

**EXPRESSION OF INTEREST
FIXED WING ARMY AVIATION
TRAINING SITE APRON EXPANSION**

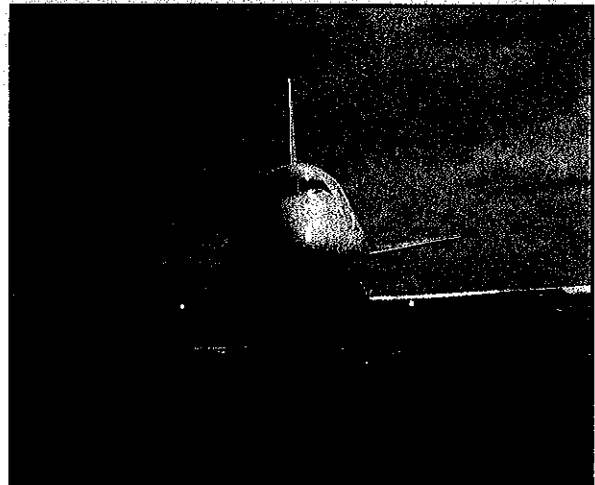
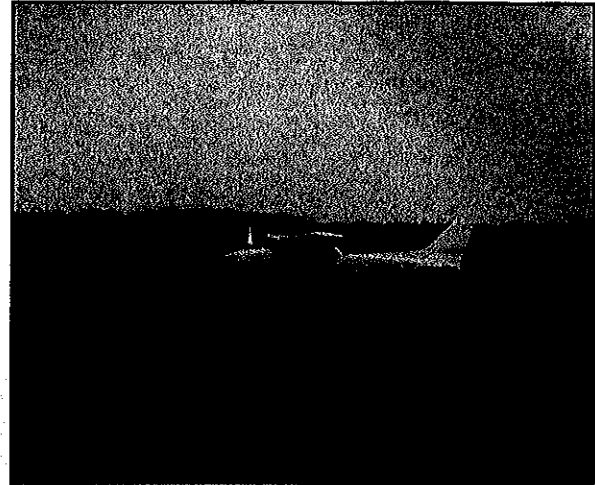
REQ NO. DEFK11008

Prepared for
West Virginia Army National Guard,
Construction and Facilities Management
Office

Prepared by
KCI Technologies, Inc.

August 18, 2010

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PURCHASING DIVISION
STATE OF WV





ISO 9001:2000 CERTIFIED

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

48 Donley Street, Suite 502 • Morgantown, WV 26501 • Phone 304-296-3611 • Fax 304-296-8046

August 18, 2010

Mr. Chuck Bowman
Purchasing Division
P.O. Box 50130
2019 Washington Street East
Charleston, WV 25305-0130

Re: Fixed Wing Army Aviation Training Site Apron Expansion
DEFK11008

Mr. Bowman,

KCI Technologies, Inc. (KCI) is pleased to submit this proposal to provide the West Virginia Army National Guard, Construction and Facilities Management Office, professional engineering / architectural and related services for the construction of additional fixed wing aircraft parking apron space at the Fixed Wing Army Aviation Training Site.

KCI has been providing professional engineering services since 1955. Our goal is clear - a commitment to provide an experience and knowledgeable staff with the corporate resources that can cost-effectively and capably deliver the services necessary to support your objectives under this contract. KCI has excellent management expertise, trained and experienced technical personnel, and unique corporate resources. KCI has completed numerous similar projects in the past, and we are confident in our ability to complete this project.

By selecting KCI for this contract, the West Virginia Army National Guard, Construction and Facilities Management Office will gain the advantages of a multidiscipline full-service engineering firm. Our single point-of-contact concept from project inception to project completion provides our clients with efficient and cost effective services. Our professional staff operates under a strong quality assurance plan that is a direct result of proven performance on all of our projects. KCI has also won more than 50 awards for engineering excellence.

The team can provide all required disciplines using in-house resources, ensuring close coordination and proper continuity to complete the tasks on time and under budget. The project will be managed from KCI's Morgantown, West Virginia, office, ensuring a rapid response to any of the town's requests.

We appreciate your consideration of the KCI team, and we look forward to working with the West Virginia Army National Guard, Construction and Facilities Management Office on this important project.

Sincerely,

KCI TECHNOLOGIES, INC.

Charles Phillips, RPLS
Senior Vice President
Site / Facilities Management

Direct Line: (410) 316-7855
Direct Fax: (410) 316-7853
Email: charles.phillips@kci.com

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: KCI Technologies, Inc.

Authorized Signature:  Date: August 16, 2010

State of Maryland

County of Anne Arundel, to-wit:

Taken, subscribed, and sworn to before me this 16 day of August, 2010.

My Commission expires 7-6, 2014.

