



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

**Solicitation**

NUMBER
DNR214037

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
GUY NISBET
304-558-8802

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR

KEYSTONE ENGINEERING GROUP  
 FRAZER, PA 19355

SHIP TO

DIVISION OF NATURAL RESOURCES  
 PROCUREMENT OFFICE

324 4TH AVENUE  
 SOUTH CHARLESTON, WV  
 25303-1228 304-558-3397

DATE PRINTED
10/29/2013

BID OPENING DATE: 11/26/2013

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		906-00-00-001	N/A	N/A
ENGINEERING SERVICES						
EXPRESSION OF INTEREST (EOI)						
THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF NATURAL RESOURCES IS SOLICITING EXPRESSIONS OF INTEREST FROM QUALIFIED FIRMS TO PROVIDE NECESSARY PROFESSIONAL ENGINEERING AND OTHER RELATED SERVICES FOR THE DESIGN AND REPLACEMENT OF THE PRIMARY ELECTRICAL SERVICES AND RELATED IMPROVEMENTS AT HOLLY RIVER STATE PARK, PER THE ATTACHED SPECIFICATIONS AND TERMS AND CONDITIONS.						
***** THIS IS THE END OF RFQ DNR214037 ***** TOTAL:						N/A
11/25/13 09:25:29AM West Virginia Purchasing Division						

SIGNATURE	TELEPHONE 610-407-4100 X44	DATE 11/22/13
TITLE Project Manager	FEIN 23-2913876	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



## SECTION A—SCOPE OF SERVICES



590 E. Lancaster Ave, Suite 200  
Frazer, Pennsylvania 19355  
(610) 407-4100



Holly River State Park  
Primary Electrical Service Replacement  
DNR214037  
Friday, November 22, 2013

## **Section A: Scope of Services**

### **I. Introduction**

Keystone Engineering Group, Inc. (Keystone) is pleased to present this Expression of Interest to the West Virginia Division of Natural Resources (DNR), to provide comprehensive and responsive engineering services for the replacement of the "old" portion of the high distribution electrical equipment at Holly River State Park

What separates Keystone from other design firms is that our company focuses primarily on public facilities that are critical to the welfare and safety of others. Our firm has established our primary market in the electrical power, wastewater, transit, and facility infrastructure industries. These assets are critical to public health, and have complicated outage constraints. The project examples attached in Section B are a testament to our ability to devise cost effective solutions, with minimal outage time, for our clients.

Our percentage of Professional Licensure for Electrical Engineers is 80%, far above average, and consists of engineers with experience on large projects at large firms. This level of expertise, offered by a small and responsive firm, has ensured that Keystone has been the preferred source of engineering for a wide variety of government agencies and private clients.

This critical infrastructure experience, combined with our expertise in dealing with the large spread-out sites associated with parks and campground areas, makes us optimally positioned to provide the level of service required, on time and on budget.

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## **II. Project Approach**

### **A. Scope Development**

The most important phase of any project is the beginning, where the scope is defined and information is gathered at site. Keystone believes in the value of face-to-face meetings and would initiate the project with a kick-off meeting at site.

The next step after the kick-off meeting would be to review any existing drawings that are available and to become acquainted with the overall system. This review would include an overview of the existing duct bank systems, cable sizes, as well as the primary distribution transformers that are present at site.

It should be noted that any existing drawings will be used for information only, as Keystone Engineering will field verify all information that can be verified at site. Should no existing drawings exist, Keystone Engineering will work with DNR to reconstruct the system that is under the scope of the replacement.

Since the age of the facility is pre-1979, Keystone will recommend to DNR that any of the transformers to be replaced are verified to be free of PCB's and that there is no asbestos in any observable insulation. These types of scope items will need to be defined prior to bid, to properly disclose the hazards the contractor will be exposed to during the project.

Keystone will spend approximately one week at site during this phase of the project, to verify that any drawings that exist are verified, and that the site conditions can be well enough defined to receive consistent and cost-effective bids from contractors.

### **B. Schematic Development**

After the initial site development meeting, Keystone will organize a review meeting to go over any findings from the site visit and develop the design schedule for the project.

As the park is open all year round, and runs a variety of activities for public benefit, the design developed will minimize outage downtime and site impacts. Keystone has the unique insight into construction being a full service design-build firm, so our understanding of constructible and value engineered designs will be a key asset.



To replace any cabling runs, a survey will need to be conducted to determine the exact routing of the underground direct buried cable, as well as any manholes that may be buried. To avoid any potential outages, the design would proceed by replacing sections of the feeder cables and focusing on one area of the park at one time. Any transformers that distribute power to an area of the park will be replaced with a new transformer located adjacent to the existing, to help reduce outage time.

As an example of this strategy, in an area where the HV cable enters a distribution transformer and then is distributed down to the campground area, the design will require the contractor to install a new transformer adjacent to the existing, and supply a portable generator to backup any of the low voltage areas.

Once the power is removed from the transformer, a new set of direct buried cabling can then be run from the new transformer and spliced back into the existing cabling.

Depending on the site conditions and existing installation, Keystone will also recommend installing hand holes or manholes as appropriate, to provide easier cable pulls as well as to help remove cables in the future. Keystone also will review any available soil surveys, to appropriate determine that the cable size selected will deliver enough amperage given the load. This has been typically performed using our Electrical Transient Software package.

It is critical in any direct buried cable application that the cables be buried beneath the frost depth. This should be verified during the design to ensure the stress placed upon the cable insulation is minimized over its lifespan.

The drawings will be prepared using AutoCad and detailed out in very specific phases in different key areas of the park. Should there be any areas that are minimally utilized during a specific time of the year; these areas will be scheduled appropriately.

Keystone would also be in contact with the local power utility to coordinate any outage periods, or special constraints that they may require.



### **C. Bid Drawing Package**

Once schematic development design is complete, and any comments or concerns of DNR are addressed, Keystone will proceed to issue the final set of bid drawings and specifications. This package will include bid specifications, drawings, as well as a construction estimate for budgetary planning purposes. Keystone will also help DNR prepare any front end specifications and the respective public bid advertisement for the work.

Should the budgetary needs of the DNR dictate dividing the project into separate construction projects, Keystone will recommend specific areas that should be replaced first using available funds, with the other areas slotted to be in following years' fiscal budgets. Keystone typically employs a similar approach with Amtrak, to ensure that large projects can get constructed over time, with minimal impact to yearly operating budgets.

Any drawings or specifications will be prepared in line with the design and drafting standards of DNR.

### **D. Bid Phase Support**

During the bidding phase of the project, Keystone will serve as the DNR's technical representative to answer any contractor RFI's or bidder questions. A mandatory prebid meeting will also be held at the site and conducted by Keystone, to ensure that the contractors understand the full scope of work involved.

Keystone will also help review the technical proposals of any prospective bidders and recommend a contractor.

### **E. Construction Phase Support**

Once bids have been reviewed and a contractor selected, Keystone will provide construction support services to review the work and shop drawings submitted by the Contractor, and ensure everything is constructed per specification and the intent of the project. As needed, site meetings will be conducted at key milestones.

Keystone will also help to keep the Contractor in line with their proposed project schedule, and serve to answer any RFI's that are technical in nature.

When the project work is completed, 'as built' documentation will be provided to Keystone to produce a set of Record Drawings that will be invaluable for future work.



### **III. Value Engineering & Cost Control**

Unlike a majority of full service engineering firms, Keystone also constructs multi-million dollar projects as a prime Design-Builder. This experience not only provides our engineers with the practical aspects of engineering that are invaluable, but also provides us with the ability to see the big picture and closely control costs.

