

**Expression of Interest to Provide
Architectural / Engineering Design Services
Mine Rescue and Training Facility
Health, Safety and Training Office of Miners'
Charleston, West Virginia
RFQ No. HST1012**

submitted to:

Mr. Frank Whittaker

State of WV Department of Administration
Purchasing Division – Building 15
2019 Washington Street East
Post Office Box 50130
Charleston, West Virginia 25305-0130

submitted by:

Michael Baker Jr., Inc.

5088 Washington Street West
Charleston, West Virginia 25313

September 15, 2009

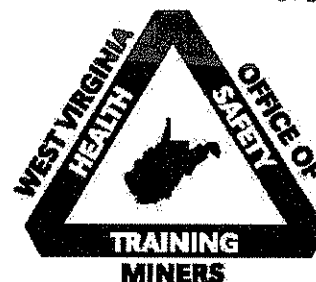


ChallengeUs.

RECEIVED

2009 SEP 15 PM 12:18

WV PURCHASING
DIVISION





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

Request for Quotation

RFQ NUMBER
HST1012

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**FRANK WHITTAKER
 304-558-2316**

RFQ COPY
 TYPE NAME/ADDRESS HERE

Baker

MICHAEL BAKER JR., INC.
 5088 West Washington Street
 Charleston, WV 25313

HEALTH, SAFETY AND TRAINING
 OFFICE OF MINERS'
 1615 WASHINGTON STREET EAST
 CHARLESTON, WV
 25311

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/19/2009				

BID OPENING DATE: **09/15/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		906-00-00-001		
ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL EXPRESSION OF INTEREST (EOI) THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA OFFICE OF MINERS' HEALTH SAFETY & TRAINING, IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES FOR A MINE SAFETY AND TRAINING FACILITY. EXHIBIT 10 REQUISITION NO.: ADDENDUM ACKNOWLEDGEMENT I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC. ADDENDUM NO.'S: NO. 1 BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER. NO. 2						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *[Signature]* TELEPHONE: 304-769-0821 DATE: September 15, 2009

TITLE: Assist. Vice President FEIN: 251228638 ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

RFQ NUMBER
HST1012

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
FRANK WHITTAKER
304-558-2316

RFQ COPY
TYPE NAME/ADDRESS HERE
Baker
MICHAEL BAKER JR., INC.
5088 West Washington Street
Charleston, WV 25313

HEALTH, SAFETY AND TRAINING
OFFICE OF MINERS'
1615 WASHINGTON STREET EAST
CHARLESTON, WV
25311

DATE PRINTED 08/19/2009	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
-----------------------------------	---------------	----------	--------	---------------

BID OPENING DATE: **09/15/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
NO. 3					
NO. 4					
NO. 5					
<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p>..... SIGNATURE Michael Baker Jr., Inc. COMPANY September 15, 2009 DATE</p> <p>REV. 11/96</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

RFQ NUMBER:
HST1012

PAGE:
3

ADDRESS/CORRESPONDENCE TO ATTENTION OF:
**FRANK WHITTAKER
 304-558-2316**

RFQ COPY
 TYPE NAME/ADDRESS HERE

Baker

MICHAEL BAKER JR., INC.
 5088 West Washington Street
 Charleston, WV 25313

HEALTH, SAFETY AND TRAINING
 OFFICE OF MINERS'
 1615 WASHINGTON STREET EAST
 CHARLESTON, WV
 25311

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/19/2009				

BID OPENING DATE: **09/15/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
				2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130		
<p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: 44</p> <p>RFQ. NO.: HST1012</p> <p>BID OPENING DATE: 09/15/09</p> <p>BID OPENING TIME: 1:30</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: 304-769-0822</p> <p>-----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY): Ron Bolen, AIA</p> <p>-----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

RFQ NUMBER:
HST1012

PAGE:
4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
**FRANK WHITTAKER
 304-558-2316**

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

Baker

**MICHAEL BAKER JR., INC.
 5088 West Washington Street
 Charleston, WV 25313**

SHIP TO

**HEALTH, SAFETY AND TRAINING
 OFFICE OF MINERS'
 1615 WASHINGTON STREET EAST
 CHARLESTON, WV
 25311**

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/19/2009				

BID OPENING DATE: **09/15/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
***** THIS IS THE END OF RFQ HST1012 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

State of West Virginia
VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. Application is made for 2.5% resident vendor preference for the reason checked:

Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,

Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,

Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% resident vendor preference for the reason checked:

Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% resident vendor preference for the reason checked:

Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

4. Application is made for 5% resident vendor preference for the reason checked:

Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Michael Baker Jr., Inc.

Signed: 

Date: September 15, 2009

Title: Assistant Vice President

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: 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.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

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 materials, 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.

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, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, 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.

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>.

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.

Vendor's Name: Michael Baker Jr., Inc.

Authorized Signature: _____

Date: September 15, 2009



Baker

Michael Baker Jr., Inc.
A Unit of Michael Baker Corporation

5088 West Washington Street
Second Floor
Charleston, WV 25313

304.769.0821 Phone
304.769.0822 Fax

September 15, 2009

Mr. Frank Whittaker
Purchasing Division
P.O. Box 50130
Charleston, West Virginia 25305-0130

**Re: Expression of Interest to Provide Architectural / Engineering Services
For the Mine Safety and Training Facility – HST 1012
WV Office of Miners' Health, Safety and Training, Charleston, WV**

Dear Mr. Whittaker:

Michael Baker Jr., Inc. (Baker) is pleased to present our qualifications and experience as it relates to the Planning and Design of the proposed Mine Safety and Training Facility for the WV Office of Miners' Health, Safety and Training. During your review of the enclosed information, you will see that Baker has completed or is currently performing assignments very similar to those outlined in your solicitation.

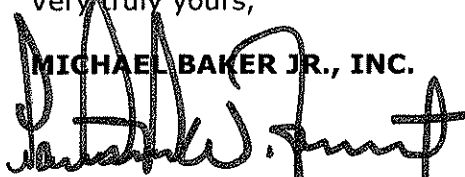
Baker is a global engineering and energy firm with some 4,700 members in 50 office locations. We propose to undertake this assignment from our Charleston office with a staff of over 40 individuals including architects, engineers, landscape architects, planners, surveyors, environmental specialists, construction managers, public safety specialists, inspectors, and technicians.

We feel that our combination of global expertise and West Virginia based experience is unique to Baker and will provide efficient, timely, personal, cost effective, and quality solutions for the WV Office of Miners' Health, Safety and Training.

We are extremely interested in providing the required services on this important project for the WV Office of Miners' Health, Safety and Training. We look forward to meeting with your selection committee to personally present our approach to this project.

Very truly yours,

MICHAEL BAKER JR., INC.



Patrick W. Fogarty, P.E., P.S.
Civil Services Group Manager

ChallengeUs.

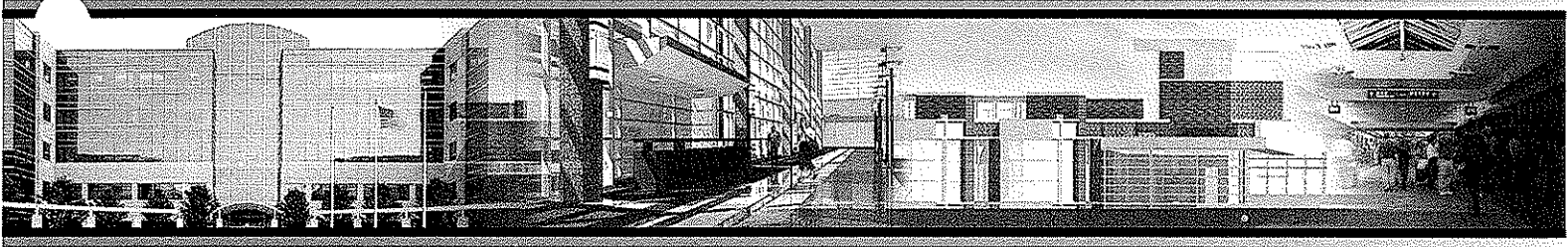


Table of Contents

Part 1 – Introduction..... 1

 Corporate Capabilities 1

 Cost Accounting System..... 2

Part 2 – Qualifications 3

Part 3 – Technical Expertise 4

 Preliminary Plans and Costs..... 4

 Plan and Specification Preparation..... 4

 Bidding and Contracting Document Preparation..... 5

 Project Bid Evaluation 5

 Construction Administration and Inspection 5

Part 4 – Management and Staffing Capabilities 6

Part 6 – Project Outline 9

 Existing Issues 9

 Project Description..... 9

 Conceptual Planning Phase 10

 Design Development Phase..... 10

 Construction Documents Phase..... 10

 Bidding Phase 10

 Construction Phase..... 11

Part 7 – Related Prior Experience..... 12

Part 8 – Resumes

Part 9 – References

Part 1 – Introduction

The WV Office of Miners' Health, Safety and Training is seeking a highly qualified firm experienced in the planning, design, and construction administration of a new comprehensive facility to house rescue vehicles and equipment and to provide staff training. Michael Baker Jr., Inc. (Baker) is a highly qualified firm with extensive experience in providing these services, and we are extremely interested in establishing a professional relationship with WV Office of Miners' Health, Safety and Training.

"...we are extremely interested in establishing a professional relationship with WV Office of Miners' Health, Safety and Training."

Corporate Capabilities

Baker is a wholly owned subsidiary of the Michael Baker Corporation (a publicly owned company traded on the American Stock Exchange), employs over 5,000 people in 50 offices world-wide, and ranks in the top 10% of the nation's top 500 engineering firms. Baker provides consulting, engineering, architecture, operations, and technical services worldwide. The firm has a national practice with 34 offices throughout the U.S. from which to serve clients nationally. Since our founding in 1940, Baker has compiled an outstanding record of transportation engineering design achievements including more than 1,000 bridges of every description and over 100,000 miles of roadway. We are committed to using computer technology and provide services in the areas of Water Resources, Environmental Design and Permitting, Geographic Information Systems, GPS and Field Data Collection, Infrastructure Management, Database Development, Computer/Web Programming, and CADD.

Baker has extensive resources and the required qualifications to provide planning and design services for the WV Office of Miners' Health, Safety and Training for this important project. We have nationally recognized experts with the technical experience necessary for this assignment. In addition, Baker's team of experienced professionals has an established record of delivering quality work products to our clients, on schedule and within budget.

In summary, Baker's staff can provide documentation of our extensive experience in the following areas for this project:

- Nationally recognized expertise in Program Management Assignments;
- Facilities (Buildings, Access, Parking, Site Development) Plan Preparation;
- Full range of Public Transportation Services;
- Graphic Design Skills (CADD); and
- Coordination with State and Federal Agencies, as required.

Baker's Charleston office is a "single-stop resource" capable of providing comprehensive professional services, from environmental and public safety planning,

final design, and construction management through operational support. From major new bridges and roadway designs to surface mine permitting and water resource projects, Baker has evolved into one of the leading engineering and energy services firms by consistently providing targeted solutions for its clients' most complex challenges.

"Baker has evolved into one of the leading engineering and energy services firms by consistently providing targeted solutions for its clients' most complex challenges."

Baker's clients for facilities design and program management projects include, but are not limited to, the Counties, Cities, Towns, and local municipalities, numerous State Departments of Transportation, Military facilities, airport complexes, and private sector clients. Baker's geographic location and extensive experience enables us to quickly respond to wide-ranging scopes of service in order to meet client needs.

Cost Accounting System

Baker's cost accounting system segregates and accumulates costs by project and by task within each project. Through our work on past Transportation Enhancement projects, the WVDOH is familiar with this system. A current Cost Accounting Information Statement is on file with the WVDOH and is available upon request.



U.S. Army Reserve Training and Maintenance Center, Wheeling



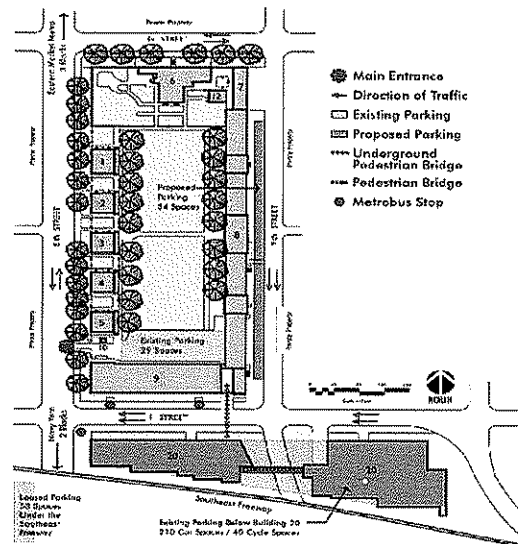
WVU Creative Arts Center, Morgantown

Part 2 – Qualifications

Baker routinely provides architectural/engineering services and project management for the design of educational/training facilities, and the associated construction oversight when required. Project assignments have included maintenance facilities, garage facilities, emergency services facilities, and office buildings. Services for these assignments have included planning, surveying, mapping, right of way services, geotechnical design, architecture, civil, mechanical, electrical, plumbing and structural engineering, public safety programming, permitting and cost estimating. Specific project elements have included, architecture, landscaping, retainage structures, access road design, utility adjustment/relocation, storm drainage, water and sewer connections, site design, parking, fire protection design, pump stations, electrical duct banks, gas mains, fiber optic communication systems, corrosion control systems, HVAC design, oil/water separators, and security systems.

Baker's expertise includes but is not limited to:

- Program Management
- Conceptual Planning
- Design Charrettes
- Coordination and Public Involvement
- Sub-surface Investigation
- Land Development Planning
- Building Facility Siting
- Architecture and MEP
- Screening and Noise Abatement
- Landscape Architecture
- Permitting
- Construction Cost Estimating
- Right of Way and Easements
- Pre-Bid Meeting
- Bidding and Contracting
- Construction Inspection Services



Naval Facilities Planning, Chesapeake, Virginia

In addition, and of particular importance to this project, Baker is committed to sustainable design and the reuse of recycled materials on all projects with client approval. We have numerous LEED® accredited professionals on staff which are completely familiar with the five elements of the Leadership in Energy and Environmental Design, Green Building Rating System.

Part 3 – Technical Expertise

Baker can offer the WV Office of Miners' Health, Safety and Training proven experience in the following Professional Services which are typical for projects such as the type identified in your Request for Qualifications:

Preliminary Plans and Costs

Baker proposes to prepare preliminary site plans, elevations and schematic details with supporting design documentation. This document will describe the individual elements required for the architectural, engineering, public safety, environmental and traffic issues associated with the proposed facility.

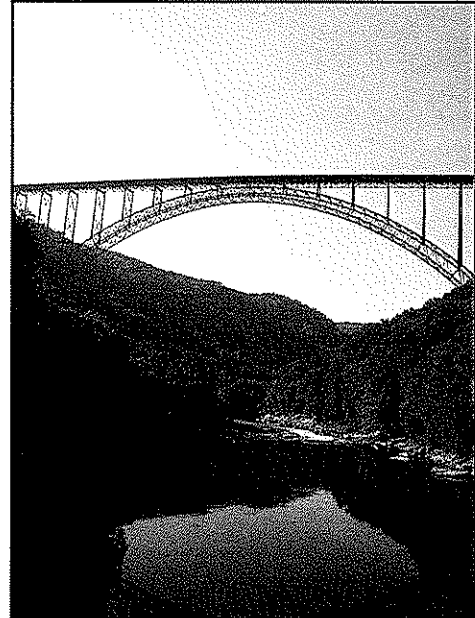
Preliminary Cost Estimates for Construction will be prepared and included in the Preliminary Engineering Report submittal.

Plan and Specification Preparation

Baker has vast experience in the development of construction plans and technical specifications for all types of architectural engineering projects. Initial survey data, topography, and physical features are collected electronically and downloaded into our CADD system for use by the designers in either AutoCAD or Microstation format. Plan and/or Profile sheets are then developed. Detail Sheets are created from our Standard Detail Library then modified to suit specific project applications. Specifications in Microsoft Word format are created from our Master Spec Library and tailored to meet individual project requirements.

During the project design phase, Baker routinely prepares permit applications for public and private clients. We have recently been involved in this process for local Municipalities. Permits which may be required for this project include:

- WV Department of Environmental Protection, NPDES Permit
- WVDOT/Division of Highways, MM-109 Permit
- WV Department of Health & Human Resources, Water & Sewer Permit



New River Gorge Steel Arch Bridge

"Baker has established relationships with each of these agencies which will streamline the permit acquisition process."

Baker has established relationships with each of these agencies which will streamline the permit acquisition process.

Bidding and Contracting Document Preparation

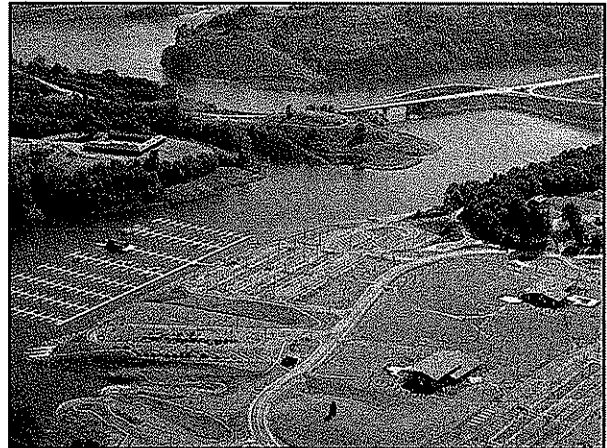
Baker generally makes use of E.J.C.D.C. and/or A.I.A. bidding and contracting documents, as normally dictated by the funding agencies. Blank copies of these forms are included in the Project Manual and made available to all plan holders during the bidding process to minimize the risk of confusion or controversy and "level the playing field" for all prospective bidders. In our bid documents, Baker makes use of additive/deductive alternates and the unit costs approach to bidding. This allows the owner flexibility in spending, to insure the project meets budgetary requirements and that no "surprises" are realized.

Project Bid Evaluation

Bids will be scrutinized by the Baker Project Manager. Likewise, detailed bid tabulations will be developed to allow WV Office of Miners' Health, Safety and Training and the funding agencies to work with the Project Manager toward the development of a Construction Contract award.

Construction Administration and Inspection

Baker is well equipped to provide the administration and inspection of construction projects. Pre-Construction and regular job-site meetings, as well as shop drawing review, requests for information, pay requests and all other construction-related correspondence will be the responsibility of the Project Manager. Resident inspection services will be conducted by Baker technicians or staff engineers trained in construction practices and certified, as required, for the particular type of installation (i.e. concrete placement, compaction, asphalt, trenching, etc.). Constant communication between field and office is essential and will be achieved via cellular telephone, internet access, and facsimile.



Stonewall Jackson Lake Recreation Area

Part 4 – Management and Staffing Capabilities

The management approach for this assignment will follow **The Baker Way** which is the clearly defined and scalable internal process by which all projects are managed throughout Baker. This process requires administrative training for all Project Managers. This training module is known as **Baker BEST** (Business Enterprise Systems Training) and includes project setup, delivery, and billing modules.

Through better organization, tools and methods to monitor budgets, an emphasis on communication, and a structured approach to delivering quality; **The Baker Way** clearly provides considerable value to our clients.

Baker's Charleston office possesses a large and diverse engineering, architectural, and environmental planning staff. Baker's proposed team of experienced professionals has demonstrated the ability to deliver quality work products to our clients, on-time and within budget. While Baker can provide the entire depth of services necessary to complete the project, we will be willing to subcontract certain services (i.e., surveying, geotechnical engineering, inspection and testing, etc.) in an effort to control cost or to meet any small and/or disadvantaged business participation goals established by the principal funding agency or the WV Office of Miners' Health, Safety and Training.

Each individual on this project team has extensive experience in their field of expertise and have demonstrated success on projects of similar size and scope. The following provides a brief discussion of each team member's experience base relevant to this project.

As Principal-In-Charge, **Russell Hall, P.E., P.S.**, will ensure that all required resources including staff and equipment are available to the project manager to execute the project successfully. Mr. Hall has over 22 years of experience in transportation engineering working in both the government and private sectors. Mr. Hall has been responsible for the design and management of multiple transportation projects of varying size and complexity. His experience, understanding of project delivery and dedication to client satisfaction will guide this project.

Patrick Fogarty, P.E., P.S., is the Civil Services Group Manager. Mr. Fogarty has over 23 years of experience with civil and structural engineering projects of various sizes and levels of complexity. Mr. Fogarty will ensure that quality deliverables are submitted according to project schedule and within budget. Some of his notable projects that are directly related to the current proposed project are as follows:

- Town of Lost Creek – Historic Train Depot Improvements (completed)
- Lakewood Elementary School Boundary Survey (completed)

- Bonham Elementary School Flood Protection Study (completed)
- Charleston Housing Authority – Numerous Projects (completed)

With his unequalled expertise in structural design, we feel Mr. Fogarty would be a tremendous asset to the WV Office of Miners' Health, Safety and Training for this project.

Ron Bolen, AIA, with over 36 years of diverse experience, will serve as the Project Manager for this project. Mr. Bolen's project design experience includes master planning, educational, parks, recreation, institutional, commercial, housing, health care, long-term care, and religious facilities. He is experienced with the submittal process for various State Agencies, including WV SBA, State Board of Education and State Fire Marshal's office.



Ronceverte Fire Station & Community Center

- Main Harts Creek Fire Station, Harts Creek, WV (completed)
- Ronceverte Fire Station, Ronceverte, WV (completed)
- Glenville State College Science Hall Additions and Renovations (completed)
- West Virginia University – Ruby Memorial Hospital Addition (constructed)
- WV Army National Guard – Charleston Armory Improvements (in construction)
- West Virginia State Capitol Campus Master Plan (in design)
- West Virginia State Capitol Restroom Renovation & Restoration (in design)

Todd Schoolcraft, PLA, ASLA, will provide landscape architectural services. Mr. Schoolcraft has over 18 years of experience in site planning and landscape architecture, specializing in site-civil design for numerous schools, office complexes, and maintenance facilities. Some of his notable projects that are directly related to the current proposed project are as follows:

- Preston County Buckwheat Express Bus Storage Facility (constructed)
- Spring Valley High School, Wayne County (constructed)
- Peterson Central Elementary School, Weston (constructed)
- Summersville Nazarene Camp Retreat Facility (constructed)
- Stonewall Jackson Lake State Park Maintenance Facility, Weston (constructed)
- Chief Logan State Park Conference Center, Logan County (constructed)
- Tamarack Arts Center, Beckley (constructed)

David Hilliard has over 20 years of mechanical/electrical engineering experience and will provide HVAC and MEP services for this project. Mr. Hilliard brings extensive MEP design experience from numerous educational facilities, housing projects, medical facilities, and commercial and industrial office space projects.

John See, PE, PS, has over 40 years of experience in fields of mining and civil engineering, and engineering training. Mr. See has seen extensive experience in the engineering and design of surface and underground mining facilities. He also is a project manager and develops engineering designs for various transportation and public works projects. He is an adjunct instructor for the Community and Technical College at West Virginia University Tech.

Chuck McCrady, EIT, is an E.I.T.-certified civil associate in Baker's Civil Engineering Department. His experience includes mining permit applications, coal refuse disposal alternatives analysis, water line feasibility studies, on-site construction monitoring and inspection, and water resources engineering, particularly in erosion and sedimentation control.

Jason Smithson, PS, is a graduate geologist, professional surveyor, and engineering technician with over seven years of diverse experience in civil, environmental, and geotechnical engineering assignments. Mr. Smithson will be responsible for the data collection associated with surveying, easements, and right of way coordination for the project.