AFFIX SEAL HERE

NOTARY PUBLIC 





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FIRM OVERVIEW

As one of the nation's leading multidiscipline, full-service engineering firms, KCI Technologies, Inc. (KCI) is consistently ranked among the Top 100 consulting engineering firms in the country by *Engineering News Record*.

With a professional staff of engineers, planners, scientists, surveyors, and construction managers, we offer a broad range of engineering services including civil, structural, transportation, environmental, hazardous waste, mechanical, electrical, telecommunications, and soils. We also provide cultural and environmental resource management services, land planning and landscape architecture, geology, hydrology, ecology, surveying, and construction management and inspection.

The professional staff is supported by CADD (Computer-Aided Drafting and Design) designers; BIM (Building Information Modeling) designers; GIS (Geographic Information Systems) experts; database analysts, programmers, and technicians; as well as state-of-the-art computer, field, and lab equipment. KCI's computer network supports the firm's core production systems including BIM, CADD, GIS, three-dimensional visualization / animation tools, document processing and desktop publishing, and project management. The firm's integrated approach to automating design, drafting, documentation, and presentation minimizes costs, facilitates coordination among engineering disciplines, and expedites the production of high-quality products.

At KCI, we believe that our broad technical expertise, combined with our unique commitment as employee owners, has enabled us to emerge as industry leaders whose customers can count on excellent service time and again.

Location

KCI has been working throughout the state of West Virginia for more than 10 years and is familiar with conditions and infrastructure of West Virginia. Our local office has a wide range of experience working with various state agencies, as well as private developers and contactors. Our backgrounds range from WV DOH to USDA Rural Development. We have engineers who understand and advocate for the needs of rural communities and public service districts. KCI has the knowledge to aid our clients in all aspects of this project including but not limited to preliminary study, preliminary design, funding assistance, final design, bidding services, construction administration, construction inspection, or any other service needed to complete these types of projects.

Quality Assurance

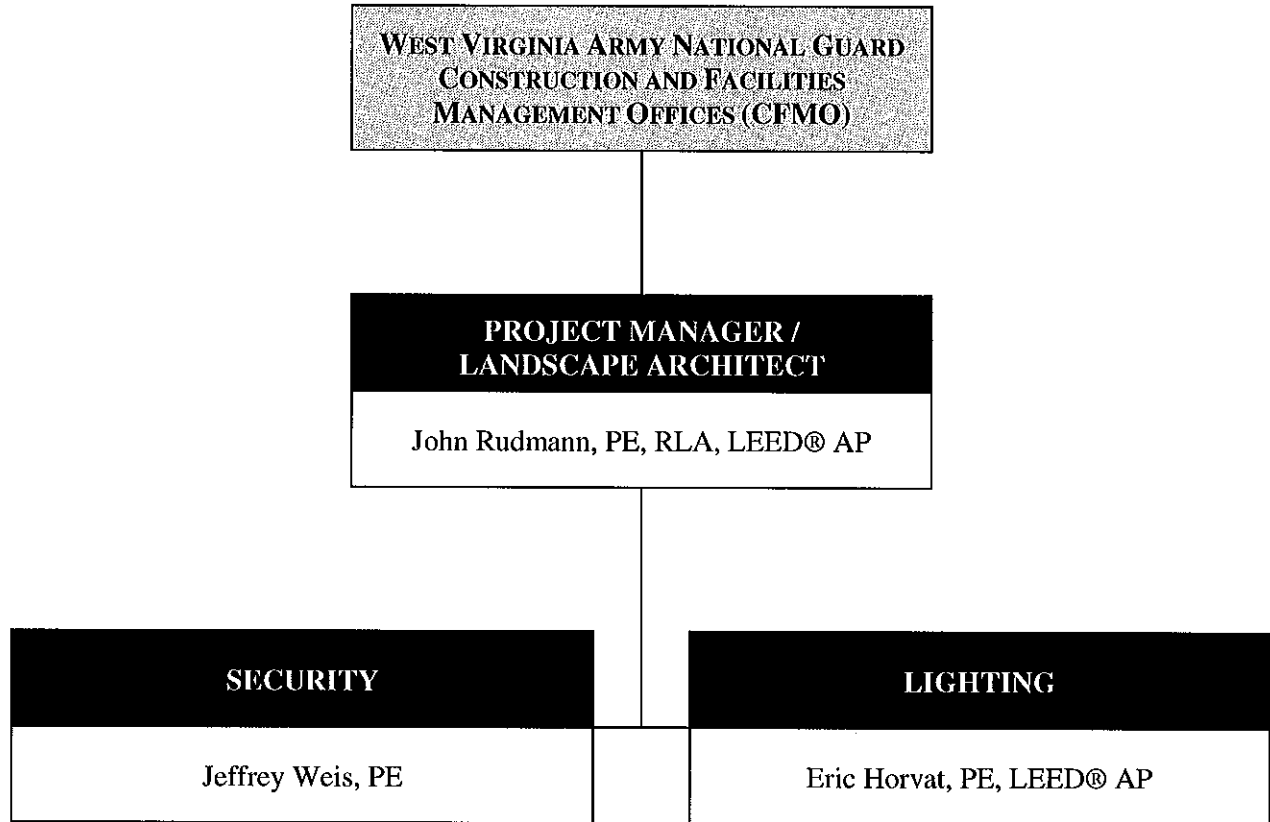
As part of our strategic plan, KCI is committed to achieving corporate wide ISO 9001:2000 certification. Our primary quality objectives are to:

- Satisfy client expectations through designs and professional services that conform to client specifications;
- Continually review company performance by analyzing objective data regarding our processes and deliverables; and
- Use this objective data to identify and drive opportunities to continuously improve the quality management system.

ISO is a quality management system (QMS) standard requiring that company activities be modeled as a system of inter-related processes and that these processes be continually audited in order to objectively measure performance and improve outcomes. A key component of the ISO standard that differentiates it from others systems is the mandatory continual auditing and improvement requirement. Quality control procedures for the work performed in each of KCI's technical disciplines are defined in each discipline's quality control manual. Conformance to these procedures is ensured through KCI's internal auditing process.



ORGANIZATIONAL CHART





JOHN RUDMANN, PE, RLA, LEED® AP
Project Manager / Landscape Architect

Education: BS / 1995 / Civil Engineering / West Virginia University
BS / 1992 / Landscape Architecture / West Virginia University

Registration: PE / WV / 14779
PE / PA / PE062150
PE / MD / 200442
PLA / WV / 341
RLA / PA / LA001741
RLA / MD / 1177
LA / OH / 0101226
LEED® Accredited Professional

Experience:

John Rudmann is a licensed civil engineer, a licensed landscape architect, and a LEED® Accredited Professional. Mr. Rudmann's responsibilities have included being a project manager, a senior civil engineer, and a senior landscape architect for many design projects. As a designer, his tasks have included completing WV / NPDES general stormwater construction permitting, completing local stormwater and erosion and sediment control permits and plans, stormwater design, utility design, grading, site master planning, and completing project specifications. He has designed several different methods of bio-filtration and has completed all the necessary credit paper work to achieve LEED® certification.

Morgantown Event Center and Garage. Morgantown, WV. Senior Design Engineer. Mr. Rudmann was responsible for the overall design of all site / civil services, which included local stormwater permitting, stormwater retention, grading plans, landscaping, erosion and sedimentation control, access roads and parking lot, and utility lines. While this building is not seeking LEED® certification, Mr. Rudmann designed the site to maximize Sustainable Sites and Water Efficiency Credits. The stormwater quantity control was achieved through oversized storage collection pipes and quality through a series of filters.

Washington Dulles International Airport Parking Bowl Repairs. Washington, DC. Design Engineer. Responsible for reconfiguring existing parking, solving drainage problems, and designating areas in need of pavement rehabilitation. The drainage solutions involved adding new inlets and pipe to milling and overlaying areas to provide positive drainage. The pavement rehabilitation involved areas of milling and overlay, base repairs, and wedge and level.

The Dayton. Morgantown, WV. Senior Design Engineer. KCI was a subconsultant for The Dayton, a three-story mixed-used building located at the corners of Ridgeway Avenue, Dayton Street, and Richwood Avenue in Morgantown that provides retail space and parking on the ground level with residential housing on the upper floors. Mr. Rudmann was responsible for the overall design of all site / civil services including water lines, sanitary sewer, general utility coordination, site / civil permitting, and erosion and sediment control. Since the budget for this project was very tight, Mr. Rudmann utilized cost-efficient design principles to keep the project under budget, while still meeting strict environmental standards.

New Northside Fire Station. Morgantown, WV. Senior Design Engineer. Project involved overall site design, access roads, utility lines, sidewalks, drainage, stormwater quality and retention, grading plans, erosion and sedimentation control plans, and the site / civil permitting. Client is pursuing LEED® Silver certification. Mr. Rudmann was responsible for the overall design of all site / civil services, which included site design, local stormwater permitting for the Morgantown Utility Board, drainage, stormwater quality and retention, grading plans, and erosion and sedimentation control plans. Mr. Rudmann was responsible for completing the Sustainable Sites and Water Efficiency Categories. The water quantity credit was achieved through a stormwater cistern.



Cacapon Resort State Park Lodge Expansion and Park Improvement. Berkeley Springs, WV. Civil / Site Engineer. Project involved tasks for water and wastewater system improvements as part of state park upgrades and expansion project. For the lodge facility, Mr. Rudmann is responsible for completing the overall design of all site / civil services, which included access roads and parking lot, utility lines, sidewalks, drainage, stormwater retention, grading plans, landscaping, erosion and sedimentation control, and permitting. For the golf course pond renovations, Mr. Rudmann has completed the pond bank stabilization design and completed the site registration application form, WV / NPDES general permit construction stormwater (three acres or greater). This application has been submitted and approved. Mr. Rudmann is also responsible for updating the golf course drainage system and solving stormwater ponding problems.

