

EXPRESSION OF INTEREST

Charleston Complex Access Road and Utility Upgrades

DEFK11024

Submitted to:



State of West Virginia

Division of Engineering & Facilities

Armory Board Section

Submitted by:



9001:2008 CERTIFIED

Federal I.D. No. 25-1613591

Suite 203 34Commerce Drive Morgantown, WV 26501

Phone: 304-296-6492 Fax: 304-296-6495 CEIVED

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TALKAGING DIVISION STATE OF WV

January 25,2011



GANNETT FLEMING, INC. Suite 203 34 Commerce Drive Morgantown, WV 26501-3858

Office: (304) 296-6492 Fax: (304) 296-6495

www.gannettfleming.com

January 24, 2011

PURCHASING DIVISION 2019 WASHINGTON STREET, EAST P.O. BOX 50130 CHARLESTON, WV 25305-0130

RE:

EXPRESSION OF INTEREST (EOI)

DIVISION OF ENGINEERING AND FACILITIES, ARMORY BOARD SECTION

RFQ NUMBER: DEFK11024

Gannett Fleming, Inc. is pleased to submit for your consideration this Expression of Interest (EOI) for Architectural and Engineering Services related to the Charleston Complex Access Road and Utility Upgrades, #DEFK11024.

As the Manager of WV Operations, I will personally ensure that this project meets the expectations of the WV Army National Guard. We have assembled a team of highly qualified individuals in response to your advertisement. Our team consists of multiple Gannett Fleming personnel in key disciplines and office locations (primarily Morgantown, WV and Pittsburgh, PA). Our project team has the appropriate staff immediately available to meet your project schedule.

We look forward to your favorable review of our qualifications. We would also welcome the opportunity to present our credentials to you and look forward to the chance to discuss our capabilities with the selection committee. Please contact me at 304-296-6492 if you have any questions or if I can provide any clarifications regarding our qualifications.

Sincerely,

GANNETT FLEMING, INC.

Samer H. Petro, P.E. Manager – WV Operations



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Sincerely,

GANNETT FLEMING, INC.

Samer H. Petro, P.E. Manager – WV Operations



VENDOR

RFQ COPY

TYPE NAME/ADDRESS HERE

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

Request for REONUMBER Quotation DEFK1102

DEFK11024

TARA LYLE 304-558-2544

DIV ENGINEERING & FACILITIES ARMORY BOARD SECTION

1707 COONSKIN DRIVE CHARLESTON, WV

25311-1099 304-341-6368

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SIGNATURE		SEE	REVERSE SIDE FOR TE	RMS AND CONDI ELEPHONE	TIONS DATE	
TITLE					ř	

REQ No. DEFK1024

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 exceed 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:		
Authorized Signature:	Date:	
State of		
County of, to-wit:		
Taken, subscribed, and sworn to before me this day	of	, 20
My Commission expires	, 20	
AFELY SEAL HERE	NOTARY PUBLIC	

To Be Completed Prior to Award of Contract

GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.
- 3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
- 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
- 5. Payment may only be made after the delivery and acceptance of goods or services.
- 6. Interest may be paid for late payment in accordance with the West Virginia Code.
- 7. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
- 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- **12. BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
- 13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 14. CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.
- 15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
- 16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
- 2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- 4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
- 5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



INTRODUCTION

Gannett Fleming, Inc. is pleased to submit this Expression of Interest for the West Virginia Army National Guard, Construction and Facilities Management Office (CFMO) to provide architectural/engineering services for the design of an access road, utility upgrades and rough site grading to the Charleston Armory Complex to provide for future building sites.

Our project staff includes multiple Gannett Fleming personnel in key disciplines from various office locations (primarily Morgantown, WV supported by additional staff from Pittsburgh and Harrisburg, PA).

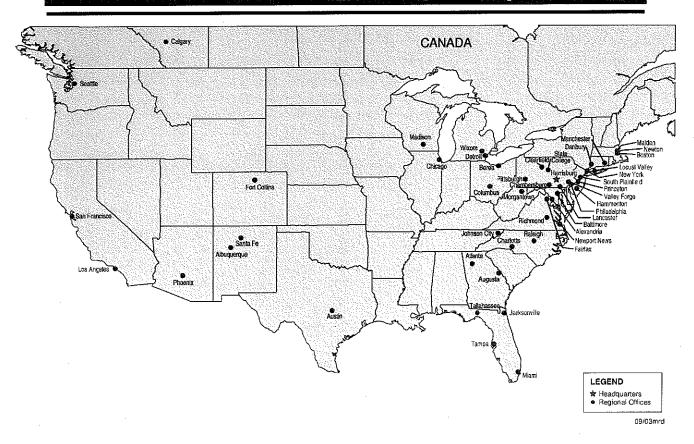
The following information addresses the experience and qualifications of our firm and also touches on specific evaluation criteria identified in the announcement, offering clear evidence of the experience and capabilities that uniquely qualify Gannett Fleming, Inc to provide the West Virginia Army National Guard CFMO with professional, timely, and cost-effective services.

Gannett Fleming (Gannett Fleming) is an international consulting engineering company active in almost every phase of consulting engineering since its establishment in 1915. Over the years, the company has performed more than 30,000 assignments in 50 states and in 20 countries. Gannett Fleming has expertise in bridge engineering, dam engineering, geotechnical engineering, water resources, environmental, transportation, and industrial services. We provide planning, plan development, construction engineering and management, and specialized services including: economic investigations; environmental analysis; land use planning; architectural, water

- Ranked among Top 50 Engineering Firms in the United States
- Providing multidisciplined
 Engineering Services
 for 95 Years
 - Some clients served for 40+ years

resources, dams, flood control, structural and transportation design; geotechnical, geophysical and hydrogeologic engineering; mechanical/electrical design, computer-aided design, management information systems, and geographic information systems. The company and its wholly-owned subsidiaries employ nearly 2,000 persons with expertise in numerous disciplines. Gannett Fleming is listed among the nation's most prestigious engineering firms. *Engineering News-Record* (ENR) recently ranked Gannett Fleming as 47th among the 500 leading United States consulting firms and 16th out of the top 20 in transportation based on 2009 annual billings.





Gannett Fleming offers the specialized experiences necessary to successfully perform all of the required services in-house. The firm has extensive experience and professional staffing with expertise in the following activities:

- Surveys and mapping
- Geologic investigations
- Hydrologic and hydraulic modeling
- Water supply engineering
- Diversion of water design
- Seismic assessments
- Construction cost estimates
- Permit applications
- GIS services
- Site/Civil services

- Subsurface site exploration
- Laboratory testing
- Geotechnical services
- Dam seepage analysis/grouting design
- · Electrical engineering services
- Plans and specifications
- Design reports
- Landscape design
- Structural design
- · Roadway design

Our office in Morgantown, WV is staffed with qualified and talented engineers and technicians. In addition to strong highway/site/civil engineering capabilities, we offer inhouse structural and geotechnical services.



Our Commitment to Quality is centered on Project Management

Gannett Fleming has extensive experience with state contracting, including successful management of A/E contracts. We understand the importance of quality, timeliness, and cost control, and have proven records of success in balancing these often-competing realities—even within today's fluctuating construction materials markets.

Gannett Fleming invests considerably in Project Manager training, and provides the latest tools to assist in keeping all assignments, large and small, on schedule and on budget.

Our Project Manager for this contract, Michael A. Neely, P.E. has participated on numerous architectural and engineering contracts for more than 14 years. He will bring the right people to each assignment, through close coordination with our seasoned Task Managers.

Contract/Project Management

Gannett Fleming has identified key project personnel in the *Key Personnel Section* of this submission to fill all roles required to successfully complete the project. The project will be managed from our Morgantown, WV office. Mr. Michael A. Neely, P.E. will serve as our Project Manager.

Project Manager Michael A. Neely, P.E. – Mr. Neely is a Senior Project Manager in Morgantown and brings over 14 years of total relevant experience to this project. He is responsible for the design and management of highway/roadway, site development, and airport projects, including right-of-way, site grading, stormwater, utilities, signing and pavement marking, erosion and sediment pollution control, final cross sections, quantities, cost estimation and report preparation. His previous experience makes him an ideal candidate to manage the overall project. He will be responsible for ensuring that the requirements for each task are completed in a satisfactory manner and that the schedule is achieved. He will communicate regularly with the project team to ensure that the final products meet all the expectations of the WV Army National Guard CFMO.