On typical design-build projects, Keystone manages the overall budget of all construction personnel, electricians, surveyors, and other staff, using our state of the art software packages and scheduling programs. This has helped over the last 15 years to make us one of the leading design-builders in the area. For example, Keystone was recently selected by the Riverbend Campground Association in Falling Waters, WV to be the design builder to assist them in meeting new environmental regulations.

Professional Engineering services cost control is not an issue for Keystone Engineering. Our staff consists of engineers with many years of experience on a wide range of projects. This gives us the ability to control costs and get the project done as efficiently as possible. Since we deal primarily with public entities as the ultimate client, our history of completing projects on time and on budget has led to a vast majority of our work being repeat clients. In fact, our firm has such a reputation for excellence and cost control, that large firms, with in-house electrical engineering, use us instead for their own projects.

### **IV. Key Relevant Projects *(See Section B for Details)***

#### **Riverbend Campground – Falling Waters, West Virginia**

Keystone Engineering Group is currently serving as the prime engineer and design build entity for a service electrical upgrade and a wastewater modification, at a campground site in West Virginia. As prime on the project, Keystone has handled all invoicing, project and utility coordination, and West Virginia Environmental submissions to ensure that the project has stayed on track and on budget.

Work around the project site has particularly focused on minimizing the impact to the campground activities so as not to disrupt commercial operations. As an advocate of the GMP design-build methodology, Keystone Engineering has guaranteed the maximum price that the corporation will pay for the project. Any project overruns will not be seen by the client, as the budget and vendor management is solely the responsibility of Keystone Engineering



### **Liberty Bell Motor Sports – Douglassville, Pennsylvania**

Keystone Engineering Group is serving as the prime engineer and design build entity for a service electrical upgrade and a wastewater modification, at a motor sports site in Pennsylvania. The site includes a large racing track area, as well as several electrical service drops that power various wells, water treatment facilities, as well as wastewater infrastructure. Keystone also coordinated with the client to provide power feeds to various campground areas and multiuse facilities scattered throughout the location. As prime on the project, Keystone has handled all invoicing, project and utility coordination, and Pennsylvania DEP submissions to ensure that the project has stayed on track and on budget.

As an advocate of the GMP design-build methodology, Keystone Engineering has guaranteed the maximum price that the corporation will pay for the project. Any project overruns will not be seen by the client, as the budget and vendor management is solely the responsibility of Keystone Engineering

gy, Keystone Engineering has guaranteed the maximum price that the corporation will pay for the project. Any project overruns will not be seen by the client, as the budget and vendor management is solely the responsibility of Keystone Engineering

## **V. Proposed Project Manager**

### **Philip M Gonski, PE (WV)**

Mr. Gonski has been the lead electrical engineering and project manager on numerous complex and intricate engineering projects. This has included being the lead electrical engineer on the world's largest biodiesel power plant, as well as one of the largest combined cycle power plants in the world. This large project experience has enabled him to have intricate knowledge of project scheduling, vendor management, as well as value engineering.

More recently, he has been involved in dozens of critical infrastructure projects for Amtrak, ranging from service replacements at the main control center in the northeast corridor, as well as a service replacement at a movable train bridge in New York. These applications have all required critical scheduling efforts.

Mr. Gonski also served as the project manager for the replacement of the primary transformer at a water treatment facility. Since the facility must remain 'online' at all times, Mr. Gonski devised a creative solution to utilize the existing transformer for as long as possible, all while a new





service feeder and transformer were installed. The changeover from the existing transformer to the new transformer and service was successfully completed in just a few hours.

As the responsible engineer for Keystone Engineering in West Virginia, Mr. Gonski provided oversight for the Riverbend Campground Project in Falling Waters, WV. He reviewed project drawings and ensured that the submittal packages met the intent of the project and had direct oversight over the project team.

Asides from his technical accomplishments, Mr. Gonski is the 2014 President of the IEEE Philadelphia and serves on the Board of the Directors of the National Society of Professional Engineers.

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## SECTION B—PROJECT DESCRIPTIONS



590 E. Lancaster Ave, Suite 200  
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(610) 407-4100



## Riverbend RV Park Association

### Wastewater Upgrades

The Riverbend RV Campground Association needed to upgrade their wastewater distribution system, as well as make modifications to their electrical infrastructure.

Keystone Engineering worked with the campground authority to develop a complete set of design build documents needed to complete the project. This included handling all of the environmental, utility, and vendor bidding process, to enable the project to stay on track and on budget.

For cost control methodology, Keystone offered the Association a guaranteed maximum price (GMP) to complete the project. All vendors and suppliers were organized through Keystone Engineering to ensure that the project flowed on budget. Furthermore, Keystone was responsible for vendor bidding procedures, to ensure that the selected subcontractors had fully understood the project scope prior to award.

Any outages at site will be fully coordinated with the Association, to ensure that any utility changeovers will have minimal impact on the commercial activity at the camp.

### Location

Falling Waters, WV

### Market Served

Parks

### Key Services

Design –Build

### Contact

Bryant Cosner  
mainte-  
nance@riverbendrvpark.  
org





## Liberty Bell Motorsports

### Water System & Electrical Upgrades

The Liberty Bell Motorsports Campground needed to upgrade their water and wastewater distribution system, as well as make modifications to their electrical infrastructure.

Keystone Engineering worked with the motor park to develop a complete set of design build documents needed to complete the project. This included handling all of the environmental, utility, and vendor bidding process, to enable the project to stay on track and on budget. The project included multiple electrical service drops to new well stations and wastewater system infrastructure.

For cost control methodology, Keystone offered the motor park a guaranteed maximum price (GMP) to complete the project. All vendors and suppliers were organized through Keystone Engineering to ensure that the project flowed on budget. Furthermore, Keystone was responsible for vendor bidding procedures, to ensure that the selected subcontractors had fully understood the project scope prior to award.

Any outages at site will be fully coordinated with the motor park, to ensure that any utility changeovers will have minimal impact on the commercial activity at the site.

### Location

Douglasville, PA

### Market Served

Parks

### Key Services

Design –Build

### Contact

Rob Armbruster  
robarmbruster@libertybellimp.com





## Assateague Island National Seashore

### Treatment System & Electrical Upgrades

Wastewater from the outlying administrative and public use facilities is treated by the National Park Service (NPS) at the protected site. New permitting requirements required the NPS to perform an upgrade to their wastewater system to treat the high strength domestic wastewater.

The additions included adding electrical service upgrades, grinder pumps, mixers, a bio-reactor filtration system, and infrastructure upgrades to discharge to a new constructed wetland area.

The design and calculations were done in accordance with the NPS standards and is currently in operation.

As the project utilized the design build guaranteed maximum price methodology, Keystone Engineering stuck to the original budget that was approved by the client.

Any outages at site will be fully coordinated with the NPS to ensure that any utility changeovers will have minimal impact on the public use activity at the site.

### Location

Assateague Island,  
MD

### Market Served

Parks

### Key Services

Design –Build





# AMTRAK NATIONAL RAILROAD PASSENGER CORP

## Newark Dock Tower

Keystone Engineering has long been assisting Amtrak in providing engineered solutions to replace the aging electrical infrastructure inside of a bridge tower. After several site visits to document the existing facilities and site constraints, Keystone Engineering devised a creative solution to remove an older set of 1940's era switchgear, remove fenced areas, and add additional concrete slabs in the basement to accommodate a new lineup of switchgear.

For extra levels of redundancy, a set of control power batteries was provided to ensure that switchgear metering and protective relaying equipment would operate even during periods of prolonged utility outages.

When construction is completed, the new equipment will help ensure increased passenger safety and minimal outage periods.