The View II at the Park. Morgantown, WV. Senior Design Engineer. KCI was a subconsultant to Paradigm Architecture for the View II. The View II is the second phase of a three-phased development along the waterfront in Morgantown. The View II is a four-story structure that houses Morgantown Area Chamber of Commerce on the first floor with residential condominiums on the upper floors. Mr. Rudmann was responsible for the overall design of all site / civil services, which included maintenance of traffic control, utility lines, sidewalks, drainage, stormwater retention, grading plans, erosion and sedimentation control plans, all the site / civil permitting, and the project specifications.

USDA Design / Build IDIQ 8(a). Sabraton, WV. Design Engineer. Providing site / civil engineering services for this design / build project. Mr. Rudmann was responsible for parking lot design, access road design, landscape design, WV DEP erosion and sediment control permitting, local permitting for the Morgantown Utility Board, drainage design, stormwater quality and retention, grading plans, and erosion and sedimentation control plans. The parking lot was designed to hold 154 spaces with 24 spaces in a secured area. To maintain ADA compliance and efficiently fit the parking lot into the existing terrain, the parking lot was design at a 5% running slope with a 2% cross slope. This cross slope allowed the asphalt to be contoured into swales to direct water into a series of bio-filtration cells within the parking lot areas and swales located closer to the building. The location of the site is well known for stormwater problems and frequent flooding. The bio-retention areas have effectively alleviated the flooding condition for this site due to a significantly slower time of concentration which allows for water to slowly infiltrate on side and the excess to discharge off site. Mr. Rudmann also completed all the necessary LEED® submittal paperwork for Sustainable Site and Water Efficiency Credits. The site was also previously disturbed and certified a brownfield site.

West Virginia University Downtown Student Housing Project. Morgantown, WV. Senior Design Engineer. Mr. Rudmann was responsible for the overall design of all site / civil services, which included an extensive landscaping plan and courtyard pedestrian design. Due to severe space limitations, Mr. Rudmann utilized oversized piping and developed a gravel layer to be used for water detention to meet the requirements of the City of Morgantown's stormwater ordinance.

Platinum Drive. Bridgeport, WV. Design Engineer. Responsible for designing a 3,000-foot-per-unit industrial access road with office building pad sites. The earthwork management between the road and the pad sites was coordinated to achieve maximum buildable area. The drainage and erosion and sediment control were designed together to alleviate existing off-site drainage problems and to control future development. Mr. Rudmann was also responsible for developing the construction schedule and sequencing plan, preparing the cost estimates, writing the project specifications, and preparing the bid packages.

Bowie Commuter Rail Station. Bowie, MD. Design Engineer. Responsible for the layout of the parking lot, bus loop, and transit center. An existing bus station and a stormwater management pond were relocated on-site. Autoturn was used to design the bus loop through the parking lot to ensure no conflicts between cars and buses. Mr. Rudmann provided a detailed grading plan, completed the stormwater pipe design, and completed the cost estimate.



JEFFREY WEIS, PE
Security

Education: BS / 1992 / Civil & Environmental Engineering / Clarkson University

Registration: PE / WV / 18520
PE / PA / PE062013
PE / NY / 074271-1
PE / OH / 73788

Experience:

Mr. Weis is the Regional Practice Leader for the Mechanical and Electrical Practice, where he is responsible for the management and senior project oversight of all projects from conceptual phase through construction execution and commissioning. He is a registered professional with more than 15 years of experience in project management, construction management, and facility design. As MILCON / BRAC federal program manager, he was responsible for more than 10 projects at Fort Drum in Watertown, New York. His experience includes the management of projects ranging from federal and municipal, industrial, educational, corporate, recreational, specialty storage, commercial, and research / clean room facilities. As a former construction manager, Mr. Weis is well-versed in the areas of conceptual and final budget estimating, project scheduling, leadership and facilitation of project teams, and constructability reviews.

91st Military Police Battalion Operations Facility. Fort Drum, NY. Principal-in-Charge. This project includes the design and construction of a 16,000 SF headquarters building (BNHQ), 82,000 SF company operations facility (COF), and 35,000 SF tactical equipment maintenance facility (TEMF). Oversaw the civil / site design of the 30-acre development project, which totals more than 120,000 SF and includes hardstand vehicle storage areas, storage buildings, roadway construction, and parking areas. All site amenities had to meet AT / FP standards.

