-day operations, profitability, and business development for this market sector. He specializes in managing and directing the GAI staff for completion of residential, commercial, and industrial infrastructure projects including designing roadways, earthworks, sanitary and storm sewers, waterlines, and utilities, public presentations, and local, state, and federal permits. He has extensive experience in preparing preliminary and final subdivision plans for presentation to municipal and public agencies for approval. Mr. Gallagher has overseen as well as designed horizontal locations and vertical elevations for local, collector, arterial and highway roadway projects, and has prepared stormwater management plan reports, Erosion and Sedimentation (E&S) Control Plans, and permits for erosion and sedimentation control, National Pollutant Discharge Elimination System (NPDES), general BDWM-GP permits, Chapter 105/404 joint permits, sewage facilities planning modules, and highway occupancy permits.

- University of Pittsburgh Medical Center (UPMC) East located in Monroeville, Pennsylvania. A 425,000 s.f. hospital on 17 acres including demolition of the Palace Inn Hotel. Project Manager responsible for the project.
- 51st Street Business Center in Pittsburgh, Allegheny County, Pennsylvania for The Rubinoff Company. Site development project for two 53,080 s.f. flex buildings and parking lots on 9+ acres requiring a Pennsylvania Department of Environmental Protection (PADEP) temporary discharge authorization for an Act 2 site. Project designer responsible for overseeing the project and designing two 53,080 s.f. buildings, site grading, parking lots, storm sewer, sanitary sewer, waterline, utilities, erosion and sedimentation control, and Pittsburgh Water and Sewer Authority (PWSA) sewage facilities planning module.
- Northshore Riverfront Park along the Allegheny River in Pittsburgh, Pennsylvania Civil engineering and permitting project for a park along the river in the City of Pittsburgh requiring design to renovate the existing Korean War Memorial monument. Project designer responsible for the project, including design of a proposed waterline and electric utility (subconsultant), grading and utility coordination and design to renovate existing war monument, proposed utility design, and coordination with utility companies.

Education

- M.B.A. Point Park University, 2013
- B.S. Mathematics and Economics 1986, University of Pittsburgh

Skills

- Site Development
- Infrastructure Engineering and Design
- Stormwater Management
- Erosion and Sedimentation Control
- NPDES
- Highway Occupancy Permits
- Environmental Permitting

Education

- B.S. Civil Engineering 2003, West Virginia University Institute of Technology

Registrations/Certifications

- Professional Engineer, WV License No. [REDACTED]
- Certified Floodplain Manager (CFM)
- Troxler Nuclear Density Operator, 2001
- MSHA 8-Hour Safety Refresher, 2011
- HAZWOPER 40-Hour Safety Training, 2012

Skills

- Civil Engineering



KENNETH KINDER, PE, CFM

Assistant Engineering Manager, Energy

Mr. Kinder specializes in civil engineering design for civil engineering projects including civil site design, erosion and sediment control, stormwater management, hydraulic modeling, floodplain permitting, wastewater treatment, geotechnical solutions, surface and underground coal permitting, limestone quarry permitting, and solid waste landfill design.

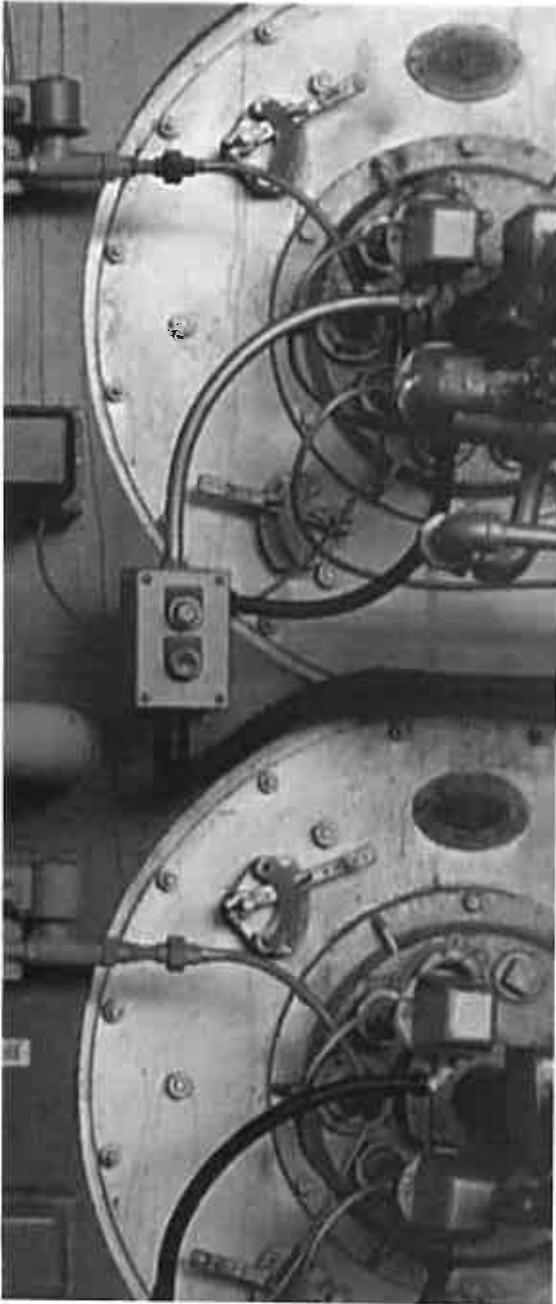
As a project manager, Mr. Kinder ensures accuracy of work, meets schedule requirements, and maintains excellent client relationships. He develops engineering calculations, prepares project drawings, generates contract documents and specifications, and completes engineering reports.

Mr. Kinder is a registered Certified Floodplain Manager (CFM) and provided services to the Kanawha County Planning Commission to complete a third party technical review of an HEC-RAS analysis submitted to the County. His software skills include AutoCAD, Flowmaster, Culvertmaster, StormCad, PondPack, SedCad, Win TR-55, HEC-HMS, and HEC-RAS.

Mr. Kinder's experience has included preparing civil site design on numerous projects. Tasks included: preparing erosion and sediment control plans, designing utility systems, site layouts and grading plans, and designing surface drainage including storm sewer systems and stormwater detention and retention ponds. Prepared permit applications for WVDEP construction stormwater permits, WVDOH MM-109 permits, and floodplain development permits as required.

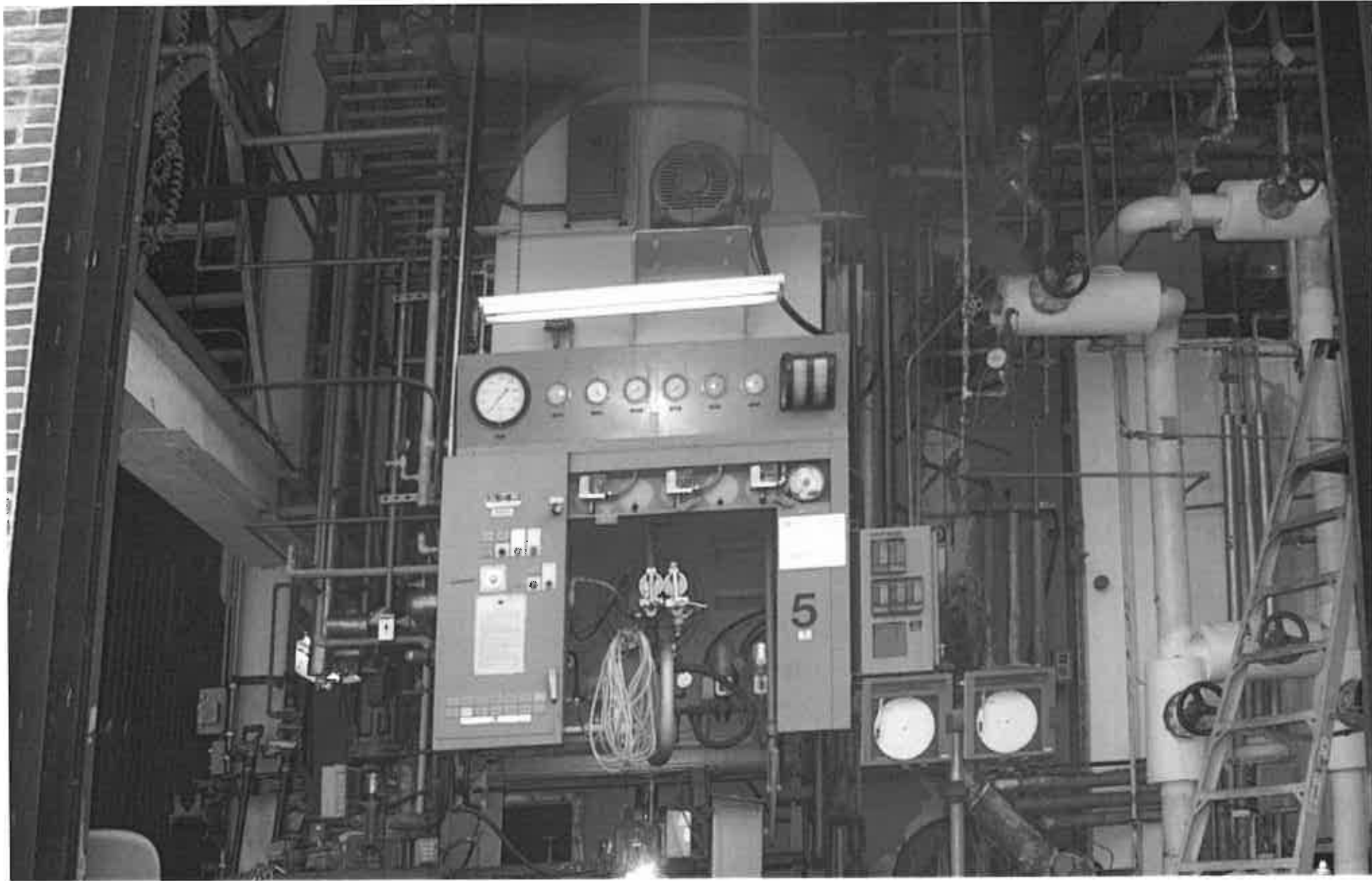
He has also worked on numerous geotechnical projects including developing boring layouts, coordinating geotechnical drilling, and using the gathered information to develop grading plans, design rock toe keys as needed for impoundments and valley fills, develop slope stability analyses, and to assist with foundation design for buildings, bridge abutments and retaining walls. Mr. Kinder has assisted with preparation of geotechnical reports, development of structural contour mapping, and preparation of subsidence control plans for underground mining.