Baker Construction Monitoring



Baker Surveying

Part 6 – Project Outline

We have carefully reviewed your Expression of Interest to improve our familiarity and to identify any key issues. Based upon this intelligence, Baker has developed the following project outline:

Existing Issues

- The WV Office of Miners' Health, Safety and Training has a need for a comprehensive facility to house:
 - Rescue Vehicles
 - Equipment
 - Staff training on the most current methods of mine rescue
- A site is yet to be selected but expected to be in:
 - Kanawha County
 - Or other more southern West Virginia County



Project Description

- The Mine Rescue Station and Training Facility for the WV Office of Miners' Health, Safety and Training will house the rescue vehicles and other related equipment used to respond to mine emergencies in the state of West Virginia and provide a training environment for the employees of the WV Office of Miners' Health, Safety and Training where the following training will take place:
 - Initial mine emergency team member training
 - Refresher training mine emergency team
 - Bi-Monthly training for the mine emergency team
 - National Incident Command System (NIMS) classes for the mine emergency team & upper management
 - Mine Emergency Response Development (MERD) exercise for the mine emergency team and upper management
 - Electrical training for State Inspectors
 - Diesel training for State Inspectors
 - Accident Investigation Classes
 - Accident Prevention Classes
 - CPR and First-Aid Classes
 - Joint training classes with WV State Mine Emergency Team, Homeland Security and Emergency Services of various counties
 - WV State Mine Rescue Contest
 - Store mine rescue equipment for Task Force One



Technical Approach

Based upon our knowledge to this point, we consider this an architectural assignment with civil engineering and landscape architecture components. Architectural elements may include structural shell building design, load allocation development, final masonry and foundation improvements designs, provisions for training areas, office space and restrooms within, development of interior finishes and amenities. Landscape architecture elements may include design geometrics, ADA compliance, road access, parking, utilities and earthwork.

Conceptual Planning Phase

During this phase Baker will collect all available data including historic information, utility maps, soils surveys, etc. We will use our existing E-911 mapping with 10' contour intervals and edit with conventional field surveys. Once all graphic data has been acquired, we will prepare a mosaic of the information and review for concepts and conflicts. We will then develop conceptual layouts for the structural elements, foundation design, and any other desired project elements.

Design Development Phase

Once conceptual plans have been approved by the WV Office of Miners' Health, Safety and Training, Baker will prepare the Preliminary Engineering Report and Cost Opinion for submission to the funding agencies. A 50% Design Submittal will also be prepared for review and approval.

Construction Documents Phase

Upon receipt of comments for the Design Development submittal, Baker will prepare construction plans, technical specifications, bid documents, final construction estimates, and all necessary permit applications. Likewise, we will assist the WV Office of Miners' Health, Safety and Training in the preparation of additional funding applications if necessary.

Bidding Phase

During this phase, Baker will prepare the Bid Advertisement, conduct the Pre-Bid Conference, prepare any necessary Addenda, perform the Bid Opening, create and distribute the Bid Tabulation, provide a recommendation of award of contract, and complete the Notice of Award for execution by WV Office of Miners' Health, Safety and Training.

Construction Phase

Initially, Baker will request insurance and scheduling information from the successful bidder and complete the Contract Documents and Notice to Proceed. Construction administration services will consist of shop drawing review, processing requests for information, monitoring construction progress, conducting construction meetings, processing payment applications, Davis-Bacon compliance review, and providing periodic construction inspection.



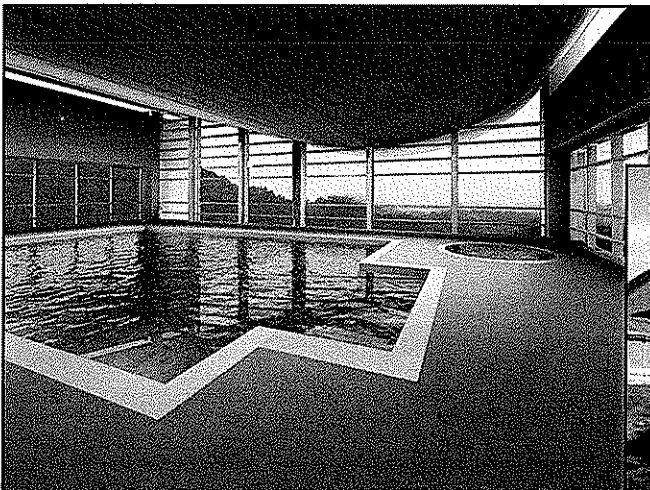
DAWSON MINE RESCUE STATION. Equipped and maintained by the West Virginia Department of Mines. Station and station facilities provided by the Dawson Coal Company.

Part 7 – Related Prior Experience

The following Project Descriptions illustrate Baker's related prior experience. We have included examples of building facilities used for administrative office space, maintenance, training, parking and support functions for both military and civilian clients at various locations across the nation. Many of these projects are LEED® and/or SPIRiT (Sustainable Project Rating Tool) rated. We believe these projects show the depth of our expertise in all aspects of engineering and architecture. While we propose to conduct all activities from our West Virginia operation, these diverse project locations are meant to emphasize our *One Baker* philosophy. Which simply means that the WV Office of Miners' Health, Safety and Training will have access to the human resources, expertise, and technology of all Baker locations should the need arise.

In addition to this project experience, members of Baker's Charleston office have established relationships with many potential funding agencies including:

- Federal Highway Administration (FHWA);
- WV Department of Transportation / Division of Highways;
- WV Development Office;
- USDA Rural Utility Service;
- US Department of Commerce E.D.A.;
- US Environmental Protection Agency; and
- WV Department of Environmental Protection.



Recreation and Fitness Center, Institute for Scientific Research, Fairmont, West Virginia



WVU Student Recreation Center, Morgantown

U.S. Army Reserve Complex

Wheeling, West Virginia

Baker provided a complete design/build package for a new U.S. Army Reserve Center located on a 25-acre site in Wheeling, West Virginia.



Client

U.S. Army Corps of Engineers,
Baltimore District
Planning Division
P.O. Box 1715
Baltimore, MD 21203-1715

Michael Ogden
717-782-3750

Completion Date

Estimated: 1997
Actual: 1997

Project Costs

\$10,127,559 (Construction)
\$140,025 (Fee)

Baker's Role

- Design/Build

The first phase of the project was an 18,000-square-foot, \$6,000,000 OMS/AMSA building. It included a large, multiple-bay, single-story vehicle maintenance facility. The infrastructure to support the development included the removal of a hilltop and the construction of a new one-half mile access road, parking facilities, and landscaping associated with the building.

The second phase of the project involved constructing a \$9,500,000, 24,000 square-foot training center. The building contained administrative, educational, and storage areas, as well as a commercial kitchen and cafeteria seating for reservists.

The buildings were constructed of steel-frames on spread-footing foundations. The facades combined split-faced block with brick. The roofs were standing-seam metal roofing with certain roofs vaulted.

Due to water pressure issues for fire protection, an on-site 60,000 gallon water storage tank was constructed. This project shared property with a regional general airport authority.



Bus Maintenance Facility

Baltimore/Washington International Airport (BWI), Baltimore, MD

To support the new consolidated rental car facility at Baltimore/Washington International (BWI) Airport a new fleet of buses, and a new facility to maintain them was required. The initial fleet size required was 25 buses, growing to an ultimate size of 40. Baker designed a 22,450 square foot building on a 12-acre site in close proximity to the rental car facility. The building provides for administrative space, four maintenance bays, shop space, break rooms, lockers, shower and toilet facilities, parts and equipment storage, maintenance equipment, building support areas, and vehicle wash and detail facilities. Features of the site include a controlled access entry, employee parking, and bus staging and cue areas employing a counter-clockwise site circulation pattern. Environmental requirements were met with the use of a storm filter system for water quality, and a storm sewer system with a detention pond for water quantity. Accommodations were made for a Compressed Natural Gas (CNG) facility on-site, which is planned for future construction.

The Bus Maintenance Facility was a successful project due in large part to an organized planning and design process, involving close client and end user coordination. The facility's design plan responded to the programming, planning and conceptual efforts developed in conjunction with various user groups with respect to organization, planning and user amenities layout. Baker has been involved with this project from inception through construction, performing the following project tasks:

Site Planning. After the kick-off meeting, the initial task for the feasibility study, planning and conceptual design was to review any site constraints and limitations. Consideration included a review of the additional bus traffic regarding its impact on existing intersections. The design team studied environmental concerns specific to the selected site including previous reforestation areas, wetlands, endangered plants and species and archaeological sites including existing cemeteries. Important functional site relationships were reviewed relative to the adjacent properties, the airport runway, the Consolidated Rental Car Facility and Customer Service Building, and the new BWI Tenant Parking Facility.

The design team investigated any applicable zoning and code impacts, utility location and access, fuel storage, bus washing facilities, storage, parking and

Client

Maryland Aviation Administration
PO Box 8766
Third Floor, Terminal Building
BWI Airport, MD 21240-0766

Benjamin Chin, P.E.
Manager, Design
410-859-7093

Completion Date

2004

Baker's Role

- Site Planning
- Programming
- Program Comparison
- Fueling Options
- Design Charrette
- Preliminary Design Report
- Design Phase Services
- Bidding Assistance
- Construction Phase Services
- Operator Selection



loading dock requirements for spare parts and tires.

Baker initiated coordination with Anne Arundel County Planning Department. Issues arose from the proposed facility's proximity to the existing Church and western site development (by Rock Realty). This included County road requirements, adjacent Smith Farm Road easements, water system requirements, sanitary sewer system requirements, and others. Baker reviewed potential wastewater pretreatment requirements that the County may require for discharge into the sanitary sewers.



Programming. Baker pursued a proactive regimen and initiated formal questions (via email) to develop programmatic requirements. This effort included future staff projection and growth for the bus maintenance facility. This effort was supplemented by a 2-hour teleconference meeting with Maryland Aviation Administration (MAA) to discuss three initially developed schemes. The program requirements included:

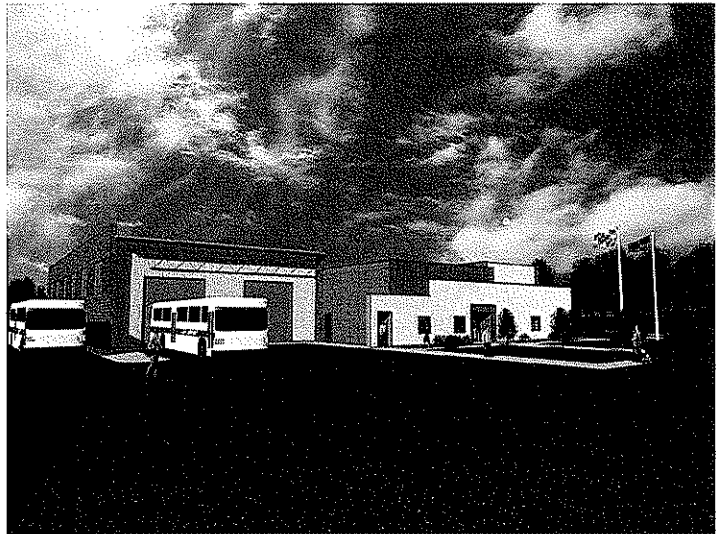
- Data collection from individual user groups including MAA, MAA's Program Manager, and the Rental Car Agencies (RACs)
- Current and future staff projections;
- Growth for the Bus Maintenance Facility;
- Typical work standards (spatial relationships for maintenance and administrative staff) development.
- Preliminary program diagrams development.
- Teleconference interviews with MAA user groups to review preliminary program and determine adjacency requirements.
- Blocking and stacking.

From the teleconference conversation, the diagrammatic development process was undertaken. This included:

- Revised blocking and stacking diagrams.
- Final program document development.
- Initial space and interior room layout.
- Narrowed the conceptual design to two schemes

Program Comparison. Baker provided a program comparison between the proposed concepts for BWI and similar built facilities. Four closely sized maintenance facilities were selected and reviewed to verify the proposed building square footage, namely:

- Consolidated Rental Car Bus Maintenance Facility at George Bush Intercontinental Airport, Houston, Texas
- El Metro Facility in Laredo, Texas
- Beaver County Transit Authority's (BCTA) Expressway Travel Center and Maintenance Facility in Center, Pennsylvania
- Cuyahoga County Board of Mental Retardation (CCBMR) East Transportation Facility in Cleveland, Ohio.



Fueling Options. Baker studied the pros and cons of building a diesel versus a CNG-fueled maintenance facility. The study demonstrated that additional safety measures were required for a CNG facility (i.e. explosion-proof fixtures, radiant floor heating, etc.), and a gas line had to be installed to service the site. Despite the higher costs, MAA chose to go with a CNG facility, and use the cleaner running CNG buses. Baker contacted four third party vendors for designing, building, operating, and maintaining the proposed CNG fueling facility for a minimum duration of 8 to 10 years. MAA ultimately decided to use the existing CNG fueling facility at BWI Airport for the immediate future.

Design Charette. Baker hosted a day-long design charrette with key personnel from MAA and their Program Manager. Two conceptual plans were prepared for discussion at the charrette. The conceptual plans included existing and proposed contours; property lines, preliminary storm water management requirements and plans, utility service plan, parking, preliminary horizontal mapping, and the building floor plan layout. This offered the opportunity to discuss in great detail the programming needs and requirements for the Bus Maintenance Facility.

Preliminary Design Report. The final conceptual design was documented in a final feasibility and planning/programming report. All preliminary design documentation was included and summarized to including a discussion of all areas of investigation; description of alternatives; recommendations; preliminary construction phasing; and preliminary costs including design, construction, and construction management/inspection costs.

A project schedule was also prepared as part of the Preliminary Design Report. The schedule included milestones for the design and construction phases of the project. Milestones for the design phase included a Conceptual, 40%, 60%, 90% and Final Bid Document submittals of the plans and specifications; submittal of Engineer's Report and Safety/Phasing Plans; and submittal of documents to the Maryland Department of the Environment for Erosion and Sediment Control and Stormwater Management approval. Milestones for the construction phase were based on the Preliminary Construction Phasing Plan.

A “pre-final” conceptual design was presented at the “Draft” Preliminary Design Report Meeting. The purpose of this meeting was to present the “draft” report to the attendees. Specific emphasis of this meeting was to inform the Rental Car Agency Representatives of the concepts developed and discussions held to date on the Bus Maintenance Facility Project. The comments from this meeting were included in the final report, which formalized the design criteria for the Final Design Phase of the project.

Design Phase Services. Baker prepared a series of submissions consisting of technical specifications from the 40%, 60%, 90%, and Final levels of design. Comments were received on each submission, and incorporated into the subsequent submission. Baker formulated an Internal Technical Review Team to conduct peer reviews of all project elements, including that of subconsultants.

Bidding Assistance. Plans and Specifications were reproduced and distributed as required to obtain competitive levels for the construction of each package. Contract bid documents were distributed to MAA Divisions; all prospective bidders; plan rooms and minority business clearing houses; and agencies as requested.

A Prebid Conference was conducted at MAA’s offices to familiarize bidders with the scope of the project, the project site, and the conditions and stipulations upon which the bid was to be offered. Baker prepared the agenda for this meeting and led the appropriate parts. A tour of the project site was given following the meeting.

A meeting record was prepared, as with a list of bidder’s questions and clarifications to those questions. These were issued as part of Addendum No.1 to further clarify bid requirements and technical issues.

When bids were received, Baker tabulated, checked for accuracy, compared to the Engineer’s Estimate, and analyzed for responsiveness. Baker prepared a Recommendation of Award for the construction contract, with all supporting analyses and justification needed for presentation by MAA to the Board of Public Works.

Construction Phase Services. Baker attended the Pre-Construction Conference to answer questions and discuss issues regarding the plans and specifications. Other construction phase tasks included reviewing shop drawings and submittals, providing responses to Requests for Information (RFI), performing periodic site inspections, consulting as required, and preparing As-Built drawings.

Operator Selection. Baker provided assistance to MAA and the RAC’s for the proposal for the selection of the operator of the Bus Maintenance Facility, including preparing exhibits, and assisting with the compilation of operating and maintenance items from the equipment specifications.

Research and Development Facility

Institute for Scientific Research, Fairmont, West Virginia

Using a design/build delivery method, a new Research and Development Facility of approximately 260,000 GSF for The Institute for Scientific Research (ISR) was constructed in Fairmont, West Virginia. The facility is the anchor project for West Virginia's High Tech Corridor on I-79, with a goal of attracting the best and brightest scientists and software engineers from around the world.

The east end of the building structure rests on bedrock, while the west end, including the slab-on-grade, was supported on caissons that extend through abandoned mines. Baker performed a subsurface investigation for the building site and of the underlying abandoned coal mine. Recommendations for a unique rock cut access road, building and retaining wall foundations, site grading, and a coal mine stabilization program were prepared. Construction consultation on the site grading and pre-split blasting program for the rock cuts was provided.

The electrical subsystem distribution and fixtures used are "plug and play" devices, providing deferred fit-out costs in unoccupied spaces while permitting maintenance staff to easily reconfigure work spaces.

The facility was outfitted with advanced technology features and amenities that included:

- World-class distance learning centers (210-person auditorium and classrooms outfitted with user-friendly audio-video systems, large screen displays, and voice/data outlets at each seat);
- World-class voice/data systems, including copper "home runs" to each workstation and fiber optics to each zone;
- Large two-story exhibit hall for the display of R&D projects;
- "Heavy" research floor, with high bay area, prototype workshop and 10-ton crane, in which flight simulator, clean room, and similar R&D project activities will be carried out;
- Fitness center and full-service kitchen/restaurant.

Client

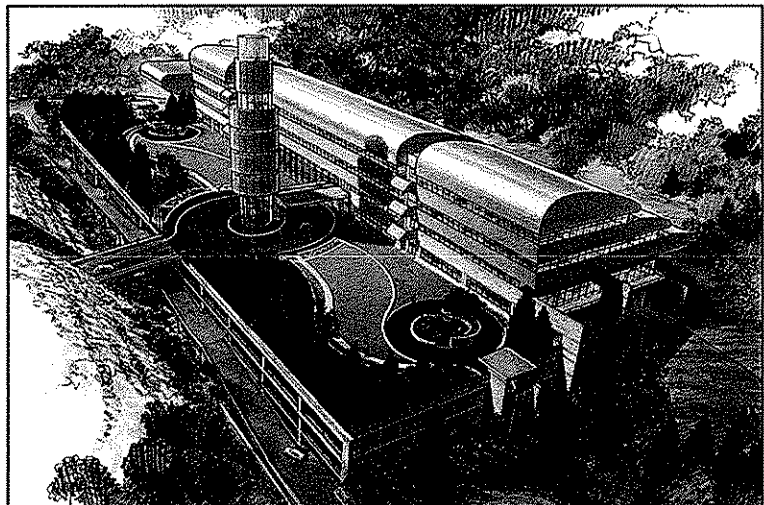
Institute for Scientific Research, Inc.
1000 Technology Drive
Fairmont, WV 26554

Completion Date

2006

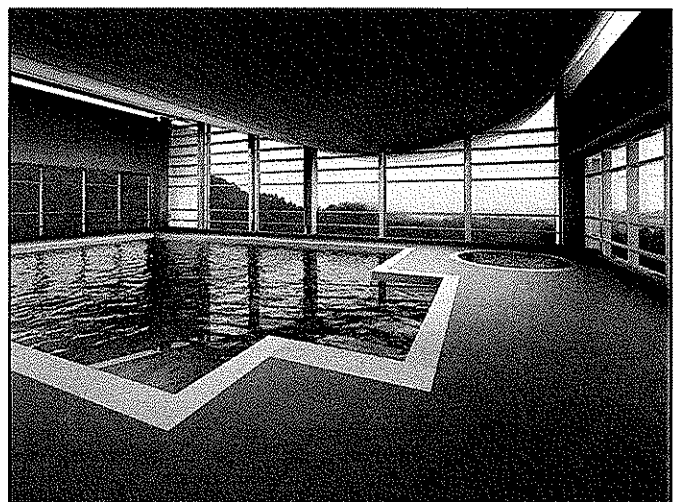
Baker's Role

- Design/Build Delivery
- Geotechnical Engineering
- Architecture
- Structural Engineering
- Electrical Engineering
- Lighting Design
- Mechanical Engineering
- Plumbing Engineering
- Fire Protection Engineering
- Construction Administration



The building was designed to achieve LEED® certification for environmentally sensitive and energy-efficient design. In addition to the environmentally sensitive design features, a number of unique energy-efficient strategies were used to accomplish LEED® certification, including:

- A linear building floor plate with long elevations facing north and south to minimize peak A/C loads and admit abundant natural light. Sunscreens provide efficient shading of the south-facing glazed area of the two-story Exhibition Hall, and careful glazing selections throughout provide high insulation values and low solar heat gain coefficients;
- Indirect lighting system supplemented with task lighting to achieve superior light quality at minimal energy consumption;
- Integration of lighting control zones and HVAC zones to reduce "off-hour" energy use, providing the ability to set back comfort control and eliminate ventilation air to unoccupied zones (while providing full lighting, comfort control, and ventilation to zones actively occupied after normal office hours);
- Conference and assembly rooms were equipped with carbon monoxide sensors and override controls to assure indoor air quality while minimizing unnecessary energy usage. A heat recovery air handler with variable volume control was designed for 100% outside air delivery to the Educational Wing, and a custom pool air handler was used for temperature and humidity control of the indoor pool facility;
- 100% raised access floor on three floors of "soft" research areas and educational spaces, providing absolute flexibility in changing out furniture, voice/data cabling, and in-floor air-conditioning systems. Variable volume floor diffusers include manual override capability so individuals can adjust personal comfort within supply air control zones. The in-floor air conditioning system utilizes a true plenum pressurization design, eliminating significant under-floor ductwork (reducing construction costs and increasing flexibility) compared to other raised access floor systems;
- Intelligent kitchen exhaust hoods were selected to reduce makeup air requirements during partial or unoccupied periods;
- World-class voice/data systems, including both copper and fiber optic "home runs" to workstations and a voice-over-IP telephone system;
- A stand-by power generation system capable of maintaining power to all research areas in the event of a power disruption from the electrical grid, avoiding costly downtime - be it a few hours or days. The system will use a flywheel, rather than conventional UPS battery system, and the potential to use this large stand-by power generation system for peak electrical demand reduction was investigated.



Comprehensive Design Services - Contract VI, MAA-AE-03-005

Baltimore/Washington International Thurgood, Marshall (BWI) & Martin State (MTN)
Airports, Baltimore, Maryland

Baker provided general architectural and engineering services to the Maryland Aviation Administration (MAA), Division of Facilities Design, working under contract for the sixth Comprehensive Design Services contract on the following task orders:

Task 2350.1: Hertz MIS Room. Task included review of a building permit for modifications to the Hertz MIS room.

Task 2351: New Community Hangar at Martin State Airport. Baker provided design and construction administration services for the development of a 20,000 SF corporate hangar to be used by Black and Decker. The hangar included space for corporate aircraft and office space for the tenant. Work also included the apron, apron taxi lane, connecting taxiway to Taxiway F, and the parking lot required for the facility.

Task 2352: Airfield Pavement Rehabilitation. Project developed construction documents for the rehabilitation of various areas on the BWI Airfield including Taxiways B, P, A, D, and Runway 4-22 as well as taxiway centerline lighting for Taxiways B, P, A, U, and C. Task required extensive coordination for airfield phasing with the FAA ADO, FAA ATCT, and MAA Operations.

Task 2353: Fire Training Facility Improvements. Task included a planning study and development of construction documents for upgrading the existing fire training facility at BWI Airport. Improvements included resizing of the pit, providing water to the site, providing electrical power and site lighting, providing new fueling storage and control system, and addressing environmental concerns.

Task 2354: Pavement Management Design Assistance. Baker provided design and construction administration services for landside and airside pavement repairs at BWI Airport.

Task 2355.1: Security CCTV Upgrades - Short Term. Task provided Phase I, II, and III services for the upgrades to the CCTV Security System at BWI Airport. Phase I documented existing facilities and determined what needs to be upgraded and added to the system in order to accomplish the immediate goals of MAA Security. Phase II and III provided detailed design and construction administration services for the addition of 25 new cameras, 4 new digital video recorders, 3 workstations, and associated work.