Fort Drum Program Support. Fort Drum, NY. Project Manager. As part of a five-year multidiscipline contract for architectural and engineering services, Mr. Weis is managing program management services in support of the BRAC program at Fort Drum. Services include RFP development, LEED® compliance documentation, life safety code path requirements, International Building Code Compliance Review, and addressing project specific items with Dr. Checks.

PADGS National Guard Combined Readiness Center. York, PA. Project Manager. Project involved due diligence and 1391 programming support for the Combined Readiness Center. The Commonwealth of Pennsylvania was interested in purchasing a parcel of land that is located both in Jackson and West Manchester Townships. The proposed facility includes a new National Guard Readiness Center. Site improvements include extending required utilities to the new building, providing fencing, and pedestrian walkways. Building setbacks for Anti-Terrorism / Force Protection (AT / FP) were incorporated in proposed facility and site layouts. Services included preliminary programming, estimating, site permitting, utility verification, survey, DD 1391 cost estimates, and environmental Phase I and II services in support of the NGB and DGS due diligence activities under the purchase agreement with the previous owner.

Fort Drum Design Charrette in Support of DD 1391 Child Development Center and Central Issue Facility. Fort Drum, NY. Principal-in-Charge. Project involved site design for the Army Corps of Engineers New York District at Fort Drum for mechanical, electrical, structural, fire protection, and civil / site design for the development of the DD 1391 documents for a six-week to five-year child development center and a central issue facility.



Intercollegiate Soccer Stadium Improvements. Akron, OH. Task Manager. Project involves design of a new intercollegiate competition soccer field for approximately 3,400 spectators with field lighting, drainage and sub-drainage, scoreboard, berm and metal grandstand seating, and perimeter enclosure. Mr. Weis had overall responsibility for the design and staffing for the electrical elements of the project. Phase 1 includes the utilities, field relocation, bleacher relocation, players' area, and upgrade of the field lights and irrigation system.

Saint Vincent's Guard Shack. Latrobe, PA. Principal-in-Charge. Project involved engineering and landscape architecture services for a new guardhouse facility and entrance road to the historic Saint Vincent College. Oversight of the construction phase support services.

Wheeler Sack Air Field Support. Fort Drum, NY. Principal-in-Charge. This \$8 million project for the U.S. Army Corps of Engineers provides for the construction of a new 20-bay heavy vehicle maintenance facility for all types of vehicles used in the maintenance, operation, and servicing of a military airfield and the military aircraft using the airfield. The new facility will also include a separate inspection and wash bay, as well as a welding shop and secure tool storage. Project was executed in a design / build format.

Bay Street Reconstruction Project Construction. Inspection. Provided construction inspection services for the one-mile-long Bay Street reconstruction project. The project involved water main and combined sewer replacements, water service and sewer lateral upgrades, full boxout, and replacement of traffic signals.

Pine Planes (10300 Area) Barracks. Fort Drum, NY. MILCON / BRAC Program Manager. Project included development of SWPPP documents, site grading plans, drainage systems, parking lots, and site utilities for the two three-story, 150-bed barracks buildings. Project was executed in a design / build format.



ERIC HORVAT, PE, LEED® AP
Lighting

Education: BS / 1998 / Architectural Engineering / Pennsylvania State University

Registration: PE / WV / 18489
PE / PA / PE077388
PE / MD / 34722
PE / OH / 74444
National Council of Examiners for Engineering and Surveying / PA / 39878
LEED® Accredited Professional

Experience:

Mr. Horvat has more than 13 years of experience in the design, construction, and commissioning of electrical, mechanical, and plumbing systems for federal, municipal, industrial, higher education, skilled nursing, multifamily, hospital and clean room projects. Much of this project experience, both from the engineering and construction disciplines, has been gained on the performance of LEED® certified projects. His typical project responsibilities include preparation of electrical plans, specifications, calculations, cost estimates, and overall design of electrical power, communication, and life safety systems. Mr. Horvat is also experienced in specialized electrical design including lighting design for landscaping, streetscapes, site lighting, highway lighting, and code compliance.

West Virginia University Architectural and Engineering Open End. Morgantown, WV. Commissioning Agent. Contract involved site / civil, structural, mechanical, electrical, plumbing, fire protection, geotechnical, and environmental engineering, as well as landscape architecture and surveying. KCI's engineering staff has provided the university with a high level of expertise and prompt service on the tasks assigned. Mr. Horvat led the electrical and mechanical design teams for the steam tunnel rehabilitation project, which identified dysfunctional equipment during the survey effort including failed and missing high-voltage cable tray supports, failed high-pressure steam line supports, broken lighting fixtures, and missing pipe conduit supports. Once identified, solutions were design and construction drawings and specifications were prepared.