Quality Assurance/Quality Control (QA/QC) – Peter S. Joyce, P.E., - As a Project Manager and Practice Leader for Gannett Fleming's Civil/Site Practice with over 31 years of experience, Mr. Joyce has extensive expertise in the design of access roads for commercial, private and institutional facilities. He is also well versed in utility design and coordination. This experience is significant because many of the projects he has been involved with have been multi-discipline design and construction projects and having that "field" knowledge gives him a more holistic perspective when performing constructability reviews of projects.

The project team will consist of one subconsultant to provide surveying services for the project.



The Gannett Fleming project team personnel shown in the *Key Personnel Section* of this submission, possess the registrations and licenses required to perform studies, inspections, testing, design, and construction-phase services for this assignment.

Performance Capability

Our project team reflects sufficient capacity to provide the required engineering services to accomplish the project goals with timely, cost-effective solutions; and the expertise to address unforeseen conditions and schedule aberrations.

Client Satisfaction Evaluation

Gannett Fleming solicits a "Client Satisfaction Evaluation" from every client—state, government, municipal, private industry, etc. Typically, we receive responses from approximately 45-55 percent of those solicited. There are six individual measurement points – technical quality, timeliness, effectiveness, dependability/reliability, cooperation, and communication – and one overall "performance" assessment. Ratings are based on a scale of one through five, with five being the highest.

Performance

The records for the prior seven complete years are included for overall "performance":

Year	Total # Responses	Highest Rating (#5)	Second Rating (#4)	Subtotal	% Total Responses
2003	320	168	99	267	83.4
2004	283	171	88	259	91.5
2005	302	191	95	286	94.7
2006	250	156	83	239	95.6
2007	263	180	68	248	94
2008	744	162	575	737	98.6
2009	225	151	62	213	94.6

This combined data represents a consistently high level of client satisfaction irrespective of client market sector in an increasingly critical environment.



Technical Quality

An extremely important factor that contributes to the overall "performance" assessment is our clients' subjective evaluation of technical quality as shown:

Year	Total # Responses	Highest Rating (#5)	Second Rating (#4)	Subtotal	% Total Responses
2003	230	136	68	204	88.7
2004	242	137	86	223	92.1
2005	275	174	86	260	94.5
2006	243	143	79	222	91.4
2007	69	43	20	63	91.3
2008	744	133	571	704	94.6
2009	225	139	64	203	90.2

Timeliness

One other critical factor that contributes to the overall assessment of "performance" is our clients' perception of our timeliness.

Year	Total # Responses	Highest Rating (#5)	Second Rating (#4)	Subtotal	% Total Responses
2003	231	132	65	197	85.3
2004	242	128	83	211	87.2
2005	275	149	94	243	88.4
2006	234	126	84	210	89.7
2007	69	41	22	63	91.3
2008	744	125	571	696	93.5
2009	225	130	64	194	86.2

Project Control

Gannett Fleming's methodology to manage the project and control the schedule, quality, and costs is briefly outlined below.

<u>Project Understanding</u> — We will make certain that the Gannett Fleming Team members understand the scope of work of the project as communicated with WV Army National Guard C&FMO staff to complete each task/phase of this project efficiently, within budget, and on time for conceptual design phase, construction document phase, and construction administration phase.



Quality Assurance/Quality Control - Gannett Fleming's quality policy is to "provide professional services that meet the requirements of clients and involve all personnel in continually improving work processes." As part of that commitment, in 2007, Gannett Fleming set and successfully achieved its goal of achieving ISO 9001:2000 certification. This certification, along with our corporate quality guidelines, establishes and monitors requirements for:

- Working with the client to establish an appropriate scope of work.
- Allocating necessary resources to the project.
- Monitoring the progress (cost and schedule) of the work.
- Establishing and following project standards.
- Reporting progress to the client.
- Checking and correcting work products.
- Transmitting deliverables to the client.
- Closing out the project.

<u>Schedule Control</u> –The Project Manager will be responsible for maintaining the project schedule. He will be responsible to pull the necessary personnel and resources to meet the needs of the task order and the deadlines established.

The Project Manager will work with the WV Army National Guard CFMO to establish reasonable schedules with associated deadlines for input. He will keep them informed of any seen or unforeseen changes to schedule regardless of reason, and will provide regular updates to the project schedule.

Scope/Cost Control - Gannett Fleming routinely manages well over \$300 million dollars in professional services on major project work each year. Additionally, we provide construction management services on several hundred million dollars of construction services annually. Cost containment is a basic criteria for virtually everything we do. It is imperative to our future that we maintain a competitive position in the marketplace. That means a constant, careful management of our costs. It is critical that our clients receive engineering services that are not only technically sound, but are performed within strict cost-control objectives and responsive to our client's needs and expectations. Gannett Fleming will make certain that during the design process the team delivers a well-conceived and complete work product. The QA/QC review team will be actively involved throughout the entire design process to minimize any engineering related design change. In addition, regularly scheduled stakeholder design and review sessions and associated design minutes should also insure that the owner's input has been properly addressed and recorded. Those issues that do arise during the construction process that necessitate a change will be reviewed thoroughly with the owner and contractor to minimize the cost and scheduling impact of the change.



<u>Budget Tracking and Compliance</u> - Gannett Fleming proposes to use its existing management information system, BST Enterprise, in the planning, budgeting, and cost tracking and control of work assignments under this project. The existing management information system is PC-based and Internet accessible, which allows effective digital communication and use of data throughout the firm.

PROPOSED PROJECT APPROACH

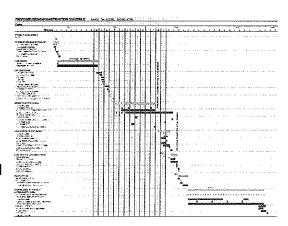
PROJECT APPROACH

Typically, the design of an access road, utility upgrade and site grading project consists of five phases. These include schematic design, design development, construction documents, bidding and construction administration. The first step is to identify the stakeholders who will work with the Design Team on the project which we would presume to include the WV Army National Guard CFMO.

Schematic Design Phase

As a first step in the Schematic Design Phase, we will work with the stakeholders to establish a project schedule and set milestones and meeting dates for the project.

Once the schedule is established we will collect all information relative to the project site. Typical information to be collected includes topographic survey, property line/right-of-way lines/easement locations, existing utility locations/capacities and local permitting requirements.



Once the pertinent information has been collected we will work with the stakeholders to develop alternatives for the access road location. Based on feedback from the stakeholders, we will select a preferred alignment. The preferred alignment will be further developed so that all parties will have an understanding of the schematic design. The schematic design will include drawings depicting the preferred access road alignment, proposed utility locations, preliminary site grading, a project schedule and an opinion of the probable construction cost. The schematic design will be submitted to the stakeholders for review approval.

Design Development Phase

The Design Development Phase will kick off with a meeting with the stakeholders to discuss any comments from the schematic design which need to be incorporated into the design. The Design Development Phase will further refine and develop the drawings with input at review meetings with the stakeholders and local utility providers.

During this phase, geotechnical issues will be examined to determine cut/fill slope requirements and ultimate roadway pavement section. A code review will be completed and updated drawings will be submitted for preliminary meetings with local and state agencies to establish regulatory requirements. The design development documents will be finalized and will include more detailed drawings for the access road, utilities and site grading. Outline specifications will be developed which will define the materials to be used in the construction of the project. The project schedule will also be updated and a more detailed opinion of probable construction cost will be completed. The



PROPOSED PROJECT APPROACH

design development documents will be submitted to the stakeholders for review and approval.

Construction Documents Phase

The Construction Documents Phase will kick off with a meeting with the stakeholders to discuss any comments from the design development which need to be incorporated into the design. Meetings will be held to finalize the design of the project. The construction documents will be completed and will include the final drawings for the access road, utilities and site grading. During the construction document process, submittals will be made for approval to the various utility providers and regulatory agencies which have jurisdiction over the construction of the project. The final drawings will incorporate all comments received from the stakeholders, local utility providers and regulatory agencies. Project specifications which identify all materials to be used on the project will be completed. The schedule will also be finalized and a detailed opinion of probable construction cost provided. The construction documents will be submitted to the stakeholders for review approval. All revisions will be made to the construction documents prior to release for bidding.

Bidding Phase

The construction of the project will be advertised and the documents will be issued to the contractors. During the Bidding Phase, the Design Team will attend the prebid conference, clarify and interpret the documents, issue any addenda as necessary and assist with the analysis of the bids and award of the contract.