Client

Maryland Aviation Administration
P.O. Box 8766
Third Floor, Terminal Building
BWI Airport, MD 21240-0766

Benjamin Chin, P.E.
Director of Facilities Design
410-859-7093

Completion Date

Estimated: 2009

Project Costs

\$4,441,064 (Fee)

Baker's Role

- Planning
- Feasibility Study
- Conceptual Design
- Preliminary Design Report
- Geotechnical Design
- Survey and Mapping
- Drainage and Stormwater Management Design
- Erosion and Sediment Control Design
- Landside Design
- Airside Design
- Pavement Design
- Architectural Design
- Structural Design
- MEP Design
- Permitting
- Security Evaluation/Design
- Construction Management

Task 2355.2: Security CCTV Upgrades - Long Term. This study developed a needs analysis to determine the long term needs for Airport Security Improvements and recommended a proposed program with costs and required phasing.

Task 2356: Fire Station Vehicle Exhaust. Task includes adding a vehicle exhaust system to the existing ARFF station. It includes preparation of a performance specification for design/build as well as a three year maintenance contract.

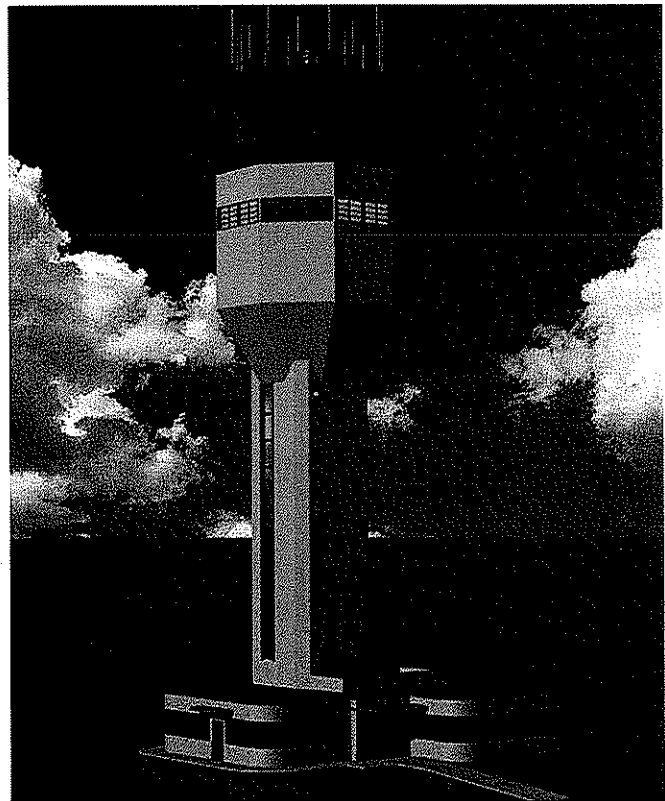
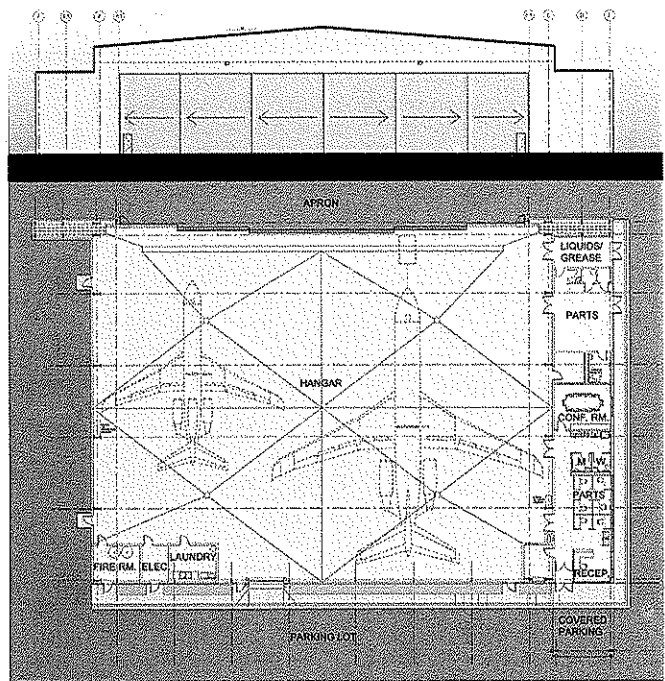
Task 2358: Airfield Underground Fire Hydrants. Task included development of construction documents to install five (5) underground fire hydrants adjacent to runway ends at BWI Airport. Locations of hydrants were determined through coordination with the Fire Marshall's office.

Task 2359: Gateway Treatment. Task included development of concepts and final design for implementation of a "Gateway" at BWI Airport.

Task 2359.1: Short-term Thurgood Marshall Signs. Task to include development of concepts and final design for short-term signage to address the name change from BWI Airport to Baltimore/Washington International Thurgood Marshall Airport.

Task 2360: MTN ATCT. Task will provide design and construction phase services for the development of a new Air Traffic Control Tower at Martin State Airport. Conceptual renderings were developed so that a concept could be selected. Design to include all aspects of the ATCT, including architectural, MEP, FAA coordination, sitework and utilities to the tower, etc. Design has been halted at the 30% design level due to construction funding concerns.

Task 2360.1: Taxiway F Extension. Task provides design and construction administration services for the Taxiway F Extension at Martin State Airport. The Taxiway F Extension must be designed and constructed prior to the commissioning of the new MTN ATCT.



Task 2360.2: Taxiway F Extension. Provided a study evaluating options for Stormwater Management in association with the Taxiway F Extension project.

Task 2361.1: Revenue Parking Control Study. Task provided a study to analyze the existing BWI Revenue Parking Control System and provide recommendations on replacement or upgrades the system. Task will provide construction cost estimates and phasing. Baker is performing the design documents as part of the 2006 contract.

Task 2362: Perimeter Security Fence & Gates Improvement, Phase I. Task investigates the existing security fence perimeter and recommends modifications to the existing airport security fence to improve safety and address wildlife issues. Necessary modifications will be ranked by priority.

Task 2363: Rental Car Customer Service Facility Improvements. Task provides design and construction phase services for various improvements to the Consolidated Rental Car Facility. Design issues include storm water drainage, signage/branding, and traffic flow at the Car Rental Customer Service Building and the Parking Garage.

Task 2364: Artificial Turf Installation. Provided Phase II & Phase III services for the installation of airfield turf in a test location in the vicinity of 10-28/15R-33L intersection.

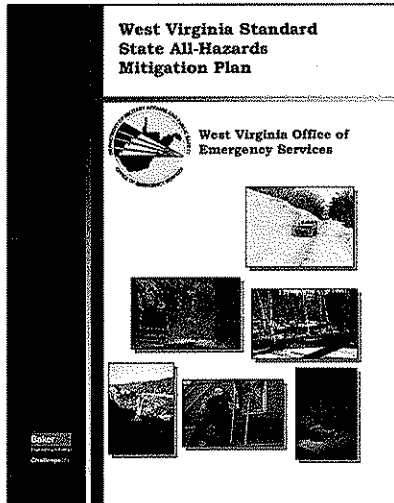
Task 2365: Runway 15R Emergency Repairs and Pavement Evaluations. This was a two-phase project. Phase 1 was designed in three weeks. The work included a three-inch mill and overlay starting 23 feet either side of the runway centerline. Phase 1 was 2,850-feet long. The Phase 2 design was completed in June 2007. Phase 2 rehabilitates the remainder of Runway 15R-33L in a similar fashion as Phase 1. Phase 2 design required significant coordination with the Tower and Airport Operations due to phasing and airfield access.

Task 2366: Design Standards. Consolidated MAA Design Standards into one cohesive document. Baker acts as an extension of staff on this project for all current and forthcoming design standards at BWI.

West Virginia Hazard Mitigation Plan

Statewide, West Virginia

Baker developed a Standard State All-Hazards Mitigation Plan for the West Virginia Office of Emergency Services (WVOES) to comply with the requirements of the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 is federal legislation under the Department of Homeland Security's Federal Emergency Management Agency (FEMA), which requires states to have both a State-adopted and FEMA-approved plan as a condition of disaster assistance. This plan will enable West Virginia's state, local and other public agencies to qualify for Hazard Mitigation Grant Program (HMGP) project grants from FEMA, which will reduce the effects of disasters on the lives and property of the State's citizens.



Baker initially conducted a Statewide Risk Assessment from natural hazards such as floods, winter storms, tornadoes, and wild fires. The risk assessment was based on extensive research of past disasters and their effects on life and property. The

risk assessment included profiles of a variety of hazards, vulnerability assessments, and preparation of loss estimates. Spatial and aspatial hazard datasets were compiled into a Geographic Information Systems (GIS) database using ESRI's ArcGIS 8.3 and Microsoft Access software. The GIS database was used to make projections of future risks to the State's critical infrastructure and to create maps of areas vulnerable to specific hazards. The results of the risk assessment allowed hazards to be ranked based on frequency of occurrence and potential consequences.

Baker coordinated the statewide planning process by organizing stakeholder meetings for over 100 different stakeholders in all levels of government, private enterprise, non-profits, and individual citizens. The stakeholders helped identify hazard mitigation goals, strategies, and projects. The statewide plan also incorporated the results from 55 local jurisdictional hazard mitigation plans prepared by the county governments.

Baker also facilitated the identification and prioritization of 22 mitigation strategies by the stakeholders, for the highest ranked hazards. An assessment of the state's capabilities to implement these strategies was conducted, including an evaluation of existing programs. Potential funding sources to implement the strategies were also identified. Further, lead and facilitating agencies were identified for implementing each strategy. Baker finally developed a plan maintenance process for monitoring progress of the plan, the implementation of the strategies, and a periodic assessment of their effectiveness in reducing risks. Newly emerging risks affecting West Virginia and strategies for their mitigation will also be identified when the plan is updated every three years.

Client

West Virginia Division of Homeland Security and Emergency Management
Department of Military Affairs
Building 1, Room EB80
1900 Kanawha Boulevard East
Charleston, WV 25305

Russ Kratzer

State Hazard Mitigation Planner
304-965 3503

Completion Date

2004

Baker's Role

- Statewide Risk Assessment
- GIS Database
- Statewide Planning Coordination
- Mitigation Strategy Development
- State Capability Assessment

FAA Engineering Center Design/Build Competition

Airside Business Park, Moon Township, Pennsylvania

Baker participated in a design/build proposal competition for the Federal Aviation Administration's (FAA) new Engineering Center. Six cities were identified by the FAA for consideration. Proposals were solicited with the requirement that the Engineering Center be located within five miles of an international airport. For the submission, Baker and Associates and Baker Mellon Stuart Construction teamed with a local developer, The Elmhurst Group, and The Erect Fund, the union pensions bank that funds construction projects.

The initial solicitation was for the design of a signature office building that would differentiate and identify the Engineering Center as a unique building. Subsequent proposal modifications by the FAA converted the vision to a more conservative and cost-effective design. Baker responded with designs for each criterion.

The Engineering Center was proposed to be located at the Airside Business Park, which is literally at the end of the runway of the adjacent Pittsburgh International Airport. The 100,000-square-foot build-to-suit custom office building featured special emphasis on site security, including complete perimeter security, controlled employee and visitor access through metal detection and card systems, and a central monitoring station. To eliminate the need for unsightly fences and barriers, natural features were incorporated into the site design. Special attention to blast protection was made to enable the Engineering Center to withstand the shock of potential terrorist activities.

The interiors were organized to support the FAA's commitment to teamwork and communication with an open office plan. Circulation patterns were designed to encourage interaction among the various departments. Emphasis was placed on advanced communication systems, computer networking, and video conferencing. A two-story atrium provided optimum daylighting to the office work spaces. The Engineering Center included employee amenities such as a cafeteria, common break rooms, and a fitness center.

Client

Airside Business Park, L.P.
1 Bigelow Square
Suite 630
Pittsburgh, PA 15219

William E. Hunt
412-281-8731

Completion Date

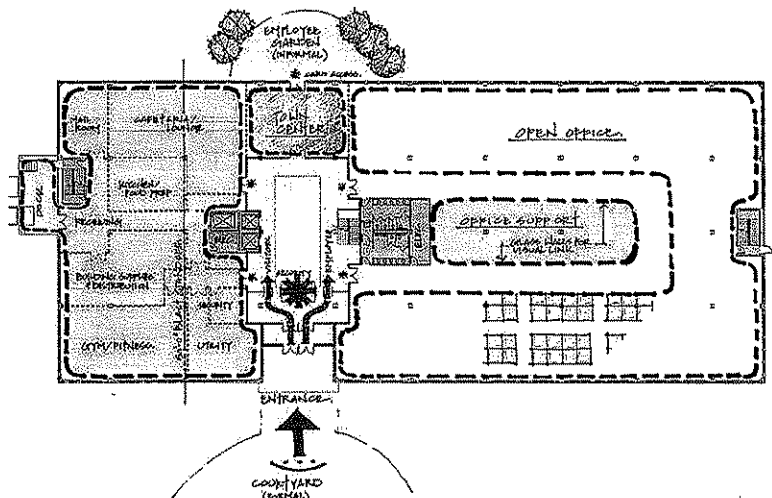
Estimated: 1999
Actual: 1998

Project Costs

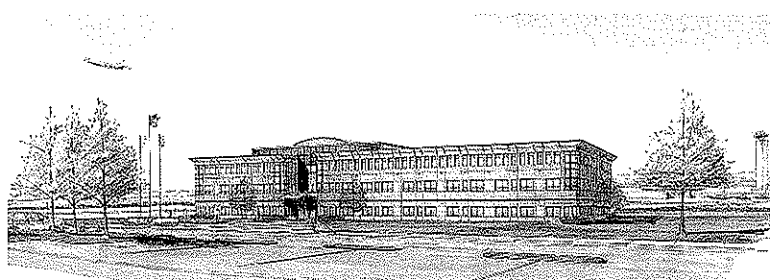
\$60,992 (Fee)

Baker's Role

- Design/Build
- Architecture
- Mechanical Engineering
- Electrical Engineering
- Structural Engineering
- Plumbing Engineering
- Fire Protection
- Civil Engineering
- Value Engineering
- Cost Estimating
- Constructibility Reviews
- Scheduling



Full-service professional design services were provided for this design/build project that included architecture, mechanical, electrical, structural, plumbing, fire protection, civil, and value engineering, cost estimating, constructability reviews, and project scheduling.



Student Recreation Center

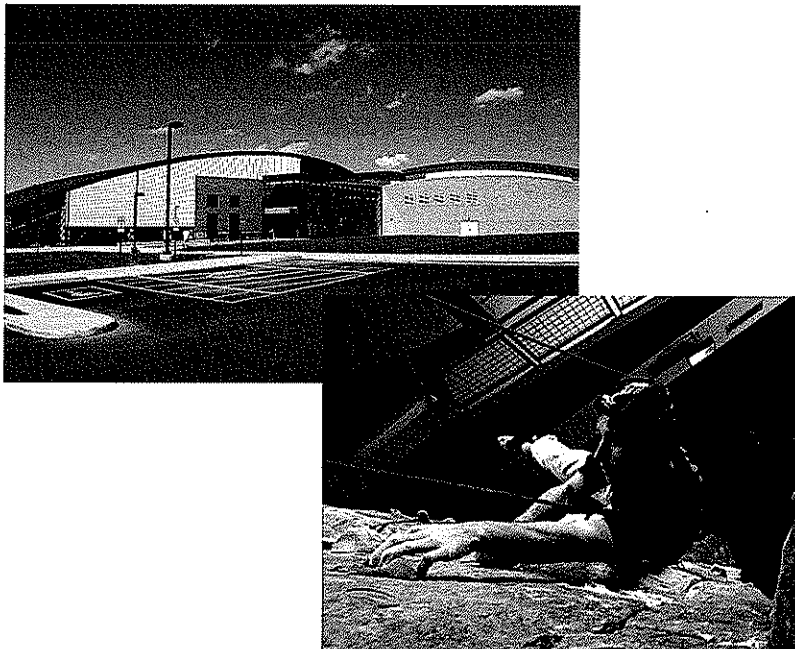
West Virginia University, Morgantown, WV

Through an open-end architectural and engineering services agreement, Baker provided program management services to West Virginia University to oversee the implementation of the construction program that supported their campus master plan.

Specifically, the University required a firm experienced in providing program management, construction management, cost estimating, scheduling, inspection services, programming, planning, design, construction documents, site evaluations, feasibility studies, and construction contract administration services.

Responsibilities included providing full-time on-site owner representation to monitor the work of the designers, contractors, and construction management teams for WVU's new 170,000-square-foot Student Recreation Center.

The facility provides a focal point for campus life and includes seven basketball courts, three racquetball courts, a squash court, 17,000 square foot weights/fitness area, three multi-purpose sports rooms, a three-story tall indoor rock climbing wall, large lap swimming pool, leisure pool, spa, elevated in-door jogging track, food court area, and administrative offices. The building was designed to serve the entire student population, along with University staff.



Client

West Virginia University
3040 University Avenue
Morgantown, WV 26506

Randy Hudack

Director of Physical Plant
304-293-2330

Completion Date

Estimated: 2003

Actual: 2001

Project Costs

\$35,000,000 (Construction)

\$405,745 (Fee)

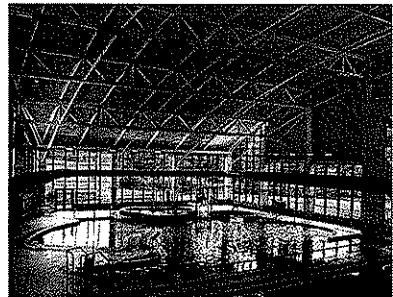
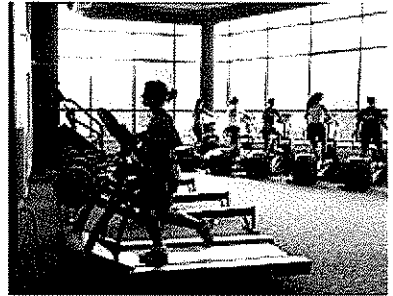
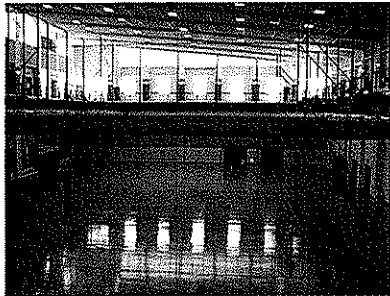
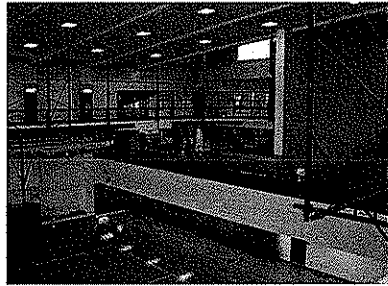
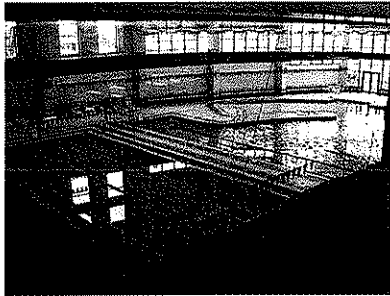
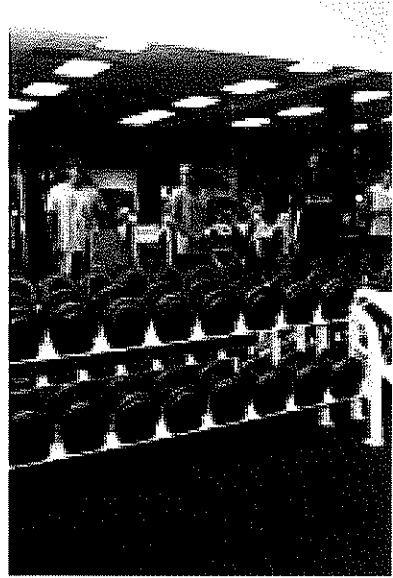
Baker's Role

Program

Management/Construction

Management-related Services:

- Cost Estimating
- Schedule Management
- Inspection QA/QC
- Acted as extension of staff for the university
- Budget Monitoring
- Project Coordination
- Procurement Support
- Pay Application Approvals
- Move-in Coordination
- Closeout Support
- Change Order Review and Recommendations



U.S. Army Reserve Center OMS/AMSA/STRG

North Canton, Ohio

The U.S. Army Reserve required a Training Center and Organizational Maintenance Shop/Area Maintenance Support Activity (OMS/AMSA) facility for the 88 Reserve Support Command in North Canton, Ohio. The complex was to be of design-award-winning caliber as well as functional, durable, and easy to maintain while being sensitive to first costs, operating costs, and aesthetics. The 88th RSC includes the following units:

- 416th FETDA
- 192nd Company Petro Supply
- 762nd Transportation Company
- 758th Maintenance
- 256th CSH Hub Detachment 2
- 79th QM Company Detachment 2
- 447th MP Company
- AMSA 3-Canal Fulton

Approximately 400 reservists will work and train in the new facility. The Army Reserves units are currently housed in three government-owned facilities, two leased facilities, and one facility on leased land. The new complex will reduce operational costs to the government while significantly improving unit readiness and mobilization, and will increase the proficiency of service members.

This 61,344-gross-square-foot Training Center and OMS/AMSA comprise a one-story L-shaped building with a two-story element at the connection of two wings. Clerestory translucent panels were used in the maintenance bays and unit storage areas to allow the opportunity for daylighting and design expression.

The Training Center portion of the building houses offices and administrative spaces, caged unit storage, classrooms, library, learning center, physical readiness, engagement skills trainer, COMSEC training room, arms vault and armory's room, assembly hall, kitchen, toilets, lockers, showers, and building support functions.

The OMS/AMSA portion of the building houses office and administrative areas, tool and parts storage, 10 work bays, one welding bay, controlled and flammable storage, wash bay, and building support functions. One drive-through bay is serviced by an overhead traveling crane.

The project also included paving design for on-site parking and storage for 238 military vehicles, including Hum-V's and trailers, along with 150 spaces for

Client

U.S. Army Corps of Engineers,
Louisville District
Room 821
600 Dr. Martin Luther King, Jr. Place
Louisville, KY 40201-0059

Joseph Gates

Project Manager
502-315-6849

Mary Ann Just

Project Engineer
502-315-6365

Completion Date

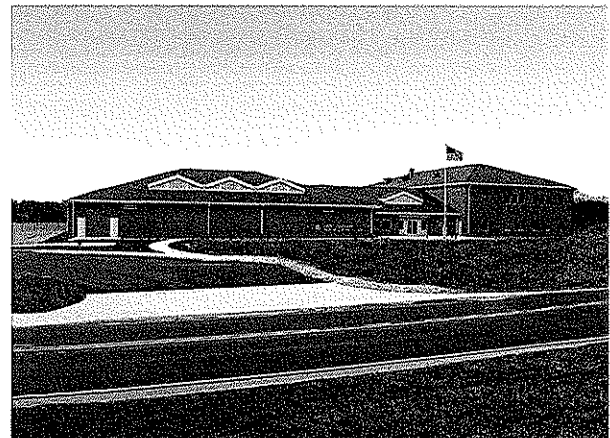
2006

Project Costs

\$11,051,699 (Construction)

Baker's Role

- Design/Build Delivery
- Architecture
- Architectural Renderings
- Mechanical Engineering
- Fire Protection and Plumbing Engineering
- Electrical Engineering
- Structural Engineering
- Site/Civil Engineering



privately-owned vehicles. Additional on-site storage is provided by an unheated storage building, a long narrow pre-engineered metal building with two small enclosed spaces for the storage of fittings. The remainder of the building is open on one side and used for the storage of fuel bladders.

Design Charrette

An on-site design charrette kicked off the project and included all project stakeholders: the U.S. Army Reserves, the U.S. Army Corps of Engineers, and the design/build team members. The project's conceptual design was jointly developed, carrying forward and further developing the design intent established in an earlier phase.