Engineering | Mechanical, Electrical, and Plumbing

Firm Experience and Practice Concentration
Individual Staff Experience



Engineering – Mechanical, Electrical, and Plumbing

Mechanical Engineering Services

- Finite element analyses
- 3D Machine design and modeling
- Facility piping and valve mapping
- Energy conservation studies and planning
- Combustion system design and safety review
- Steam and air load analysis and system sizing
- Equipment and facility layout

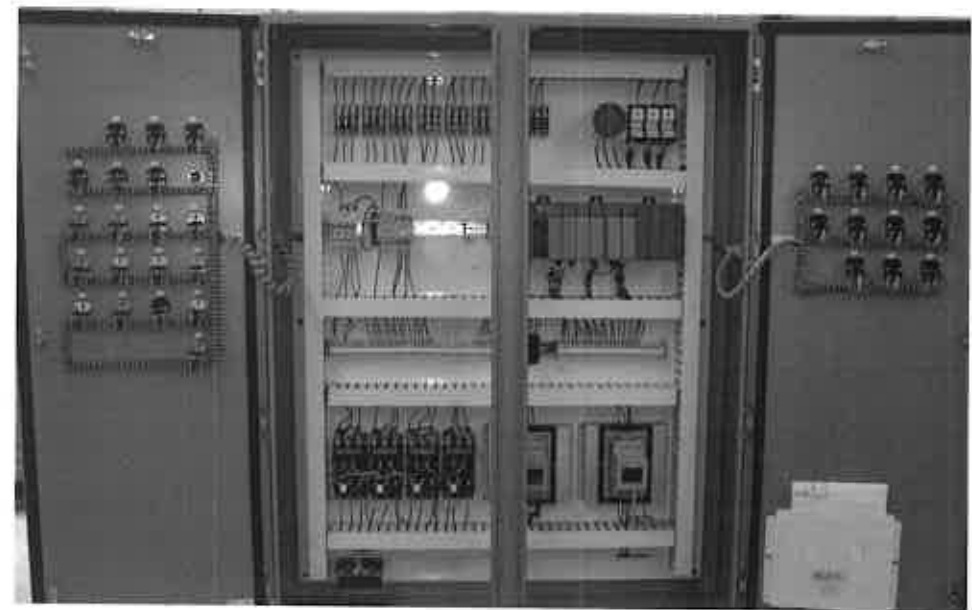
Electrical Engineering Services

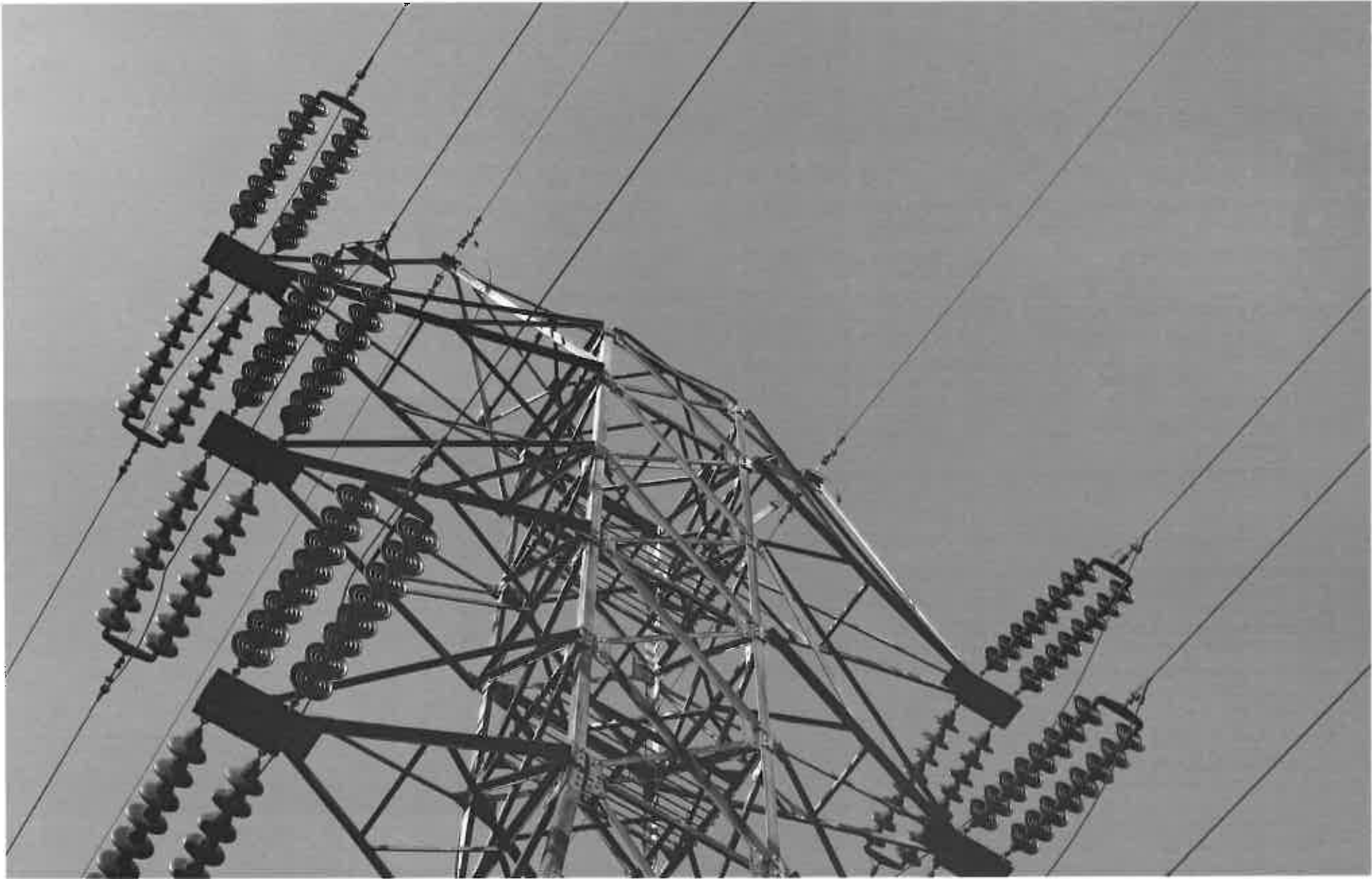
- Substation design, layout and equipment specification and selection for transmission, subtransmission, distribution and secondary substations
- Industrial and facility power distribution system design and analysis
- Audio and visual system design
- 3D drawing design for conduit, duct banks, and cable tray systems
- Procurement services

- Shop panel fabrication drawings and approvals
- On-site construction monitoring, inspection and management
- Arc flash hazard analysis, equipment identification and personnel training
- Industrial and facility grounding design and analysis
- Short circuit analysis with protective device coordination settings/ratings specification
- Power factor analysis with corrective mitigation design and specifications
- Emergency backup power systems
- On-site separately derived power supplies and generation including small gas turbines and diesel generators
- Motor control systems and equipment design/specification
- Small to very large uninterrupted power specification supply
- Building information system coordination for lighting, HVAC, security systems, fire alarm systems
- Lighting system design from

interior building systems to facilities to highway lighting

- Copper, fiber and wireless voice, data and networking design
- Building and facilities security and access system design and specification





Electric Transmission Infrastructure Investment Project

To enhance service reliability to the communities, businesses, and homes in FirstEnergy's service area, they initiated a \$3.6 billion venture to upgrade over 7,200 circuit miles of transmission line across five states. Their goal was to replace outdated equipment with "smart" technology that could be operated remotely, helping to prevent and minimize future outages.

GAI Consultants provided environmental surveys and permitting that included Rare, Threatened, and Endangered (RTE) species coordination and surveys, orthodrawings development, and Federal Aviation Administration (FAA) and Road, Railroad, and Driveway permitting for 28 sites across Pennsylvania and Ohio.

GAI's field services include data gathering, plant surveys, and wetland and stream identification, as well as assistance with permit applications. From initial consultation on cultural resources to construction walkdowns, the GAI project team is coordinating assignments, scheduling meetings, and providing complete environmental permitting support services for the project.

LOCATION: Pennsylvania and Ohio

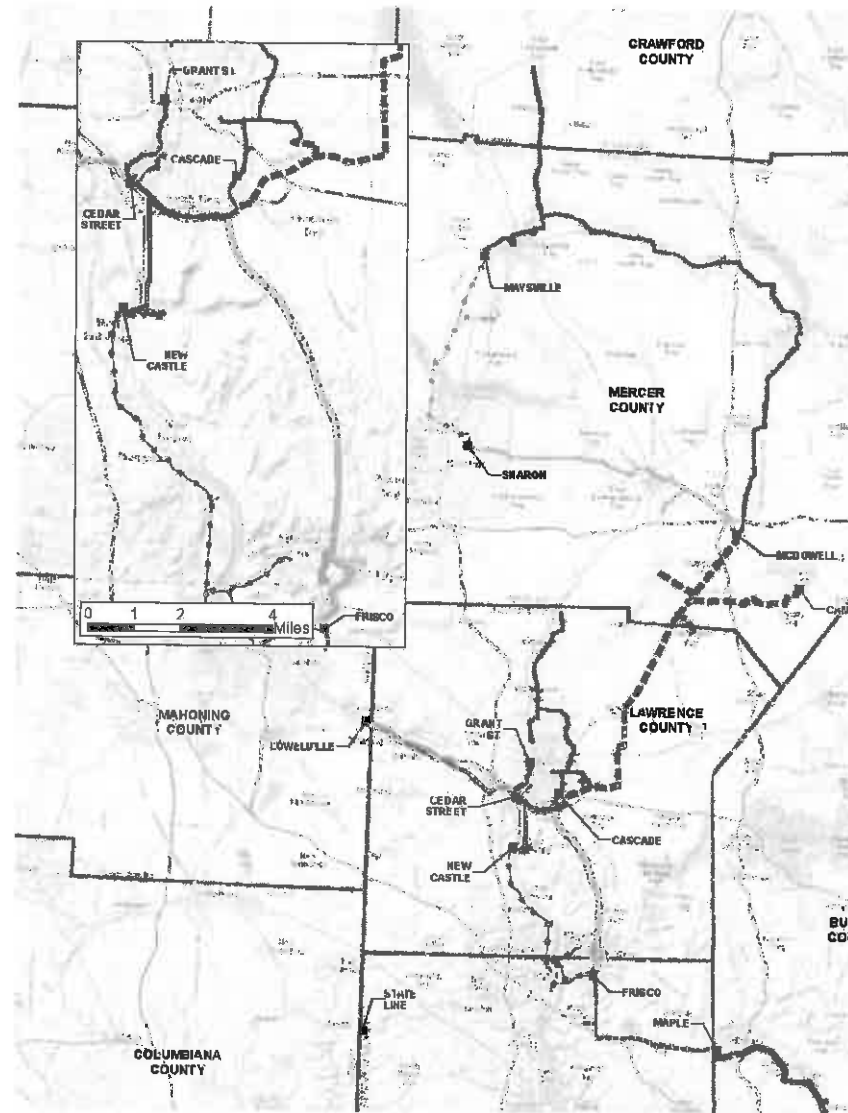
COST: \$3.6 billion

COMPLETION: 2014

REFERENCE:

FirstEnergy Corporation
 Amanda Habershaw and Ted Krauss
 76 South Main Street
 Akron, Ohio
 330.761.4268

PERSONNEL: Lisa Keck







Engineering | Geotechnical and Structural

Firm Experience and Practice Concentration
Individual Staff Experience



Engineering – Geotechnical and Structural

Geotechnical Engineering Services

- Subsurface studies and investigations
- Subsidence studies and remediation
- Geologic studies and reconnaissance
- Site characterization and undisturbed soil sampling
- Soil borrow investigations
- Foundation recommendations, design, research
- Geogrid reinforcement
- Geosynthetic materials design
- Slope stability analysis and MSE slope design
- Earth and rock retaining system design
- Soil and rock anchors
- Concrete, rock, grout, cone penetrometer testing
- Pile static and dynamic load testing
- Pile drilling inspection
- Soil bioremediation and landfarming
- Waste water disposal and agricultural utilization
- Soil improvement techniques
- Coal combustion residuals (CCRs) soil utilization
- Geoarchaeology, geomorphology, pedology

Structural Engineering Services

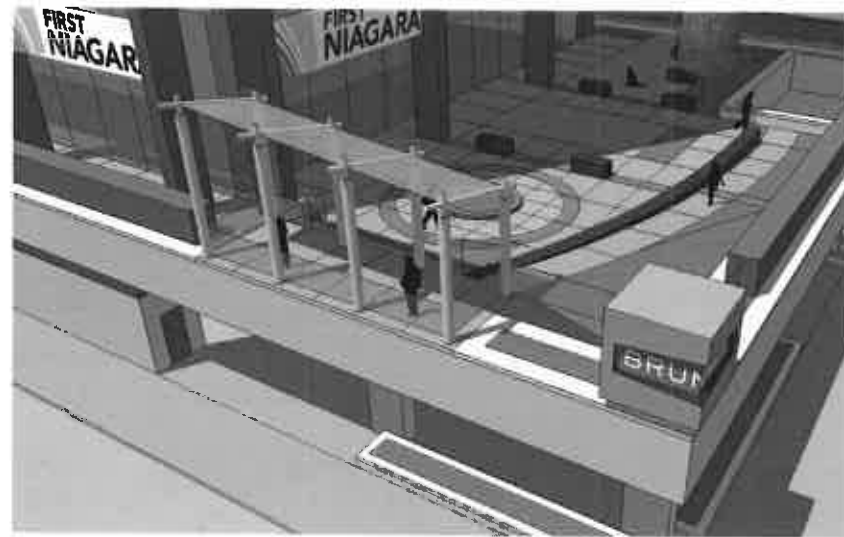
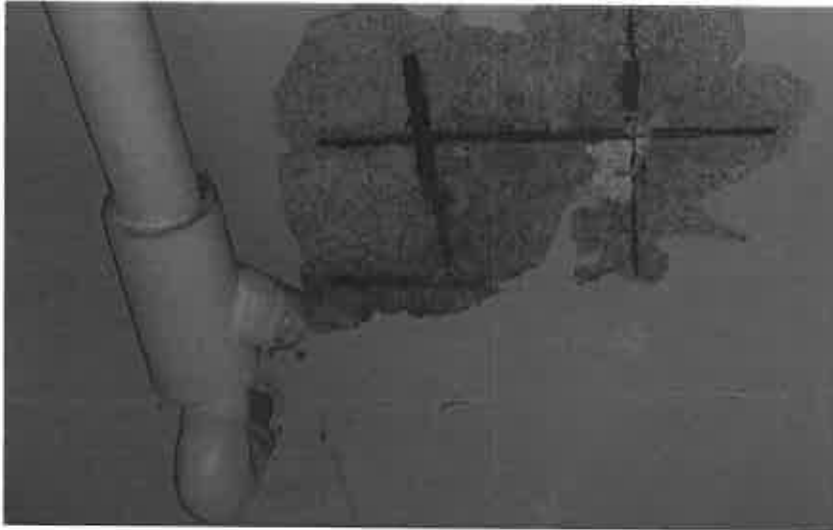
- Structure and foundation analysis and design
- Existing structure capacity investigations
- Threshold inspections
- Heavy lift rigging consultation
- Soil-structure interaction studies
- Structural reliability studies
- Vibration and seismic analyses
- Fatigue analysis
- Noise and vibration problem design mitigation
- Theoretical and experimental stress analyses
- Analysis and simulation software development
- Load and stress determinations
- Instrument and on-site testing
- Code-compliant structural calculations
- Failure investigations
- Catastrophic damage inspections and design
- Building specifications
- Visual inspections
- Detailed deficiencies documentation

- Testing program development
- Rehabilitation design
- Remedial measures analysis and design
- Engineer's construction estimates
- Underwater and tall structure inspection
- Hazardous waste site structural inspections
- Construction monitoring
- Maintenance plan development

- Materials and non-destructive testing
- Peer review of design by others
- Expert witness
- Concrete restoration investigations
- Concrete repair methodology
- Building foundation design
- Heavy lift rigging consultation
- Life cycle costing and maintenance plan development

GAI's specialty designs for building and sheet metal fabrication include steel stacks, and generator shrouds, and a variety of unique specialty structures including theme park rides and tracks, rigging and safety equipment, theatrical props, catwalks, and vehicle frames. The structural engineering specialists at GAI translate sound engineering concepts into comprehensive reports, plans, and specifications that meet clients' specific needs.





Stanwix Street Parking Garage Repairs and Plaza Deck Rehabilitation

The four-level, 170,000 sq. ft. Stanwix Street parking garage is situated beneath a 23-story office building in downtown Pittsburgh. It was constructed in 1969 and consists of cast-in-place reinforced concrete slabs supported by composite steel framing and steel columns. In 2012, GAI Consultants conducted an evaluation of the below-grade structure to assess the condition of the parking garage and plaza deck structures and determine areas in need of repair.

GAI developed concrete repair drawings and specifications to address required structural repairs, and developed design drawings for complete rehabilitation of plaza deck. The ensuing rehabilitation effort included removal and rehabilitation of the above grade plaza deck to replace the underlying water-proofing membrane.

LOCATION: Pittsburgh, Pennsylvania

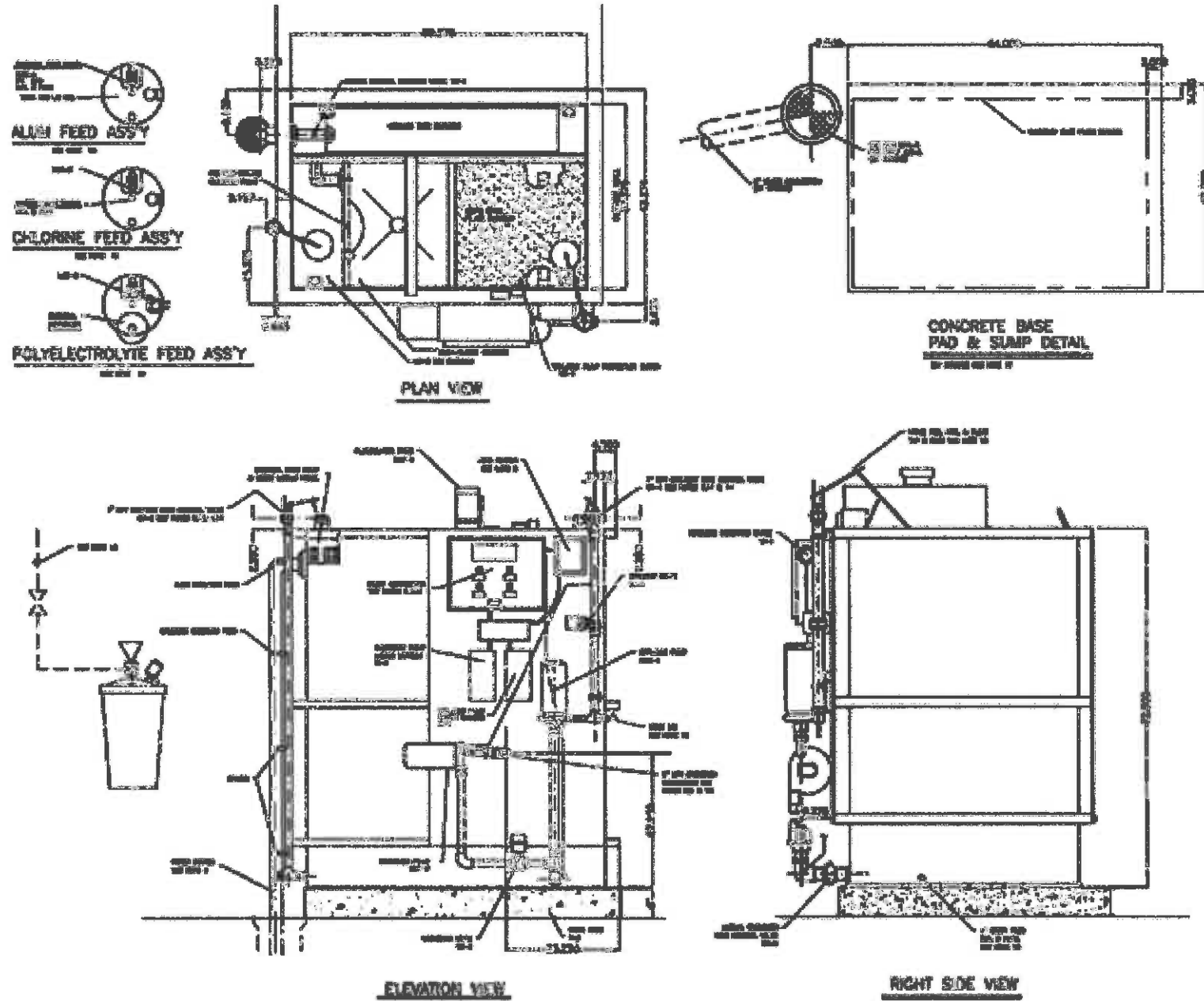
COST: \$20,000

COMPLETION: 2012

REFERENCE:

CBRE Inc.
Kylee Faccini
US Steel Tower F1 14
600 Grant Street, Suite 1400
Pittsburgh, Pennsylvania
412.394.9833

PERSONNEL: Jason Truckenbrod, PE



Anthony Correctional Facility Potable Water Treatment Plant

GAI Consultants, through Silling Associates Architects, designed a new potable water treatment plant for the Anthony Correctional Facility in rural Greenbrier County. The Correctional Facility had operated for years using groundwater from wells and a basic filtration system to provide water for the site. As the wells and filtration system aged, the level of iron increased and filtration capacity decreased, making a modern treatment system necessary. Due to limited stream flows, the rural nature and topography of the area around the site, it was determined that utilizing surface water from nearby Anthony Creek or constructing a water line from a public service district was not feasible.