Construction Administration Phase

The construction administration portion of the project will begin with notice to proceed to the contractor. The Design Team will attend job conferences on a periodic basis depending on the construction activity, respond to requests for information, review and approve shop drawings, issuing change orders as required and review payment requests from the contractor. At the end of the project a punch list will be completed. As built drawings will be completed based on contractor's marked up drawings and project closeout will occur.

The above description is our understanding of the project scope and approach to the design process for a typical access road project. We have also indicated some of our experience for each of the project elements and refer you to the project descriptions and resumes for a more in depth review of the experience and capabilities of Gannett Fleming.



SIMILAR PROJECT

SIMILAR PROJECTS

Gannett Fleming has completed numerous projects over the last 10 years that are similar to the Charleston Complex Access Road and utility Upgrade. Several examples are included on the projects sheets in this section.



PRESTON COUNTY 911/OEM

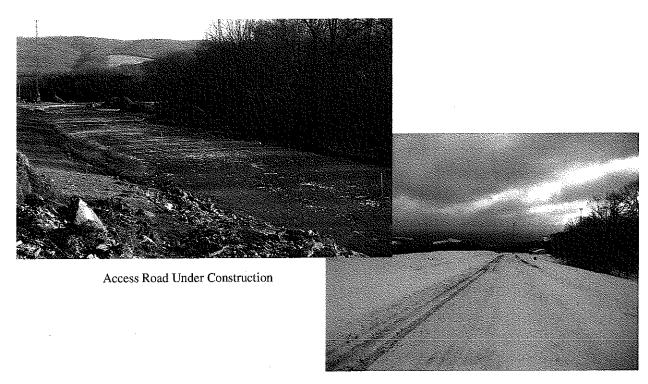
Client:

Preston County Commission

Location: Kingwood, West Virginia

Gannett Fleming, Inc. was retained by the Preston County Commission to prepare contract plans and specifications for an access road, utility extensions and site grading for a new 911/OEM building being designed by the Mills Group, LLC. The access road and utility extensions were approximately 1,800 linear feet and the site for the new building was approximately 2 acres.

- Roadway Design
- Erosion and Sediment Control
- Waterline Extension
- Utility Coordination
- Bidding Services
- Construction Phase Services



Completed Access Road



TAX INCREMENT FINANCING (TIF) PHASE 1

Client:

Sunnyside Up Campus Neighborhoods

Revitalization Corporation

Location: Monongalia County, West Virginia

Total Cost: \$1.3 Million

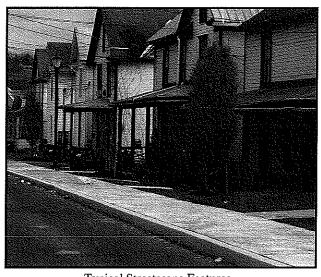
Gannett Fleming, Inc. was retained by the Sunnyside Up Campus Neighborhoods Revitalization Corporation to prepare contract plans, specifications and bidding documents for a streetscape project along Grant Avenue in the City of Morgantown, West Virginia. The project was approximately 1,500 feet in length. The streetscape design included new curbing and sidewalks along both sides of Grant Avenue, new LED Streetlights with street name signs and banner arms, 8 Big Belly solar powered trash compactors, enhanced bus stops at First Street and Fourth Street, enhanced landscaping in front of Summit Hall (one of WVU's dormitories), retaining walls and ornamental street trees.

Services Provided

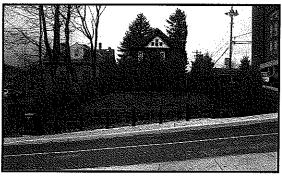
- Topographic Surveying
- Geotechnical Engineering
- Streetscape Design
- Lighting Design
- Bidding Services
- Construction Phase Services

Special Features

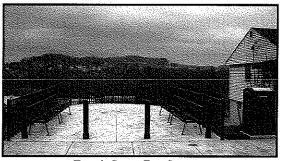
 Final Construction documents provided Sunnyside Up and the City of Morgantown a model for future streetscape projects in the Sunnyside neighborhood.



Typical Streetscape Features



First Street Bus Stop



Fourth Street Bus Stop



WV 705 CONNECTOR / FALLING RUN CORRIDOR

Client:

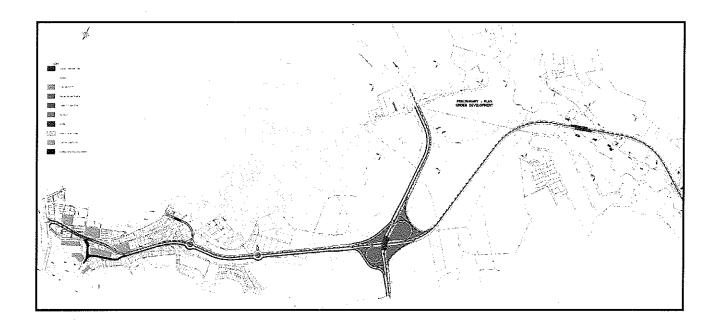
West Virginia Department of Transportation

Division of Highways

Location: Morgantown, West Virginia

Gannett Fleming, Inc. is finalizing a Design Study Report to evaluate alternative alignments for the construction of a four lane urban arterial highway to connect WV 705 at CR 67 (Stewartstown Road) to the existing four lane section of US 119 at Easton in Morgantown, Monongalia County, West Virginia. The Design Study Report includes recommendations for typical sections; development of line and grade; establishment of preliminary Right-of-Way lines; identification and evaluation of access points; evaluation of major drainage facilities; evaluation of traffic impacts; an overview of the geotechnical area, historical and environmental issues; and a summary of the advantages and disadvantages with cost comparisons for each alternative alignment and intersection. There were a total of 28 alignment alternatives considered.

As an additional service to the original contract the WVDOH requested that we study several alignments to connect Beechurst Ave to the WV 705 Connector project also known as the Falling Run Corridor. Close coordination between Gannett Fleming, Inc., WVDOH, The City of Morgantown, the Greater Morgantown MPO, and West Virginia University was necessary to establish the alternatives for the project. The Interchange Alternative is pictured below.





ACADEMIC RESEARCH FACILITY ARMY HERITAGE CENTER

The Military History Institute (MHI) is the rental repository and primary protector of military history material of the United States. The MHI was interested in developing a new, centralized permanent facility to house its military history collection valued at an estimated \$250 million. The new facility, housing 12,500 square feet of archival storage and 25,000 square feet of office/research space, was sited to provide maximum visibility from the entrance drive and parking areas. Gennett Fleming designed all parking, access drives, and utilities to allow for additional expansion of the building components with minimal disruption to existing improvements.

Client:

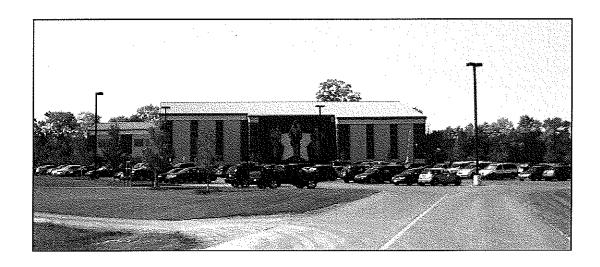
United States Department

of the Army

Location: Middlesex Township,

Cumberland County, Pennsylvania

- Field surveying
- Access drive/parking lot design
- Site grading
- Storm drainage design
- Utility connection design
- Construction document preparation
- Municipal coordination
- · Collaboration with Architect
- Permit applications





MILTON HERSHEY SCHOOL INFRASTRUCTURE DESIGN

Gannett Fleming provided infrastructure design services for the planned expansion of facilities at the Milton S. Hershey School. The school's total expansion program was budgeted for \$150 million and the total infrastructure facilities construction costs were estimated to be \$15 million. All assignments were completed under tight schedule, but some of this work required our firm to develop a design/build relationship with the contractors designated to complete the improvements.