The new energy-efficient facility was designed to achieve a Silver SPiRiT Rating for sustainability. Design considerations include water-efficient landscaping, use of recycled and sound-absorbing building materials, collection and storage area to accommodate a recycling program, and an overall design that will accommodate other potential building uses into the future.

The Design/Build Team

Baker teamed with New Era Builders, Inc. and Mascaro Construction Company for this design/build project, providing the architectural and engineering design services from 35% documents through construction.

Project Features

- Project improves mission readiness for the 88th RRC unit of the U.S. Army Reserve.
- Project provides modern and convenient training and maintenance facilities for the 88th RRC unit of the U.S. Army Reserve.
- Designed for the Silver SPiRiT sustainable rating.



KVRTA-Disaster Response & Recovery Plan

Charleston, West Virginia

Baker developed a disaster response and recovery plan for the Kanawha Valley Regional Transportation Authority (KVRTA), West Virginia's largest transit bus service provider. KVRTA plays an active role in providing critical emergency support services such as evacuation, fuel supply, and sheltering during emergencies. Baker evaluated the facility's current emergency response procedures and capabilities and their anticipated role in regional and state emergency response plans by facilitating coordination meetings with the region's emergency management and planning stakeholders. The plan also identifies and delineates KVRTA's response top hazards in the region. A Continuity of Operations Plan (COOP) was also developed to ensure that KVRTA is able to maintain critical services during an emergency. The new plan will be compliant with the National Incident Management System (NIMS) and National Response Plan (NRP) requirements.

Project Features

- Stakeholder Coordination
- Continuity of Operations Planning
- All-Hazards Approach

Client

Kanawha Valley Regional
Transportation Authority
1550 Fourth Avenue
Charleston, WV 25312

J. Douglas Hartley
Assistant General Manager
304-343-3840

Completion Date

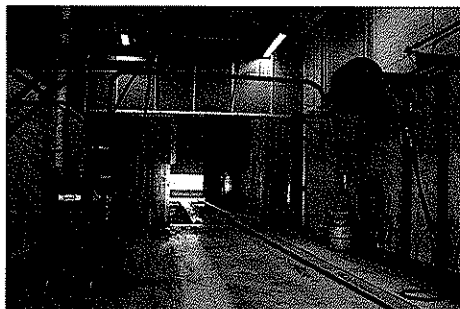
Estimated: 2008

Actual: 2008

Project Costs

Baker's Role

- Emergency Response/Operations Planning for Regional Transit Agency



Office Building 100 and Parking Structure

Airside Business Park, Moon Township, Pennsylvania

This new 117,000-square-foot design/build-to-suit project was custom-designed to serve as the headquarters for a corporate tenant, yet offers the built-in flexibility to accommodate potential new tenants in the future. Many features enhance the flexibility of the building.



- Under-floor power and communications cabling and the use of carpet squares throughout, allowing easy reconfiguration of data network and electrical outlets.
- Use of movable glass and solid wall partitions, standard modular workstation panels, and the open plan concept, to enable quick and easy reconfigurations of workstations and office spaces.
- Six separate air handlers (two for each floor), to accommodate potential future use with two tenants per floor.
- Indirect lighting to reduce eye strain and increase productivity for employees using CAD systems.
- Phones run from a data network ("Voice over IP"), meaning that each phone is addressable through programming and that extensions can be redirected without moving wires.
- Many conference rooms, with varying amounts of space, identically located on each floor, with kitchenettes close by for convenience.
- Few individual printers; rather, multiple-function machines that serve as printers, copiers, scanners, and fax machines, strategically located throughout each floor.

Even the structure of the building itself came as an innovation, contributing even more flexibility. The office buildings in Airside Business Park are the first tilt-up office buildings in Western Pennsylvania. This method of construction enables the buildings to be closed in more quickly and, therefore, more economically.

Client

Airside Business Park, L.P.
1 Bigelow Square
Suite 630
Pittsburgh, PA 15219

William E. Hunt
412-281-8731

Completion Date

Estimated: 2002
Actual: 2002

Project Costs

\$15,800,000 (Construction)
\$563,289 (Fee)

Baker's Role

- Planning
- Environmental Engineering
- Site/Civil Engineering
- Geotechnical Engineering
- Landscape Architecture
- Architecture
- Space Planning
- Interior Design
- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Fire Protection Engineering
- Structural Engineering
- Traffic Engineering

Because of the proximity to the Pittsburgh International Airport, the roof consisted of a composite concrete slab and composite beams for sound control.

A training facility is provided, as well as a suite of conference rooms on each floor.

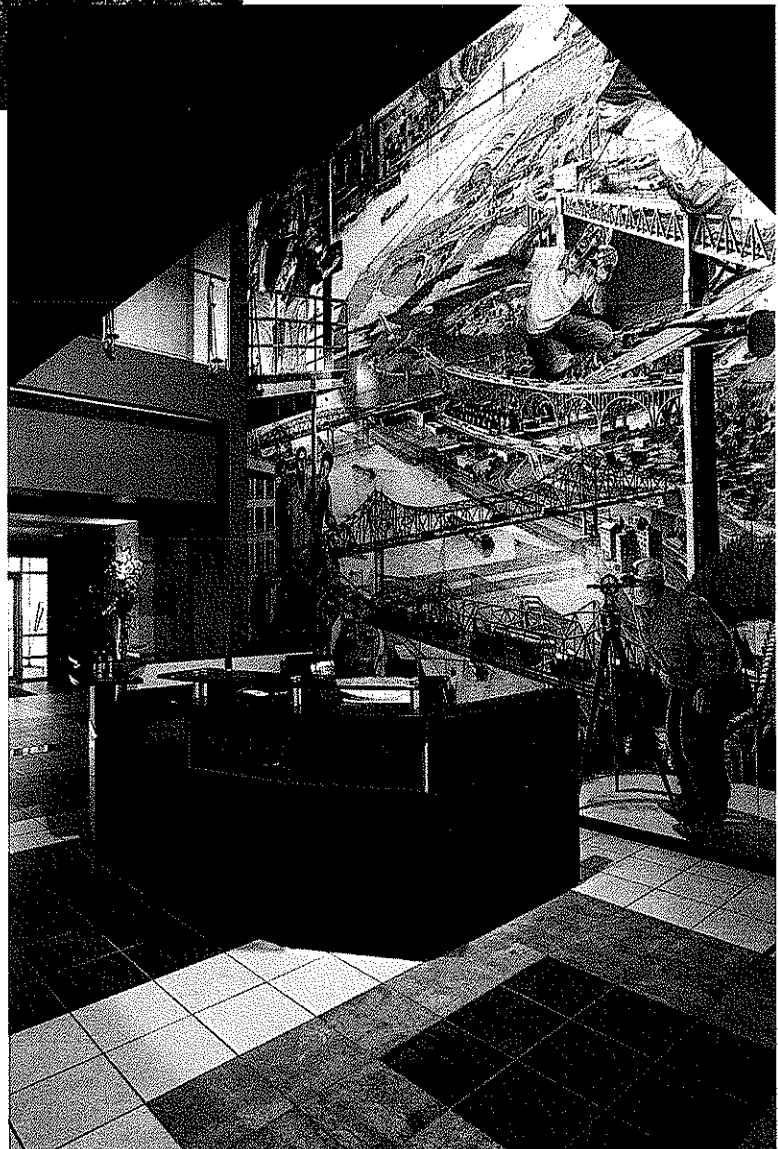


The combined use of both movable glass and solid wall partitions enable quick and easy reconfiguration of spaces. Under-floor power and communications cabling and carpet squares allow easy reconfiguration of networks and electrical outlets. Phones run from a data network, so that each phone is addressable through programming and extensions can be redirected without moving wires.

Although one tenant is currently housed in the building, separate air handlers are provided for each floor, to accommodate future usage by multiple tenants. This flexibility, along with a "Class A" image, was achieved at a cost more associated with a speculative building than a custom design/build-to-suit. A parking deck was constructed to accommodate the office park tenants. The three-level 260-vehicle structure, constructed above ground-level surface parking for 150 vehicles, was designed using precast concrete panels to match the office building design.

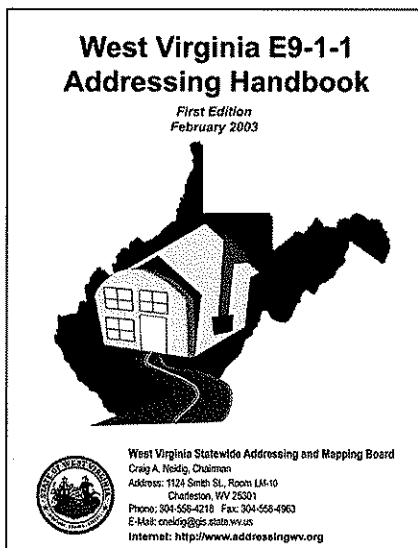
Project Features

- Sustainable, flexible design to accommodate easy reconfiguration of spaces.
- Corporate headquarters facility built on spec developer budget.
- Parking structure to accommodate 260 vehicles.



West Virginia Statewide Addressing & Mapping Project Management

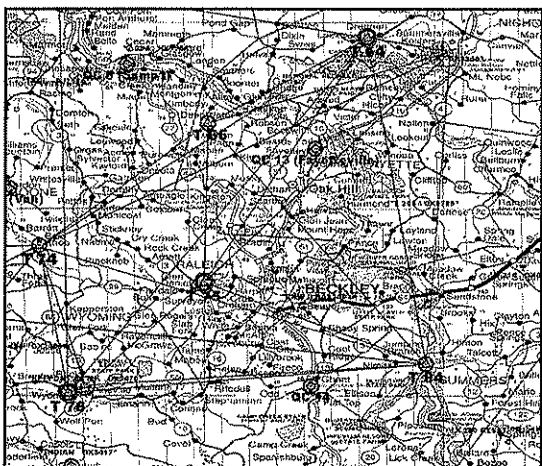
Statewide, West Virginia



The West Virginia Statewide Addressing and Mapping Board (WVSAMB) has been charged with developing an integrated addressing and photogrammetric base mapping system for the entire State of West Virginia. The system includes aerial photography for the development of digital maps and a computerized Geographic Information System (GIS) that will interface with and contribute to the needs of

the following: county Enhanced 911 services, state and local government agencies, telephone companies, US Postal Service, and utility systems, with a special focus on public safety and emergency response.

The West Virginia Legislature created the West Virginia Statewide Addressing and Mapping Board in the 2001 session (Senate Bill 460, codified as W. Va. Code Section 24E-1-1 et seq.). The mission of the Board is to advance the infrastructure of West Virginia by overseeing two major tasks: 1) providing new high quality digital mapping of the entire State of West Virginia;



and, 2) assigning a standard city-style address to every identifiable structure in the state.

Baker was selected as the Project Manager for the duration of the \$16,200,000 project over five years. Baker's responsibilities

include: The design of a world-class addressing and mapping system; determining operational, technical, budgetary, and support requirements; developing rules, standards,

Client

WV Dept. of Administration
 Mapping Board
 Greenbrooke Bldg., Suite 201A
 Charleston, WV 25301

Jimmy Gianato
 WVSAMB Vice Chair
 304-436-4106

Craig Neidig
 WV GIS Coordinator
 304-558-4218

Completion Date

Estimated: 2009

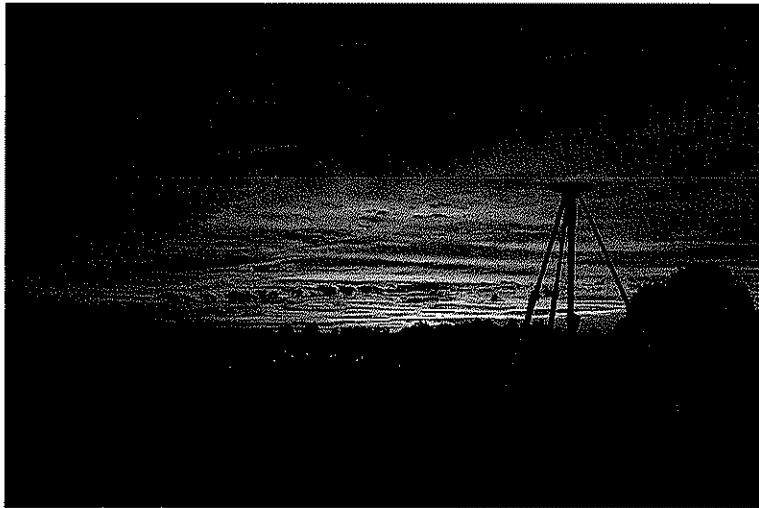
Project Costs

\$16,200,000 (Total Contract)
 \$4,794,305 (Fee)

Baker's Role

- Design of Addressing & Mapping System
- Operational, Technical, Budgetary, and Support Requirements
- Develop Rules, Standards, Policies & Procedures
- Develop Security Procedures
- Standardize Formats for Mapping & Addressing Databases
- Develop Contractor Specifications & Recommendations
- Prepare QBS Solicitations
- Vendor Selection Process
- System Implementation
- Monitor & Evaluate Vendor Performance
- Evaluate Deliveries Acceptance
- Assist Counties & Municipalities
- Maintain Law Compliance
- Financial, Costs and Revenue Accounting

policies and procedures; developing security procedures; standardized formats for mapping and addressing databases; developing contractor specifications and recommendations; preparing qualifications-based selection QBS solicitations; advising the Board through the vendor selection process; system implementation; monitoring and evaluating the performance of vendors and consultants; evaluation and responsibility for deliveries acceptance; assisting counties and municipalities; maintaining compliance with laws; maintaining high professional standards; financial, costs and revenue accounting; preparing budgets and monitoring costs to mitigate risk; and assisting the Board with attracting additional funding.



Findlay Joint Public Safety Facility Feasibility Study

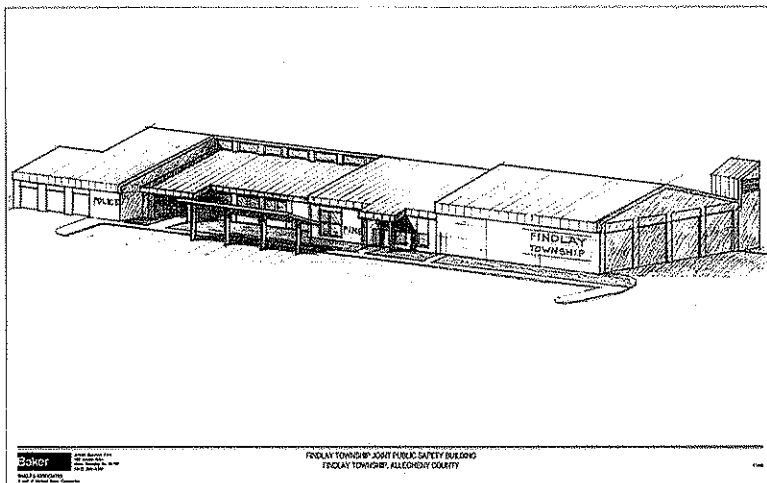
Clinton, Pennsylvania

Baker provided project feasibility services for a Joint Public Safety Facility to serve police, fire, and emergency services. Site and architectural planning for two sites recommended by Findlay Township manager and department users was performed. The work included fitting project program elements into available building and site areas, including the integration of emergency vehicle and public access requirements at the site level.

Safety and security of employees, visitors, and detainees was of paramount importance in the project planning. The planning was further described by building engineering disciplines, and validated by a conceptual construction cost estimate. The result of this study was to determine the feasibility of the project of approximately \$4 million in cost and 25,000 square feet in size, as represented in a final report.

Project Features

- Direct consultation with Township and department representatives
- Validated 25,000-square-foot building at \$4M
- Integration of currently remote and separate public safety groups into one facility
- Used Baker security design skills



Client

Findlay, Township of
1271 Route 30
P.O. Box W
Clinton, PA 15026

Gary J. Klingman
Manager
724-695-0500

Completion Date

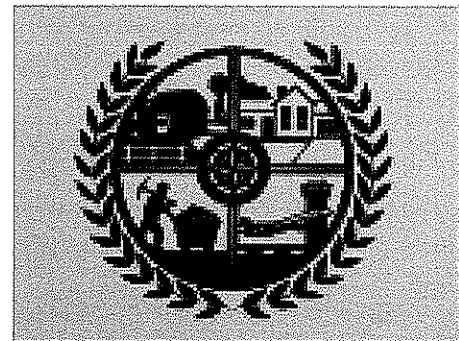
Estimated: 2005
Actual: 2005

Project Costs

\$24,800 (Fee)

Baker's Role

- Project Programming
- Architectural Conceptual Space Planning
- Site Civil Conceptual Planning
- Construction Conceptual Cost Estimating
- Structural Engineering
- Mechanical Engineering
- Plumbing Engineering
- Fire Protection Engineering
- Electrical Engineering



WVARNG Charleston Armory HVAC & Architectural Renovations

Charleston, West Virginia



The existing building/facility started as the Coonskin Armory constructed in 1961. The Headquarters Building was constructed simultaneously with the Coonskin Armory and occupied the

second floor. Also in 1961, as a separate structure, the Adjutant General's Wing (TAG Wing) was constructed nearby. Later, in 1984 the Coonskin Armory/Headquarters Building was physically connected to the TAG Wing with an area of administrative offices. This final major construction project connected all the buildings into one major facility of over 50,000 square feet, referred to as the Charleston Armory.

The West Virginia Army National Guard (WVARNG) Construction and Facilities Management Office (C&FMO) requested a study be conducted of the consolidated facility known as the Charleston Armory, to consider such items as the condition of existing HVAC/MEP systems, and proposed improvements or upgrades to those systems; examine the existing building envelope and recommend possible improvements to the envelope; and finally, investigate the requirements of LEED-certification as it relates to existing buildings.

Client

West Virginia Army National Guard
Division of Engineering and Facilities
1703 Coonskin Drive
Charleston, WV 25311-1085

Major Michael J. Beckner
Armory Facilities Manager
304-561-6333

Completion Date

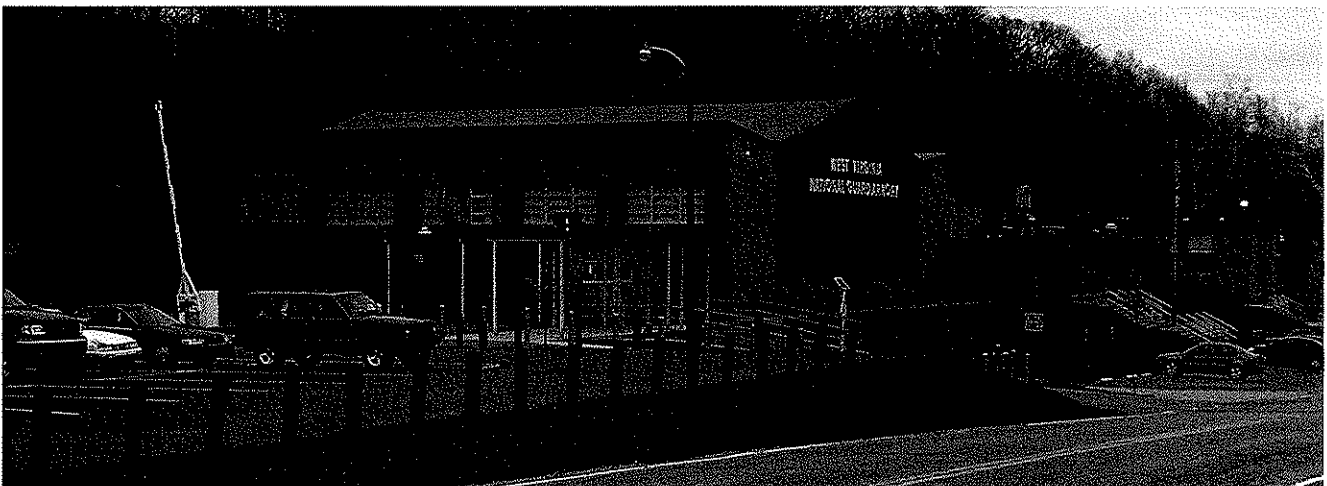
Estimated: Spring 2010

Project Costs

\$2,990,000 (Estimated Construction)
\$72,100 (Fee)

Baker's Role

- Planning
- Architecture
- Mechanical Engineering
- Civil Engineering
- CADD Drafting
- Bidding
- Construction Administration



Baker offered six potential solutions for the facility's HVAC issues in the Planning Study Report. During the review of the six solutions, Baker to understand the Owner's needs and expectations and the level of disruption they would allow. These factors were considered in the final system selection. Preliminary discussions quickly reduced the six considered solutions to two systems: a four pipe hot water/chilled water system and a loop pipe water source heat pump system. Finally, with fewer pipes and a lower installation cost, the loop pipe water source heat pump system was selected as the best system for this situation.

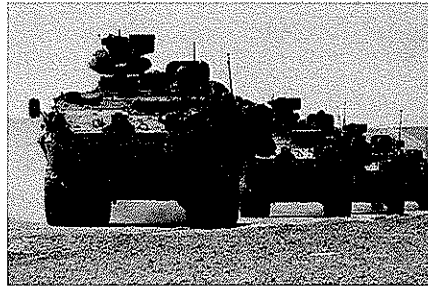
The water source heat pump system is modular and duct work is much smaller than other systems. Heat can be moved around the building such that the equipment would not energize during certain outside air conditions. By treating the building as one, as opposed to three, there is a greater opportunity to share energy produced by the office equipment and occupants located within the building during off peak hours.



Design/Build RFQ/RFP Development for Statewide Construction Program

PAARNG Stryker Brigade Combat Team, Statewide, PA

Under a National Guard Bureau IDIQ, Baker was selected by the United States Property and Fiscal Office for Pennsylvania (USPFO) and the Pennsylvania Army National Guard (PAARNG) to provide a series of defined and optional services for the development of Design/Build Requests for Proposals (RFPs) to support the PAARNG's 56th Brigade's conversion to a Stryker Brigade Combat Team (SBCT) for two sites, Erie and Philadelphia. Subsequently, Baker was selected for a "Stryker specific" indefinite delivery indefinite quantity (IDIQ) contract to support PAARNG's statewide Stryker transformation. In addition, Baker worked with the Pennsylvania Department of General Services (DGS) to create the program's Application for Qualification for potential design/build teams that wish to be considered for contracts under the program.



The Stryker, first put into service in 2001, is the new lightweight tank with rubber tires that is designed for urban warfare maneuverability and portability to any place on Earth within 96 hours or less.

Baker's current work under the \$167,000,000 statewide construction program includes the development of program and project-level design/build RFP documents for sites throughout the Commonwealth of Pennsylvania. Key program components include two building types: Readiness Centers for the training of SBCT Soldiers and Field Maintenance Shops for the maintenance and storage of a variety of military vehicles, including the Stryker military vehicle. The Readiness Centers consist of administrative offices, training centers, and conference facilities, with support spaces such as kitchens and dining areas. The Field Maintenance Shops consist of vehicle maintenance bays, storage facilities, and support spaces. The sustainable design goal is for each finished facility to qualify for a SPiRiT Gold sustainable design rating for FY 2006 and FY 2007, and meet an equivalent LEED® Silver Rating for FY 2008.