CONTACT: Jay Shoemaker, PE  
shoemaj@amtrak.com

### Location

Newark, NJ

### Market Served

Transportation

### Key Services

Electrical Design





# AMTRAK NATIONAL RAILROAD PASSENGER CORP

## New York Penn Station Emergency Power System

Amtrak is upgrading the Emergency Power systems for New York Penn Station. Keystone has provided conceptual and detailed design services for a number of aspects of these upgrades, including work on the Tunnel Fan Generators and Penn Station Emergency Power system. The Tunnel Fan Generator conceptual design explored constructability issues related to the installation of four (4) 13,200kV, 2,000 kW emergency generators feeding power through a private power distribution system to nine (9) substations. These substations fan plants are located in New York and New Jersey to ventilate the railroad tunnels under Manhattan, the Hudson River and the East River. The Penn Station Emergency Power System upgrades include designs to replace and upgrade three (3) 480V, 900kW generators, switchgear and power distribution system. This system serves emergency power to multiple locations in the station for lighting, pedestrian platform ventilation and other life safety loads.

The work included consolidation of record drawings and equipment information, conceptual layout design and construction cost including correspondence with rigging contractors to estimate rigging costs. The layout of proposed equipment included the generators, fuel system, ventilation equipment and paralleling switchgear in coordination with other consultants that were working on other design projects in the Service Building at the time. The structural ability of the service building to support the new generators was evaluated, and the Heating and Ventilation requirements of the new generators were established. The fuel distribution system was evaluated, including a review of the fuel storage system for fire protection and environmental requirements. The work also included correspondence with the New York City DEC for Air Permitting Requirements and restrictions for exemptions, and correspondence with the State Historical Preservation Office (SHPO).

### Location

New York City, NY

### Market Served

Transportation

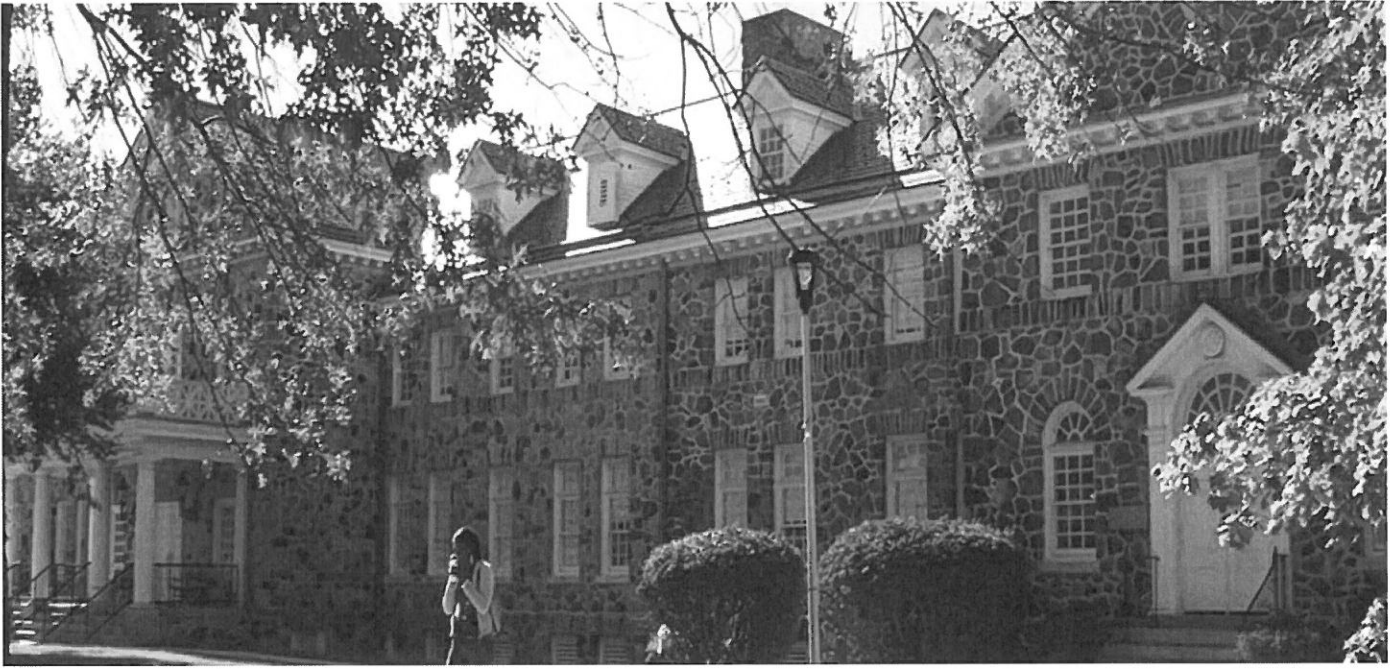
### Key Services

Electrical Engineering

### Contact

Jay Shoemaker  
(215) 349-3141





# Utility/Infrastructure Assessment and Renovations

## Cheyney State University

Keystone Engineering provided the preliminary assessment, conceptual engineering and detailed design of the campus primary power distribution upgrade, upgrade of 24 building secondary distribution systems, a new campus wide submetering system, a new fiber optic based site security intercom & alarm system, and expansion of the existing fiber optic based computer network.

The primary distribution includes a dual fed 4160V automatic main-tie-main switchgear with eight vacuum type breakers feeding the campus underground cable network and 5kV power factor correction capacitors.

The project started with a complete inspection of the existing electrical distribution system followed by testing of critical components including high voltage cables. Building distribution upgrades included replacement of dual feed 5 kV transfer switches, low voltage substations and switchboards, and replacement of two chiller motor control centers.

The electrical submetering system monitors 26 campus substations and transformers as well as the primary switchgear communicated over the campus Ethernet network to a central monitoring and data acquisition workstation. The fiber optic network expansion included the installation of 12SM/24MM underground cable & terminations, rack mounted media conversion modules, and rack mounted Ethernet hubs and switches.