Project Features

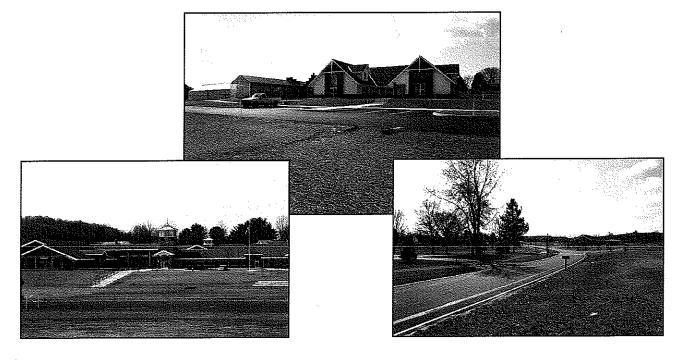
- New elementary, middle, and high school buildings
- 24 new housing units
- Renovations of 75 existing student homes
- Renovations of several existing educational buildings
- · Demolition of Memorial Hall
- New athletic fields
- 12 picnic areas and 2 storage sheds
- · New horticultural center

Client: Milton Hershey School Location: Hershey, Pennsylvania

Construction Cost: Phase I - \$3.8 Million Phase II - \$11.2 Million

- New central operations facility
- New fire storage tank and pump station
- New visual and performing arts center and learning resource center
- Expansion of central power plant
- Expansion of Catherine Hall to include a gymnasium
- Stream renovation

- Field surveying
- · Stormwater management
- Utility coordination
- · Electrical distribution
- Roadway and parking lot design
- Intersection improvements
- Traffic control
- Land development approval
- Permit applications
- Irrigation systems





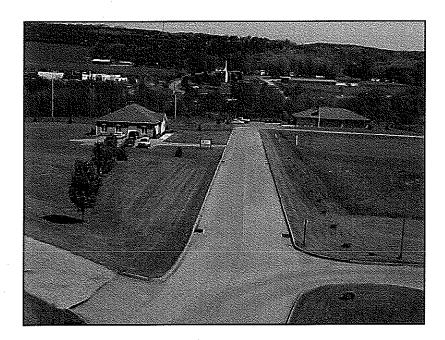
CLEARFIELD PROFESSIONAL OFFICE PARK

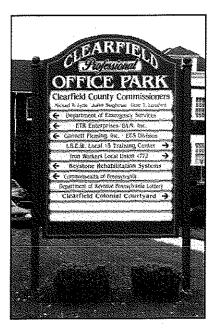
Client: Clearfield County Commissioners Location: Lawrence Township, Clearfield County, Pennsylvania

Gannett Fleming provided design services for this office project, which involved the development of a 22-tract of land into an 11-parcel professional office park. The infrastructure, including sanitary sewer, stormwater piping, public water line, street layout, and site grading, was designed in compliance with local ordinances. A subdivision plan was required to divide the property into the desired 11 parcels. Stormwater management and erosion-and-sedimentation control plans were prepared to address the total site activities during construction and for future stormwater control.

Project tasks included preparing a National Pollutant Discharge Elimination System permit application for construction activities and completing the sewage facilities planning module to secure an exemption for the subdivision. Our firm also performed a wetland investigation and a delineation to establish the presence and extent of wetlands on the property, prepared construction specifications and contract bid documents, and provided construction observation services.

- Infrastructure design
- Stormwater management plan design
- Site grading plan design
- Wetland delineation
- Preparation of an erosion-and-sedimentation control plan
- Subdivision plan layout
- Environmental permitting
- Construction observation
- Preparation of construction specifications and bid documents







AIRPORT INDUSTRIAL PARK, PHASE I LAND DEVELOPMENT PLAN

Gannett Fleming prepared the land development plans of 118 acres into 17-industrial-use lots. Our firm designed the infrastructure, including sanitary sewer, stormwater piping, public water line, street layout and site grading in compliance with local ordinances. A subdivision plan was required to adjoin surrounding properties. Stormwater management, infiltration best management practices (BMPs) and erosion and sedimentation control plans were prepared to address the total site, both during construction activities and for future stormwater control.

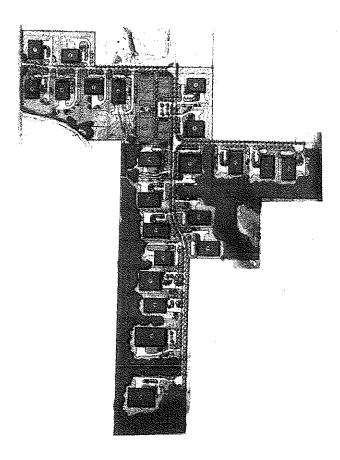
Our firm also prepared a National Pollutant Discharge Elimination System permit application for construction activities. A wetland investigation and delineation was performed to establish the presence and extent of wetlands on the property, and general permits were prepared to address temporary and permanent impacts to the wetlands. Project duties also included the preparation of construction specifications and contract bid documents.

Client: City of St. Marys

Location: Elk County, St. Marys, Pennsylvania

Firm's Fee: \$100,000

- Infrastructure design
- · Stormwater management plan design
- · Infiltration BMPs design
- Site grading plan design
- · Wetland delineation
- Erosion and sedimentation control plan preparation
- · Subdivision plan layout
- Environmental permitting
- Construction specifications and bid document preparation





UNION SQUARE INDUSTRIAL BUSINESS PARK

Gannett Fleming provided engineering and related services for a 160-acre industrial business park located in Dauphin County, Pennsylvania. The park consists of 26 lots and includes supporting roads and utility infrastructure. Project aspects included conceptual designs, environmental studies, subdivision and infrastructure plans, permits, and approvals from three municipalities.

Initial Studies

- Topographic survey
- · Wetland identification and delineation
- Traffic impact analysis
- Conceptual layouts of lot configurations and roadway network

Client: Cumberland Contracting Group, Inc.

Location: Susquehanna, Lower Paxton, and Swatara Townships, Dauphin County,

Pennsylvania

Cost: \$243,000

Design Stage

- Internal roadway network
- Subdivision of lots
- Earthwork balance
- Stormwater management pond and conveyance system
- · Sanitary sewer system
- Water distribution system

Permits and Approvals

- Earth Disturbance Permit
- Joint Permit Application for wetlands
- · Water Quality Management Permit
- Sewage Facility Planning Modules
- Township Preliminary and Final Subdivision Plan approval





SOUTH CENTRAL BUSINESS PARK

Client: Fulton Industrial Development

Association

Location: McConnellsburg, Pennsylvania

The South Central Business Park is a 120-acre light industrial/commercial business park located just south of McConnellsburg in Fulton County. The park borders US Route 522 on the west and Cito Road on the east; consists of 22 lots ranging in size from 2 acres to 11 acres; and includes supporting road and utility infrastructure. Gannett Fleming provided all engineering and related services for the project, including conceptual designs, environmental studies, subdivision and infrastructure plans, permits and approvals, and securing financing.

Initial Studies

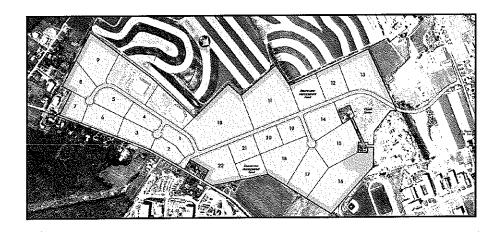
- Conceptual layouts of lot configurations and roadway network
- Topographic survey with assistance from an aerial photogrammetry service
- Phase I Environmental Site Assessment
- · Phase I Archeological Investigation
- Wetland identification and delineation
- Geotechnical site investigation
- Traffic impact analysis for the adjacent roadway system

Design Stage

- Internal roadway network
- Subdivision of lots
- Stormwater management pond and conveyance system
- Sanitary sewer system with pump station
- Water distribution system
- Underground utilities
- Landscaping

Permits/Approvals

- NPDES General Permit
- · Joint Permit Application for stream crossing
- · Water Quality Management Permit
- · Sewage Facility Planning Exemption
- PennDOT Highway Occupancy Permits
- Township Preliminary and Final Subdivision Plan approval





LAND DEVELOPMENT PLAN – GIANT FOOD STORE

Gannett Fleming provided civil and environmental design services for this project, which involved developing an 18-acre tract of land into a retail shopping center. Infrastructure, including sanitary sewer, stormwater piping, public water line, street layout, and site grading, was designed in compliance with local ordinances. A minor subdivision plan was required to adjoin surrounding properties. Stormwater management and erosion-and-sedimentation control plans were prepared to address the total site both during construction activities and for future stormwater control.

Project tasks included preparing a National Pollutant Discharge Elimination System permit application for construction activities and completing the sewage facilities planning module to secure an exemption for the subdivision. Our firm also performed a wetland investigation and a delineation to establish the presence Client: Caldwell Development Company Location: McConnellsburg, Fulton County,

Pennsylvania

Construction Cost: \$181,000

and extent of wetlands on the property, prepared construction specifications and contract bid documents, and provided construction observation services.