Baker's task orders include Design/Build RFP document development for structures at the following sites: Erie - a new Readiness Center and a new Field Maintenance Shop; Philadelphia

Client

US Property and Fiscal Office for Pennsylvania
PA Dept. of Military/Veteran Affairs
Bldg. S 0-47, Fort Indiantown Gap
Annville, PA 17003-5003

Michael G. Koontz
Contracting Officer
717-861-8643

Completion Date

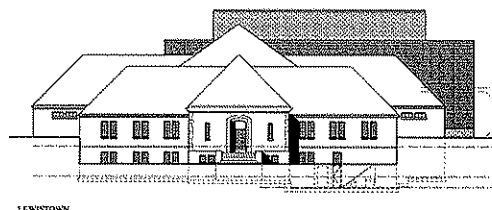
Estimated: 2007

Project Costs

\$97,300,000 (Construction)
\$3,933,188 (Fee)

Baker's Role

- Sustainable Design (SPiRiT/LEED®)
- Architecture
- Civil Engineering
- Structural Engineering
- Mechanical, Plumbing, and Fire Protection Engineering
- Electrical Engineering
- Outline Drawings and Specifications
- Cost Estimating
- Scheduling
- RFQ Development
- Construction Management Support Services
- Land Development
- Permitting



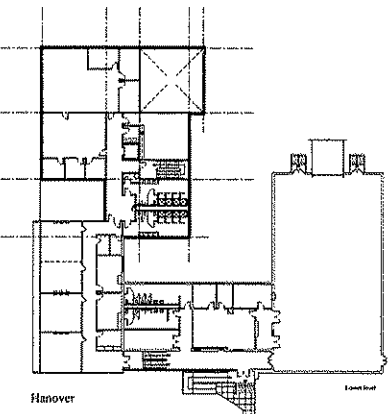
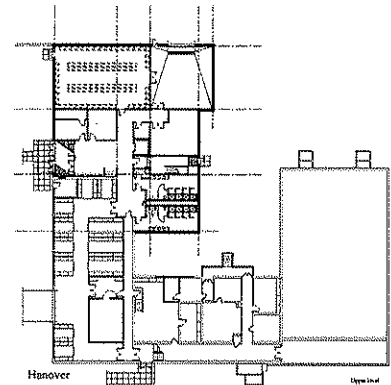
- a new Readiness Center and Field Maintenance Shop; Elizabethtown - a new Readiness Center and a new Field Maintenance Shop; and Bradford and Huntingdon - new Readiness Centers.

Additionally, Baker is developing Design/Build RFP documents for the additions and alternations to Readiness Centers in Lewistown, Punxsutawney, Butler, Hanover, and Lebanon.

Baker's services include the following: site investigation, an on-site programming and design charrette for each site, significant architectural and structural engineering services, sustainable design focusing on the military's SPiRiT rating and LEED®, the development of outline specifications for multidiscipline engineering services in support of the design/build teams that will be selected later by the Pennsylvania DGS, "nearly complete" civil engineering and foundation design services, surveying and geotechnical engineering, land development, permitting, scheduling, cost estimating, and other related construction management support services.

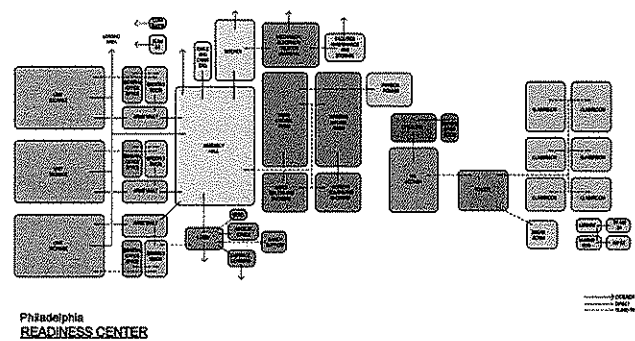
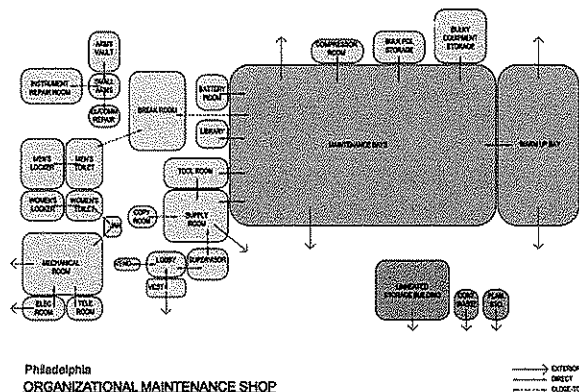
In 2005, Baker's architectural space layouts, engineering requirements, and certain equipment and material selection modules that were prepared for the statewide program were incorporated into the Army National Guard's Design Guides.

Baker will also support the USPFO, the PAARNG, and their state partner, the Pennsylvania DGS, during their selection of the design/build teams that will carry forward Baker's Project Definition Documents to completed buildings. As construction at the various Pennsylvania sites takes place, Baker also anticipates being contracted to provide construction management services to DGS.



Project Features

Special Requirements: Design new and renovation of existing facilities to current building codes standards with particular attention paid to Anti-terrorism & Force Protection, security and intrusion detection, sustainable design (SPiRiT and LEED®) all while working within limited budgets.



Catenary Coal Company-Ten Mile Fork Hernshaw Deep Mine

Kanawha County, West Virginia

Baker analyzed and assessed data and studies that were completed for and included in the existing SMCRA mine permit application for the Samples Mine Complex –Ten Mile Fork Deep Mine to complete an Individual State 401 Water Quality Certification application, an Individual 404 Permit application, and an Environmental Information Document (EID) for submittal to the U.S. Army Corps of Engineers, Huntington District. Data included: applicant ownership and control; applicant violation history; insurance/bonding; applicant's certification of application; land use/cover; parks and recreation; cultural resources; fish and wildlife value; geologic and hydrologic studies; NPDES applications; mine variance/waivers; general mining information; mining and reclamation plans; site specific backfilling, regrading and revegetation plans; drainage control plans; transportation plans; excess spoil disposal design; underground/subsidence studies; blasting plans; water monitoring plans; coal processing refuse disposal plans; underground disposal plans; wetlands; endangered species; environmental justice; floodplains; socioeconomic; air, noise, and dust; energy and mineral needs; forest fragmentation; and aesthetics. In addition, Baker conducted stream surveys and collected Habitat Assessment Values to be utilized in the compensatory mitigation plan (CMP) that it developed for the project. The CMP was utilized by the USACE in the evaluation of the projects overall environmental impact.

From the information, a region-wide impact analysis was prepared to evaluate potential direct, secondary, and cumulative impacts as a result of the proposed operation and the alternatives under consideration. Following completion of the analyses and publication of the Environmental Information Document, the lead agency (U.S. Army Corps of Engineers, Huntington District) determined that the projects, with appropriate mitigation, would have no significant impact on the environment. Baker then assisted the USACE in preparing the Finding of No Significant Impact (FONSI).

Client

Catenary Coal Company
5914 Cabin Creek Road
Eskdale, WV 25075

John McHale

Completion Date

Estimated: 2009

Actual: 2009

Project Costs

\$13,426 (Fee)

Bakers Role

- Prepare the Individual 404 Permit Application
- Prepare the Individual 401 Water Quality Certification Application
- Conduct field survey of mitigation areas and prepare the Compensatory Mitigation Plan
- Prepare Alternatives Analysis
- Prepare Environmental Information Document

West Ox Bus Maintenance Facility Design

Fairfax, Virginia

The West Ox Bus Operations Facility can accommodate operations and maintenance for a combined fleet of up to 300 Washington Metropolitan Area Transit Authority (WMATA) and Fairfax Connector buses. The project was phased such that the first phase provided fully functional facilities for 150 buses while serving the unique needs of each operator. It provides shared spaces which were operationally feasible to reduce redundant program area. After in-depth user and owner interviews and meetings a program was developed, which incorporated the needs of both users. The preliminary functional site and building designs were developed during a weeklong Design Charrette, which included intensive meetings involving users, County agencies and the design team. This process included presentations, analysis and redesign as necessary to satisfy the needs of all stakeholders. The conceptual floor plans for all three buildings were developed, modified and further discussed until consensus was reached on the final layouts. The site and building were developed and program adjusted to accommodate opportunities realized during the interactive design process. The schematic design provided for both, Phase I, 150 bus and Phase II, 300 bus facilities.

Ultimately it was decided that three separate buildings allowed the most efficient use of the site and provided the highest level of safety. The maintenance facilities occupy the main facility along the southern edge of the site, which also acts as a buffer to a nearby residential neighborhood across the Parkway. It will provide space for 13 maintenance bays in Phase I and an additional 13 in phase two. A paint and body shop were moved into the Phase I development. The administration and operations components are separated from the maintenance facilities and located in a separate building adjacent to the employee parking area, which will help to reduce the need for bus drivers to cross bus circulation as often as a single building layout would. The fuel and wash facilities are located near the north face of the maintenance building. This location provides some space saving opportunities due to proximity and eliminated most non-service related bus circulation from the maintenance bay entrance area. The current program requires approximately 96,000 SF of building area in Phase I and another 38,000 SF in Phase II.

Client

County of Fairfax
DIT Administration
12000 Government Center Parkway
Fifth Floor, Suite 527
Fairfax, VA 22035

Hossein Malayeri, P.E.
703-324-2992

Completion Date

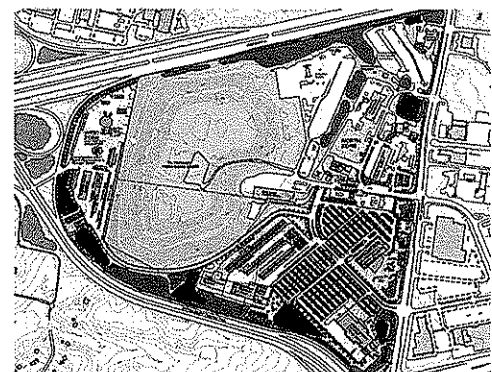
2007

Project Costs

\$31,000,000 (Construction)
\$1,351,707 (Fee)

Baker's Role

- Planning
- Architecture
- Mechanical Engineering
- Electrical Engineering
- Structural Engineering
- Transportation Engineering



Spruce Mine No. 1 Mountaintop Mining EIS

Logan County, West Virginia

Spruce Mine No. 1 is the first mountaintop-mining project requiring an Environmental Impact Statement (EIS) by the U.S. Army Corps of Engineers (USACE). Mountaintop mining is a highly controversial form of surface mining in the Appalachian region of the United States. Coal companies that utilize mountaintop-mining techniques for the removal of coal reserves have historically been permitted through the SMCRA and Nationwide 404 permitting process. Because of court challenges in 1999 - 2001, and the breadth of public concern and comment over this form of mining, the USACE determined that the proposed project would likely result in significant impacts and that an EIS was the appropriate level of NEPA documentation for this +3,000 acre project in order to determine the magnitude of significant impacts on the natural, physical, and socioeconomic environs.

Baker was responsible for all aspects of the project, including agency and public scoping, and the production of the Draft EIS. Baker analyzed and assessed data and studies that were completed for and included in the SMCRA mine permit application. From this information, in addition to studies conducted by Baker, a region-wide impact assessment was prepared to evaluate potential direct, secondary, and cumulative impacts as a result of the Proposed Action and the alternatives under consideration. At this time, the DEIS has been made available to the public and a Public Hearing is to be held prior to the preparation of the Final EIS.

Project Features

- First Environmental Impact Statement prepared for a Mountaintop Mining Individual 404 Permit Application
- Extensive use of GIS to predict direct, secondary, and cumulative impacts
- Major watershed impact context approach

Client

Arch Coal, Inc.
WV Operations (CSX)
P.O. Box 305
Madison, WV 25130

Terah Burdette
304-369-6780

Completion Date

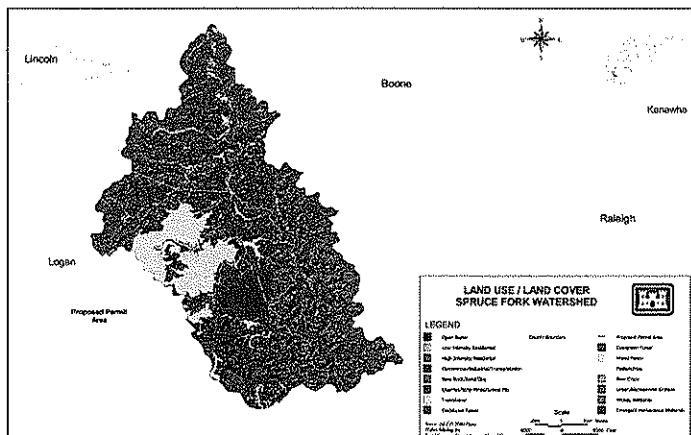
Estimated: 2008
Actual: 2008

Project Costs

\$773,699 (Fee)

Baker's Role

- Jurisdictional stream determinations;
- Jurisdictional wetland determinations;
- Wetland functions and values analysis;
- Wetland mitigation;
- Natural stream channel design;
- Alternatives analysis;
- Public and agency scoping; and
- Public meetings and hearings.



SBCCOM Advanced Chemistry Laboratory Conceptual Design

Aberdeen Proving Grounds, Maryland

Conceptual planning and design services were provided for a 54,000-square-foot Research and Development Laboratory at Aberdeen Proving Grounds, with an estimated construction cost of \$47,000,000. The facility will be used for the manufacturing, storage, testing, and destruction of chemical warfare agents. Baker engineers designed the conceptual HVAC, process piping, plumbing, and fire protection for the U.S. Army Soldier and Biological Chemical Command (SBCCOM).

A site tour was conducted to assess the existing utilities, interview SBCCOM scientists, and prepare the scope of work and cost estimate in preparation of Form DD-1391 for congressional approval. Baker supported the design team with laboratory design and facility layouts.

The HVAC design included constant volume supply air to maintain room pressurizations and air balances. Design of the exhaust system included constant volume flow exhaust hoods with integral bypass, redundant exhaust fans, and redundant charcoal and HEPA filter banks.

Process piping included compressed air, nitrogen, natural gas, vacuum, deionized water, safety shower/eye wash loop, and liquid nitrogen. Specialty drains for segregated effluents within dual containment piping were included, as well as temporary and emergency waste storage, chemical injection delivery systems, and effluent neutralization.

Specific details regarding mechanical system requirements are as follows:

Lab Exhausts

Exhaust requirements were determined from the architectural plan drawings for various lab and fume hood configurations. Fume hood exhaust flow rates were established for open sash design based upon 150 cfm per linear foot of hood length. During closed sash conditions, design assumed a constant volume bypass within the hood to match open sash flow rates. Each lab was designed with a dedicated exhaust system with constant volume, redundant, primary, and standby exhaust fans. Labs with large quantities of fume hoods were provided with multiple exhaust systems to assure a maximum of five hoods per exhaust system. Since exhaust flows were constant, manual balancing dampers were provided at each hood connection.

Makeup Air Units

Makeup air units were sized to meet the total connected exhaust flow rates plus 6 constant volume air changes in lab support areas. Makeup air units were configured as draw-through units for 100% outside air with 80% efficient filters, preheat coils, sensible chilled water coils, dehumidification chilled water coils, and duct mounted steam humidifiers. Makeup air flow rates to each lab were assumed constant volume and were sized

Client
U.S. Army Corps of Engineers,
Baltimore District
Planning Division
P.O. Box 1715
Baltimore, MD 21203-1715

Completion Date
2003

Project Costs
\$47,000,000 (Construction)
\$23,757 (Fee)

Baker's Role

- Feasibility Study
- Master Planning
- Mechanical Engineering
- Electrical Engineering
- Third-Party Design Reviews

to offset lab exhausts less infiltration. Where labs required more than one filter bank, an equal number of makeup air branches were included to assure correct airflow rates and air balance. Each makeup air branch included a manual balancing damper and reheat coil.

Air Conditioning Units

Four conventional packaged rooftop air-handling units were included for the office area based upon a variable air volume delivery system, including economizer dampers, a variable frequency drive supply fan, variable air volume supply air damper boxes with reheat coils, and pressure transmitter in the supply air trunk duct header. Additionally, four re-circulation air-handling units with economizer dampers were included to maintain space conditions in the mechanical room, electrical room, and both interstitial support spaces.

Chillers and Cooling Towers

Two 750-ton chillers and matching 750-ton cooling towers were included for air conditioning and process cooling load demand. The chilled water piping distribution system included two re-circulation pumps, an air separator, expansion tank, and chemical pot feeder. The condenser water system included sump heaters in the cooling tower basins, two re-circulation pumps, and centrifugal separator filter. Each cooling tower contained two cells, and the cells were piped together utilizing an equalizer header. The design also included one of the cells to include a reverse speed fan motor for de-icing capability. Process cooling water piping was not included, but chilled water valves were provided for future tie-in.

Heating System

Primary heating was provided by a steam loop located on the base. Heating to the lab and office building were provided by a secondary heating water system comprised of two steam to water heat exchanger, two re-circulation pumps, an air separator, expansion tank, chemical pot feeder, and distribution piping loop. The secondary loop provided hot water to the HVAC air-handling units and lab makeup air reheat coils. Additionally, ceiling mounted, radiant heating panels were included around the office perimeter.

Humidification

Each makeup air-handling unit serving the lab was provided with a duct mounted steam-to-steam humidifier for gross humidity control within the building. Individual room control was not required.

General Exhaust

Two constant volume, general exhaust fans were included to maintain air changes and air balance in lab support areas that did not contain hood exhausts. Four more exhaust fans were included to ventilate mechanical and electrical equipment rooms under normal operating and emergency conditions. Two exhaust fans were provided for toilet exhaust in the office.

Lab Exhaust Filter Banks

Forty-two (42) filter banks were included for processing hood exhaust effluent. Twenty-eight (28) of these units were equipped to handle effluent from fume hoods and storage cabinets that process or store surety products. These filter banks included a pre-filter, 2 HEPA filters, 2 charcoal filters, and test ports. Eighteen (18) filter banks were equipped to handle effluent from fume hoods and storage cabinets, which currently process or store dilute quantities of surety products. These filter banks included a pre-filter, 2 HEPA filters, 1 charcoal filter, 1 filter housing compartment for future installation of another charcoal filter section, and test ports. Each lab was designed to have a dedicated filter bank. When total fume hood exhaust flows exceeded

5,000 cfm within one lab, an additional filter bank was added and room demand was split based upon equipment layout.

Domestic Plumbing

A building stormwater collection system was provided to collect rainwater from pre-formed roof gutters and convey rainwater by gravity through interior roof drain conductors to an exterior storm sewer system. The exterior site storm sewer system collected rainwater from the building roof drain conductors, paved parking areas and other site topographical features and relieved the site by underground gravity storm sewers. Also, an interior sanitary sewer system was provided to convey waste effluent by gravity from various plumbing fixtures and floor drains to an exterior site sanitary sewer system provided by others.

Domestic cold water was provided throughout the buildings to various restrooms and laboratory sinks. Domestic hot water was supplied by two electric water heaters in the office and two electric water heaters in the lab mechanical room. Service water piping distribution was not included in the lab areas, but was included in the waste treatment room for dilution of waste effluent and hose bibs. Plumbing fixtures were supplied with manual flush valves and faucets.

Waste Treatment

No service corridors were provided below lab areas to convey hood drain effluent to the waste treatment skids. It was assumed that all hood drain effluent would be captured locally above the slab. For safety reasons, no floor drains or hubs were provided within any of the lab areas. The only exception to this design was a double wall emergency dump drain line from the Chemical Synthesis lab to the emergency waste collection tank. Each waste treatment skid contained a lined, 500-gallon capacity ASME labeled tank with recirculation pump, service water connection, chemical injection ports, exhaust connection, etc. The waste treatment room also included one chemical feed skid for acid, caustic and neutralizing chemical dispense. All piping within the chemical treatment room was double contained. All safety shower/eye wash stations within the labs were self-contained units above slab. The shower and mop room within the BL III lab was also provided with a segregated self-contained waste collection unit.

Fire Protection System

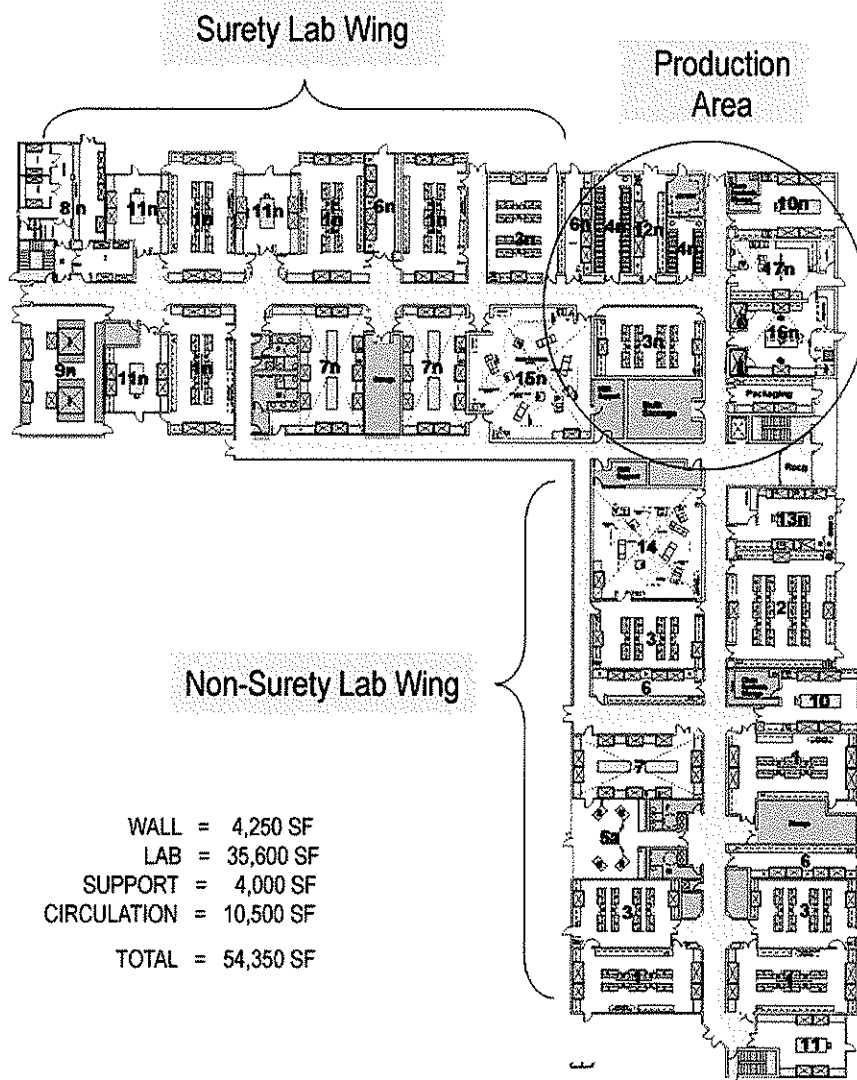
A fire protection system was provided consisting of a fire pump (if required to boost system pressure), standpipes, and a fully sprinklered building. Sprinkler coverage was provided to meet the latest NFPA, underwriter, and local authority having jurisdiction's requirements for the final lab classifications and chemicals stored within the facility. The fire alarm system included a manual/automatic multiplexed fire alarm system with voice annunciation to meet all underwriter and code requirements, including manual pull stations, sensors, detectors, ADA warning strobe lights, sprinkler flow switches and valves monitoring, and interlocks with the HVAC systems. Additionally, an FM200 system was included for fire suppression within all lab hoods.

Emergency Power Requirements

Emergency power was provided for essential safe operation of lab and HVAC equipment, which process surety products and their associated effluents. Two makeup air handlers, one chiller, one chilled water pump, one cooling tower, one condenser pump, one hot water pump, general exhaust fans, and one exhaust fan per filter bank were connected to the electrical generators. Only the electrical demand for the makeup air handlers and its associated support equipment was sized for half capacity during emergency operation; all other users on emergency power were sized for normal operating electrical demand. Generators were programmed in steps to logically bring on equipment in order of life safety importance.

Diesel Storage Tank

A double-walled, bullet resistant, UL 2085 listed diesel storage tank was provided to store electrical generator fuel capacity for five days, complete with generator day tank, Seismic Zone 4 anchors, external ladder and platform, overfill containment chamber, level gauging, leak detection, and piping heat tracing. The storage tank did not include a containment dike.



Consol of Kentucky - Spring Branch Deep Mine

Mingo County, West Virginia

Baker completed an evaluation of an old existing underground mine permit (WVDEP Permit No. U-5013-93) which had never been activated. The evaluation was performed in order to submit a permit revision to the mining permit to bring it up to modern SMCRA requirements. Included in the revision was updating the blasting plan, residential and subsidence surveys, SWROA, and drainage plans.