### Location

Cheyney, PA

### Market Served

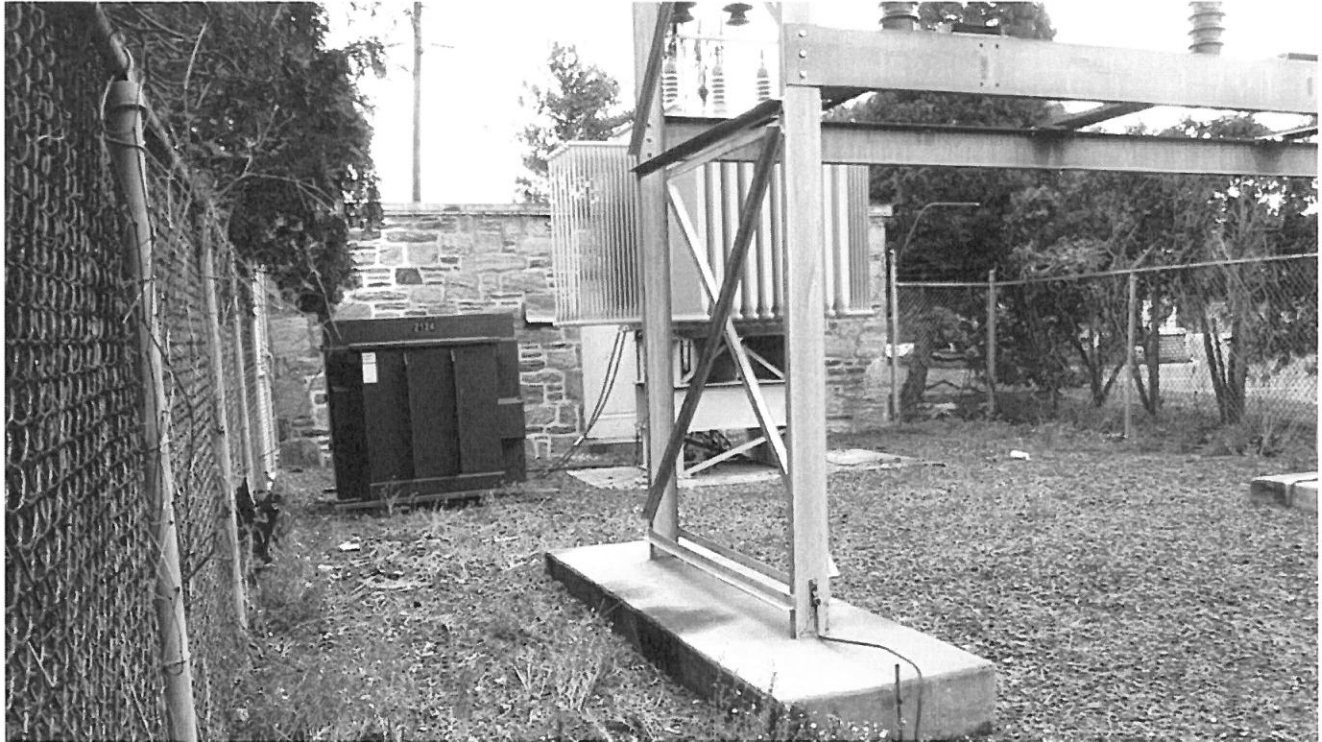
Power

### Key Services

Automation Controls







## Greenwood Avenue Substation

### Philips Brothers

Keystone Engineering assisted Philips Brothers Electrical Contractors in the replacement of a 35kV Substation. The project included a new 35kV disconnect switch, as well as a new lineup of outdoor 5 kV pad-mounted switchgear. The design also accounted for the removal of the existing equipment, with an effort to minimize downtime by splicing into existing cable runs

Keystone Engineering reviewed the contractor's drawings for code compliance and prepared detailed site plans and single line diagrams. Drawings and equipment layouts were prepared and reviewed to ensure compliance with the National Electric Code.

CONTACT: John Philips  
dani@philipsbrothers.com

### Location

Abington, PA

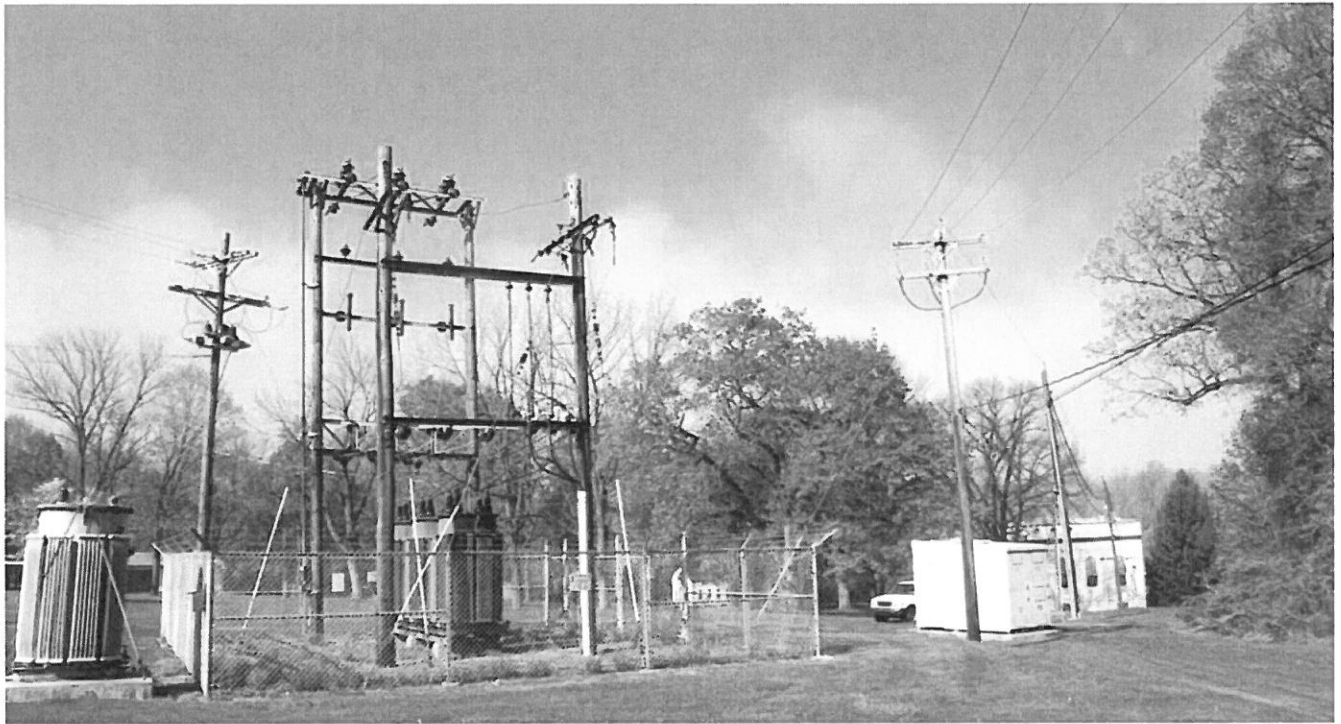
### Market Served

Commercial

### Key Services

Design





## Reading Area Water Authority (RAWA)

### RAWA Substation Replacement

The Reading Area Water Authority's water treatment facility distributed utility voltage to distribution voltage via three single phase transformers, with overhead disconnect switches and fuses. The transformers were well beyond their useful life and their immediate replacement was critical.

Keystone Engineering investigated the current and future growth at the facility and appropriately sized the new substation transformer. The new transformer incorporated eco-friendly seed-based insulating oil to ensure a lower impact on the environment. To reduce the possibility of faults, the utility service was relocated to be underground, and a new lineup of primary switchgear was designed and specified.

The switchgear supplied on the project included the latest in available safety features. Grounding switches were available to employees to ensure that there is no dangerous voltage levels while working in the equipment. Ground Fault relaying was installed on the breaker to reduce the incident energy levels available, thus lowering the possibility of an arc flash incident. Keystone faced the difficult obstacle of the facility needing to remain online at all times. An innovative solution was designed to utilize the existing underground trenches in the area to re-feed the existing secondary switchgear. This enabled the switchover from the old to the new transformer to occur in only a few hours.

CONTACT: Garry Phillips  
gary.phillips@readingareawater.org

### Location

Reading, PA

### Market Served

Water Industry

### Key Services

Design





## **SECTION C—KEYSTONE PROFESSIONAL STAFF**



**590 E. Lancaster Ave, Suite 200  
Frazer, Pennsylvania 19355  
(610) 407-4100**

DNR214037

HOLLY RIVER STATE PARK SERVICE UPGRADE ORGANIZATIONAL CHART



**Project Manager**  
**Lead Engineer**  
Philip M. Gonski, P.E.



**Senior Electrical Engineer**  
James J. Panetti, P.E.

**Senior Electrical Engineer**  
Curtis Pratt, P.E.

**Senior Electrical Engineer**  
Andrea Genetti, P.E.

**Estimator**  
Marc A. DellaPenna

# Philip M Gonski, P.E.

*Electrical Project Engineer*

## Summary of Experience

Mr. Gonski has been the lead design engineer for a large variety of new power plant designs, as well as existing station retrofits. This includes simple and combined cycle power plants, cooling towers, water treatment facilities, bottom ash retrofits, smart meter installations, as well as a wide number of aux power system upgrades. In addition, Mr. Gonski performs short circuit, protective relaying, and arc flash studies to ensure compliance with OSHA and NFPA70E.