GAI designed a system that could treat the amount of water required daily in one, 8-hour shift. The system requires one 18,000-gallon raw water bolted steel storage tank and two parallel 20 GPM packaged water treatment plants. Each plant has single stage flocculation, a tube settler and mixed media filter, and new chemical mixing equipment. The system was designed to use treated water to backwash the filters, and is contained in a simple pre-cast concrete building brought to the site in two pieces, and provides greater security than a standard stick built structure. The plant design provides redundancy and facilitates maintenance, since one plant may remain operational when the other is shut down for servicing.

Value Added Innovations

GAI's design included utilizing modular and pre-cast materials to expedite construction, selecting a treatment system that could be operated by locally available Class 2 operations, and minimizing impacts to existing infrastructure.

LOCATION: Greenbrier County, West Virginia

COST: \$550,000

COMPLETION: 2007

REFERENCE:

Silling Associates, Inc.
Philip Farley
304.558.2036

PERSONNEL: Jim Greene, PE



CHARLES STRALEY, PE, PLS

Engineering Manager

Mr. Straley specializes in civil engineering with an emphasis in geotechnical engineering, including all aspects of subsurface exploration, laboratory testing, foundation and embankment design, slope stability, material and construction specifications, and construction administration, management and monitoring.

- Timberline Association. Inspected, evaluated and design repair alternatives for Spruce Island and Sand Run Dams in Tucker County, West Virginia. Design included evaluation and embankments, improvements to inlet and outlet works, and the geometry of the spillways. Permit applications for both dams were prepared.
- Belmont Ridge Development. Performed annual dam inspection and certification for a 15-foot high earthen dam in Monroeville, Pennsylvania.
- Allegheny Power System. Performed inspection of galleys of the concrete Lake Lynn Dam in Lake Lynn, Pennsylvania.
- BethEnergy. Elevated the stability for the "as-built" configuration of the 200-foot high embankment for a coal slurry impoundment in Century, West Virginia.
- Evaluation of stability and rehabilit. Arco Chemical Corporation of an existing water retention structure located adjacent to the Ohio River.
- Evaluated, inspected and designed the rehabilitation for a concrete hydroelectric dam in Luray, Virginia. Dam rehabilitation included the replacement for a fish ladder.
- West Virginia Department of Environmental Protection, Office of Special Reclamation, Lodestar Energy. Design of and preparation of construction documents for a landslide above a residence as an emergency project. Activities included site grading, subsurface investigation, hydraulics and hydrology analysis, collection of mine drainage and mine seals, preparation of drawings and technical specifications, engineering cost estimate and pre-bid meeting presentation.
- West Virginia Department of Environmental Protection, Abandoned Mine Lands, Latrobe (Gibson) Landslide. Design of and preparation of construction documents for a landslide above a residence as an emergency project. Activities included site grading, subsurface investigation, hydraulics and hydrology analysis, valley fill design, COIE permitting, preparation of drawings and technical specifications, engineering cost estimate and pre-bid meeting presentation.

Education

- M.S. Geotechnical Engineering 1988, University of Akron
- B.S. Civil Engineering 1986, University of Akron

Registrations/Certifications

- Professional Engineer, WV, [REDACTED] Ohio, [REDACTED] Kentucky, [REDACTED] Indiana
- Professional Licensed Surveyor, WV, No. [REDACTED]

Skills

- Civil and Geotechnical Engineering
- Subsurface Exploration
- Laboratory Testing
- Foundation and Embankment Design
- Slope Stability and Landslide Engineering
- Landfill Planning, Design, Construction Monitoring
- Acid Mine Drainage
- Water Feasibility Studies

Education

- BS Industrial Engineering Technology, West Virginia University Institute of Technology
- AS Drafting and Design Engineering Technology, West Virginia University Institute of Technology

Military Awards

- Achieved Rank of Technical Sergeant/E-6, WVANG
- Obtained Veteran's Status during Operation Iraqi Freedom 2003, WVANG
- The Air Force Commendation Medal for Outstanding Performance, WVANG
- Certificate of Appreciation for Outstanding Performance, 130th APS, WVANG
- Certificate of Appreciation for Outstanding Performance, 130th SFS, WVANG
- Certificate of Appreciation for Outstanding Performance 2010, NATO

Skills

- Environmental and Civil Engineering
- Infrastructure and Roadway Design
- Computer Aided Drafting and Design



DAVID WORKMAN

Senior Lead Designer

Mr. Workman specializes in environmental and civil engineering, including site development, streetscape, and planning projects. His work with private developers, architects, municipalities and government agencies has given him substantial experience in site and roadway design. Mr. Workman has worked on a variety of construction project sites including landfills, abandoned mines, and industrial and commercial facilities. His civil engineering/site design work includes digital terrain and roadway models, cross-sections, vertical profiles, site detailing, earth work estimating, and design of both large and small sites ranging in size 1 to 40 plus acres. Mr. Workman prepares design and construction plans, reports, and cost estimates for projects, and develops highway and roadway designs. He has also contributed to the planning and design elements of several community improvement master plan and streetscape projects.

- Huttonsville Work Camp and Correctional Facility, Randolph County, WV
- Anthony Correctional Center Water Plant, Greenbrier County, WV
- Morgan county Courthouse Replacement, Berkeley Springs, WV
- Greenbrier County courthouse Annex and Expansion, Lewisburg, WV
- Raleigh County Courthouse Annex Design, Beckley, WV
- Hampshire County Courthouse Annex Storm Water Drainage, Romney, WV
- Anthony Correctional Center, Site Detailing of water treatment plant, WV
- Richard Mine AMD Flow Monitoring Study, Morgantown, WV
- Whites Run Highwall and Portal Project, WV Department of Environmental Protection, Abandoned Mine Lands, Randolph County, WV
- Lynch Run Highwall #6 Design, WVDEP/AML, Gilmer County, WV
- Duck Creek (Jenkins) Landslide, WVDEP/AML, Kanawha County, WV
- Columbia Gas Access Road #8 Landslide Repair, Clay County WV
- Heizer Creek (Left-Zitzelsberger) Drainage, WVDEP/AML, Putnam County, WV
- Wolfpen (McBurney) Landslide, WVDEP/AML, Harrison County WV
- Mallory Refuse Pile, WVDEP/AML, Logan County, WV
- Reynoldsville Refuse Design, WVDEP/AML, Harrison County, WV
- Laurel Point Run Reclamation Design, WVDEP/AML, Monongalia County, WV



Shawha Boulevard Streetscape, Charleston, WV



Landscape Architecture, Planning, Economics, and Urban Design

Firm Experience and Practice Concentration
Individual Staff Experience





Planning | Urban Design
Landscape Architecture
Economics | Real Estate

Community Solutions: *Experienced People, Open Minds, Fresh Ideas*

What We Are

GAI's Community Solutions Group is an idea-driven strategic consulting practice integrating design, planning, and economics. We are committed to enhancing communities in ways that are practical, sustainable, and authentic to our clients' needs, while being politically aware, financially feasible, and aesthetically compelling. Our mission is to create livable places of lasting value in an increasingly connected, complex, and competitive world.

Who We Are

The Community Solutions Group is a unique team of landscape architects, urban designers, land use planners, public finance and economic development specialists, and public administrators who capture the full dimensions of strategy and solution. Committed to positioning cities for a sustainable future, we are recognized for delivering insightful, thorough, and technically sophisticated solutions. We embrace a philosophy that values the complex interrelation of people, place, and policy while considering a project's ability to positively impact its investors, community, and setting. GAI's Community Solutions Group listens carefully and actively, questioning assumptions with positive energy and fresh ideas. We seek to understand our client, the place and its context, and the real substance of issues before we act. We are passionate about our work, care for people, and are purpose-driven practitioners with a track record of positive outcomes.

What We Do

Our work centers on finding resolution to place-based problems by implementing context-sensitive, sustainable solutions that are economically and fiscally beneficial and implementable. We engage diverse community groups to affect positive outcomes with shared benefits through integrated solutions. Consequently, our clients include governments, agencies, institutions, and developers who share an equal need to address complex and inter-related challenges. We work from planning to policy and concept to construction across the scales of region, city and campus; neighborhood, street and site.

As an art, our practice requires an understanding of the nuances of feasibility, political sensitivity, urban form, relationships, and character of place. But as a science, it involves street geometries and hydrologic flows, floor-area ratios, densities, market economics and financing mechanisms. We are effective because we are sensitive and sophisticated about implementing complex ideas across the platform of inclusive participation, thoughtful design, funding and finance, public policy, and community partnerships for initiatives both large and small. As part of GAI, our specialized practice combines with the broad knowledge of a 900-person engineering and environmental consulting firm.

Landscape Architecture

The Landscape Architecture Studio within the Community Solutions Group integrates an experienced team of professionals that strives to raise the standard of planning and design services to a new level with every project, producing sustainable, context-sensitive solutions that meet our client's objectives. We listen to their concerns, their desires, and their needs; we gather a deep understanding of place and issues, and then deliver thoughtful and innovative solutions. The studio operates under a fundamental planning and design philosophy that seeks to develop solutions that make a positive contribution to the economic and social values of a community or place. Whether the question is community master planning and place-making, streetscape and corridor design, sustainable stormwater strategies (LID), parks and open space design or corporate and campus planning and design, we are committed to creating rich, diverse and sustainable places for people; beautiful works that allow people to connect to the environment and that respect a community's cultural, historical, and environmental heritage.