In addition, Baker completed fall and spring benthic sampling and stream surveys in order to complete the individual 401 state water quality 401 certification and Individual 404 permit applications as well as the compensatory mitigation plan for the proposed project.

As part of the USACE review process, Baker completed an Environmental Information Document (EID) for the proposed project. Baker analyzed and assessed data and studies that were completed for and included in original mine permit and incorporated information from the revision to the mining permit and the individual 401 state water quality 401 certification to complete the EID for submittal to the USACE. Data included: applicant ownership and control; applicant violation history; insurance/bonding; applicant's certification of application; land use/cover; parks and recreation; cultural resources; fish and wildlife value; geologic and hydrologic studies; NPDES applications; mine variance/waivers; general mining information; mining and reclamation plans; site specific backfilling, regrading and revegetation plans; drainage control plans; transportation plans; excess spoil disposal design; underground/subsidence studies; blasting plans; water monitoring plans; coal processing refuse disposal plans; underground disposal plans; wetlands; endangered species; environmental justice; floodplains; socioeconomic; air, noise, and dust; energy and mineral needs; forest fragmentation; and aesthetics.

From this information, a region-wide impact analysis was prepared to evaluate potential direct, secondary, and cumulative impacts as a result of the underground mine and the alternatives under consideration. Following completion of the analyses and publication of the Environmental Information Document, the lead agency (U.S. Army Corps of Engineers, Huntington District) determined that the project, with appropriate mitigation, would have no significant impact on the environment.

Client

Consol, Inc.
P.O. Box 200
Mavisdale, VA 24627

Ed Fanning

Completion Date

Estimated: 2008

Project Costs

\$60,708 (Fee)

Bakers Role

- Conducted Stream Surveys
- Completed Jurisdictional Determination Report
- Conducted Fall and Spring Benthic Sampling and associated Reports
- Prepared Permit Revision
- Prepared Individual 401 State Water Quality Certification
- Prepared Individual 404 Permit
- Prepared Compensatory Mitigation Plan
- Prepared Environmental Information Document

Cumberland Mine No. 8 Shaft Site Design and Permitting

Waynesburg, Pennsylvania

Baker provided site design, permitting, and construction document preparation for the No. 8 Shaft and Portal Facility. The 30-acre site consists of a shaft opening and associated pad area; a cuttings stockpile, a sedimentation pond, access road, two substations with associated pad area, a diesel tank, parking area, portal building, and topsoil/soil stockpile area(s). The project work involved site reconnaissance and environmental resources inventory including stream and groundwater supply sources sampling to establish background water quality data; geotechnical investigation including drilling, soil testing, and stability analysis to establish stable cut and fill slopes; site engineering and preparing facility layout and cut and fill balanced grading plans showing grading limits for the pads, access roads, cutting pit, sedimentation pond and topsoil stockpile area; design of ditches and culverts needed for the site erosion and sedimentation (E&S) control plans; preparation of construction drawings depicting site development; developing pond design report, site construction sequencing; and preparing construction specifications, and construction cost estimate. Permitting activity consisted of preparing permit applications addressing relevant permit modules, submitting permit application and agency follow-up to obtain; Pennsylvania Department of Environmental Protection Coal Mining Activity Permit revision to include the newly designed shaft facility; Pennsylvania Department of Transportation (PennDOT) Highway Occupancy Permit; and PennDOT, approval of slope stability analyses to meet their strict standards. All the permits were obtained within the schedule.

Client

Foundation Coal
158 Portal Road
P.O. Box 1020
Waynesburg, PA 15370

Terry L. Dayton

Senior Staff Environmental
Engineer
724-627-2219

Completion Date

Estimated: 2001

Actual: 2001

Project Costs

\$70,188 (Fee)

Baker's Role

- Site Design
- Permitting
- Construction Document Preparation
- Construction Cost Estimate

Part 8 – Resumes

Russell E. Hall, P.E., P.S.
Charleston Office Manager

General Qualifications

Mr. Hall is an experienced transportation engineer who has been involved in numerous bridge and highway design projects in West Virginia for over 22 years. His project management responsibilities involve overseeing staff from project inception through completion, and ensuring that the clients' needs and requirements are met.

He has over seven years of experience in office management as well. His office management responsibilities include financial oversight and accountability for a staff of over 45 engineers, scientists, and administrative personnel for Baker's Charleston office. His major strengths include organizing and managing a project team, quality control and quality assurance, and problem resolution. He provides overall direction and maintains direct communications with all clients.

Mr. Hall is very proud of the fact that he has been able to spend his entire career in West Virginia working to address West Virginia's transportation needs.

Experience

2004 to Present, Michael Baker Jr., Inc. – *Office Manager* for the Charleston, West Virginia office.

1998 to 2004, Neff, Longest, and Beam, L.L.C. – *Office Manager* for the Charleston, West Virginia office. Responsibilities included the duties of both project manager and office manager. The following is a list of representative projects:

- **WV 9, Charles Town Bypass to Virginia State Line, Jefferson County** – The project provided for the preparation of construction and right of way plans for an approximately five mile section of 4-lane highway. This project included the design of two interchanges, four bridges, and multiple intersections and access roads. This project was divided into seven construction contracts.
- **Fetterman Truss Bridge, Taylor County** – The project provided for the preparation of construction and right of way plans for the replacement of the existing Fetterman Bridge in Grafton, West Virginia. This project included the design of a multiple span curved bridge over the Tygart River and a 200,000 gallon CSO tank.
- **Corridor H, Hardy County** – The project provided for the preparation of construction and right of way plans for a two mile section of 4-lane divided highway. This project included the design of one interchange, two bridges, and multiple intersections and access roads. This project was divided into three construction contracts.
- **Wellington Bridge, Roane County** – The project provided for the preparation of construction and right-of-way plans for the replacement of the existing Wellington Bridge over Spring Creek.
- **I-64 Widening, Putnam County** – This project provided for the preparation of a design report and contract plans for the upgrade of I-64 to six-lane for the proposed US 35 interchange to the existing six-lane section at the 25th Street Overpass Bridge. Neff is a subconsultant to Site-Blauvelt and is

Years with Baker: 4
Years with Other Firms: 18
Education B.S., 1985, Civil Engineering, West Virginia Institute of Technology
Professional Registrations Professional Engineer, West Virginia, 1990, 10947 Professional Surveyor, West Virginia, 1996, 1878

responsible for surveys, right-of-way plans, all bridges except the Kanawha River bridge crossing, and the St. Albans interchange. The project is in the final stage of the design report phase. The design report phase assesses the engineering and environmental impacts of multiple alignments and interchange configurations.

- **US 35/I-64 Interchange, Putnam** – Neff was a subconsultant to Baker responsible for all right-of-way plan development.
- **New River Parkway, Summers and Raleigh counties** – Neff is a subconsultant to Kimley-Horn responsible for all right-of-way plan development.
- **US 52, King Coal Highway, US 119 Mingo County to US 460 Mercer County** – Neff was program manager for the entire corridor. The responsibilities include all engineering design review and approval; develop and maintain schedules; and coordinate with all resource agencies, the WVDOH, and the public.
- **Statewide Services Contract** – Neff provided construction and right-of-way development and review on an as needed basis.

1996 to 1998, West Virginia Department of Transportation – *In-House Design Section Head* for the WVDOH. Responsibilities included the management of four design squads containing approximately 15 engineers and 10 engineering technicians. The In-House Design staff was responsible for the design and preparation of construction and right of way plans for multiple projects throughout the state.

1994 to 1996, West Virginia Department of Transportation – *Consultant Review Section Head* for the WVDOH. Responsibilities included the management of five project managers. Each project manager was responsible for the oversight, review, and approval of consulting engineers' design work. Each manager was responsible for several consultants, most with multiple projects.

1991 to 1994, West Virginia Department of Transportation – *Consultant Review Section Project Manager* for the WVDOH. Responsibilities included oversight, review, and approval of consulting engineers' design work. Each manager was responsible for several consultants, most with multiple projects.

1988 to 1991, West Virginia Department of Transportation – *In-House Design Section Squad Leader* for the WVDOH. Responsibilities included the management of one design squads containing approximately 3 engineers and 2 engineering technicians. The design squad was responsible for the design and preparation of construction and right of way plans for multiple projects throughout the state.

1988 to 1991, West Virginia Department of Transportation – *In-House Design Section Project Engineer* for the WVDOH. Responsibilities included the design and preparation of construction and right of way plans for multiple projects throughout the state.

Patrick W. Fogarty, P.E., P.S.

Civil Services Group Manager

General Qualifications

Mr. Fogarty is an asset to the Michael Baker Jr., Inc. team with over 23 years of project management experience. He is responsible for technical and management aspects of planning, civil design and surveying projects within the office. Mr. Fogarty has designed and managed projects in numerous disciplines including civil, structural and transportation engineering, site development, planning and surveying. These projects have included retail/commercial site preparation, airports, streets/highways, bridges, parking lots, buildings, retaining walls/foundations, sanitary systems and structures, as well as boundary and topographic and photogrammetric surveys. Duties included field surveying, drawings and specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, project management, contract administration and report preparation. Management duties include financial planning, management and staff utilization for two departments, human resource planning, marketing, and strategic planning.

Experience

Bicycle and Pedestrian Plan, Kanawha and Putnam Counties, West Virginia. *Regional Intergovernmental Council.* Project Manager. Responsible for the development of a 2-phase bike and pedestrian study for a 2-county area. The plan included data collection, facilities inventory, identification of activity centers, public involvement, community information analysis, identification of specific improvement locations and their corresponding physical deficiencies and improvement recommendations.

Capitol Campus Master Plan, State of West Virginia General Services Division. Project Manager. Responsible for the development of a campus-wide (55 acres) master plan for the West Virginia State Capitol Complex. Elements of the plan included: Vehicular and pedestrian access, security, utilities, parking, landscaping, and space planning.

Corridor Management Plan, Country Roads Scenic Byway, Various Counties, West Virginia. *Country Roads Byway, Inc.* Project Manager. Responsible for the development of a Corridor Management Plan for a designated State Scenic Byway over a multi-county area. The plan included an inventory of Intrinsic Qualities, an assessment and analysis of existing conditions, an opportunity analysis and proposed development alternatives. The focus of the plan was to provide for inclusion in the National Scenic Byway Program.

Years with Baker: 3

Years with Other Firms: 19

Education

B.S. 1985, Civil Engineering, West Virginia University Institute of Technology

Diploma 1993, Surveying and Mapping, International Correspondence Schools

Registrations

Professional Engineer, West Virginia

Professional Engineer, Kentucky

Professional Engineer, Virginia

Professional Engineer, Pennsylvania

Professional Engineer, Maryland

Professional Engineer, Ohio

Professional Engineer, North Carolina

Professional Surveyor, West Virginia, Kentucky and Ohio

Certifications

Laboratory Procedures, FAA 1992

Construction Document Technologist, CSI 1996

Roadway Worker for Rail Line Sites, CSX 2001

40 Hour HAZWOPER, OSHA 29 CFR 1910.120, OSHA 2001

Technician, PCC, Asphalt, Aggregate, Compaction, WVDOT 1991

Pennsylvania Avenue Tunnel, Kanawha County, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Project Manager. Responsible for complete services toward the development of Right of Way and Construction Plans for the rehabilitation of a 1 lane, tunnel structure on County Route 6/6 near the City of St. Albans. Services included field surveying, right of way, utilities verification and relocation, storm drainage, traffic control, structural design and approach road design. Baker provided project management, environmental coordination, geotechnical engineering, preliminary and final design as well as construction phase services.

On-Call Engineering/Architectural Services, Yeager Airport (CRW), Charleston, West Virginia. *Central West Virginia Regional Airport Authority.* Project Manager. Responsible for management planning and lead design for miscellaneous assignments. Additionally, provided engineering consultation on a current construction project as needed. Baker provided multi-discipline, on-call services to the Central West Virginia Regional Airport Authority (CWVRAA), which owns and operates Yeager Airport (CRW). Baker provided a full range of services to CWVRAA on an "On-Call/As-Needed" basis, including architecture, civil, structural, mechanical, electrical and environmental engineering, general engineering administration, surveying, and construction management.

Flood Protection Options Report-Bonham Elementary School, Kanawha County, West Virginia. *West Virginia Division of Homeland Security and Emergency Management.* Project Manager. Responsible for the development of a report listing potential flood protection options for the facility. Baker was retained by the West Virginia Division of Homeland Security and Emergency Management to prepare a report to address flood protection options for Bonham Elementary School in Kanawha County, West Virginia.

Blennerhassett Island Bridge, Appalachian Corridor D, Washington County, Ohio and Wood County, West Virginia. *West Virginia Department of Transportation, Division of Highways.* QA/QC. Responsible for quality assurance review of final computations. Upon completion of construction of the Blennerhassett Island Bridge over the Ohio River by 2007, the 878' – 6" long network tied arch that ranks as the longest of its type in the United States and one of the longest in the entire world. Baker provided project management, environmental and location studies, permitting, preliminary and final design as well as construction phase services.

Municipal Planning and Design, Engineer-of-Record, Various Locations, State of West Virginia
Performed numerous assignments as Lead Designer and Project Manager for various municipalities including: Planning, and Bituminous and Concrete Pavement Design and Rehabilitation, Sidewalk Design, Storm Drainage Design and Stormwater Permitting, Wetlands Delineation and Mitigation, Equipment Specifications, Sanitary Sewage Collection and Potable Water Distribution Systems, Parking Lot Design, Security Lighting, Environmental Site Assessments, Pre-Bid Meetings, Bid Evaluation and Tabulation, Grant Applications, Construction Management, Pre-Construction Meetings, Construction Phasing Plans, Outlay Requests and Project Close-Out Packages. Notable clients include: City of Parsons; Town of Moorefield; Town of Hambleton; Town of Mason; Town of Lost Creek; and the Town of West Milford.

PRIOR BAKER EXPERIENCE

Planning, Various Airports, State of West Virginia
Performed numerous assignments as Lead Planner and Project Manager for various airports over the past 23 years, including: Site Selection Studies, Master Planning, and ALP Preparation and Update, Wetlands Delineation and Mitigation, Aircraft Wash and De-Ice Facilities, VASI and PAPI Systems, NAVAIDS, Security and Access Control Systems, Security Lighting, and Security Fencing, Capital Improvement Plans, DBE Plans, Maintenance Plans, Spill Control, Containment and Countermeasures Plans, Environmental Site Assessments, FAA Forms A and C, Pre-Bid Meetings / Construction Management Plans / Construction Phasing Plans, Outlay Requests and Project Close-Out Packages. Services provided

for notable airport clients include the following: Mercer County Airport Authority, Bluefield; Upshur County Regional Airport, Buckhannon; Wood County Airport Authority, Parkersburg; Raleigh County Airport Authority, Beckley; Grant County Airport Authority, Petersburg; Eastern West Virginia Regional Airport Authority, Martinsburg; Mason County Commission; Point Pleasant; Elkins-Randolph County Airport Authority, Elkins; Roane County Airport Authority, Spencer; Central West Virginia Regional Airport Authority, Charleston; Mingo County Airport Authority, Williamson; Philippi-Barbour County Airport Authority, Philippi; Nicholas County Airport Authority, Summersville; Marshall County Airport Authority, Moundsville.

Putnam County Parks and Recreation Commission, Various Projects, Hurricane, West Virginia.
Valley Park. Project Manager and Lead Designer. Provided Planning, Surveying, Design and Inspection Services on the waterslide and splashdown pool and the Museum in the Community, including structural and civil engineering.

Kanawha County Parks and Recreation Commission, Various Projects, Charleston, West Virginia.
Coonskin Park. Project Manager and Lead Designer. Provided Planning, Surveying, Design and Inspection Services for soccer fields, recreational trails, shelters and wedding garden.

Municipal Planning and Design, Various Locations, State of West Virginia
Performed numerous assignments as Lead Designer and Project Manager for various municipalities over the past 20 years, including: Planning, Bituminous and Concrete Pavement Design and Rehabilitation, Sidewalk Design, Storm Drainage Design and Stormwater Permitting, Wetlands Delineation and Mitigation, Equipment Specifications, Sanitary Sewage Collection and Potable Water Distribution Systems, Parking Lot Design, Security Lighting, Environmental Site Assessments, Pre-Bid Meetings, Bid Evaluation and Tabulation, Grant Applications, Construction Management, Pre-Construction Meetings, Construction Phasing Plans, Outlay Requests and Project Close-Out Packages. Notable clients include: Town of Poca; Town of Moorefield; City of Buckhannon; City of St. Albans; Town of Hambleton; City of Williamson; Town of Mason; Town of West Milford; City of Bridgeport

Professional Affiliations

American Society of Civil Engineers
International Right of Way Association
Construction Specifications Institute
American Planning Association
West Virginia Airport Managers Association

Previous Work History

Triad Engineering, Inc., Vice President/Senior Engineer/Civil and Survey Manager, 1996-2005
Chapman Technical Group, Vice President Transportation Engineering, 1991-1996
Chapman Technical Group, Project Engineer, 1986-1991
Steel Service Company, Senior Steel Detailer, 1985-1986

Ron L. Bolen, AIA

Senior Architect

General Qualifications

Mr. Bolen brings over 35 years of design and project coordination experience to the project. Mr. Bolen insists on listening to the client's needs and bringing those desires to reality in a distinctive, functional and state of the art facility – on time and within budget. Project types include a multitude of small and large-scale designs, including office, hotel, and multi-purpose facilities, augmented by varied experience in a wide range of opportunities in renovation and new facility design. Truly innovative designs are based on a well-articulated program developed in a close and continuing interaction between the client and the design team.

While at Baker, Mr. Bolen has focused most of his time on design and coordination with clients while maintaining a close relationship with the design team. Increasingly, Mr. Bolen's facilities have become the result of collaborative problem solving with other design professionals and our clients. The results are design solutions that balance interests, intentions and objectives with concepts that reflect quality, integrity and aesthetic appeal.

Experience

A/E Services for the Charleston Armory Improvements, West Virginia Army National Guard, Division of Engineering and Facilities, Charleston, West Virginia. *State of West Virginia, Division of Engineering and Facilities.* Project Architect. Responsible for design and document quality oversight. The Facilities Management Officer (FMO) for the State of West Virginia, Division of Engineering and Facilities (DEF), West Virginia Army National Guard (WVARNG) selected Baker for architectural and engineering services. The State Army National Guard Headquarters in Charleston, West Virginia was originally constructed in the early 1960's. Over the years, there have been numerous upgrades to the facility. Baker was selected by the Division of Engineering and Facilities to provide complete design and construction administration services for architectural improvements of the first floor of the Office of the Adjutant General (TAG), and further provide MEP and HVAC design improvements for the entire TAG Wing, Headquarters Building, and Armory/Drill Floor. The Owner desired the modernization of approximately 55,000 square feet of existing outdated heating, ventilation, and air conditioning equipment. Total project elements included new acoustical ceilings, flooring, energy-saving light fixtures, duplex outlets, communications jacks, alterations to the existing floor plan, exterior door replacements, new interior doors and hardware, new wall finishes, asbestos removal, and a new 4-pipe environmental control system. Baker worked closely with the client during the planning phase to define a project scope to upgrade the existing facility consistent with previous renovations and within a limited budget.

A/E Services for the Capitol Campus Master Plan, State of West Virginia, Charleston, West Virginia. *State of West Virginia, General Services Division.* Architectural Project Manager. Mr. Bolen is currently providing the State of West Virginia General Services Division a comprehensive campus-

Years with Baker: 1
Years with Other Firms: 35+

Education

- B.S. Architectural Design, Parkersburg Community College / WVU Ext., 1980

Registrations

- Registered Architect, No. 3135, West Virginia, 1999

Professional Affiliations

American Institute of Architects (AIA)
West Virginia Board of Architects (WVBOA)
Comprehensive Education Facilities Planners, International (CEFPI)

wide master plan for the 55+ acre state capitol campus. Working in conjunction with the owner and a team of specialized sub-consultants, Ron is currently providing elements including:

- Master Planning
- Public Involvement
- Programming
- Architectural / Review
- Document Management
- GIS
- Project Scheduling
- Cost Estimating
- Facilities Planning
- Sub-consultant Management
- Client Coordination

Non-Baker Project Experience

Glennville State College, Glennville, West Virginia

Mr. Bolen provided Project Manager Services for the development of two projects at Glennville State College as follows:

- ◆ Science Hall – Mr. Bolen provided Project Manager Services through Pre-design and all phases of Document Preparation, Consultant Coordination, Client Relations, and Construction Administration. Design for an addition of four-story office complex with elevator, making an existing building ADA accessible.
- ◆ Louis Bennett Hall – Mr. Bolen provided Project Manager Services through Pre-design and all phases of Document Preparation, Consultant Coordination, Client Relations, and Construction Administration. Design for a addition of three story office complex with elevator and walking bridge between two buildings, (Louis Bennett Hall and Administration Building) making each existing building ADA accessible.

West Virginia University, Morgantown, West Virginia

Mr. Bolen provided Project Manager Services for the development of two projects at West Virginia University as follows:

- ◆ Ruby Memorial Hospital – Mr. Bolen provided Project Job Captain & CADD tech services through Design Development and Contract Document. Design for an addition renovation to an existing facility for the ICU department with the University Hospital.
- ◆ WVU – Indoor Practice Facility – Mr. Bolen provided Project Job Captain & CADD tech services through the Programming and Pre Design phase for an addition Design Build project to an provide a new indoor sports practice facility for the Athletic Department with the University.
- ◆ WVU – Natatorium Facility – Mr. Bolen provided Project Job Captain & CADD tech services through the Programming and Pre Design phase for an addition Design Build project to provide an addition to the existing natatorium facility for the Athletic Department with the University.

Comprehensive Education Facilities Plans (CEFP) 2000-2010

Mr. Bolen assisted in the development of the various Counties' Facilities Plan for the ten-year period of 2000 - 2010. The plans included evaluation of all existing facilities, plans for bringing existing facilities up to current codes and guidelines, cost estimates to bring facilities up to current standards, and final planning scenarios. The following are counties that Mr. Bolen assisting in the development of their CEFP:

- ◆ Nicholas County Board of Education
- ◆ Cabell Co. Board of Education
- ◆ Wetzel County Board of Education
- ◆ Raleigh County Board of Education (required update)

Comprehensive Education Facilities Plans (CEFP) 2000-2010

Mr. Bolen provided Project Manager Services for the development of the various Counties' Facilities Plan for the ten-year period of 2000 - 2010. The plans included evaluation of all existing facilities, plans for bringing existing facilities up to current codes and guidelines, cost estimates to bring facilities up to current standards, and final planning scenarios. The following are counties that Mr. Bolen developed the CEFP plan in conjunction with educational component of DeJong and Associates in the development of their CEFP:

- ◆ Pocahontas County Board of Education
- ◆ Marshall County Board of Education
- ◆ Monroe County Board of Education

A/E Services for Berlin McKinney Elementary School. *Wyoming County Board of Education.*

Ron provided Project Manager Services from pre-design through all phases of document preparation, consultant coordination, client relations, and construction administration. This major renovation design repaired classrooms, toilets and auxiliary spaces for an existing school which was flooded and provided the project within the required state guidelines.

A/E Services for Beckley Elementary School. *Raleigh County Board of Education.*

Mr. Bolen provided Project Manager Services from pre-design through all phases of document preparation, consultant coordination, client relations, and construction administration. This new facility design replaced two existing schools within the required state guidelines and funded by the School Building Authority.

A/E Services for Elkins Middle School. *Randolph County Board of Education.*

As Job Captain, he provided services from design development through all phases of document preparation, and consultant coordination. This addition / renovation design to the existing facility provided needed classroom, and toilet facilities within the required state guidelines.

A/E Services for Daniels Elementary School. *Raleigh County Board of Education.*

Ron provided Project Manager Services from pre-design through all phases of document preparation, consultant coordination, client relations, and construction administration. This major renovation / addition design replaced two existing schools within the required state guidelines, and the project was funded by the School Building Authority.