- Infrastructure design
- Stormwater management plan design
- Site grading-plan design
- Wetland delineation
- Preparation of an erosion-and-sedimentation control plan
- Subdivision-plan layout
- Environmental permitting
- · Construction observation
- Preparation of construction specifications and bid documents





METROCENTER

Client: Westcor, Inc. Location: Phoenix, Arizona Construction Cost: \$100 Million

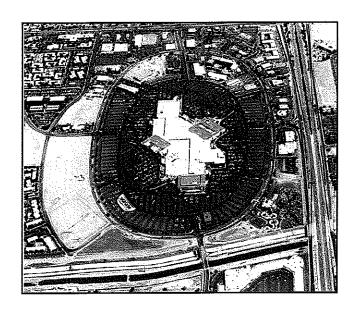
Metrocenter is a 400-acre regional shopping center on Black Canyon Highway between Dunlap and Peoria Avenues. At 1.6-million square feet, this is one of the largest such complexes in the continental United States. Gannett Fleming was responsible for the production of schematic layouts, area calculations, property descriptions, boundary survey maps, and field staking for numerous free-standing business developments on the perimeter of the central mall.

Special Features

- Water system for domestic use and fire protection
- · Sanitary sewer system

- · Storm drainage and flood detention system
- Underground utilities
- 7,600-space parking lot, with expansion to 8,300
- Elliptical ring road and adjacent streets

- Boundary and topographic survey
- Construction staking and inspection





KEY PERSONNEL - RESUMES

KEY PERSONNEL

Gannett Fleming has identified the following key project personnel to fill all roles required to successfully complete the project. The project will be managed from our Morgantown, WV office. Mr. Michael A. Neely, P.E. will serve as our Project Manager.

<u>Project Manager</u> Michael A. Neely, P.E. – Mr. Neely is a Senior Project Manager in Morgantown and brings over 14 years of total relevant experience this project. He is responsible for the design and management of highway/roadway, site development, and airport projects, including right-of-way, site grading, stormwater, utilities, signing and pavement marking, erosion and sediment pollution control, final cross sections, quantities, cost estimation and report preparation. His previous experience makes him an ideal candidate to manage the overall project. He will be responsible for ensuring that the requirements for each task are completed in a satisfactory manner and that the schedule is achieved. He will communicate regularly with the project team to ensure that the final products meet all the expectations of the WV Army National Guard CFMO.

Mr. Neely is experienced in the use of various design and drafting software packages including MicroStation, InRoads, AutoCAD, WaterCAD, StormCAD, CulvertMaster, FlowMaster, and PondPack as well as Microsoft Office Suite of programs.

Quality Assurance/Quality Control (QA/QC) – Peter S. Joyce, P.E., - As a Project Manager and Practice Leader for Gannett Fleming's Civil/Site Practice with over 31 years of experience, Mr. Joyce has extensive expertise in the design of access roads for commercial, private and institutional facilities. He is also well versed in utility design and coordination. This experience is significant because many of the projects he has been involved with have been multi-discipline design and construction projects and having that "field" knowledge gives him a more holistic perspective when performing constructability reviews of projects.

<u>Geotechnical Engineering</u> - Robert H. Yauger, P.E. – Mr. Yauger is a Geotechnical Project Manager responsible for managing geotechnical aspects on projects involving the design of highway, water supply, mine reclamation, landfill, and other geotechnical systems.

Michael A. Neely, PE



CURRENT RESPONSIBILITIES:

Project Manager for the West Virginia Regional Office responsible for the design of highway and airport projects, including right-of-way, site development, stormwater, utilities, signing and pavement marking, erosion and sediment pollution control, final cross sections, quantities, and report preparation. Also assists in client consultation, budget preparation, and project scheduling.

Years Experience: 14

Education

Bachelor of Science, Civil Engineering, West Virginia University, 1996

Active Registrations

P.E. West Virginia - No. 015304 (2002) P.E. Florida - No. 61143 (2004)

SUMMARY OF EXPERIENCE

Sunnyside Up – TIF Phase 1, Morgantown, WV, Sunnyside Up, Project Manager responsible for coordination of sub-consultants, landscape architects and geotechnical engineers; client consultation; utility coordination; coordination with various Boards and Committees within the City of Morgantown; construction plan preparation; specification preparation; bid support; and construction observation. The project is generally a "streetscape" type project consisting of new sidewalks along both sides of approximately 1,500 feet of Grant Avenue, installation of LED street lights, construction of 2 new bus stops, 4 new retaining walls and landscaping additions. The project is currently under construction.

PRT Facilities Master Plan, Morgantown, WV, West Virginia University, Project Manager responsible for coordination of sub-consultants, transit planners, facilities assessments, preliminary engineering analysis, report preparation and client consultations. The project involved creating a facilities master plan for an automated people mover known as the Morgantown Personal Rapid Transit System (PRT) which operates between the various campuses of West Virginia University. The master plan addressed the impacts to the local community that would occur in the event the PRT were to shut down. It assesses the existing subsystems, provides recommendations for improvements to increase the reliability, accessibility and aesthetics of the PRT. It also provides options for extensions of the system with projected ridership demands.

First Presbyterian Traffic Study, Morgantown, WV, *First Presbyterian Church of Morgantown*, Project Manager responsible for oversight of the traffic counts and report preparation of a traffic impact study meeting the requirements of the West Virginia Division of highways and the City of Morgantown. The project also included an assessment of the existing parking areas on the site.

Preston County 911 Center, Kingwood, WV, *Preston County Commission,* Project Manager responsible for final site design, utility coordination, construction plan preparation, permitting and construction observation of a new 911 center located on +/- 5 acres located just outside the City of Kingwood. This project is currently in the design phase.

Sunnyside Up, Morgantown, WV, *RBA Group, Inc.,* Project Manager responsible for utility coordination and preliminary engineering design and cost estimation of a stormwater management system for the Sunnyside area of the City of Morgantown.

Jerome Park Subdivision, Morgantown, WV, *Habitat for Humanity of Monongalia County.* Project Manager/Project Engineer responsible for final site design, utility coordination, construction plan preparation, permitting and construction observation of a +/- 13 unit single family subdivision located within the City of Morgantown. This project is currently in the design phase.

Evansdale Campus Bridge-Garage, Morgantown, WV, West Virginia University (WVU). Project Engineer responsible for preliminary parking garage layout and access road design for a 1,000-space parking garage at the WVU Coliseum.

Michael A. Neely, PE



S.R. 1009 (Pike Street) and SR 4049 (Country Club Road) Intersection Improvements, Chartiers Township, Washington County, PA, Pennsylvania Department of Transportation, District 12-0. Project Manager responsible for coordination of subconsultants and internal disciplines for the preliminary engineering of an intersection improvement project. The preliminary engineering includes environmental clearance, geotechnical engineering, right of way plan development, railroad and utility coordination, line and grade, typical sections, erosion and sediment control, preliminary storm water management, preliminary traffic signal design, preliminary maintenance of traffic plan, and signing and pavement markings.

S.R. 0519 Intersection Improvements, North Strabane Township, PA, Pennsylvania Department of Transportation (PennDOT), District 12-0. Project Engineer responsible for the development of preliminary roadway plans for the improvement and realignment of two intersections. Tasks included conducting a site visit, adjusting the horizontal and vertical alignments, generating cross sections, calculating preliminary earthwork quantities, and preparing preliminary plans and cost estimates.

North Shore Connector, Pittsburgh, PA, Port Authority of Allegheny County/DMJM+Harris. Project Engineer responsible for the final design of a 12-inch waterline relocation, including quantity calculations, specification review, and plan preparation. Performed final design of erosion and sedimentation control facilities, including quantity calculations, specification review, and plan preparation.

WV 705 Connector Design Study Report, Monongalia County, WV, West Virginia Department of Transportation, Division of Highways (WVDOH). Project Manager responsible for preliminary roadway design of an approximately three-mile section of roadway to connect the WV 705 Connector to Beechhurst Avenue in downtown Morgantown, including an interchange at the intersection with the WV 705 Connector. The main alignment follows the Falling Run Valley with multiple alignments between University Avenue and Beechhurst Avenue. This portion of the project required significant coordination between WVDOH, the City of Morgantown, West Virginia University, and developers along the corridor.

Dolls Run Slab Bridge Replacement, Monongalia County, WV, West Virginia Department of Transportation, Division of Highways. Project Manager responsible for quantity calculations, construction cost estimate, construction working-day estimate, final roadway construction plan preparation, and quality control.