## Key Projects

### **Main Substation Replacement, Reading Area Water Authority Reading, PA, 2012**

Served as the lead electrical engineer for the design of a substation replacement at a large wastewater facility. Mr. Gonski discussed operating scenarios with personnel to determine the optimal transformer sizing, designed and specified the utility interconnection, ground grid, as well as the necessary switchgear modifications. To increase employee safety, Mr. Gonski also designed a relaying addition to lower tripping time during fault scenarios.

### **Chicken Litter Power Plant, ECI Biogas Somerset, MD**

Project manager and lead electrical engineer for EcoCorp to incorporate a new 1MW chicken litter power plant at the MES ECI power plant. Mr. Gonski possessed intimate knowledge of the MES ECI facility to help assist with the interconnection of the new generator, as well as utility coordination.

### **Delaware Landfill - Cogeneration Power Plant Delaware**

Mr. Gonski was the lead electrical engineer for providing technical drawings and documentation to achieve utility approval for a 2 MW landfill gas fired power plant. Services included detailed coordination with the local utility, protective relaying settings, and design drawings, to interconnect the generators to the power grid.

### **C-Tower Arc Flash Analysis, Amtrak Washington DC**

Mr. Gonski was the lead electrical engineering for an electrical study at an Amtrak Compressor Facility. His services included detailed surveying of the site, as well as supervision of the data collection phase. The short circuit contributions were calculated from the utility interface as input into the protective device coordination study. After determining device tripping times, a detailed arc flash hazard analysis was performed, as well as arc flash mitigation cases.



## Education

B.S. Electrical Engineering  
Power Systems Specialization  
University of Illinois-Urbana

M.E. Energy and Power Engineering  
University of Illinois-Chicago

## Professional Registration

Professional Engineer (P.E.) in:

Maryland  
Michigan  
Illinois  
Pennsylvania  
West Virginia

## Professional Affiliations

Member of:

Institute of Electrical and  
Electronics Engineers (IEEE)  
**Executive Board Secretary (2012)**  
**Section Treasurer (2013)**

NSPE—Valley Forge  
**Executive Board (2013)**

## Publications & Presentations

***Understanding Motor Bearing Currents-***  
IEEE April 2012

***Diagnosing Motor Bearing Currents-***  
Electrical Construction & Maintenance Aug  
2012

***Arc Flash Hazards in the Water Industry-***  
Waterworld Magazine Sept 2012

***Arc Flash Safety Instructor***  
PSPE 2013 Conferences

**New Eagle Substation**  
**Reading, PA, 2012**

Served as the lead electrical engineer for the design of a 69-13.2kV Substation for a new factory. The design entailed overhead utility connection, a 20 MVA transformer, associated air break switches, as well as live and dead tank breakers. Mr. Gonski designed the underground conduit system, relay and metering designs, as well as performed complex grounding analyses to ensure safe touch and step potentials. From the electrical substation, a series of overhead power lines distributed power to various factory campuses. The design was completed on a fast track basis.

**Ultra Poly Cogeneration Facility Interconnection**  
**Portland, PA, 2012**

The Ultra Poly Facility was in the process of procuring a large 1750kW Gas Generator for the purposes of cogeneration to assist in improving power factor, as well as reducing electricity costs. Mr. Gonski served as the lead electrical engineer to assist in the interconnection and design of the generator facility. Mr. Gonski produced a full set of drawings for utility approval which detailed the required generator and interconnection protection per IEEE 1547. Relay settings were also provided to provide appropriate responses during fault scenarios concurrent with local utility standards. For protection, the design utilized a Schweitzer 700G Generator Intertie Relay which served as a backup to the generator protective relay, as well as providing frequency and voltage regulation on the utility connection. Other protective elements ensured the generator is able to respond to motoring conditions, phase imbalances, ground faults, and over/under voltage conditions.

**Main Service Switchgear Replacement**  
**Philadelphia, PA, 2011**

Served as the lead electrical engineer for a new apartment complex substation, including a 35kV disconnect switch, as well as a new lineup of outdoor 5 kV pad-mounted switchgear. The design also accounted for the removal of the existing equipment, with an effort to minimize downtime by splicing into existing cable runs. Mr. Gonski reviewed the contractor's drawings for code compliance and prepared detailed site plans and single line diagrams. Drawings and equipment layouts were prepared and reviewed to ensure compliance with the National Electric Code.

**Sargent & Lundy, LLC**  
*Senior Electrical Engineer*

**Qurayyah Combined Cycle Power Plant**  
**Damman, Saudi Arabia, 2008-2011**

Served as the lead electrical engineer for the design of 3200MW Combined Cycle Power Plant. Prepared and reviewed major equipment sizing calculations, developed a schedule to match client goals, reviewed vendor drawings, and wrote and reviewed procurement specifications for the major electrical equipment. Managed daily coordination efforts with both team members and clients from a variety of international companies, which included a long term international assignment. Specifically, Mr. Gonski reviewed all relay and metering, single line, three-lines, and schematics for the complete auxiliary power system design. The 3200MW Combined Cycle Power Plant was completed ahead of schedule and vastly ahead of similar constructions.



**HECO, Campbell Industrial Park**



**Qurayyah Power Plant**



**Gila Power Station**

**HECO, Campbell Industrial Park  
Honolulu, Hawaii, 2007-2009**

Prepared and reviewed all electrical system designs, cable sizing criteria, costs estimates, and schedules for the construction of a new biodiesel-fired unit. Prepared and reviewed design documents for purchase and installation of equipment. Review vendor documents for both compliance with specifications and system compatibility. Developed schematic design for all of the major system of the plant and designed protection schemes for the plant auxiliary electrical systems, as well as substation interconnection. Provided leadership to a team of designers to develop wiring diagrams, as well as cable routing and physical interfaces. Interacted with the client on a frequent basis in order to coordinate efforts and provide timely updates. Provided assistance and guidance during the construction phase and responded to field inquiries. Mr. Gonski also designed and integrated a complete perimeter security system for the power plant, including card reader access gates, and security cameras along the perimeter fence.

**Gila Power Station, Entegra  
Gila Bend, Arizona, 2008-2009**

Served as the lead electrical engineer for a large water treatment upgrade at a large combined cycle facility. Performed detailed site investigations of the auxiliary power systems and surveyed the underground network. Prepared and reviewed equipment specifications, and designed all electrical upgrades to the facility. Developed a cost effective solution which substantially saved the client both money as well as time.

**Smart Meter Installation  
Gila Bend, Arizona, 2010**

Served as the lead electrical engineer for a smart meter installation to support a subdivided power plant. Mr. Gonski visited the site, developed relay & metering diagrams, and devised a solution that did not require the addition of instrument transformers. The meters were integrated into the facilities central DCS computer, with the ability to be remotely monitored.

**Cherokee Station, XCEL Energy  
Denver, CO, 2011**

Mr. Gonski functioned as the lead electrical engineer for the conversion of a generator from generating duty to synchronous condenser to support power factor on the local grid. Responsibilities included coordinating with GE, vendor drawing review, as well as integrating the condenser into the existing electrical system. Mr. Gonski also managed other engineers in the preparation of grounding and lighting design, as well as arc flash calculations.



***Cherokee Station***

# JAMES J. PANETTI, P.E.

*Senior Electrical Engineer*

## Summary of Experience

Mr. James J. Panetti is responsible for designing and implementing electrical and control system designs. He has over 20 years of experience in design of power distribution and instrumentation & control systems, including experience in medium voltage motor control systems and variable speed drives. Mr. Panetti is also very knowledgeable in the areas of Fiber Optic communications, PLCs, Radios and Computer Networks.