A/E Services for Cheat Lake Elementary and Middle School. *Monongahela County Board of Education.*

Mr. Bolen was Project Job Captain through Pre Design and all phases of Document Preparation, Consultant Coordination, and Client Relations. Design for a major addition / renovation to the existing facility to replace four existing schools with new facility within the required state guidelines. The two schools shared the dining / kitchen facilities.

A/E Services for Lincoln County High School. *Lincoln County Board of Education.*

As Project Architect, Ron provided services through Contract Document Preparation. Design for a new facility to replace two existing schools with new facility within the required state guidelines. This project included new administration, kitchen / dining, gymnasium, classrooms and labs. The project was a silver LEED designed project.

A/E Services for Roane County High School. *Roane County Board of Education.*

Ron performed duties as Project Job Captain through Pre Design and all phases of Document Preparation, Consultant Coordination, and Client Relations. Design for a new facility to replace two existing schools with new facility within the required state guidelines. The project included new administration, kitchen / dining, gymnasium, classrooms and labs. This project won the state AIA Design Award.

North Central Regional Juvenile Detention Center. *WV Division of Juvenile Services, Parkersburg, WV.*

Mr. Bolen provided construction administration services during the renovation and expansion of the North Central Juvenile Detention Center. Responsibilities included site visits, periodic project walk through, documentation of contractor progress, and approving contractor billings.

Sam Perdue Juvenile Detention Center. *WV Division of Juvenile Services, Princeton, WV.*

Mr. Bolen provided bidding and construction administration services during the renovation and expansion of the South Regional Juvenile Detention Center. Responsibilities included site visits, periodic project walk through, documentation of contractor progress, and approving contractor billings.

Gymnasium Facility. *Federal Bureau of Prisons Beckley, West Virginia.*

As Project Job Captain, he provided services through all phases of document preparation, consultant coordination, and client relations. This new facility design provided an indoor gymnasium facility for the medium security prison.

Americans with Disabilities Act (ADA) Compliance Studies. *Federal Bureau of Prisons, Beckley, WV.*

As Project Job Captain, Mr. Bolen provided services through all phases of document preparation, consultant coordination, and client relations to update existing facility with ADA standards for medium security prison.

Alderson Women's Dormitory, Alderson, WV.

Mr. Bolen provided Project Architect services during contract document preparation and client relations. This new facility design replaced an existing dormitory facility at the women's correctional facility.

Classroom and Outdoor Training Facility Upgrades, Camp Atterbury, Columbus, Indiana. *Directorate of Public Works, Post Engineer.* Project Architect. Project responsibilities included site surveying and base map preparation, site civil and architectural plan preparation, detailing, bidding, and construction administration for renovations required by the Post Engineer, Camp Atterbury, Indiana. Elements of the project included expansions and renovations to existing classrooms, expansion of existing office space, renovations to electrical, communications, and fire detection and suppression systems, and development of outdoor MWR facilities and training facilities such as a community park, and obstacle course. Periodic construction administration services were included during construction.

Glen Jean Armory, Glen Jean, Fayette County, West Virginia. *State of WV, Division of Engineering and Facilities.* Project Architect. Responsible for design development and construction document preparation for a new Armed Forces Readiness Center in Glen Jean, Fayette County, WV. The project consisted of military offices constructed of structural steel frame, brick veneer exterior, and EDPM membrane roofing system. The new Armory was constructed as a Readiness Center to consolidate the Oak Hill and Beckley Organizational Maintenance Shops and houses the 77th Bridge Troop Command from Charleston, the 18-63rd Transportation Company from Oak Hill's armory and the 150th Armored Division from Raleigh County's armory in Beckley.

Ronceverte Vol. Fire Station & Community Center *Ronceverte Vol. Fire Department.*

As Principal / Project Manager, Mr. Bolen provided services from pre-design through all phases of document preparation, consultant coordination, client relations, and construction administration. The design replaced an existing fire station. The facility was designed with five truck bays, office spaces, and conference hall, large meeting hall, toilets, and kitchen facilities and equipped with facilities for community flood relief.

Harrison County Emergency Squad Facility in Shinnston WV *Harrison County Commission.*

As Principal / Project Manager, Mr. Bolen provided services from pre-design through all phases of document preparation, consultant coordination, client relations, and construction administration. The design replaced an existing fire station. The facility was designed with four truck bays, office spaces, and conference / training room, meeting hall, toilet and kitchen facilities.

Main Harts Creek Vol. Fire Station *Main Harts Creek Vol. Fire Department.*

As Project Manager, Mr. Bolen provided services from pre-design through all phases of document preparation, consultant coordination, and client relations. The design was for renovation to an existing emergency medical service facility by modifying it to meet the surrounding area's needs. The facility houses six emergency vehicles, dayroom area, kitchenette, two bunkrooms, toilets and showers.

Raleigh Co. Board of Education Bus Maintenance Facility *Raleigh County Board of Education.*

Mr. Bolen performed duties as Project Manager Services through From Schematic Design through Contract Document. Design for a new facility to replace an existing building for the Bus Maintenance program with new facility within the required state guidelines.

Ghent Maintenance Facility *WV Parkways Authority*. As Project Manager, Ron provided services through pre-design and all phases of document preparation, consultant coordination, client relations, and construction administration. This new facility design replaced an existing building for the Snow Removal Vehicle Maintenance Program. The WV Parkways Authority funded this project.

Standard Maintenance Facility *WV Parkways Authority*. As Project Manager, Ron provided services through pre-design and all phases of document preparation, consultant coordination, client relations, and construction administration. The new facility design replaced the existing building for the Snow Removal Vehicle Maintenance Program. The WV Parkways Authority funded this project.

R. Todd Schoolcraft, PLA, ASLA

Landscape Architect

General Qualifications

Mr. Schoolcraft has over 18 years of experience in the fields of landscape architecture and land planning, with over 26 years of experience in the building and construction industry. Mr. Schoolcraft has extensive experience managing complex projects and leading multi-disciplined teams of professionals resulting in the successful delivery of numerous quality projects on-time and on-budget. Major areas of specialty include commercial development, military installation design, land planning, public development, site planning and design, park and recreation design, trails and greenways, streetscape design and urban planning, and residential subdivision layout. Mr. Schoolcraft is a retired U.S. Army Officer, holding the rank of Major, with over 23 years of time in service in the U.S. armed forces. In the last years of service, he held the position of Operations Officer with the newly formed Chemical, Biological, Radiological, Nuclear or High Yield Explosive Enhanced Response Force Package Team (CERFP Team) with the West Virginia Army National Guard. Prior to this, he was a combat engineer with the Design Section of the 111th Engineer Group, West Virginia Army National Guard. The 111th Engineer Group served in the Middle East in support of Operation Iraqi Freedom and Operation Enduring Freedom. During that time, Mr. Schoolcraft was awarded the Bronze Star Medal for meritorious service associated with a multitude of engineering and architectural projects in Kuwait and Iraq. Mr. Schoolcraft has been appointed to the West Virginia State Board of Landscape Architects by Governor Joe Manchin, and currently serves as Secretary of the Board.

Experience

Lost Creek Train Depot Improvements, Lost Creek, West Virginia. *Town of Lost Creek and the Harrison County Commission.* Project Landscape Architect. Responsible for concept planning design and document quality oversight. The Town of Lost Creek retained Baker for the planning and design of the rehabilitation of a historic train depot adjacent to the Harrison County Rail Trail. Phase I involved foundation work associated with the structure. Over the years, surface drainage had migrated under the building and deteriorated many of the posts and portions of the beams. Baker prepared a plan to raise the structure, make repairs to the deteriorated timber, excavate and place the concrete foundation system, then lower the structure to rest on the new foundation. The foundation system included a new perimeter concrete wall foundation to support the posts and exterior floor beams. The interior beam was supported by concrete piers on spread footings. The perimeter concrete wall will raise the finish floor elevation by 12" and provide a barrier against storm water intrusion.

Years with Baker: 2

Years with Other Firms: 16

Education

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

Registrations

- PLA, West Virginia, 1995
- RLA, North Carolina, 2008
- PLA, Ohio, 2002
- CLARB Certified, 2001

Professional Affiliations

- WV State Board of Landscape Architects
- American Society of Landscape Architects
- WV Chapter – American Society of Landscape Architects
- American Planning Association
- Associate Member – AIA West Virginia
- Society of Military Engineers
- National Guard Association
- WV Rails-to-Trails Society
- Elkland Pool Board

Parsons City-Wide Comprehensive Parks and Recreation Master Plan, Parsons, West Virginia. *Parsons Parks Board.* Project Manager. Responsible for master planning design and document quality oversight. Baker prepared a Master Plan of improvements and recommendations for existing and proposed parks and recreation amenities for the city limits of Parsons, Tucker County, West Virginia. The City of Parsons, over time, has acquired many parcels of FEMA-condemned properties due to the flood prone topography of Parsons. In an effort to properly manage the existing facilities, yet prepare for the future of the additional facilities scattered throughout the community, this master planning effort was begun. Through a series of public meetings and stakeholder meetings, a final plan was realized with recommendations for ball fields, hiking and biking trails, a recreation center, skateboard park, miniature golf course, additional play structures, picnic facilities, ADA-compliant fishing access, interpretive signage, and landscaping improvements for the existing and new park areas.

Ararat River Greenway Parks Projects, Mount Airy, North Carolina. *City of Mount Airy, North Carolina.* Project Manager. Responsible for design and document quality oversight. Baker prepared construction documents and is providing construction administration and construction inspection services for three (3) parks along the Ararat River in North Carolina. The designs were prepared based on a previously developed master plan of the Ararat River Greenway. The first park, Riverside Park, includes basketball courts, playground structures, parking areas, a premier soccer field, picnic shelters, nature trails, canoe launch facility, restrooms, fencing, signage and landscaping. Rowe Environmental Park will showcase environmental issues in the park design and construction, including an outdoor amphitheater and classroom, picnic facilities, nature trails, parking area, pedestrian bridge to nearby middle school, fishing access and canoe launch facility. The final park design is for Tharrington Park, which includes a premier soccer field, additional soccer fields to create a soccer complex, access road and parking, fitness trail, restroom facility, concessions, and a maintenance building.

Kanawha & Putnam County Bicycle – Pedestrian Master Plan, South Charleston, West Virginia. *Regional Intergovernmental Council (RIC).* Assistant Project Manager. Responsible for field inventory and analysis, and plan preparation and review. Baker performed a two-phase bicycle and pedestrian circulation study for Kanawha and Putnam Counties. Under Phase I, Baker performed a cursory inventory of existing bicycle and pedestrian facilities, identified areas with a high level of bicycle and pedestrian activity, collected existing resources including traffic volumes and comprehensive plan documents and performed a broad base public outreach effort to identify bicycle and pedestrian issues in Kanawha and Putnam Counties. Under the Phase I effort, Baker incorporated the inventories into a series of public meetings, garnering input from each community and the client, and then summarizing the findings in the Plan. Based on these efforts, a list of recommended improvements to the 2-county area was proposed to improve bicycle and pedestrian safety and user-friendliness throughout the project area.

A/E Services for the Office of the Adjutant General, West Virginia Army National Guard, Division of Engineering and Facilities, Charleston, West Virginia. *State of West Virginia, Division of Engineering and Facilities.* Project Manager. Responsible for design and document quality oversight. The Facilities Management Officer for the State of WV, West Virginia National Guard, selected Baker for a lump sum/fixed fee contract for architectural and engineering services. Baker was to provide complete design and construction administration services for the renovation of the first floor of the entire wing of the Office of the Adjutant General. Project elements included new acoustical ceilings, flooring, energy-saving light fixtures, duplex outlets, communications jacks, alterations to the existing floor plan, exterior door replacements, new interior doors and hardware, new wall finishes and asbestos removal.

Non-Baker Project Experience

Salem Train Depot & Trailhead, North Bend Rail Trail, Salem, West Virginia. *WYK Associates, Inc. and the Town of Salem.* Project Landscape Architect. Responsible for design development and construction document preparation. Teamed with WYK Associates, prepared detailed plans and specifications for site improvements to support architectural improvements to the Train Depot, which served as trailhead for the

North Bend Rail Trail. As well as the renovation to the historic train depot, site amenities included, brick walkways, period lighting, wrought iron benches and trash receptacles, and storm sewer improvements.

KRT / Amtrak Train Station, Montgomery, West Virginia. *City of Montgomery.* Project Manager. Responsible for design and document quality oversight. Prepared detailed design, construction documents, provided bidding and construction management services for improvements to the combined Amtrak Train Station and Kanawha Rapid Transit (KRT) Bus Stop in Montgomery, WV. Project consisted of an outdoor canopy shelter, concrete sidewalk replacement, lighting, concrete retaining walls, ornamental railing, wheelchair ramp, concrete steps with ornamental hand railing, truncated dome panels, storm sewer, benches and trash receptacles. The project was bid using unit costs resulting in the base bid award, plus the addition of several park benches added based unit prices submitted by the contractor. The City went on to use many of the proposed amenities and materials in this project for other street and sidewalk improvement projects.

Historic Saint Albans Train Station Master Plan, St. Albans, West Virginia. *City of St. Albans.* Project Landscape Architect. Responsible for concept development and master plan graphics. Prepared schematic design and concepts for a proposed master plan for the Historic Saint Albans Train Station in St. Albans, Kanawha County, WV. Plan consisted of an outdoor plaza space, specialty pavers, period lighting, benches and trash receptacles.

Peterson Central Elementary School, Weston, West Virginia. *WYK Associates, Inc. and the Lewis County Board of Education.* Landscape Architect. Responsible for conceptual design, detailed design, construction document preparation and document quality oversight. This new K-4 elementary school consolidated Peterson, Polk Creek and Shadybrook Elementary Schools. The new facility, constructed in 2000, induced a better learning atmosphere. The new construction enabled Lewis County to provide computer networking, indoor/outdoor physical education, a learning resource center and a multi-purpose room with the capacity for presentations, all housed in this new 45,523 square foot facility.

Lewis County High School Football Field, Weston, West Virginia. *Lewis County Board of Education.* Platoon Leader, Bravo Company, 1092nd Engineer Battalion, WVARNG. Responsible for project coordination and construction site supervision. During the construction of this new school budget constraints limited the development of extracurricular facilities, including the football stadium. Along with the curricular improvements at that included computer labs, music facilities, art studios, state of the art science labs, new athletic fields were a need. Bravo Company of the 1092nd Engineer Battalion, West Virginia Army National Guard, helped fill this void by providing construction equipment and manpower to carve the football stadium grounds out of a nearby hillside, completing the high school campus.

Spring Valley High School, Huntington, West Virginia. *ZMM, Architects & Engineers, and the Wayne County Board of Education.* Landscape Architect. Responsible for conceptual design, detailed design, construction document preparation and document quality oversight. This consolidated senior high school for 1,200 students grades 9 through 12 includes two gymnasiums (one with seating for 1,200), full food service facilities, and auditorium with seating for 600, and a library with media technology distribution capabilities. For Wayne County's comprehensive building, the building was designed with hinge points, volume transitions and a bright color palette, and at 175,000 square feet, details were incorporated in the design that give the large building a human scale. Site features include a massive earth moving effort in the site preparation phase, stream relocation, extensive culvert design, WVDOH-approved storm sewer system, football stadium, baseball field, landscaping, and ADA compliant accessibility.

Main Street Streetscape Master Plan, Clay, West Virginia. *Central Appalachia Empowerment Zone (CAEZ).* Project Manager. Responsible for field inventory and analysis, conceptual design, master planning and cost estimate preparation. Developed conceptual design and master plans for the redevelopment of Main Street Clay, in Clay County, West Virginia. Proposed amenities included new concrete sidewalks with brick accents, brick crosswalks, concrete curbing, period street lights, wrought-iron benches and trash receptacles, overhead utility relocations, storm sewer improvements, and landscaping. Also prepared cost opinions in unit

cost format for use in funding applications. Assisted Town of Clay in preparation of Transportation Enhancement Grant application based on master plan.

Stonewall Jackson Lake Resort State Park, Weston, West Virginia. *McCabe-Henley-Durbin, LLP and WVDNR, Parks & Recreation.* Project Landscape Architect. Responsible for master planning, conceptual design, detailed design, construction documents, bidding, and construction administration. Assisted in the development of a Master Plan for the expansion of Stonewall Jackson Lake State Park into a Resort Park. Further developed concepts, and finally detailed design and construction documents for the site development of a 200-room lodge with conference facilities and restaurants, patio and deck overlooking the lake, children's playground, 8 exposed timber-frame deluxe cabins, 18-hole Arnold Palmer Signature Golf Course with Clubhouse, maintenance facility, parking lots, roads, utilities, trails, campgrounds, boat launch ramp, boat dock, and other recreational facilities for this highly successful public/private joint venture to expand the facilities at Stonewall Jackson Lake near Weston, Lewis County, West Virginia.

Mud River Lake Recreation Area, Lincoln County, West Virginia. *US Soil Conservation Service.* Landscape Architect. Master planning, conceptual design, detailed design, and construction document preparation. Assisted in the development of a Master Plan and construction documents for the development of a recreational facility associated with the flood control impoundment, Mud River Lake, Lincoln County, West Virginia. Plans included a bath house, beach and swimming area, two comfort stations, boat launch facility, handicap accessible fishing pier, playgrounds, picnic shelters, water treatment facility, sewer treatment plant, maintenance facility, parking lots, roads, lighting, signage, trails, and other amenities for this destination fishing and recreation facility.

West Virginia State Parks Accessible Cabins, State of West Virginia. *West Virginia Department of Natural Resources, Division of Parks & Recreation.* Project Landscape Architect. Responsible for field inventory and analysis, base map preparation, site selection, conceptual design, and construction document preparation. Developed construction documents for \$3,300,000.00 in new ADA-compliant deluxe cabins for the following WV State Parks and Forests: Twin Falls State Park, Pipestem State Park, Bluestone State Park, Greenbrier State Forest, Watoga State Park, Seneca State Forest, Holly River State Park, Kumbrow State Forest, Tygart Lake State Park, Blackwater Falls State Park, Lost River State Park, and Cacapon State Park.

Various Military Installation Improvements, Camp Arifjan, Kuwait. *Directorate of Public Works, Post Engineer.* Project Manager. While on deployment in the Middle East with the 111th Engineer Group, West Virginia Army National Guard (WVARNG) was tasked to perform various improvements to Camp Arifjan through the Directorate of Public Works (DPW) and the Post Engineer. Projects included the Camden Yard Engineer Troop Wash Point; DPW Morale, Welfare and Recreation (MWR) Restroom Facility; DPW Third Country Nationals (TCN) Restroom Additions; and many other improvements.

Offices Held

- Current Secretary, WV State Board of Landscape Architects
- Past Treasurer, WV State Board of Landscape Architects
- Past President, WV Chapter American Society of Landscape Architects
- Past Treasurer, WV Chapter American Society of Landscape Architects
- Past Secretary, WV Chapter American Society of Landscape Architects

Honors and Awards

- WV Chapter – American Society of Landscape Architects; 2008 Merit Award – Kanawha & Putnam County Bicycle – Pedestrian Master Plan
- WV Chapter – American Society of Landscape Architects; 2005 Merit Award – Russell Residence House and Site Improvements
- United States Army; 2003 Bronze Star – Operation Iraqi Freedom
- American Society of Landscape Architects; 1999 Medallion Award – Charleston Village District
- WV Chapter – Am. Soc. of Landscape Architects; 1999 Merit Award – Tamarack Arts Center
- WV Chapter – Am. Soc. of Landscape Architects; 1995 Honor Award – NorthGate Business Park

David Hilliard

Senior Mechanical Designer

General Qualifications

Mr. Hilliard has a wide range of “hands on” design and construction experience. From his simple beginnings as a carpenter he has expanded his professional abilities. His recent design experience has included the complex mechanical design of such projects as the complex CAMC Hospital, Charleston, WV. His resume covers over 20 years of real world work in design, layout, fabrication, construction and finishes in both the mechanical and general trades.

Over the years, while practicing his profession, Mr. Hilliard continued his education. He attended night school and began working on a civil engineering degree, which later changed to mathematics then finally to mechanical engineering. While attending college, he used his HVAC work experience to evaluate mechanical problems and make design recommendations on numerous public and commercial buildings.

Experience

A/E Services for the Charleston Armory Improvements, West Virginia Army National Guard, Division of Engineering and Facilities, Charleston, West Virginia. *State of West Virginia, Division of Engineering and Facilities.* Project Engineer. Responsible for detailed design, QA/QC, construction administration and inspection. The Facilities Management Officer (FMO) for the State of West Virginia, Division of Engineering and Facilities (DEF), West Virginia Army National Guard (WVARNG) selected Baker for architectural and engineering services. The State Army National Guard Headquarters in Charleston, West Virginia was originally constructed in the early 1960's. Over the years, there have been numerous upgrades to the facility. Baker was selected by the Division of Engineering and Facilities to provide complete design and construction administration services for architectural improvements of the first floor of the Office of the Adjutant General (TAG), and further provide MEP and HVAC design improvements for the entire TAG Wing, Headquarters Building, and Armory/Drill Floor. The Owner desired the modernization of approximately 55,000 square feet of existing outdated heating, ventilation, and air conditioning equipment. Total project elements included new acoustical ceilings, flooring, energy-saving light fixtures, duplex outlets, communications jacks, alterations to the existing floor plan, exterior door replacements, new interior doors and hardware, new wall finishes, asbestos removal, and a new 4-pipe environmental control system. Baker worked closely with the client during the planning phase to define a project scope to upgrade the existing facility consistent with previous renovations and within a limited budget.

A/E Services for the Capitol Campus Master Plan, State of West Virginia, Charleston, West Virginia. *State of West Virginia, General Services Division.* Project Engineer. Mr. Hilliard is currently providing the State of West Virginia General Services Division MEP engineering support for a comprehensive campus-wide master plan for the 55+ acre state capitol campus. Working in conjunction with the Owner and a team of specialized sub-consultants, Mr. Hilliard is currently providing MEP support for many planning elements including:

- Master Planning

Years with Baker: 1

Years with Other Firms: 19

Education

B.S., 2002, Mathematics, West Virginia State College

B.S., 2005 Mechanical Engineering, West Virginia University Institute of Technology

Professional Affiliations

ASME

ASHRAE

SMACNA

-
- Public Involvement
 - Programming
 - Architectural / Review
 - Document Management
 - GIS
 - Project Scheduling
 - Cost Estimating
 - Facilities Planning
 - Sub-consultant Management
 - Client Coordination

Non-Baker Project Experience

CAMC Memorial, Kanawha City, West Virginia

Performed design calculations, layout of Plumbing, HVAC ductwork, piping and components for three floors of the Clinical Teaching Center; Lobby, Cath Labs and patient rooms. This work was all done in affiliation with BSA Life Structures.

Raleigh General Hospital Surgery Suite; Beckley West Virginia

Worked on value engineered and shop drawing for a 20,000 square foot surgery addition, as well as managed and coordinated construction of this complex mechanical design.

Ashland Community and Technical College; Ashland, KY

Mr. Hilliard worked on Design Evaluation and Coordination of the Medium Pressure VAV Mechanical System. He prepared shop drawings and coordination drawings. His duties also included Construction Administration.

West Virginia Army National Guard support Maintenance Shop; Eleanor WV

Mr. Hilliard worked on Design Evaluation and Coordination of construction of the HVAC system; including infrared heat, gas unit heaters, auto fume exhaust and make-up air.

Mountain State University School of Business and Applied Technologies; Beckley WV

Mr. Hilliard worked on Design Evaluation and Coordination of the Mechanical System. He prepared shop drawings and coordinated construction.

Southern West Virginia Community and Technical College; Mount Gay WV

Mr. Hilliard was charged to Value Engineer and Coordinated Construction of this three story building. He prepared VE shop drawings which were instrumental in returning money to the owner.