Master Planning and Urban Design Practice

The Community Solutions Group's master planning and urban design practice focuses on crafting plans that create livable places of lasting value for communities that require context-sensitive, sustainable solutions. We prioritize close collaboration with clients through an approach that emphasizes plans that reflect strong neighborhoods, livable transportation networks, interconnected park and open space systems, environmental sensitivity, and economic opportunities. Through work at the scale of city, neighborhood, and street, our plans create the framework for rich, interactive settings that bring people together in environments that facilitate meaningful experiences that enrich lives.

Our team draws upon expertise in multiple disciplines to balance physical, social, and economic needs and create urban places that enhance quality of life. We understand that each building, streetscape, transportation corridor,

and park works toward creating an urban place that transcends the value of any individual element. Our planners and engineers work closely with clients to ensure that each piece of this urban fabric is deliberately designed with quality and respect for its role in the public realm. With an eye toward implementation, we also understand the complex regulatory processes that must be navigated in order to gain approval for these great community plans. We draft clear plans and regulations designed to support community goals, preserve lifestyle choices, and create economic development and redevelopment opportunities, and we forge partnerships between stakeholders and local governments to achieve these positive outcomes.

Economic + Real Estate Consulting

GAI's economic and real estate consulting services draw from the advising team's experience, education and a culture which integrates allied disciplines to enhance the appropriate solutions. The firm's approach draws upon its knowledge of growth management techniques in many state settings, local regulatory constraints, infrastructure systems and design, public finance, awareness of the needs in the private marketplace, preferred land use forms, aesthetics, emerging trends in development, and the linkages among infrastructure, economic development, and the character of the built environment. This knowledge enables our clients to choose critically between alternatives and implement a strategy or master plan that is flexible, cost effective, sustainable, and marketable, attributes sought by both our public and private clientele.

Legend

Transition to Suburban Transect

T4 - A Transect: Village District

T4 - B Transect: Professional / Mixed-Use District

T4 - C Transect: Retail / Mixed Use District

T5 Transect: Main Street / Urban Center District

SD - A Special District Transect: Medical / Mixed-Use District

SD - B Special District Transect: Power Retail District

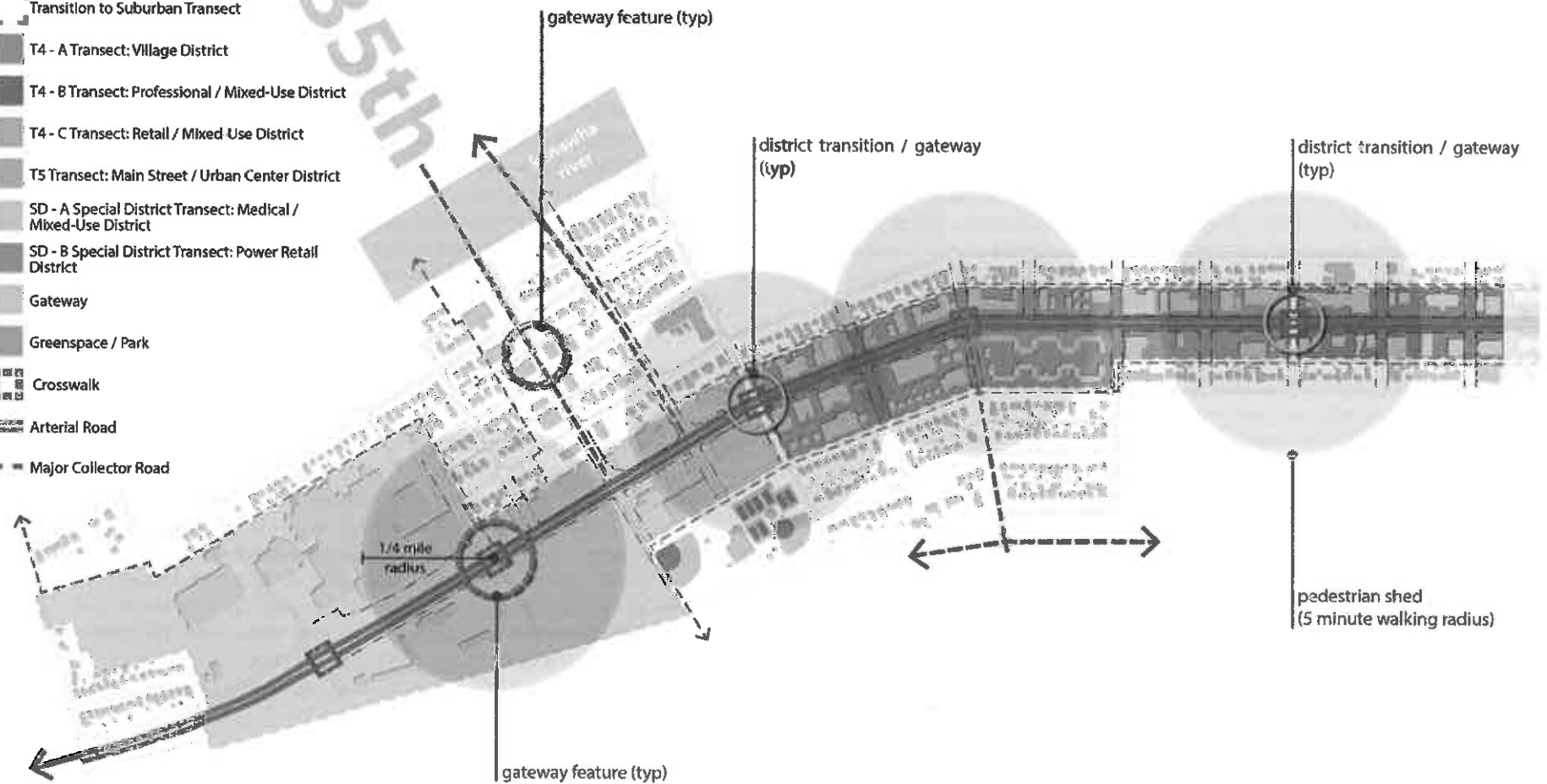
Gateway

Greenspace / Park

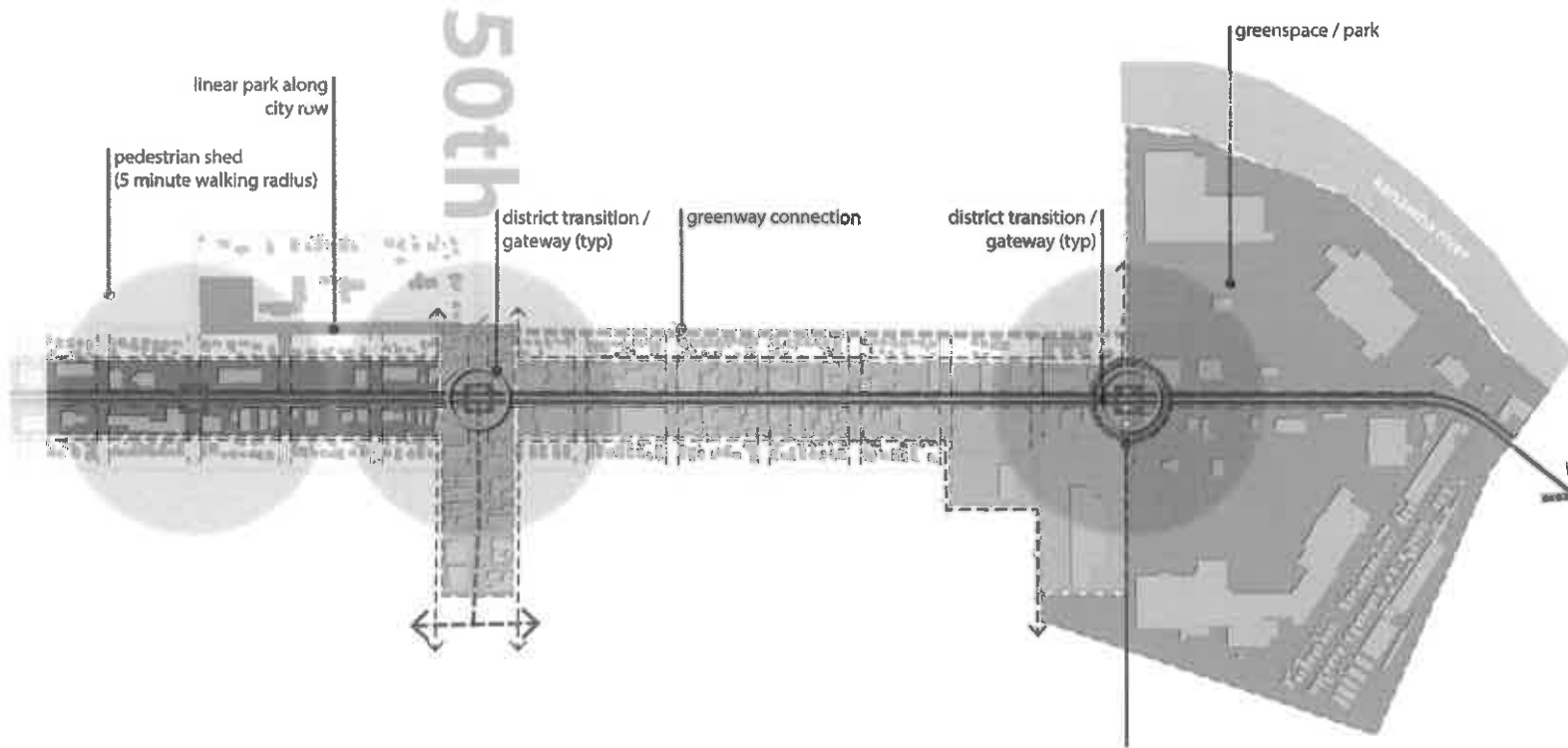
Crosswalk

Arterial Road

Major Collector Road



Conceptual Master Plan



MacCorkle Avenue Corridor Study

The City of Charleston wanted to develop community enhancements to the MacCorkle Avenue Corridor from 31st Street to 58th Street within Kanawha City. GAI Consultant's Community Solutions Group engaged the City and the Kanawha City Community Association (KCCA) in a collaborative planning and design process that will transform the Corridor into reality. The scope of work included assisting the City to refine a vision for the corridor, developing and incorporating public art within the project, identifying programs for private sector implementation, and identifying funding needs. Services provided included full planning, design and engineering from master planning through construction administration, and also include assisting the City with funding applications.