## Key Projects

### **Water System Security Upgrades, Anne Arundel County**

#### **Anne Arundel County, MD**

Lead electrical engineer responsible for the electrical and control system design for multiple projects to enhance the security of the County's water system, including replacing gaseous chlorine feed system at the Broad Creek I & II water treatment plants, a pilot study for installing Water Quality Monitoring system at multiple locations in the water distribution system, the design of a water truck filling station with customer card reader, and the preliminary design of a remote video monitoring system. The video monitoring system was designed to monitor 45 separate locations throughout the county from the Millersville Dispatch center and the County Police Station.

### **30th Street CETC SCADA, Amtrak Philadelphia, PA**

Mr. Panetti was responsible for overseeing the design and implementation of a SCADA system to monitor the system status at Amtrak 30th Street Station. The design included power monitoring as well as switchgear status to inform system operators of potential problems in the distribution system.

### **Baltimore Fire Alarm Replacement, Amtrak Baltimore, MD**

Amtrak Baltimore Penn Station had an existing fire alarm system that had to be upgraded to meet code compliance. Mr. Panetti performed site inspections, design drawings, and specifications for a new supervisory fire alarm system with an updated sprinkler system. He was responsible for coordinating with the local fire marshal to verify the design met code compliance prior to construction, and provided a system design criteria which highlighted the occupancy status and fire zones. Three separate areas of the facility were included to ensure personnel were notified of any possible fire.

### **Ivy City Arc Flash Analysis, Amtrak Washington DC**

Mr. Panetti was responsible for visiting an Amtrak facility and performing a detailed site survey. Single line diagrams and revised site plans were provided as input into short circuit, relay coordination, and arc flash analysis study. Responsibilities included: gathering all applicable utility information, cable data, equipment nameplates, and calculated short circuit values on the plants LV system. To calculate device trip times, a protective relay coordination study was performed. From this calculation, a detailed arc flash hazard analysis was performed per NFPA 70E and IEEE 1584. After a thorough review with the client, protective device settings were modified to lower the amount of available incident energy. The scope was limited to an air compressor facility and included the utility entrance down to the 120V panels as required by NFPA regulations.



## Education

B.S. Electrical Engineering Technology  
Pennsylvania State University, 1991

M.S. Engineering Science  
Pennsylvania State University, 2000

## Professional Registration

Professional Engineer (P.E.) in:

Delaware  
Connecticut  
Maryland  
New Jersey  
New York  
Pennsylvania  
Rhode Island  
Washington D.C.

## Professional Affiliations

Member of:

Institute of Electrical and  
Electronics Engineers (IEEE)

National Fire Protection Association  
(NFPA)

National Society of Professional  
Engineers (NSPE)





**Penn Station 7th Avenue Concourse Backup, NJ Transit  
Newark NJ**

The NJ Transit East End concourse was completed in 2002. The new 480V switchgear lineup ('SB1') for this building was provided with (1) one 13.2kV feeder from Amtrak's 13.2kV main distribution switchgear (PPDS). A second 480V feeder was considered for emergency backup purposes until a permanent 3000A backup is available. An interim backup circuit was designed by James Panetti to match the existing bus rating and allow for switching between normal or emergency circuits. A cable bus was specified as well to connect an Amtrak switchboard to a NJ transit switchboard. The design allowed for the addition of a future generator and emergency switchgear.

**Sunnyside Fire Alarm., Amtrak  
Sunnyside NY**

Three maintenance shop buildings a major Amtrak facility were in need of code-compliant fire alarm systems. Mr. Panetti oversaw the onstructability of the design as well as a conceptual report highlighting the system fire design criteria. Mr. Panetti also reviewed concept reports, specifications, and design drawings for quality control, coordination, and client satisfaction.

**Weehawken and LIC Fan Plant Upgrades,  
Weehawken NJ**

Amtrak had two fan plants serving two tunnels entering New York City. The tunnels were experiencing elevated temperature levels in the battery rooms at both locations, which was leading to severe degradation of the batteries. Keystone Engineering documented the condition of the existing system and designed an HVAC system to maintain optimal temperatures in the battery room. An independent HVAC system design was reviewed by Mr. Panetti to serve the communication rooms at one of Amtrak's facilities. Mr. Panetti also assisted in the preparation of a detailed lifecycle study of a battery replacement, and helped guide Amtrak to decide on several options lifecycle costs.

**Wilmington CNOC Center  
Wilmington DE**

Mr. Panetti was responsible for reviewing and coordinating additional cooling for the installation of two 80kVA UPS systems. The CNOC UPS System Upgrade consisted of designing an air cooled 2-ton Liebert Data Mate for the UPS System installed in an existing 2nd Floor Electrical Room as well as an air cooled 3-ton Liebert Data mate for the UPS System installed in an existing 2nd Floor Data Center. The 3-ton Liebert Data Mate control system was interlocked with the existing Data Center's 5-ton Air Handling Unit. Due to the data center's large sensible cooling load, a humidifier was installed in the 3-ton Liebert Unit to prevent the potential for dust to combust at low humidity levels.

**New York Tunnel Emergency Power Preliminary Design Memorandum  
New York, NY**

Project manager and Senior electrical engineer for the conceptual design report for the installation of four(4) 2000kW, 13.2kV emergency power generators with associated paralleling switchgear to provide emergency power to high speed emergency exhaust fans serving the train tunnels at New York Penn Station.

**Chester Water Authority, High Lift Pump Station  
Lancaster County, PA**

Project Manager responsible for Electrical and Control System design for a new high lift pump station to replace the existing primary service pumps at the Octoraro Water Treatment Facility. The project included a 1750 hp pump and a 1250 hp pump with medium voltage solid state motor control, two 900 hp variable speed pumps, and replacement of a 4.16kV motor control center serving two 800 hp and one 1000 hp diesel/electric auxiliary pumps with synchronous motor controls. The control system includes five (5) PLCs connect to the Plant's existing SCADA system over fiber optic network featuring a self- healing fiber optic loop architecture.

# CURTIS O. PRATT, P.E.

*Senior Electrical Engineer*

## Summary of Experience

Mr. Pratt provides electrical design and specification work and construction assistance services for industrial, municipal, and commercial clients. He has over 39 years of experience in electrical engineering in the areas of wastewater and water treatment, solid waste handling, chemicals, steel and nuclear power, with emphasis on plant power distribution systems for new facilities and renovations and upgrades to existing facilities.

## Key Projects

### **Sludge Processing Facilities, CCMUA Camden County, NJ**

Electrical Engineer responsible for design of sludge processing facilities at CCMUA's Delaware No. 1 WPCF. Project included design and installation of secondary unit substations, 480 volt switchgear, motor control centers, and lighting.

### **Composting Facility, CCMUA Camden County, NJ**

Electrical Engineer responsible for design of a composting facility for the Camden County (NJ) Municipal Utilities Authority's Delaware No. 1 Water Pollution Control Facility to process 50 dry tons per day of sewage sludge. The facility included a materials handling system with storage bins, mixers and conveyors, aeration system, storage facility, and odor control system.

### **Wastewater Treatment Plant Upgrade Design, CCMUA Camden County, NJ**

Electrical Engineer responsible for screenings handling improvements at Delaware No. 1 WPCF. The project included installation of a screenings press and container handling system and modifications to existing climber screens.

### **Recreation Facility Lighting Design, Pennsauken Township Camden County, NJ**

Electrical Engineer responsible for electrical design for street lighting and lighting of four soccer fields at the Pennsauken Community Recreation Facility. Design included a new 480V, 3 phase, 600 amp service, electrical site plans, Single Line Diagram, Conduit and Cable Schedule, and Control Diagrams. The soccer field lighting, by Musco Sports Lighting, Inc., comprised ten 70-foot tall poles with a total of 154, 1500 watt metal halide fixtures.