PADGS National Guard Combined Readiness Center. York, PA. Electrical Engineer. Project involved due diligence and 1391 programming support for the Combined Readiness Center. The Commonwealth of Pennsylvania was interested in purchasing a parcel of land that is located both in Jackson and West Manchester Townships. The proposed facility includes a new National Guard Readiness Center. Site improvements include extending required utilities to the new building, providing fencing, and pedestrian walkways. Building setbacks for Anti-Terrorism / Force Protection (AT / FP) were incorporated in proposed facility and site layouts. Services included preliminary programming, estimating, site permitting, utility verification, survey, DD 1391 cost estimates, and environmental Phase I and II services in support of the NGB and DGS due diligence activities under the purchase agreement with the previous owner. Mr. Horvat provided preliminary programming and estimating of the building electrical requirements and subsequent electrical utility requirements in support of the National Guard and PADGS due diligence activities. In addition, based on separate guidelines for two different National Guard company requirements, Mr. Horvat developed a programming narrative of the required power, emergency, fire alarm, lighting, and telecommunications systems. The narrative served as a basis for the electrical conceptual construction estimates.



Dugway Proving Ground - UT Construction Documents and Project Specifications. Salt Lake City, UT. Task Manager. Project involves the design / build Medical Facilities Renewal Contract to provide site infrastructure design and construction services to the Dugway Proving Grounds. The objective of the contract is to prepare two access control points (ACP) at the Dugway Proving Grounds for installation of the US Army Automated Installation Entry (AIE) System. Mr. Horvat was responsible for the electrical and system upgrades and preparatory infrastructure for future access control equipment. He performed calculations and, using the USACE Definitive Design and National Electric Codes, increased the electrical service to allow for the additional infrastructure, designed standby emergency power generation with automatic transfer switches, and configured the power infrastructure to allow for a future UPS system. Mr. Horvat was also responsible for lighting calculations performed using computerized modeling software to allow for CCTV operation at night. Mr. Horvat designed building security systems, which provided remote intrusion detection and CCTV surveillance abilities and power, communications, lighting, and CCTV support for specialized vehicle barriers. Other support tasks included lightning protection systems for the canopies, distribution of underground power and communication conduits throughout the site, and specialized barrier controls.

Fort Leavenworth AIE. Fort Leavenworth, KS. Task Manager. As the prime subconsultant for a design / build Facility Repair and Renewal (FFR) Contract with the US Army Corps of Engineers, provided site infrastructure design and construction services to Fort Leavenworth. The objective of the FFR contract was to prepare three ACP at Fort Leavenworth for installation of the U.S. Army's AIE System. Mr. Horvat served as KCI's task manager and lead engineer for the electrical and system upgrades and preparatory infrastructure for future access control equipment. Mr. Horvat conducted a site investigation inspection and produced a detailed report highlighting the electrical and security infrastructure improvements necessary to implement the system at each access control point. Upon acceptance of the site investigation report, he led the development of the work plan design. He performed calculations and, using the USACE Definitive Design and National Electric Codes, increased the electrical service to allow for the additional infrastructure, designed standby emergency power generation with automatic transfer switches, and configured the power infrastructure to allow for a future UPS system. Mr. Horvat was responsible for lighting calculations performed using computerized modeling software to allow for CCTV operation at night. Mr. Horvat also designed building security systems, which provided remote intrusion detection and CCTV surveillance abilities and power, communications, lighting, and CCTV support for specialized vehicle barriers. Other support tasks included lightning protection systems for the canopies, distribution of underground power and communication conduits throughout the site, and specialized barrier controls.

Fort Meade AIE. Fort Meade, MD. Task Manager. KCI worked for the U.S. Army Corps of Engineers under a design / build FFR Contract to provide site infrastructure design and construction services to Fort Meade. The objective of the FFR contract was to prepare five ACP at Fort Meade for installation of the US Army AIE System. Mr. Horvat served as KCI's task manager and lead engineer for the electrical and system upgrades and preparatory infrastructure for future access control equipment. Mr. Horvat conducted a site investigation inspection and produced a detailed report highlighting the electrical and security infrastructure improvements necessary to implement the system at each access control point. Upon acceptance of the site investigation report, he led the development of the work plan design. He performed calculations and, using the USACE Definitive Design and National Electric Codes, increased the electrical service to allow for the additional infrastructure, designed standby emergency power generation with automatic transfer switches, and configured the power infrastructure to allow for a future UPS system. Mr. Horvat was responsible for lighting calculations performed using computerized modeling software to allow for CCTV operation at night. Mr. Horvat also designed building security systems, which provided remote intrusion detection and CCTV surveillance abilities and power, communications, lighting, and CCTV support for specialized vehicle barriers. Other support tasks included lightning protection systems for the canopies, distribution of underground power and communication conduits throughout the site, and specialized barrier controls.