EXPERIENCE PRIOR TO GANNETT FLEMING:

RWA, Inc., Naples, FL

Project Engineer and Project Manager responsible for overseeing an engineering group and providing project coordination, project design, permitting, and contract document preparation. Other duties included client consultation, subconsultant coordination, and project management. Typical permitting efforts required a site development permit through Collier County Community Development and Environmental Services, an environmental resource permit through the South Florida Water Management District, a General Permit for Construction of Water Main Extensions, a General Permit for Constructing a Domestic Wastewater Collection/Transmission System, and a Generic Permit for Stormwater Discharge from Small and Large Construction Activities through the Florida Department of Environmental Protection.

Alpha Associates, Inc., Morgantown, WV

Project Engineer responsible for the design of highway and airport projects including right-of-way, site development, stormwater, utilities, signing and pavement marking, erosion and sediment pollution control, final cross sections, quantities, and the preparation of required reports.

Peter S. Joyce, P.E.



CURRENT RESPONSIBILITIES:

Project Manager responsible for supervising site design, including concept layouts, geometrics, grading, drainage and stormwater management, erosion and sediment control, utilities, technical specifications, and cost estimates. Also responsible for proposal preparation; coordination with clients, subconsultants, regulatory agencies, utilities, and other in-house project disciplines; implementation of quality control procedures; and supervision of contract document preparation.

Years Experience: 31

Education

Bachelor of Science, Civil Engineering, Lehigh University, 1979

Active Registrations

P.E. Pennsylvania - No. PE033805LA001286E (1984) P.E. Maryland - No. 15242 (1987)

Practice Manager responsible for the Civil/Site Development and Stormwater Practice. Manages a Practice Leadership Team, which is responsible for the consistency of practice performance throughout the company by establishing and overseeing guidelines for project implementation, establishing technical standards, assisting with market analyses and proposal requests, assisting with hiring and training recommendations, and coordinating the availability of key personnel.

SUMMARY OF EXPERIENCE

Support Services Building, Hershey, PA, *The Pennsylvania State University.* Project Manager responsible for the supervision and coordination of permits and civil work for a new 2-story, 35,000-square-foot support facility for operations on the Milton S. Hershey Medical Center campus. Permitting work included coordination and submission preparation for permits with the local municipality, sewer authority, and County Conservation District. Civil design work included realignment of several adjacent roadways to improve traffic flow. Specific responsibilities included coordinating with the University, Medical Center staff, architects, other engineers, and the construction manager; supervising roadway design and construction plan preparation; supervising land development plan preparation and the development of supporting reports; and making presentations at municipal meetings.

Hospital Expansion, Hershey, PA, The Pennsylvania State University. Project Manager responsible for providing civil design and construction services for a fast-track building expansion on the Milton S. Hershey Medical Center campus. The work included the construction of an 8,000-square-foot, belowgrade structure for food services expansion, and a tunnel connection between two wings of the hospital. Civil services included storm drainage, utility relocation, and site restoration. Tasks included coordinating with the Medical Center staff, architects, and the construction manager; supervising site and utility design and construction plan preparation; and coordinating land development plan approvals.

Parking Lot Lighting, Hershey, PA, The Pennsylvania State University. Project Manager responsible for the supervision of work related to lighting replacement in the primary parking lots on the Milton S. Hershey Medical Center campus. Designed new lighting and supporting power for parking lots, access drives, and sidewalks using a phased implementation schedule. Responsibilities included client coordination, staff supervision, and oversight of plan preparation.

Sanitary Sewer Study, Hershey, PA, *The Pennsylvania State University.* Project Manager responsible for supervising a sanitary sewer connection study for the Milton S. Hershey Medical Center campus. Developed alternative solutions and associated costs to provide a secondary connection from the campus sewer mains to the adjacent public system. Responsibilities included client coordination and staff supervision.

Emergency Sewer Repair, **Hershey**, **PA**, *The Pennsylvania State University*. Project Manager responsible for supervising work related to repairing a broken sanitary sewer main on the Milton S. Hershey Medical Center campus. The project included developing alternative solutions, designing the preferred solution, and coordinating construction. Responsibilities included client coordination and staff supervision.



Peter S. Joyce, P.E.



Parking Garage Expansion, Hershey, PA, The Pennsylvania State University. Project Manager responsible for providing civil design and construction services for a 5-level, 950-space parking garage expansion to provide additional parking for the proposed Children's Hospital on the Milton S. Hershey Medical Center campus. Civil work included access drive, additional surface parking, and storm drainage. Tasks included coordinating with the University, Medical Center staff, architects, and construction manager; supervising site and utility design and construction plan preparation; and coordinating land development plan approvals.

Bigler Road Widening, University Park, PA, *The Pennsylvania State University.* Project Manager responsible for providing civil design and construction services for the reconstruction and widening of 1,000 LF of an existing road on the University Park campus. Work included resetting vertical alignment and stormwater drainage. Tasks included coordination with the University Office of Physical Plant staff and construction manager, supervision of roadway and storm drainage design, construction document preparation, and construction support services.

Park Avenue Utility Relocations, University Park, PA, The Pennsylvania State University. Project Manager responsible for providing civil design and construction services for 1,600 LF of utility relocation and installation along Park Avenue on the University Park campus. Work included relocating electric and telecommunication lines from overhead to underground, and installing a new reuse water line. Tasks included coordination with the University Office of Physical Plant staff and construction manager, supervision of utility and grading design, construction document preparation, Highway Occupancy Permit application preparation, and construction support services.

Manufacturing Facility, **PA**, *Confidential Client*. Project Manager responsible for civil/site utility and building foundation design for a new 850,000-square-foot manufacturing facility. The sitework design included site grading, the extension of an existing perimeter roadway around the facility, and the installation of a rail spur from the adjacent rail mainline. Existing site utilities were extended to various sections of the facility. Utilities included electric power, fire water, domestic water, sanitary sewer, gas, and stormwater. Responsibilities included client coordination, staff supervision, and project quality assurance/quality control.

Master Plan for Medical Center, Centre County, PA, The Pennsylvania State University. Project Manager responsible for planning long-term site and utility of improvements at the Mount Nittany Medical Center's 183-acre campus. The project included investigations of existing site constraints, access and parking improvements, stormwater management strategies, and utility upgrades. The location of the campus adjacent to steep slopes and environmentally sensitive areas created planning challenges and required innovative approaches for future expansion. Responsibilities included supervision of studies, analyses, and drawing/report preparation, and primary coordination with the user and architect.

College Master Plan, Grantham, PA, Messiah College. Discipline Manager for the preparation of a master plan for the future development of a college's 500-acre campus and adjacent lands owned by the college. Working as a subconsultant, our components included investigations of utility services and parking and circulation. Responsibilities included supervising existing infrastructure investigations, utility projections, and parking surveys/analyses, and attending task force meetings.

Robert H. Yauger, PE



CURRENT RESPONSIBILITIES:

Geotechnical Project Manager responsible for managing geotechnical aspects on projects involving the design of highway, water supply, mine reclamation, landfill, and other geotechnical systems. Responsibilities include preparing technical scopes of work and man-hour estimates, negotiating with clients, preparing project schedules, tracking project budgets, providing technical assistance to staff engineers, preparing and/or reviewing geotechnical work products, and coordinating the geotechnical aspects of projects with other design disciplines and clients..

Years Experience: 20

Education

Bachelor of Science, Civil Engineering, Carnegie Mellon University, 1993

Active Registrations

P.E. Pennsylvania - No. 055063E (1999)

P.E. West Virginia - Pending

SUMMARY OF EXPERIENCE

U.S. Route 35 Widening, Little Five Mile Creek to Coast Guard Station, Point Pleasant, WV, West Virginia Department of Highways. Geotechnical Project Manager responsible for final design geotechnical investigations and recommendations for approximately two miles of new four-lane highway. Developed boring contract and oversaw subsurface exploration program involving over 6,000 linear feet of drilling and multiple drilling subcontractors. Roadway recommendations included numerous cut and fill slope designs and settlement evaluations. Geotechnical recommendations in support of structural design included deep foundation recommendations for three structures. Computations included pile capacity evaluations, negative skin friction considerations, and drivability analyses. Detailed Geotechnical Engineering Reports and Structure Foundation Reports were prepared and updated based on the continually evolving design. Continually worked with the Client and prime consultant to ensure consistent design.