### **High Lift Pump Station, Chester Water Authority Lancaster County, PA**

Electrical Engineer responsible for power distribution design for a new high lift pump station to replace the existing primary service pumps at the Octoraro Water Treatment Facility. The project included a 1750 hp pump and a 1250 hp pump with medium voltage solid state motor control, two 900 hp 480V motors, lighting and grounding. Also included in the project was a replacement of a 4.16kV motor control center, serving two 800 hp and one 1000 hp existing synchronous motor driven auxiliary pumps.



## **Education**

B.S. Electrical Engineering  
Drexel University, 1973

## **Professional Registration**

Professional Engineer (P.E.) in:

Pennsylvania



**Wastewater Treatment Plant Upgrade, Valley Joint Sewer Authority  
Bradford County, PA**

Electrical Engineer responsible for the power distribution design for a major treatment plant upgrade to a Sequential Batch Reactor process. The project included a new 1600A service, 800 kW generator with automatic transfer switch, new motor control centers, underground power distribution, and site lighting. Necessity to provide continuous treatment of wastewater throughout the duration of construction required particular attention to coordination of the sequence of construction with other disciplines.

**Freedom Pier Walkway Project, City of Gloucester  
Camden County, NJ**

Provided electrical design for lighting of the Freedom Pier Walkway. The walkway was approximately 1300 feet long with architectural bollard lanterns on either side. Design included convenience receptacles along the walkway. Mr. Pratt performed the voltage drop calculations and developed the electrical site plan, mounting details, as well as the conduit and cable schedule.

**Lighting Design, Nifty Fifty's Miniature Golf Course  
Turnersville, NJ**

Electrical Engineer responsible for electrical design of a miniature golf course at the Nifty Fifty's restaurant in Turnersville, NJ. The project included a new 225A power panel with underground power distribution to the golf course lighting system and waterfall pumping equipment. Site lighting consisted of three 25-foot poles, each fitted with dual 1000 watt metal halide floodlight fixtures. Accent lighting was also provided.

**Wastewater Treatment Plant, North Londonderry Township Authority  
Lebanon County, PA**

Electrical Engineer responsible for power and lighting design of a new 2.1 mgd activated sludge municipal wastewater treatment plant. The project included a new 1600A electrical service, emergency generator with automatic transfer switch, motor control centers, underground power distribution and site lighting. Major facilities at the plant included a raw wastewater pump station, headworks building, aeration tanks and blowers, RAS pump station and clarifiers, flocculation tank, filter building, dewatering building, garage and administration building. Construction services responsibilities included coordination with electric utility, review and approval of contractor's shop drawings, and attendance at construction progress meetings.

# ANDREA S. GENETTI, P.E.

*Senior Electrical and Controls Engineer*

## Summary of Experience

Mrs. Andrea S. Genetti is an experienced Electrical Engineer with over 25 years of consulting engineering experience for various water/wastewater and industrial facilities. She has been intimately involved as a designer for a variety of electrical projects in design of power distribution, lighting, site power distribution, fire and security systems, and SCADA systems.

## Key Projects

### **Wastewater Treatment Plant Project, North Londonderry Township Authority**

#### **North Londonderry PA**

Designed the SCADA system controls and communications for the new wastewater treatment facility in North Londonderry PA. SCADA system design included coordination with all packaged system controls, instrumentation, mechanical specification, and written functional description of plant operation. Provided the telephone distribution throughout the plant. Coordinated with telephone and cable utilities.

### **Wastewater Treatment Plant SCADA System Design Upgrade, Borough of Huntingdon**

#### **Huntingdon, PA**

Designed the SCADA system controls and communications for the North Huntingdon wastewater treatment facility. Was responsible for the electrical design of the facility's screen building, raw water pump station, headworks, and primary clarifiers. Also provided the design for new switchgear, a new 1,250 kW diesel generator, power distribution, and motor control centers.

### **Wastewater Treatment Plant SCADA System Design Improvements, Middletown Borough**

#### **Middletown, PA**

Responsible for the design of the detailed design of the electrical, instrumentation, controls, and SCADA system for the WWTP. Design included new switchgear, a new 1,000 kW diesel generator, 4 motor control centers, and a SCADA system with 4 PLCs and 5 Remote I/O panels.

### **Residuals Facility Upgrades, Reading Area Water Authority**

#### **Leesport, PA**

Designed the power, lighting, and controls upgrade for the RAWA Residuals Facility Upgrade. Work included a new chemical building, site lighting, instrumentation, existing facility changes, electrical specifications and SCADA upgrades. Coordinated with all mechanical systems to provide power and controls.

### **Facility Upgrades, Sun Oil**

#### **Marcus Hook, PA**

Responsible for the design of power distribution, heat trace, and panelboards located near the oil storage tank areas classified as Class 1, Division 2 locations. At this facility, Mrs. Genetti also provided the design for new switchgear to power the facility's expansion.



## Education

B.S. Electrical Engineering  
Villanova University, 1986

## Professional Registration

Professional Engineer (P.E.) in:

Pennsylvania

# MARC A. DELLAPENNA

*Estimator and Purchasing Agent*

## Summary of Experience

Mr. DellaPenna provides exceptional construction management, purchasing, estimating, and Design-Build project delivery skills to the Water/Wastewater industries. With over 14 years of experience, he has fine-tuned his project delivery method to adhere to tight budgetary and time constraints to aid in effective project completion. Acting as a contractor-client liaison, Mr. DellaPenna specializes in effective change order evaluations, negotiations, and contract dispute resolutions. In addition, he has extensive knowledge of soils, concrete, and welding of large tanks and piping, with over 11 years of environmental experience .

## Key Projects

### **New Wastewater Treatment Plant, Brown Printing East Greenville, PA**

Currently serving as project specialist and supporting Design-Build team in purchasing and construction contracts at this Printer's facility to install a new Membrane Bio Reactor (MBR) plant. Project includes Kubota Membranes, new precast tanks, process equipment, and instrumentation.

### **Air Stripping Tower, Town of Thurmont Thurmont, MD**

Served as project specialist and supported Design-Build team in purchasing and construction contracts at this groundwater air stripping tower replacement.

### **Dissolved Oxygen Control Project, B & G Foods Hurlock, MD**

Served as project specialist and supported Design-Build team in purchasing and construction management at the food manufacturer's wastewater pretreatment plant.

### **Wastewater Treatment Plant Upgrade, Wawa Bel Air, MD**

Served as project specialist and supported the Design-Build team at this Wawa Store to upgrade its on-site WWTP. Project includes a packaged SBR plant, air diffusers, instrumentation, and installation.

### **DAF System, Genovique Specialties Chestertown, MD**

Served as project manager/Resident Project Representative for the installation of a Dissolved Air Flotation Unit for suspended solids removal. Project includes: new DAF unit with flocculator, chemical feed, sludge storage, and installation of new piping and electrical controls. Project completion was within 10 weeks and under budget.



## Education

B.S. Environmental Science  
Shippensburg University, 1999

## Professional Affiliations

Member of:

Chester and Delaware Counties Home  
Builders Association (HBA)

Tri-County Chamber of Commerce



**Tertiary Filtration System, Ferro Corporation  
Bridgeport, NJ**

Served as Resident Project Representative for the upgrades to an existing wastewater pretreatment system. Project involves demolition of existing equipment, installation of sand filters, pumps, piping, steam heat trace, and associated electrical controls and monitoring systems. Construction was completed within five months.