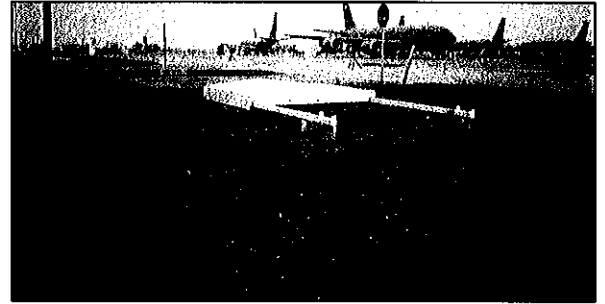


I-70 Welcome Center. Frederick, MD. Mechanical Engineer. Design / build reconstruction of the welcome centers in Frederick County, serving both eastbound and westbound traffic on I-70. The centers are located in a natural setting on South Mountain and were designed to achieve LEED® Silver certification. Project involved the design and construction of two retaining walls; above-grade water storage tank structure; welcome center and restroom buildings; two stormwater management facilities; truck, cars, and RV parking lots; and other miscellaneous structures. Services also included design of site and water supply / treatment improvements. Highlights of the project include separating lanes for vehicles, trucks, and buses; increasing the parking areas; and expanding and improving the buildings. When completed, the 3,600 SF buildings will have exterior exhibit areas that will showcase some of the region's notable attractions for travelers going both eastbound and westbound, improved vending, play areas, picnic tables, and an area for dog walking. The buildings also will be equipped with flat screen televisions that will feature promotional videos and travel information, and a media room where travelers will have hi-speed wireless Internet access. The new buildings also will be environmentally friendly with energy-efficient lighting, water-saving devices, and upgraded sewer systems.



RICKENBACKER AIRPORT - AIR NATIONAL GUARD BASE Ohio Air National Guard

KCI performed boundary and topographic surveys of a 158-acre site and a six-acre site including record research, air clearance surveys, utility surveys, preparation of base mapping in AutoCAD, and preparation of three power line easements, descriptions, and plats. Surveys located approximately 2,500 LF of power lines that were constructed on the base. The information was added to the existing conditions site plan of the base. KCI prepared 20-foot-wide easements for the new power lines. The scope included field survey, update of existing base map, and preparation of plats and descriptions.



KCI also performed boundary and topographic survey of a five-acre site around Building No. 846, the vehicle maintenance facility. The survey included record research, boundary survey, topographic survey, air clearance survey, utility survey, and preparation of base mapping.

Headquarters 121 Air Refueling Wing (AMC): Performed a boundary survey for three parcels of land to be acquired. The survey included record research, boundary retracement survey, and survey plats and descriptions.

Topographic survey and base mapping of a 6.5-acre site for new building construction.

Survey locating two new parking lots and added them to the existing conditions base map.



ARCHITECTURAL / ENGINEERING SERVICES FOR ANDREWS AIR FORCE BASE Andrews Air Force Base

Over the past ten years, KCI has provided various engineering expertise in support of the mission at Andrews Air Force Base.

New Runway Lighting System: As a subconsultant to CAPE Environmental Services, Inc., KCI provided site / civil engineering including grading, erosion and sediment control, and permitting through Maryland Department of the Environment (MDE) and NPDES permitting for a new runway lighting system. KCI also provided surveys and stake out for this project.

High-Voltage Lighting Replacement for West Side: As a subconsultant to CAPE Environmental Services, Inc., KCI provided site / civil engineering including grading, erosion and sediment control, and permitting through MDE and NPDES permitting for a new high-voltage lighting system for the west side of the campus. KCI also provided surveys and stake out for this project.

Alter Aircraft Maintenance Hangars 8 and 9: Multiple projects including a study to investigate, analyze, and recommend solutions to specific code deficiencies and user's needs in two aircraft hangars including means of egress, fire separation, containment of hazardous liquid, fire suppression systems, fire detection and alarm, and electrical power systems; design and documentation of exterior painting of two aircraft hangars for approximately 71,000 SF of painted area; and design and preparation of plans and specifications for roof repairs and alterations of two 38,000 SF aircraft hangars including polyurethane foam roofing and standard seam metal roofing.

Repairs to West Apron: Replacement of 39 acres of degrading concrete pavement. KCI surveyed the active apron and taxiway including work in a security zone requiring escorts. A geotechnical evaluation was conducted on the active apron and taxiway including petroleum-impacted soils requiring storage and disposal of tailings. The environmental program included collection and review of environmental information, work plan development, health and safety plan development, soil gas surveying, shallow subsurface investigation, chemical analysis of potentially contaminated material, summary report and recommendations, and 35% and 100% specifications.

Construct Paving: Design and preparation of plans / specifications for construction of lots and airfield paving.

Construct Additional Fuel Tank Storage: Design of a 4,000 SF paved aircraft external fuel tank storage area addition. Work included relocation of utilities, erosion control, and bituminous concrete paving.