The scope of work and services provided for this study were very similar to those requested for the PA Route 18 Corridor Study. Highlights from this project can be found in the Project Approach section of this proposal to illustrate the similarities and our experience.

LOCATION: Charleston, West Virginia

COST: Ongoing

COMPLETION: 2013

REFERENCE:

City of Charleston
 David Molgaard
 501 Virginia Street East, RM 101
 Charleston, West Virginia
 304.348.8000

PERSONNEL: Dave Gilmore, PLA, ASLA





East End Community Park

The East End Community Park was planned on a two acre tract of land that was acquired by the City of Charleston, West Virginia. The site has a history of both residential and industrial uses stretching back more than 100 years; both of which had adverse effects on the property. Due to years of railroad related industry, the soil became immersed in contaminants ranging from creosote to trace levels of benzo(a)pyrene. Furthermore, the single family residential homes located on the property had fallen into disrepair and had become a concern of neighbors and the local urban renewal authority.

After acquiring and clearing the land, the City of Charleston hired GAI Consultants with the task of remediating the brownfield issues and transforming the community blight into a neighborhood and citywide gem. The effort was broken into phases, the first of which included a grand entrance to the park that boasts a steel and masonry arch boldly spelling out the words "East End Community Park." After passing under the arch, guests are invited to walk along a 100 foot long and 24-foot wide linear plaza that is divided by raised planters and lined with LED lit benches and lush vegetation. Along the expanse of the entrance plaza, there are also two up lit concrete pedestals that are used for mounting sculptures crafted by local artists. Finally, at the terminus of the plaza, there is a large patio that is clad with concrete pavers and covered by an architecturally appealing steel pergola, which is the focal point of the park.

Phase II of the park, which is currently underway, will include a tree lined crushed stone walking trail that will wrap around a central lawn. Later phases have been planned to include features such as a children's playground, splash ground, and parking lot.



LOCATION: Charleston, West Virginia

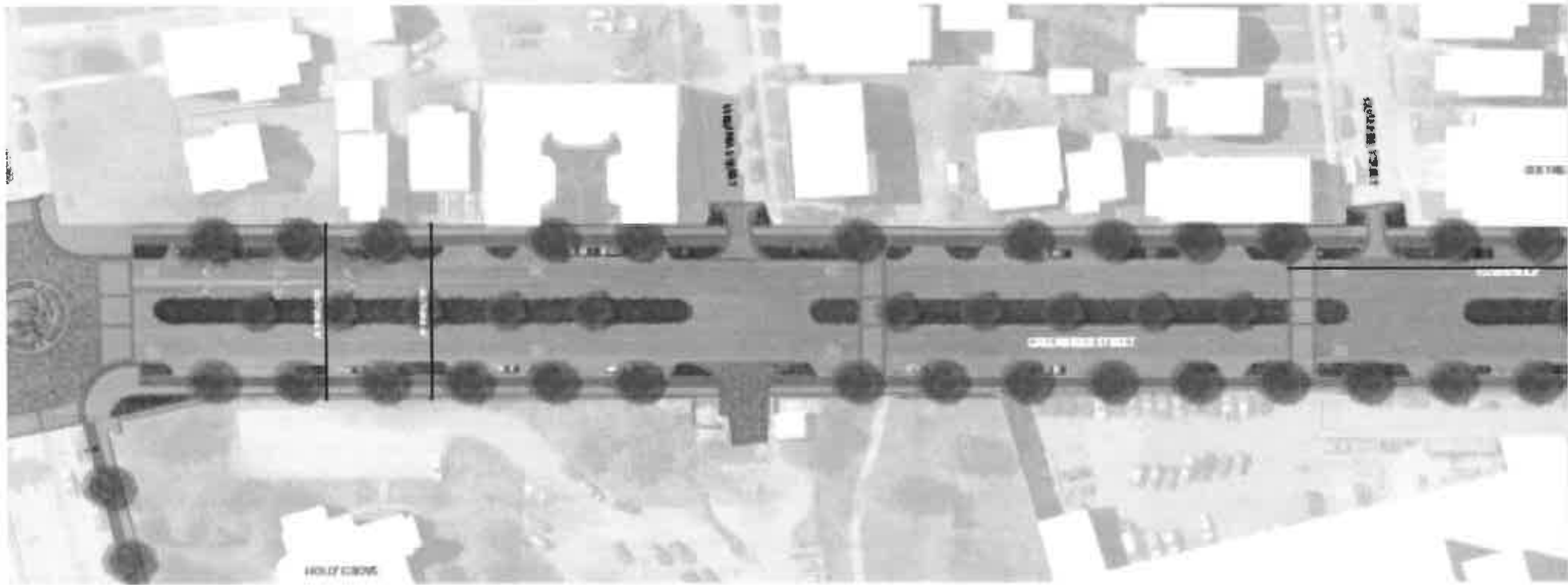
COST: \$500,000 (Phase 1)

COMPLETION: 2013

REFERENCE:

City of Charleston
David Molgaard
501 Virginia Street East, RM 101
Charleston, West Virginia
304.348.8000

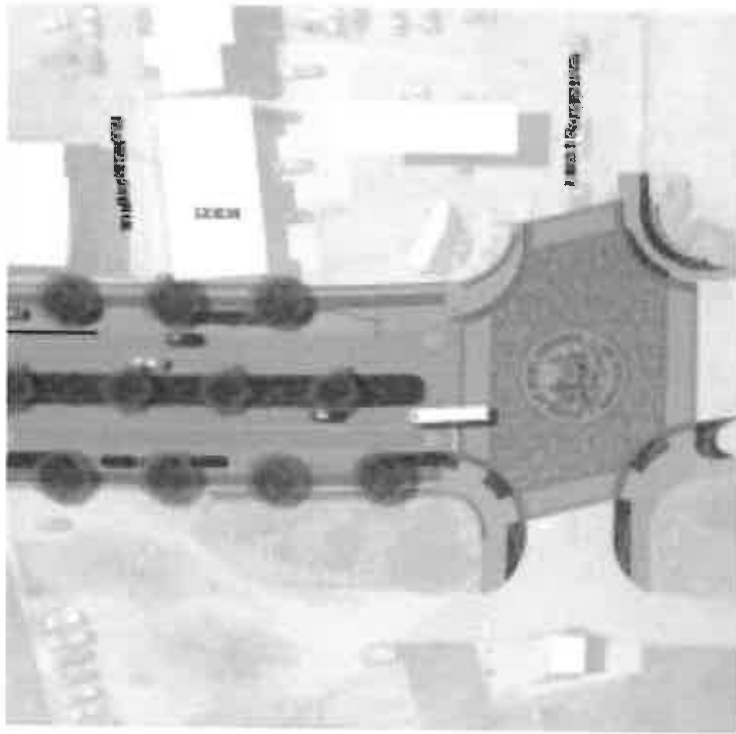
PERSONNEL: Dave Gilmore, PLA, ASLA



Greenbriar Street before



Greenbriar Street after



Greenbrier Street Pedestrian Safety Improvements

The proposal by East End Main Street includes a traditional streetscape along the west side of Greenbrier Street. The design will incorporate increased sidewalk widths, street trees, gateway markers, benches, site amenities, gateways, crosswalks, enhanced medians with safety islands for pedestrian safety, and traffic calming methods such as narrower drive lanes (min. 10.5') and corner bump-outs. The current roadway configuration of four drive lanes and parallel parking will be maintained with only the dimensions of the roadway section being altered to provide additional safety for pedestrians.

The ultimate plan is to extend the efforts that are currently being made by the WV State Capitol administration to redesign the east lanes of Greenbrier Street. East End Main Street sees this as an ideal opportunity to cooperate with the Capitol plans in a way that will enhance this segment of Greenbrier Street holistically.