**Emergency Switchgear Replacement, Western Berks Water Authority  
Sinking Spring, PA**

Served as Project Specialist for the replacement of electrical switchgear. The upgrades consist of new high service pump, backwash pump, transformer, generator set, raw water pump, building renovations, SCADA system, and HVAC system. Also served as site representative when needed. Projected cost savings using design-build delivery: \$500K.

**Wastewater Pretreatment System Improvements, Dow Reichhold Specialty Latex  
Dover, DE**

Served as Construction Manager for improvements to the wastewater pretreatment system. The improvements will consist of a new Dissolved Air Flotation Unit for Suspended Solids removal, improved solids handling facilities, and additional equalization of distillate streams for more efficient organic removal. Job also consists of retrofitting an equalization whitewater thickener tank to be used as additional equalization.

**Building Expansion, UniTech Services Group  
Montgomery County, PA**

Served as Construction Manager for the design-build of a new 20,000 square foot metal fabricated building for an industrial laundry facility. The project included significant site-work, retaining wall, paving, electric line rerouting, loading docks, concrete, masonry, electrical power distribution, HVAC, process equipment, and a metal fabricated building. Also served as site supervisor when needed.

**Equalization Tank Modifications, Alliance Sanitary Landfill  
Taylor, PA**

Served as Construction Manager for modifications to an existing leachate equalization tank. Project consists of new fine bubble diffusers, alkalinity addition for nitrification, and tank certification.

**Membrane Filtration System, Crystal Springs (A Brand of DS Waters)  
Ephrata, PA**

Served as Assistant Project Manager and Construction Manager for the design-build of a 90,000-gallon per day (GPD) ultra-filtration system. The new system included pH adjustment, equalization, dechlorination, and a membrane filtration system for the removal of suspended solids. Project schedule included the complete design-build of the system in 10-weeks.

# ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any)

## PART II - GENERAL QUALIFICATIONS

*(If a firm has branch offices, complete for each specific branch office seeking work.)*

2a. FIRM (OR BRANCH OFFICE) NAME <b>Keystone Engineering Group, Inc.</b>				3. YEAR ESTABLISHED 1997	4. DUNS NUMBER 029583486
2b. STREET 590 E. Lancaster Avenue				5. OWNERSHIP	
2c. CITY Frazer	2d. STATE PA	2e. ZIP CODE 19355		a. TYPE Corporation	
6a. POINT OF CONTACT NAME AND TITLE Philip L Schwartz, President				b. SMALL BUSINESS STATUS SBA PA	
6b. TELEPHONE NUMBER 610-407-4100				6c. E-MAIL ADDRESS pschwartz@kegi.net	
8a. FORMER FIRM NAME(S) (if any)				8b. YR. ESTABLISHED	8c. DUNS NUMBER
N/A					
				7. NAME OF FIRM (if block 2a is a branch office) N/A	

### 9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees	
		(1) FIRM	(2) BRANCH
21	Electrical Engineer	7	
08	CADD Technician	2	
18	Cost Engineer/Estimator	1	
48	Project Manager	3	
16	Construction Manager	2	
42	Mechanical Engineer	3	
02	Administrative	1	
23	Environmental Engineering	1	
	Other Employees	8	
<b>Total</b>		<b>28</b>	

### 10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
E03	Electrical Studies & Design	5
R02	Radio Frequency Systems & Shield	3
L06	Exterior Lighting	2
L05	Interior Lighting	2
F03	Fire Protection	1
H04	HVAC	3
P07	Plumbing & Piping Design	3
R03	Railroad; Rapid Transit	3
103	Industrial Waste Treatment	4
S04	Sewage Collect, Treatment & Dispo	3
W03	Water Supply; Treatment & Distrubt	2

### 11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

*(Insert revenue index number shown at right)*

a. Federal Work	1
b. Non-Federal Work	6
<b>c. Total Work</b>	<b>6</b>

### PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- |   |   |
|---|---|
| 1. Less than \$100,000                  | 6. \$2 million to less than \$5 million   |
| 2. \$100,00 to less than \$250,000      | 7. \$5 million to less than \$10 million  |
| 3. \$250,000 to less than \$500,000     | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million   | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater               |

### 12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE

c. NAME AND TITLE



## **SECTION D—INSURANCE & SIGNED FORMS**



**590 E. Lancaster Ave, Suite 200  
Frazer, Pennsylvania 19355  
(610) 407-4100**





# CERTIFICATE OF LIABILITY INSURANCE

KEYST-2 OP ID: KH

DATE (MM/DD/YYYY)

08/01/13

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

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

<b>PRODUCER</b> Widerman & Company, Inc. 70 Tanner Street Haddonfield, NJ 08033 Shawn R. Knechtel, ARM, CIC	Phone: 856-428-0939 Fax: 856-429-7439	<b>CONTACT NAME:</b> Maryann Heiser <b>PHONE (A/C, No, Ext):</b> 856-428-0939 <b>E-MAIL ADDRESS:</b> mheiser@widerman.com	<b>FAX (A/C, No):</b> 800-884-6528													
	<b>INSURED</b> Keystone Engineering Group 590 E. Lancaster Ave., Ste 200 Frazer, PA 19355		<table border="1"> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Netherlands Insurance Company</td> <td>232</td> </tr> <tr> <td>INSURER B: Excelsior Insurance Company</td> <td>116</td> </tr> <tr> <td>INSURER C: Technology Insurance Company</td> <td></td> </tr> <tr> <td>INSURER D: Evanston Insurance Company</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Netherlands Insurance Company	232	INSURER B: Excelsior Insurance Company	116	INSURER C: Technology Insurance Company		INSURER D: Evanston Insurance Company		INSURER E:		INSURER F:
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INSURER C: Technology Insurance Company																
INSURER D: Evanston Insurance Company																
INSURER E:																
INSURER F:																

**COVERAGES**

CERTIFICATE NUMBER:

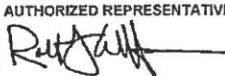
REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR LWVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC		CBP8487144	08/04/13	08/04/14	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS		BA8487944	08/04/13	08/04/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10000		CU8802155	08/04/13	08/04/14	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in-NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N <input checked="" type="checkbox"/> N/A		TWC3369721	08/04/13	08/04/14	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Professional Liab		13CPONE60128	08/04/13	08/04/14	Ea Claim 2,000,000 Aggregate 3,000,000

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

**CERTIFICATE HOLDER****CANCELLATION**

<b>EVIDE-1</b> Evidence of Coverage	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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RFQ No. DNR 214037

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: Keystone Engineering Group, Inc

Authorized Signature: [Signature] Date: 11/21/13

State of Pennsylvania

County of Chester, to-wit:

Taken, subscribed, and sworn to before me this 21 day of November, 2013

My Commission expires May 27, 2014.

AFFIX SEAL HERE

NOTARY PUBLIC Theresa A. Smondrowski


*Purchasing Affidavit (Revised 07/01/2012)*

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Theresa A. Smondrowski, Notary Public  
East Whiteland Twp., Chester County  
My Commission Expires May 27, 2014  
Member, Pennsylvania Association of Notaries

**CERTIFICATION AND SIGNATURE PAGE**

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Keystone Engineering Group, Inc.  
(Company)

  
(Authorized Signature)

Philip L. Schwartz, President  
(Representative Name, Title)

610-407-4100      610-407-4101  
(Phone Number)      (Fax Number)

11/21/13  
(Date)

**ADDENDUM ACKNOWLEDGEMENT FORM**

**SOLICITATION NO.:** DNR214037

**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 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.

Keystone Engineering Group, Inc.  
Company

  
Authorized Signature

11/21/13  
Date

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