Dolls Run Bridge Replacement, Monongalia County, WV, West Virginia Department of Transportation, Division of Highways. Geotechnical Engineer responsible for foundation design recommendations and roadway approach work for bridge replacement project. Evaluations included bearing capacity, scour, and global stability considerations for new structure. Recommendations for roadway design included evaluations of embankment slope stability, consolidation settlements, and lateral squeeze in soft alluvial soils. Prepared final report of recommendations including detailed analyses.

Beaner Hollow Roadway Improvements, S.R. 4016, Section B01, Brighton, PA, Pennsylvania Department of Transportation, District 11-0. Geotechnical Project Manager responsible for design and construction oversight of approximately 1,200 feet of two-lane state-owned roadway that was failing due to a loss of support caused by a sliding land mass beneath the roadway. Work was performed under an emergency contract, as the roadway provides direct access to Beaver County Medical Center, and an existing eight-inch gas line located directly beneath the roadway was jeopardized by the slide. Developed innovative slide stabilization designs incorporating drilled soil nails, high-tensile steel wire mesh, and erosion control matting. Developed final design plans, specifications, and estimates. Provided periodic construction oversight and observation of soil nail testing. Coordinated directly with the Department of Transportation, the construction manager, and the contractor to assist in responding to requests for information (RFIs) and inspecting the work in progress.

Monongahela Lock and Dam No. 3 Study, Pittsburgh, PA, U.S. Army Corps of Engineers, Pittsburgh District. Assistant Project Manager responsible for formulating and developing multiple stability and reliability models for an existing 100-year-old lock and dam structure on the Monongahela River, and developing detailed construction rehabilitation recommendations. Stability analyses consisted of modeling and evaluating eight typical two-dimensional models for various individual locks and dam structures in a spreadsheet environment bearing on bedrock or driven timber piles within the river alluvium. Reliability analyses were conducted through Monte Carlo simulation using the Microsoft Excel add-in program @Risk. Developed final geotechnical and structural plans, specifications, and cost estimate for stability improvements to the existing fixed-crest dam, consisting of a sheet pile cut-off wall, downstream stone scour protection, and detailed construction staging and sequencing plan. Developed

Robert H. Yauger, PE



conceptual recommendations for structure monitoring, construction rehabilitation, and associated cost estimates for the lock structures based on the reliability evaluations.

S.R. 3016, Section B02, Green Garden Road Bridge Replacement, Hopewell, PA, Pennsylvania Department of Transportation, District 11-0. Assistant Project Manager responsible for developing final design geotechnical recommendations in support of a single-span bridge replacement over Raccoon Creek and associated roadway realignments. Developed and executed a subsurface investigation and a soil and rock laboratory testing program for bridge foundations and roadways. Developed detailed cost estimates for bridge foundation alternatives, performed final geotechnical evaluations, and developed construction recommendations for drilled pile-supported abutment structures. Evaluated corrosivity due to the presence of a coal seam within the foundation bearing material, and provided special provisions for the construction of the deep foundations.

Mae West Bend, S.R. 0008, Section A05, Etna, PA, Pennsylvania Department of Transportation, District 11-0. Geotechnical Engineer responsible for the final design of retaining structures, bridge and culvert foundations, and rock and soil cut slopes as part of approximately one mile of highway widening. The retaining structure design included an alternatives analysis for a concrete cantilever, anchored soldier pile and lagging, and pile-supported foundation alternatives in support of structure type, size, and location (TS&L) development. Cut-slope design involved the analysis and design of soil nails and wire-mesh netting to support cuts into marginally stable weathered rock and colluvial soil mass areas, and associated construction cost estimates, design details, and special provisions. Developed detailed construction sequencing and special provisions to manage a 200-foot-high rock cut with a catchment ditch in an urban environment. Provided foundation recommendations for two culvert widenings and the replacement of the Grant Street Bridge over Pine Creek, in an area of steeply sloping top-of-bedrock. Continued to provide construction consultation services to the District during the construction of design cut slopes and the installation of a soil nail-reinforced slope.

Southern Beltway Transportation Project, PA Route 60 to U.S. Route 22, Allegheny and Washington Counties, PA, Pennsylvania Tumpike Commission. Geotechnical Engineer responsible for pre-final and final design geotechnical activities for a 5.5-mile stretch of proposed limited-access highway. Developed a Problem Statement and Draft Exploration (PSDEP) to investigate and characterize subsurface conditions. Developed, implemented, and supervised a test boring program consisting of more than 270 test borings and involving 8 drilling inspectors, 4 drilling contractors, and 14 drilling machines simultaneously. Prepared details and special provisions for geotechnical roadway treatments. Wrote the test boring contract and managed quantities and budget for the drilling program. Developed and coordinated technical recommendations for the geotechnical engineering report (GER) including slope stability analyses and roadway recommendations, and wrote, organized, and assembled the pre-final GER. Performed detailed geotechnical analyses in final design to include the development of special treatments of contaminated media that were impacted at Pittsburgh International Airport, handling of acid mine drainage problems near S.R. 30, mitigation of methane gas into a proposed roadway cut at Mazzaro Landfill, and treatment of an active mine fire at the Washington County line. Reviewed PS&E roadway cross sections prepared by final design consultants for inclusion and compatibility with pre-final design geotechnical details and special provisions.

Michael A. MacAllister, PE



CURRENT RESPONSIBILITIES:

Construction Management Discipline Manager for the Pittsburgh Regional Office responsible for business development; contract initialization, administration, and maintenance; oversight of construction management/construction inspection activities and personnel; and quality assurance and improvement.

Project Manager for construction management and inspection services responsible for contract administration

Years Experience: 28

Education

Bachelor of Science, Civil Engineering, Worchester Polytechnic Institute, 1981

Active Registrations

P.E. Pennsylvania - No. PE037412E (1988)

and staff oversight, contract interfacing and scheduling, work scope preparation, schedule preparation, and cost estimation. Projects include bridges, highways, transit facilities, maintenance facilities, industrial buildings, and water and wastewater systems. Manages field inspection crews and verifies contractors' work. Coordinates contractor activities, prepares change orders, negotiates contract changes with contractors, processes and verifies contractors' requests for payment, monitors project schedules, and resolves construction issues.

SUMMARY OF EXPERIENCE

Chestnut Street Bridge Replacement, Construction Inspection, Grove City, PA, Mercer County Bridge Department. Project Manager responsible for overseeing the work efforts of project personnel and providing project management and administrative services. The project consists of the demolition of the existing concrete arch bridge and construction of a new 300-foot, two-span, multi-girder steel structure, including approaches, lighting, and signage.

King's Covered Bridge, Construction-Phase Services and Construction Inspection, Somerset County, PA, Southern Alleghenies Conservancy/Simone Collins Landscape Architecture. Construction Manager responsible for overseeing the work efforts of project personnel and providing field, contractual, and administrative support. The project consists of the complete rehabilitation of the 114-foot clear-span multiple Kingpost truss with nail-laminated arches wooden structure, originally constructed around 1860. Repairs to wood members were accomplished using a combination of traditional joinery methods and glass fiber-reinforced polymer bars and plates embedded in the members. Stone wingwalls were rebuilt, approaches were replaced to accommodate pedestrian traffic only, and siding, roofing, and flooring were restored or replaced.

Construction Management, Inspection, and Testing Services, Improvements to Babcock Boulevard and Three Degree Road Intersection, Ross Township, Allegheny County, PA, Allegheny County Department of Public Works. Project Manager responsible for overseeing the work efforts of project personnel and providing project management administrative services. Responsibilities also include communicating with the Manager of Construction Engineering and coordinating team efforts in accordance with Allegheny County's requirements. The project involves improvements to an intersection with complex utility relocations and extensive maintenance and protection of traffic (MPT).

Reconstruction of Painter's Run Road, Pittsburgh, PA, Allegheny County Department of Public Works. Project Manager responsible for supervising all construction inspection and construction management activities for the removal and replacement of two bridges, construction of a soil nail retaining wall, and widening of Painter's Run Road from two lanes to four. The construction is valued at \$3 million.

Highway Bridges, Southcentral PA, Pennsylvania Department of Transportation, District 8-0. Engineer in charge of field inspection of three major highway bridges including the South Bridge, M. Harvey Taylor Bridge, and George Wade Bridge, all in Harrisburg. Also assisted in the inspection of three additional highway bridges for the same project including the PA Routes 11/15 Bridge over the Juniata River in Perry County and the Columbia-Wrightsville

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Bridge and the Holtwood Bridge, both crossing the Susquehanna River in Lancaster County. Visually inspected and rated all pin-and-hanger assemblies as well as other structural components of each bridge.