LOCATION: Charleston, West Virginia

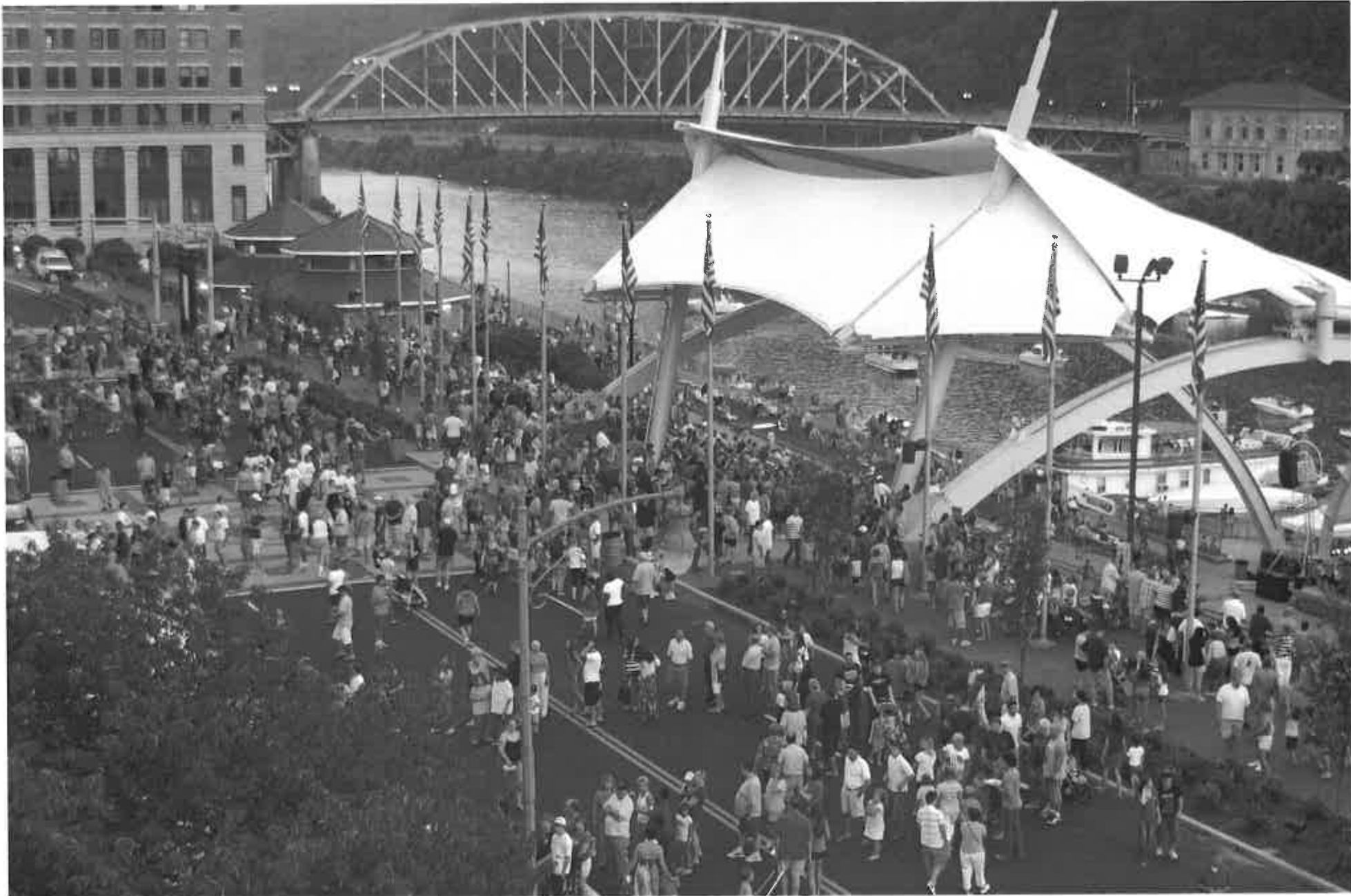
COST: N/A

COMPLETION: Design Completed 2014

REFERENCE:

City of Charleston
 David Molgaard
 501 Virginia Street East, RM 101
 Charleston, West Virginia
 304.348.8000

PERSONNEL: Dave Gilmore, PLA, ASLA





Haddad Riverfront Park

GAI Consultants was selected to provide master planning, public participation services, design, construction and engineering solutions for the renovation of the Haddad Riverfront Park, which is a popular concert, festival and leisure site in downtown Charleston, West Virginia. Among the City of Charleston's project requirements were a retractable canopy to provide protection and visual interest, an overlook plaza and pavilion that extends Court Street to the Kanawha River, an extension of the lower wharf area, a new streetscape design along Kanawha Boulevard, and an event stage for concerts.

GAI was successful in meeting an aggressive 18 month planning, design, and construction schedule. Change orders during construction amounted to less than .5% of the total cost. Taking a different approach, GAI presented an initial design that encompassed and connected all four parts of the entire project. The design was highlighted by a grand staircase that would lead to the proposed amphitheater, which serves to open the park to Kanawha Boulevard, making it an integrated part of downtown Charleston.

LOCATION: Charleston, West Virginia

COST: N/A

COMPLETION: Ongoing

REFERENCE:

City of Charleston
 David Molgaard
 501 Virginia Street East, Room 101
 Charleston, West Virginia
 304.348.8000

PERSONNEL: Dave Gilmore, PLA, ASLA





Imagine Charleston

The 2013 Downtown Charleston Redevelopment Plan, as part of a broader Comprehensive Plan for the City, provides a vision toward a sustainable future and creates a dynamic framework for realizing that vision. The development of this framework was guided by extensive public participation and the committed leadership of the City of Charleston, the Charleston Urban Renewal Authority (CURA) and Charleston Area Alliance (CAA). Citizen participation informed the evaluation of needs and provided a clear set of recommendations for improving the Downtown, including specific target areas and consensus on some implementation strategies.

The result is a plan that provides detailed analysis of the physical framework of the Downtown and recommends strategies that, along with relevant public policy, will help guide growth and development in the City of Charleston. It is long range in its vision, yet it leverages current and upcoming opportunities that will help to achieve the vision. This Downtown Redevelopment Plan also builds on prior initiatives and takes into account ongoing and future planned developments to create a unified vision for the Downtown area. Based on 10 Sustainable Guiding Principles and 6 Big Ideas, the plan will shape all future developments in Downtown Charleston and create an environment that will allow Charleston to continue to emerge as the cultural, recreational and business center of the Appalachian region.

LOCATION: Charleston, West Virginia

COST: N/A

COMPLETION: 2013

REFERENCE:

City of Charleston
 David Molgaard
 501 Virginia Street East, Room 101
 Charleston, West Virginia
 304.348.8000

PERSONNEL: Dave Gilmore, PLA, ASLA



Backcountry and Recreation

The Blackwater River, the NCYSE site and surrounding protected lands offer a host of outdoor opportunities including hiking, biking, cross country skiing, climbing, caving, kayaking and canoeing. A flat area above the wetlands provides an area for more defined small or large group activities.

Clustered Housing

Student and staff housing are arranged in clusters surrounding small open spaces. Student cabins and lab education modules also share the open space forming smaller learning communities. Fronts of housing, along circulation paths, face the outdoor common areas and meadow while the backs of housing view out into the quieter forest.

Arriving at the NCYSE

A new bridge by the WV Department of Transportation crosses the Blackwater River. It provides the connection to the Heart of the Highlands hiking trail and a threshold for the site. An accessible trail and road lead up to the main facility, past various site features including rock outcroppings, rhododendrons and ephemeral streams. At the top of the hill a circular drop-off area is large enough for bus queuing.

Commons Area

The Main Assembly Hall, Dining Hall, and Guest Lodge define a large outdoor Commons roughly the same size as the former Pocahontas Commons. This is the nucleus of the Center.

Lab Education Modules

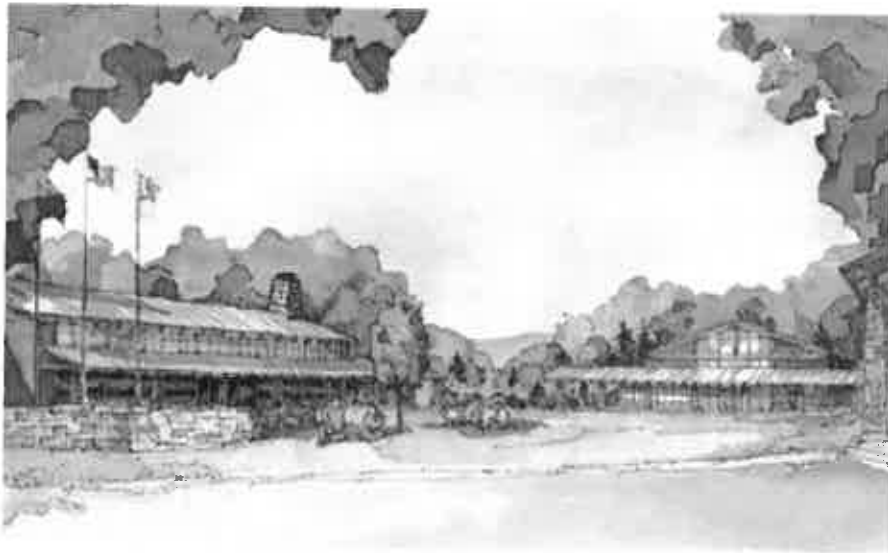
Four buildings, each containing two flexible classrooms for 12 students, are located either out in the site near natural features or as part of a housing cluster.

National Center for Youth Science Education | 2009

National Center for Youth Science Education Master Plan

The National Center for Youth Science Education (NCYSE), also known as the "Youth Science Camp", is being relocated from its historic leased property in rural Pocahontas County to a prestigious, environmentally sensitive facility located on its own property adjacent to the Blackwater River in Tucker County. The new facility has plans to eventually operate year round providing a wealth of educational outreach programs, while still maintaining the core focus of the "Camp" during the summer months. GAI Consultants provided master planning and schematic design services for the proposed Camp property. GAI was involved with initial programming and scope development for the project, as well as data collection, site analysis, geological review and permitting reviews for the entire property, which included hydrology, soils, slopes, geology, wetlands, vegetation and wildlife.

GAI was responsible for combining the site analysis information and creating a preliminary land use plan and concept plan in order to generate a cost opinion. Additionally, GAI developed designs for utilities, landscape architecture, an access road and a trail. GAI's services helped the National Youth Science Center make better-informed decisions in site development and land use, as well as during construction.



LOCATION: Pocahontas County, West Virginia

CONSTRUCTION COST: \$50 million

COMPLETION: Ongoing

REFERENCE:

Perfido Weiskopf Wagstaff Goettel
Andrew Blackwood, Ed.D.
408 Boulevard of the Allies
Pittsburgh, Pennsylvania
304.205.9724

PERSONNEL: Dave Gilmore, PLA, ALSA



West Virginia State Campus Perimeter Safety Improvements Master Plan

GAI Consultants was recently awarded a contract to provide Master Plan landscape design and planning services to the WV State Capital campus. The campus requires enhanced levels of security while maintaining an architectural and aesthetic continuum with the strong participation of the WV National Guard and thorough research into the “best practices” of security devises/applications used elsewhere. Both perimeter and interior areas of the campus require degrees of security/protection. This very necessary protection is to be accomplished while enhancing the “park-like” qualities of the campus and ensuring the campus is inviting to the pedestrian.

Services require the establishment of a design language for the overall campus environment that speaks to the architectural and cultural heritage of this beautiful campus. Plantings, buildings, memorials, furniture/site elements and views to/from the surrounding community all constitute that current setting. Security devices need be designed to fit that language while performing their intended function. They will be designed to fit the campus landscape, become “contributing” elements to that landscape and be visually non-invasive to the extent possible.