The design of the apron pavement included existing concrete pavement recycled as a sub-base aggregate, an asphalt stabilized drainage layer, and new concrete pavement. Fuel-contaminated soil is to be recycled as base material with geogrid reinforcement for low-bearing areas. Work also included removal of existing abandoned aircraft fueling hydrants and associated piping; construction of a new under-drain system to connect to the existing storm drain system; and taxiway, apron, fire lane, and security area pavement marking and striping. The project is to be constructed in phases, which required aircraft maintenance of traffic and special temporary concrete joint construction details.

Base Branch Exchange: KCI performed site investigation, design, and construction document services for this branch exchange. The design totaled 14,000 SF of interior space used as merchandising area and a 4,500 SF garden shop. The building is made of masonry construction with rolling access doors and built-up roof. The building design, which was phased, consisted of architectural, structural, and civil engineering and involved site investigation and system testing of parking area concrete paving and design of the storm sewer system. KCI's electrical and mechanical engineers provided total design including plumbing, domestic water, interior and exterior lighting, electrical power generation and distribution, and communication services. KCI maintained project control with ongoing site visits, inspections, and shop drawing review procedures. KCI's landscape architects provided the finishing touches with its landscaping design.

MORGANTOWN EVENT CENTER AND GARAGE City of Morgantown, West Virginia

KCI is a subconsultant to Paradigm Architecture for the new Morgantown Event Center and Parking Garage, located in the Wharf District. KCI is providing site / civil engineering and landscape architecture services for this design / build project. The project has presented every discipline with numerous challenges. The existing site is severely constrained by the rail trail right-of-way to the west and the WVDOH right-of-way to the east. To compound site issues, the WVDOH property is roughly 25 feet higher than the rail trail property. The final solution allowed the building to function as a retaining wall, effectively minimizing this issue without additional cost added to the construction of this project. The other major issue is the numerous utility lines crisscrossing the property. KCI worked closely with the contractor to locate each utility so KCI could provide a design for proposed utilities that would not conflict with the existing lines.

KCI designed a landscape buffer between the rail trail and event center properties. As a result, the rail trail users are provided an enhanced user experience and the event center is screened from adjoining users. With such a narrow site, the challenge of safely passing busses and semi-trailers through the site became very difficult. KCI was able to achieve this goal without negative impacts to the project.



USDA DESIGN / BUILD IDIQ

U.S. Department of Agriculture - Agricultural Research Services

KCI was a subconsultant to Paradigm Architecture for the USDA Building located in the Sabraton area of Morgantown. KCI provided site / civil engineering and landscape architecture design services for this design / build project.

The parking lot was designed to hold 154 spaces with 24 spaces in a secured area. To maintain ADA compliance and efficiently fit the parking lot into the existing terrain, the parking lot was design at a 5% running slope with a 2% cross slope. This cross slope allowed the asphalt to be contoured into swales to direct water into a series of bio-filtration cells within the parking lot areas and swales located closer to the building.

The location of the site is well known for stormwater problems and frequent flooding. The bio-retention areas have effectively alleviated the flooding condition for this site due to a significantly slower time of concentration which allows for water to slowly infiltrate on side and the excess to discharge off site. The site was also previously disturbed and certified a brownfield site.



This project is pursuing LEED® certification. The site received a Certificate of Completion in accordance with 60 CSR 3, Section 12 for Voluntary Remediation and Redevelopment Act (VRRRA) Activities after an ASTM E1903-97 Phase II environmental assessment was completed. At the conception of this project, KCI's engineers recognized several challenges that would need to be dealt with throughout the design / build process in order to meet the program requirements of the USDA, as well as providing a site / civil design that maximized LEED® credentials outside of the building. The existing state road providing access to the project site lies within the flood plain. KCI provided a site / civil design that proposed raising the finished floor elevation and utilizing bio-retention areas within the project site to not only capture the onsite stormwater, but to protect the proposed buildings from the recurring flood conditions that are prevalent in the area. KCI designed the bio-retention areas within the proposed traditional parking islands thus eliminating a need for additional space within the project site for the required stormwater management devices.

In lieu of escalating project costs with large and long retaining walls, KCI's engineers were able to effectively design the proposed contour grading plans to minimize the height and length of the retaining walls.

KCI's engineers and landscape architects worked together to provide the contractor with plant seed mixes and traditional plants for the landscape plan that minimized project costs.



THE DAYTON
Phoenix Group LLC

KCI was a subconsultant to Paradigm Architecture for The Dayton. The Dayton is a three-story modular building located at the corners of Ridgeway Avenue, Dayton Street, and Richwood Avenue in Morgantown. The building is a mixed-used residential housing project with a parking garage and retail space located on the ground level.

KCI was responsible for overall site / civil design, water lines, sanitary sewer, general utility coordination, site / civil permitting, and erosion and sediment control. The stormwater filter used on this project was a low-cost practical solution that met the current Morgantown Utility Board's regulations and was within the owner's budget.