Maintenance Facility, Wilmington, DE, National Railroad Passenger Corporation (Amtrak). Member of inspection team assigned to inventory and evaluate an Amtrak car maintenance facility. Structural Engineer responsible for the rehabilitation of this facility, which is composed of wood trusses and trussed girders supporting a wood sheathing saw-tooth roof with skylights. The roof system is supported on wood columns and masonry walls. Performed structural field inspection of the building and designed metal deck roofing, wood roof beams, trusses and columns, and open-web steel joists for 30-foot spans. Analyzed masonry walls and reinforced concrete footings for existing and proposed loads.

Turnersville and Newton Avenue Bus Garages, Camden and Turnersville, NJ, New Jersey Transit. Structural Engineer for the rehabilitation of two bus storage and maintenance facilities, consisting of wood and/or steel roof trusses supported by masonry load-bearing walls. Performed field inspection, evaluation, and inventory of existing structures. Operated "high-reach" equipment and prepared reports presenting field observations and recommendations for the facilities.

Maintenance and Repair Facilities, New York City, NY, MTA New York City Transit (NYCT). Engineer in charge of field inspection of NYCT maintenance and repair facilities. Developed floor plans, inventoried existing facilities and equipment, and evaluated the structural integrity of 15 barns and shops. Prepared final inspection/evaluation reports; assisted in feasibility studies for rehabilitation and expansion; assisted in the design and calculation checking of several barn expansions; and performed structural analyses of steel roof trusses, girders, and columns in the Pelham and Jerome barns for the existing and proposed loadings and the design of new steel modifications.

Maintenance Facility, Baltimore County, MD, County of Baltimore Department of Public Works. Designed steel columns, beams, and load-bearing masonry walls.

Wastewater Pumping Station, Atlantic City, NJ, Atlantic City Sewerage Company. Designed steel columns, roof beams, and reinforced concrete slab floor, beams, and walls.

Substation for Kellogg Plant, Lancaster, PA, *Kellogg, Inc.* Designer responsible for analyzing steel space frames to determine the adequacy of the structure for additional loads. Designed supports for additional electrical equipment on the frames.

Patuxent Water Treatment Plant, Laurel, MD, Washington Suburban Sanitary Commission. Structural Engineer for an in-depth field inspection of a water treatment plant with a filtering capacity of 72 mgd and reservoir capacity of 18 Mgal. Inspected three steel filter units of 160 feet in diameter and seven reservoirs of 150 feet in diameter.

Minsi Trail Bridge, Bethlehem, PA, Pennsylvania Department of Transportation, District 5-0. Structural Designer responsible for developing two alternatives for a 13-span bridge over the Bethlehem Steel Plant, the Lehigh River, and Conrail railroad tracks. Spans ranged from 100 feet to 240 feet.

Chad E. Stonebraker



CURRENT RESPONSIBILITIES:

Senior CADD Technician responsible for creating drawings, Word and Excel documents, and exhibits for water, wastewater, geotechnical, environmental, transportation, traffic, and structural projects. Types of drawings include sections, cross sections, plan sheets, profiles, boring plans, details, and various types of drawing plan sets. Familiar with various CADD software packages, including AutoCAD 2008, MicroStation V8, and Bentley InRoads.

Years Experience: 11

Education

Associate in Specialized Technology, Computer-Aided Drafting, Pittsburgh Technical Institute, 2000

SUMMARY OF EXPERIENCE:

King's Covered Bridge, Somerset County, PA, Southern Alleghenies Conservancy/Simone Collins Landscape Architecture. CADD Technician responsible for developing structural drawings for a covered bridge based on field measurements. The 120-foot structure is historically significant because it retains its original features from 1845. The preservation and rehabilitation strategy was to minimize interventions, repair in place, and use glass-fiber-reinforced polymer (GFRP) materials where possible to improve the strength and stiffness of the wooden members.

Dolls Run Bridge Replacement, Morgantown, WV, West Virginia Department of Transportation, Division of Highways. CADD Technician responsible for developing structural drawings for the replacement of a bridge over Dolls Run. The project involves replacing the existing bridge with a new structure at its existing location, using a temporary bridge to maintain traffic. The superstructure consists of a single-span steel structure with integral abutments and is on a 30-degree skew and tangent alignment.

Headsville Bridge Replacement, Headsville, WV, West Virginia Department of Transportation, Division of Highways. CADD Technician responsible for developing structural drawings for the replacement of a bridge carrying Mineral County Route (CR) 16 over Patterson Creek. The bridge consists of four horizontally curved steel plate girders. The substructure units consist of semi-integral abutments supported by steel piles and two single-column, post-tensioned piers with solid circular column shafts.

King Coal Highway (Taylorville to Calico), Mingo County, WV, Nicewonder Contracting Inc./West Virginia Department of Transportation, Division of Highways (WVDOH). CADD Technician responsible for preparing and revising plans, profiles, cross sections, and details for the preliminary and final design of a 9-mile section of a new 96-mile-long, four-lane divided highway with partially controlled access. Used InRoads SelectCAD to create various alignment alternatives, cross sections, profiles, and surfaces under the supervision of the project engineer. The project was a public/private venture involving the contractor, WVDOH, and Mingo County.

WV 65 Relocation, Mingo County, WV, *Nicewonder Contracting Inc./West Virginia Department of Transportation, Division of Highways (WVDOH).* CADD Technician responsible for preparing and revising plans, profiles, cross sections, and details for the preliminary and final design of a two-mile connector highway. The highway consists of a two-lane roadway and intersects King Coal Highway at grade. Used InRoads SelectCAD to create various alignment alternatives, cross sections, profiles, and surfaces under the supervision of the project engineer. The project was a public/private venture involving the contractor, WVDOH, and Mingo County.

Osage Mine Complex Reclamation, Monongalia County, WV, West Virginia Department of Environmental Protection. CADD Technician responsible for preparing and revising plans, profiles, cross sections, and details for preliminary and final design. Prepared construction plans and specifications for the reclamation of five abandoned mining sites under the Abandoned Mine Lands and Reclamation Program. Reclamation measures include closure of mine portals, regrading and revegetation of refuse piles, landslide stabilization, closure of a ventilation shaft, building demolition, and drainage improvements.

Chad E. Stonebraker



S.R. 0028, Galleria Mall Interchange, Allegheny County, PA, Mills Corporation. CADD Technician responsible for creating various types of drawings and assisting designers with quantities and layout of a sediment trap. Work included the design and layout of a sediment trap, silt fence, and check dams, along with other erosion and sediment, or, erosion and sedimentation (E&S) control measures. The interchange will service a newly developed regional mall along a rural portion of highway 1.1 miles northeast of the Harwick Interchange.

Route 10 Relocation, Mingo County, WV, West Virginia Department of Transportation, Division of Highways. CADD Technician responsible for preparing and revising plans, profiles, cross sections, and details for the preliminary and final design of a one-mile connector highway. The highway consists of a two-lane roadway and intersects King Coal Highway at grade. Used InRoads SelectCAD to create various alignment alternatives, cross sections, and profiles under the supervision of the project engineer.

King Coal Highway, Mingo County, WV, West Virginia Department of Transportation, Division of Highways. CADD Technician responsible for preparing and revising plans, profiles, cross sections, and details associated with preliminary and final design of a 3.3-mile section of a new 96-mile-long, four-lane divided highway with partially controlled access.

Sharon Heights Connector, Mingo County, WV, West Virginia Department of Transportation, Division of Highways. CADD Technician responsible for preparing and revising plans, profiles, cross sections, and details associated with the preliminary and final design of a 1.5-mile connector highway. The highway consists of a two-lane roadway with climbing lanes for trucks and connects U.S. Route 52 near Sharon Heights to the King Coal Highway. Used InRoads SelectCAD to create various alignment alternatives under the supervision of the project engineer.

Second Street Tank, Harrison County, WV, *Clarksburg Water Board.* CADD Technician assisting in a site evaluation and preparing final design plans for a 2 Mgal concrete water storage tank. The site is narrow with steep grade and slope stability issues.

Environmental Assessment, Enterprise-Eldora Connector, U.S. Route 19 to I-79, Harrison and Marion Counties, WV, West Virginia Department of Transportation, Division of Highways. CADD Technician assisting with the preparation of an environmental assessment plan. The Enterprise-Eldora Connector consists of approximately three miles of two-lane roadway and connect U.S. Route 19 at Enterprise in Harrison County to I-79 in the vicinity of Eldora in Marion County.