LOCATION: Wheeling, West Virginia

CONSTRUCTION COST: Ongoing

COMPLETION: Ongoing

REFERENCE:

Matthew Brown

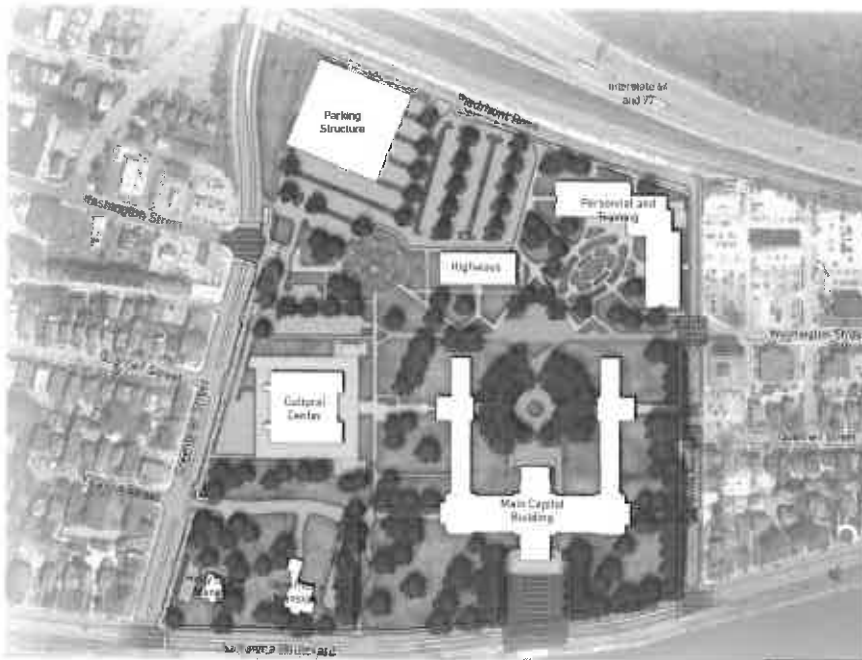
West Virginia State Capital Complex

1900 Kanawha Boulevard East

Charleston, West Virginia

304.558.9911

Personnel: Dave Gilmore, PLA, ASLA







Slack Plaza

Over the last year, GAI Consultants has been working closely with the City of Charleston and its stakeholders by providing master planning services for Slack Plaza. The plaza will function as the primary hub of the entertainment district for the downtown area, linking the historic district to the business district, and is one of the first major planning (and construction) projects that have “spun off” from the Imagine Charleston Study that GAI was also involved with several years ago.

As a “spin off” from the design work that is currently underway for Slack Plaza, the Landscape Architecture and Planning Group has been asked by the Kanawha Valley Rapid Transit Authority (KRT) to redesign their transit mall, along with a 3 block stretch of Laidley Street in downtown Charleston WV. The goal of the design is to move the transit mall to the south of the plaza so it will no longer be in conflict with the pedestrian circulation through the plaza. The design will also create a much needed linear greenway connecting Haddad Riverfront Park to the downtown entertainment district.



LOCATION: Charleston, West Virginia

CONSTRUCTION COST: Ongoing

COMPLETION: Ongoing

REFERENCE:

City of Charleston
 David Molgaard
 501 Virginia Street East, RM 101
 Charleston, West Virginia
 304.348.8000

Personnel: Dave Gilmore, PLA, ASLA





DAVE GILMORE, PLA, ASLA

Charleston Office Leader/Director, Landscape Architecture

Mr. Gilmore joined GAI Consultants in 2005 to manage the firm's land development and landscape architectural services. The central focus of his practice is on the continued development of the firm's site design and landscape architecture projects throughout the eastern United States, while providing landscape architectural support to all of GAI's offices and clients. He will serve as the overall project manager for the project overseeing scheduling, personnel, design, and client communication.

Prior to joining GAI Consultants, Mr. Gilmore worked for a multi-disciplinary A&E firm in Charleston, South Carolina, providing architectural, engineering, landscape architectural design services. While working in South Carolina, Mr. Gilmore was involved with campus master designs for many colleges and universities, large downtown streetscapes and subdivision layout and design. Mr. Gilmore later worked with a landscape architectural and design firm in Charlottesville Virginia, where he continued his professional development working on a wide range of projects for both the public and private sector. After returning to West Virginia, Mr. Gilmore has been in private practice specializing in site design, land planning, streetscapes and parks and recreational design for numerous public and private clients.

Mr. Gilmore currently serves as the Corporate Practice Area Leader for Landscape Architecture services for GAI Consultants. In this role, he coordinates projects and marketing activities for all of GAI's offices throughout the region. He maintains professional registrations in West Virginia, Pennsylvania, Ohio, Indiana, Maryland, North Carolina, Virginia and Kentucky. In this capacity, Mr. Gilmore brings 22 years of experience on a diverse range of projects covering all aspects of landscape architectural design in both the public and private sector. Mr. Gilmore's experience includes but is not limited to public outreach and programming, construction document and technical specification preparation, site analysis, schematic design, construction administration, master and land use design (riverfronts, resorts, parks, recreational, residential, industrial, and commercial), streetscape and municipality improvements, landscape and hardscape design, and graphic presentation drawing.

Mr. Gilmore was honored by being 1 of 16 people chosen to be included in the inaugural class of GAI's "Leader's to Watch" program. He has completed the companies' Harvard Leadership Training program as well as GAI Universities' Advanced Project Manager Training. Mr. Gilmore is currently finishing his MBA at Point Park University in Pittsburg in April of this year. Mr. Gilmore is also very active in the Landscape Architecture community, having served as the past president of the West Virginia Chapter of the American Society of Landscape Architects (WVASLA) and the State Licensing Board from 2000-2003. Mr. Gilmore also remains active with the WVU School of Landscape Architecture and has won multiple awards from the West Virginia Chapter of the American Society of Landscape Architects for his work.

Education

- MBA Point Park University (currently enrolled) 2015
- B.S. Landscape Architecture 1988, West Virginia University

Registrations/Certifications

- Professional Landscape Architect: West Virginia No. [REDACTED] Indiana No. LA [REDACTED] Pennsylvania No. [REDACTED] Ohio No. LA [REDACTED] Maryland No. [REDACTED]

Affiliations

- (ASLA) American Society of Landscape Architects,
- (WVASLA) West Virginia Chapter
- (CLARB) Council of Landscape Architectural Review Board
- Past WVASLA State Licensing Board
- Past President, WVASLA
- Executive Committee Member, WVASLA
- Chairman, WVASLA Licensing and Sunset Review Committee
- Judge, Senior Design Awards, West Virginia University



Planning | Urban Design
Landscape Architecture
Economics | Real Estate

Education

- B.S. Landscape Architecture, West Virginia University, 1991
- Safe Spaces: ASLA Security Design Symposium, Chicago, IL, 2004
- AQUA Conference Educational Sessions, Las Vegas, NV, 2005
- CERFP Team Training, WV Army National Guard, 2006

Registrations/Certifications

- PLA, West Virginia, 1995
- RLA, North Carolina, 2005
- RLA, Ohio, 2002
- CLARB Certified, 2001
- LEED® Green Associate, 2012

Certifications / Training

- WVDOH Bituminous Concrete Inspector Certification, 1991
- WVDOH Portland Cement Concrete Inspector Certification, 1992

Affiliations

- WV State Board of Landscape Architects
- American Society of Landscape Architects
- WV Chapter – American Society of Landscape Architects
- Associate Member – AIA West Virginia
- Society of Military Engineers
- National Guard Association



Planning | Urban Design
Landscape Architecture
Economics | Real Estate

R. TODD SCHOOLCRAFT, PLA, ASLA, LEED AP

Senior Landscape Architect | Local Liaison

Mr. Schoolcraft has over 25 years of experience in the fields of landscape architecture and land planning, with over 33 years of experience in the building and construction industry. Mr. Schoolcraft has extensive experience managing complex projects and leading multi-disciplined teams of professionals resulting in the successful delivery of numerous quality projects on-time and on-budget. Major areas of specialty include commercial development, military installation design, land planning, public development, site planning and design, park and recreation design, trails and greenways, streetscape design and urban planning, and residential subdivision layout.

Mr. Schoolcraft is a retired U.S. Army Officer, holding the rank of Major, with over 23 years of time in service in the U.S. armed forces. In the last years of service, he held the position of Operations Officer with the newly formed Chemical, Biological, Radiological, Nuclear or High Yield Explosive Enhanced Response Force Package Team (CERFP Team) with the West Virginia Army National Guard. Prior to this, he was a combat engineer with the Design Section of the 111th Engineer Group, West Virginia Army National Guard. The 111th Engineer Group served in the Middle East in support of Operation Iraqi Freedom and Operation Enduring Freedom. During that time, Mr. Schoolcraft was awarded the Bronze Star Medal for meritorious service associated with a multitude of engineering and architectural projects in Kuwait and Iraq. Mr. Schoolcraft was appointed by the governor to the West Virginia State Board of Landscape Architects and served over 9 years as Secretary and Treasurer.

WV National Guard/DoD/NGB Project Experience

- West Virginia Army National Guard TAG Wing Improvements, Division of Engineering and Facilities, Charleston, WV.
- WV Army National Guard Alloy Armory Bank Stabilization, Falls View, Fayette County, WV.
- Parking Lot Expansion and ADA Accessibility Upgrade, Fixed Wing Army Aviation Training Site (FWAATS), Benedum Airport, Bridgeport, WV
- Robert E. Rooney Marshalling Yard and Final Rinse Facility, Port Ash Shuaybah, Kuwait. US Army Corp of Engineers.
- Building 5 Command Group Renovations, Zone II, Camp Arifjan, Kuwait. Third Army, United States Army Central (USARCENT), Coalition Forces Land Component Command (CFLCC).
- Port Shuaybah Pier Assessment, Port Ash Shuaybah, Kuwait. Third Army, United States Army Central (USARCENT), Coalition Forces Land Component Command (CFLCC).
- Building 5 & 6 Renovations and Electrical Upgrades, Zone II, Camp Arifjan, Kuwait. Third Army, United States Army Central (USARCENT), Coalition Forces Land Component Command (CFLCC).
- Aerial Port of Debarkation (APOD) Consolidation Project, Kuwait City International Airport, Kuwait. Third Army, United States Army Central (USARCENT), Coalition Forces Land Component Command (CFLCC).

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: CE01 0603

ADJ130000004

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

GAI CONSULTANTS, INC.

Company

[Handwritten Signature]

Authorized Signature

31 Aug 2010

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

Revised 6/8/2012

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: GAT CONSULTANTS, INC.

Authorized Signature: [Signature] Date: 18 AUG 2010

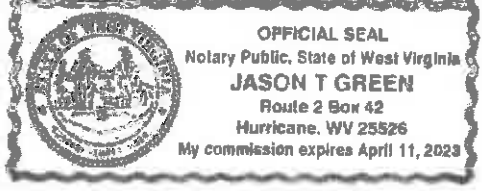
State of WEST VIRGINIA

County of KANAWHA, to-wit:

Taken, subscribed, and sworn to before me this 18th day of AUGUST, 2010.

My Commission expires APRIL 11, 2023.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]



**COMMUNITY
SOLUTIONS
GROUP**

GAI Consultants, Inc./Community Solutions Group
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Charleston, West Virginia 25301
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F 304.926.8180

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