Air National Guard Maintenance Facility; Ashland KY

Mr. Hilliard worked on coordination drawings and managed construction of the HVAC system; including infrared heat, gas unit heaters, auto fume exhaust and make-up air.

City of Charleston Fire Department -2; Virginia Street West, Charleston WV

Mr. Hilliard prepared shop and construction drawings for the HVAC system including gas unit heaters, Carmon retractable auto fume exhaust and make-up air facilities.

Jackson County High School, Jackson, OH

Mr. Hilliard worked on Design Evaluation and Coordination of the Medium Pressure VAV Mechanical System. He prepared shop drawings and coordination drawings. His duties also included Construction Administration.

Huntington High School, Huntington, WV

Mr. Hilliard worked on Design Evaluation and Coordination of the Heat Pump Mechanical System. He prepared shop drawings and coordination drawings. His duties also included Construction Administration.

Other miscellaneous projects

Waverly City Schools, Waverly, OH (Three schools were built in the same complex. Elementary, Middle and High School).

Kings Daughters Medical Center Parkview addition, Ashland, KY

Emergency Response Center (911) Huntington, WV

Army National Guard Construction & Facilities Management Office, Charleston, WV

Mountaineer Challenge Academy, Camp Dawson Kingwood, WV

PREVIOUS WORK HISTORY

Air Systems Sheet Metal Company; Contractors & Engineers, 1990 - 2009, Drafter / Designer / Construction Manager / Estimator. Air Systems is currently the largest sheet metal contractor in West Virginia. They engineer, fabricate and install both commercial HVAC and industrial ventilation systems in the tri-state area.

During his tenure at Air Systems, he managed and directed the drafting and design department preparing shop, design and value engineered drawings. He also worked as a project coordinator for HVAC ductwork, piping, plumbing and sprinkler. Estimating jobs (QuickPen software), construction management, submittal review, procurement of supplies and air balancing were also part of his working experience at Air Systems.

CS Lewis Contracting Co., 1985 - 1990, Partner, Designer/Builder. As a business partner he designed and built homes and light commercial building from the ground up; including plumbing, electrical, HVAC. He also supervised the installation of underground utilities and concrete roads for various subdivisions; running a six to twelve men crew.

Xenia Construction Co., 1979 - 1984, Commercial Carpenter/Mason. Worked as a carpenter and concrete mason building mid-sized commercial buildings and half million dollar homes.

Brown & Root Construction Co., 1975 - 1978, Structural Fitter. In Houston Texas, Mr. Hilliard worked high steel in an Arco Petroleum Refinery as a pipe hanger fitter. The work included; layout, fabrication and installation of steel supports and hangers for pipe ranging from 1.5" to 102" in diameter.

Sinclair Construction Co., 1972 - 1975, Residential Carpenter. Carpenter and mason's helper on a wide range of new home construction.

John P. See, P.E., P.S.
Civil Engineer II

General Qualifications

Mr. See has extensive experience with engineering and design of surface and underground mine facilities. He also is a project manager and develops engineering designs for various transportation and public works projects. He is an adjunct instructor for the Community and Technical College at West Virginia University Tech.

Experience

Non-Baker Project Experience

Various Transportation and Mining Engineering Projects. *State of West Virginia.* Project Manager. Provided a broad range of civil and mining engineering related services on various projects throughout the state. Provided design support as needed. 2003-2008

Various Transportation Projects, State of West Virginia. *West Virginia Department of Transportation, Division of Highways.* Professional Engineer. Provided a broad range of civil engineering services on various transportation projects. Worked closely with the Department of Highways. 2000-2003

Various Projects. *State of West Virginia.* Designer. Provided engineering services in the highway and bridge design disciplines. 1997-1999

Various Projects. *State of West Virginia.* Technical Support and Construction Management. Contributed engineering and technical support serving the mining, civil and construction sectors, as well as construction management assistance in the building trades and public works sectors. 1996-1997

Various Public Works Projects. *Azzon, Inc.* Principal. Performed construction services in the reclamation of abandoned mined lands and related public works projects. 1993-1996

Various Mining and Civil Projects. *See Engineers & Associates, Inc.* Principal and President. Provided consulting engineering and construction management in the mining and civil engineering disciplines. Responsibilities ranged from administration and management of the company to design engineering of overall projects. Projects ranged from construction stakeout supervision to completed construction plans and specifications for public works projects. Clients ranged from individuals and privately owned companies to government agencies. 1985-1995

Various Civil, Structural, Mining and Environmental Engineering Projects. *State of West Virginia.* Principal and President of J & K Engineers & Associates, Inc. Responsible for administration and

Years with Baker: 1

Years with Other Firms: 42

Education

M.S.C.E., 1971, Structural, West Virginia University

B.S.C.E., 1967, Civil Engineering, West Virginia Institute of Technology

Coursework, Computer and Information Technology, Marshall University

Licenses/Certifications

Professional Surveyor, West Virginia, 1995

Professional Engineer - Civil, West Virginia, 1972

Professional Engineer - Civil, Kentucky, 1975

management of consulting engineering services in the civil, structural, mining, and environmental engineering disciplines. 1979-1985

Various Mining Projects, State of West Virginia. *Southern Appalachian Coal Company.* Engineering Superintendent. Responsibilities encompassed all engineering functions of the three operating coal companies under this division. Duties ranged from reserve investigation and feasibility evaluation to mine development and subsequent daily operations. 1976-1978

Appalachian Pocahontas Coal Company. Chief Engineer. Responsibilities encompassed the development of property maps and subsequent reserve estimates for this newly incorporated coal company. Duties included the development of the diamond core drill program for the reserve estimates and preparation of the various permits necessary for development of the proposed underground mines. 1975-1976

Southern Appalachian Coal Company, State of West Virginia. Mine Development Engineer. Performed work in the various phases of the coal procurement process as well as the development of coal preparation facilities and the subsequent coal handling, storage, and loadout systems. Participated in the development and expansion of railroad sidetrack facilities and assisted in the planning and construction of a railroad siding and related truck unloading and subsequent rail loading facilities. Negotiated with various contractors on the above and other related facilities and was responsible for the preparation of specifications, conceptual layouts, and project related correspondence. Assisted in the planning and development of new underground and surface mines and reviewed and approved the mine maps for submission to various agencies. 1972-1975

Sverdrup & Parcel & Associates, Inc. Design Engineer. Performed work in the highway, railroad, and bridge design sections. Computed horizontal and vertical alignment, performed drainage computations, supervised drafting of construction plans, developed construction specifications, and estimated contract quantities in the highway and railroad design sections. A contract for a bridge inspection program was secured from the Department of Highways and entailed preparation of analysis and condition reports for various bridge structures throughout West Virginia. 1971-1972

Swindell Dressler Company. Design Engineer. Performed work in the bridge, highway, and housing development sections. In the bridge design section, another engineer and I performed the design analysis, supervised the drafting of construction plans, estimated quantities, and prepared the contract specifications for two steel stringer type bridges and a concrete vehicular underpass. In the highway design section, I performed the same duties as previously described while employed by Sverdrup & Parcel. In the housing development section, I performed design computations on subdivision layout and various related facilities, performed feasibility studies, and supervised drafting. 1969-1971

Previous Work History

AE Associates Ltd, Project Manager, 2003-2008

GAI, Inc., Transportation Engineer, 2000-2003

West Virginia University Institute of Technology, Adjunct Instructor, 1997-2003

Kenneth Kelly Professional Surveying, Technical Support, 1996-1997

Curtis Gilmer & Associates, Inc., Construction Management, 1996-1997

Azzon, Inc., Principal, 1993-1996

See Engineers & Associates, Inc., Principal and President, 1985-1995

J & K Engineers & Associates, Inc., Principal and President, 1979-1985

West Virginia Institute of Technology, Associate Professor of Mining Engineering Technology, 1978-1979

Southern Appalachian Coal Company, Engineering Superintendent, 1976-1978

Appalachian Pocahontas Coal Company, Chief Engineer, 1975-1976

Southern Appalachian Coal Company, Mine Development Engineer, 1972-1975

Sverdrup & Parcel & Associates, Inc., Design Engineer, April 1971-1972

Swindell Dressler Company, Design Engineer, 1969-1971

West Virginia Department of Transportation, Division of Highways, 1966-1969

District I Construction Division. Assistant Project Supervisor. Worked on a limited access four-lane highway. 1968-1969

West Virginia Department of Highways, Central Construction Division. E.I.T. This division verified the project quantities prior to final contract payment. 1966 to 1968.

Community Activities

Town councilman for the Town of Handley 1968-1970

Continuing Education/Training

Right of Way Plans Development, WVDOT, 2001

Right of Way Property Descriptions, WVDOT, 2001

Hydrology of Surface Mined Watersheds, 1981

Labor Law Class, WV Institute of Technology, 1977

Coal Geology Symposium, Washington, DC, 1976

Coal Preparation Short Course, W.V.U., 1974

Presentations

Presented an overview of Surface Mine Permitting in West Virginia

Presented to International Erosion Control Association, 15th Environmental Conference, Workshop & Trade Show Sept23-25, 2008

Presented by John See and Dana Moses

Teaching

Adjunct Instructor, West Virginia University Institute of Technology Civil Engineering Technology Program. 1997-2008

Associate Professor of Mining Engineering Technology, West Virginia Institute of Technology. Developed and presented course lesson plans and problem analysis sessions as well as assisted in the development of laboratory experiments and student advising. This and previous university academic work experience included: 1) Introduction to Mining, 2) Mine Laws and Management, 3) Mine Production Management, 4) Surface Mine Design, 5) Mine Design, 6) Plant Design, 7) Strength of Materials, 8) Statics, and 9) Coal Preparation. 1978-1979

Computer Skills

Autodesk AutoCAD
Bentley GEOPAK
Bentley MicroStation
Highway Software: AutoCAD 14
MathCAD
Microsoft Excel
Microsoft Project
Microsoft Windows
SurvCAD

Professional Affiliations

American Institute of Mining, Metallurgical and Petroleum Engineers (AIME)
American Society of Civil Engineers (ASCE)
National Society of Professional Engineers (NSPE)

Charles McCrady, E.I.T.

Civil Associate II

General Qualifications

Mr. McCrady is an E.I.T.-certified civil associate in Baker's Civil Engineering Department. His experience includes mining permit applications, coal refuse disposal alternatives analysis, water line feasibility studies, on-site construction monitoring and inspection, and water resources engineering, particularly in erosion and sedimentation control. Mr. McCrady also has hands-on experience constructing cell phone tower, drilled shaft foundations, spread footing, and residential housing.

Years with Baker: 3

Years with Other Firms: 4

Education

B.S., 2005, Civil Engineering, West Virginia University

Licenses/Certifications

Engineer-In-Training, West Virginia, 2006

Experience

Cumberland Mine, Waynesburg, Pennsylvania. *Cumberland Coal Resources, LP.* Civil Associate. Assisted in preparation of permit for the Cumberland West Permit Swap and the Cumberland #9 Shaft. Performed ground water sampling and responsible for E&S design. Baker has been assisting Cumberland Mine personnel with mine permitting and design since approximately 1980. The various projects performed by Baker typically required a full range of services beginning with mine site characterization and surface facility design, continuing through preparation of required permit applications and coordination with regulatory agency(s), to preparation of required construction documents. Baker also developed topographic mapping needed for design and permitting.

Multi-Hazard Flood Map Modernization (Map Mod), Nationwide. *Federal Emergency Management Agency (FEMA).* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be revised for the FEMA flood mapping and FIS study. Baker leads the Mapping-On-Demand (MOD Team), FEMA's Program Manager hired to develop, plan, manage, implement, and monitor the Multi-Hazard Flood Map Modernization (Map Mod) Program for flood hazard mitigation across the United States and its territories under a five-year contract.

9 County Roads Feasibility Study, Preston County, West Virginia. *West Virginia Department of Environmental Protection.* Civil Associate. Performed research of geological data and mining maps, evaluated impacts of past mining activities on groundwater within the study area, and evaluated existing water distribution systems. Baker was selected to provide the engineering services necessary to develop a water supply study for the specified area. The object of the study was to investigate the area's current water supply, make a determination as to how it has been affected by past mining, and recommend alternatives for water supply replacement. Baker compiled information and documentation to support an AML & R grant request to OSM for funding to extend and/or install water systems in impacted areas. The work was performed in 2 phases. The purpose of Phase 1 was to determine the potential impact of past mining activities on water supplies within the study area. When a potential impact was established, Phase 2 began, which involved a detailed investigation of mining history, geology, hydrogeology, and water supply sources.

Design & Permitting Work. *Emerald Coal Resources, LP.* Civil Associate. Assisted in layout of access road. Provided E&S design for site including HEC-RAS model.

Longwall Mine Expansion. *Confidential Client.* Civil Associate. Conducted on-site investigations, surface and ground water sampling, and assisted in the preparation of Module 8 of the WV DEP mining application.

Prepared and secured a permit for expansion of an underground coal mine in West Virginia. At this facility, mining is being conducted within the Pittsburgh Coal seam using longwall mining techniques. As a result of Baker's efforts, the mine permit was successfully revised to add approximately 4,980 acres of Pittsburgh Coal reserves.

Phase I Water Supply Feasibility, Various Counties, West Virginia. *West Virginia Department of Environmental Protection.* Civil Associate. Conducted a feasibility study which included: on-site interviews with residents, local agencies, and government officials, research using public and private sources, and collecting water samples within project area to determine impacts past mining activities imposed on private water supplies. Provided the WV DEP with alternatives and recommendations to identify the most cost-effective remedial measures that could be made.

Baker was responsible for determining if the drinking water supply sources had been impacted by past mining in the watershed. All residents use groundwater wells for their drinking water supply. A feasibility study was conducted to evaluate the impact. Alternatives and recommendations identified the most cost-effective remedial measures.

Design and Permitting for Surface Facilities of New Freeport Underground Mine, Clarksville, West Virginia. *Emerald Coal Resources, LP.* Civil Associate. Assisted in preparation of permit for Freeport's surface facilities, conducted resident interviews, and collected ground and surface water samples. Responsible for E&S design. Baker was selected to prepare, submit, and obtain a PA DEP SMCRA and a NPDES Permit for the proposed surface facilities associated with the new Freeport Underground Mine. Baker is responsible for the proposed surface facilities including earthwork and grading plan, and foundations for all belt transfer structures, stockpiles, prep plant, clean coal silo(s), refuse conveyors, clean coal conveyors, and the harbor barge loading facility.

2007-2008 Foundation Mine Design/Permitting Shaft & Slope Site, Surface Facilities and Batch Weigh System Site, and RR Spur and Siding. *Emerald Coal Resources, LP.* Civil Associate. Assisted in preparation of permit for Foundation Mine Surface Facilities. Prepared PA DEP permit applications for the slope, shaft, railroad, and surface facilities. Assisted in design of all sites, provided E&S design for all sites, constructed pre- and post- hydrologic and hydraulic models on streams to analyze potential flooding, conducted resident interviews, and collected ground and surface water samples. Responsible for E&S design and floodplain analysis using HEC-RAS. Baker was responsible for developing several conceptual layouts for shaft and slope sites and rail spur with rail car loadout arrangements and evaluating them in order to optimize and finalize the locations of various surface facilities relative to the shaft and slope including overland conveyors for raw and clean coal transport with transfer stations, raw and clean coal stockpiles and slot storage and reclamation tunnel for clean coal, coal preparation plant water storage tanks, access roads to surface facilities, and batch weigh loadout for rail cars. Baker was also responsible to design the rail spur, siding and track layout for rail car loading.

Foundation Mine - Alternate Refuse Site Selection & Water Feasibility Study. *Emerald Coal Resources, LP.* Civil Associate. Created an Alternatives Analysis report in order to identify the most desirable site for the proposed coal refuse disposal facility. Responsible for creating the report, which included comparison of engineering, environmental, social, and economic impacts of the proposed facility. Evaluated numerous inquiries with state agencies regarding the various factors under their jurisdiction. Responsible for engineering evaluation, which included available storage volumes and preliminary layouts of the facility at each alternative location. Baker's responsibility included: identification of alternate potential refuse disposal sites with a 25-square-mile search area around a proposed coal preparation plant, site reconnaissance collecting reasonable available pertinent environmental data, literature search to supplement limited data available from field observations, and evaluating each site in accordance with PADEP's Technical Guidance

Document (TGD Number 563-2113-660) on coal refuse disposal site selection process as well as satisfying good engineering practice.

Freeport Refuse Site Selection Study. *Emerald Coal Resources, LP.* Civil Associate. Revised an Alternatives Analysis report as required by the Pennsylvania Department of Environmental Protection in order to identify the most desirable site for the proposed coal refuse facility. The report included comparison of engineering, environmental, social, and economic impacts of the proposed facility. The evaluation included numerous inquiries with state agencies regarding the various factors under their jurisdiction. Engineering evaluation included available storage volumes and preliminary layouts of the facility at each alternative location. Baker's responsibility included: identification of alternate potential refuse disposal sites within a 25-square-mile search area around a proposed coal preparation plant; site reconnaissance including collection of reasonable available pertinent environmental data, literature search to supplement limited data available from field observations; and, evaluating each site in accordance with the Pennsylvania Department of Environmental Protection (PADEP)'s Technical Guidance Document (TGD Number 563-2113-660) on coal refuse disposal site selection process as well as satisfying good engineering practice.

Provide Preliminary Site Permit 7 Design Services for #3 Refuse Site. *Emerald Coal Resources, LP.* Civil Associate. Assisted in E&S design and permit application preparation.

Multi-Hazard Flood Map Modernization (Map Mod) - Year 3, Arlington, Virginia. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be revised for the FEMA flood mapping and FIS study. This task order is the third year of a five-year, \$500M program. The major points of this program are to establish and maintain a premiere data collection and delivery system; achieve effective program management; build and maintain mutually beneficial partnerships; and expand and better inform the user community.

FEMA Region VIII RTO 0004, Quality Assurance and Programmatic Oversight for Flood Hazard Mapping Projects, FEMA Region VIII (CO, MT, ND, SD, UT, WY), Denver, Colorado. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be incorporated into new FIS study. Baker was responsible for evaluating the quality of flood hazard analyses performed by others and provided guidance to ensure that the submitted data meet quality standards. Baker provided instructor-led training on subjects related to hydrologic analysis, hydraulic analysis, geographic information systems (GIS), and FEMA regulatory requirements and process. Baker also visited FEMA's partners on-site to ensure standards were being followed, answered questions and provided guidance to ensure that projects stayed on track and budget. Quality Assurance and Programmatic Oversight for Flood Hazard Mapping Projects.

Digital Flood Insurance Rate Map Production and Development of Updated Flood Data for Multiple Countywide Flood Studies, Kansas City, Missouri. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be incorporated into new FIS study. Baker, the National Service Provider (NSP) for the Federal Emergency Management Agency (FEMA) provides the technical and administrative services to develop Digital Flood Insurance Rate Maps (DFIRMs) and Flood Insurance Study (FIS) reports in the FEMA Digital Countywide format. This Flood Map Project includes multiple counties within FEMA Regions VII.

FEMA Region VIII (CO, MT, ND, SD, UT, WY), Map Mod DFIRM, FEMA Region VIII (CO, MT, ND, SD, UT, WY), Denver, Colorado. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be incorporated into new FIS study. Baker, the National Service Provider (NSP) for the Federal Emergency Management Agency (FEMA) is providing technical and administrative services to develop Digital Flood Insurance Rate Maps (DFIRMs) and Flood Insurance Study (FIS) reports in the FEMA Digital Countywide and Community-based format. This Flood Map Project includes multiple

counties and communities within FEMA Regions VIII. Digital Flood Insurance Rate Map Production and Development of Updated Flood Data for Multiple Countywide Flood Studies

Multi-Hazard Flood Map Modernization (Map Mod) - Year 4, Nationwide. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be revised for the FEMA flood mapping and FIS study. This task order is the fourth year of a five-year, \$500M program. The major points of this program are to establish and maintain a premiere data collection and delivery system; achieve effective program management; build and maintain mutually beneficial partnerships; and expand and better inform the user community.

Multi-Hazard Flood Map Modernization (Map Mod) - Year 5, Nationwide. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be revised for the FEMA flood mapping and FIS study. This task order is the fifth year of a five-year, \$500M program. The major points of this program are to establish and maintain a premiere data collection and delivery system; achieve effective program management; build and maintain mutually beneficial partnerships; and expand and better inform the user community.

Miller Mountain Waterline Feasibility Study. *West Virginia Department of Environmental Protection.* Civil Associate. Performed research of geological data and mining maps, evaluated impacts of past mining activities on groundwater within the study area, and evaluated existing water distribution systems. Project included performing field research and sampling of surface and groundwater, plotting laboratory test results on Piper Trilinear Diagrams, identifying possible solutions to water quality problems, and providing preliminary construction cost estimates for recommended alternatives. The Miller Mountain Waterline Feasibility Study was completed for the West Virginia Division of Environmental Protection (WVDEP) and included detailed research of the local hydrology, hydrogeology, geology, and past mining activities, as well as collection and analysis of representative water samples and interviewing residents. Conclusions regarding the impact of that past mining activities have had upon local hydrogeology conditions as well as on water quality and quantity were formulated based upon information collected as part of the investigation. Finally, the report presented recommendations regarding remedial actions including extension of the Miller Mountain water distribution system and upgrades to the existing treatment facility.

Mine Expansion Permitting. *Confidential Client.* Civil Associate. Conducted on-site investigations, surface and ground water sampling, and assisted in the preparation of Module 8 of the WV DEP mining application. Baker prepared and secured a permit for expansion of an underground coal mine into West Virginia. At this facility, mining is being conducted within the Pittsburgh Coal seam using longwall mining techniques. As a result of Baker's efforts, the mine permit was successfully revised to add approximately 3,700 acres of Pittsburgh Coal reserves.

No. 16 West Bleeder Shaft Site, Pennsylvania. *Confidential Client.* Civil Associate. Conducted site investigations, surface and ground water sampling, and assisted in the preparation of Module 8 of the PA DEP mining application. Baker prepared and secured permits for development and operation of a new 15-acre mine bleeder shaft site in Greene County, Pennsylvania.

Digital Flood Insurance Rate Map Production and Development of Updated Flood Data for Multiple Countywide Flood Studies, FEMA Region VII. *FEMA.* Civil Associate. Responsible for hydrology and hydraulics review of material submitted to be incorporated into new FIS study. Michael Baker Jr., Inc., the National Service Provider (NSP) for the Federal Emergency Management Agency (FEMA) will provide the technical and administrative services to develop Digital Flood Insurance Rate Maps (DFIRMs) and Flood Insurance Study (FIS) reports in the FEMA Digital Countywide format. This Flood Map Project includes multiple counties within FEMA Regions VII.

Previous Work History

Conrad Construction, Parkersburg, West Virginia, Carpenter, May 2003-January 2006
Morlan Enterprises, Parkersburg, West Virginia, Laborer, May 1999-August 2004
United Postal Service, Parkersburg, West Virginia, Loader/Unloader, January 2002-August 2002

Community Activities

United Way, Volunteer, Fall 2007, volunteered at the Women's Center in Beaver, Pennsylvania - Painted buildings and porch, stained outdoor furniture, and landscaping

United Way, Volunteer, Fall 2008, volunteered at the Girl's Hope of Pittsburgh, in Baden, Pennsylvania - Refinished interior doors

Big Brother/Little Sister Program, Donated Gifts for the 2007 Christmas Program

Continuing Education/Training

An Introduction to MicroStation Design File Elements/Design File Structure, February 14, 2007

Hydrologic Modeling HEC-HMS and HEC-1, October 2006

Learning ArcGIS Desktop Course, online course provided by ESRI through FEMA Support

Customizing User Interfaces, AutoCAD 2008, January 17, 2008

AutoCAD 2008 and AutoCAD LT 2008 Essentials Course, January 22 & 23, 2008

AutoCAD and AutoCAD LT 2008 Intermediate Course, February 27, 2008

AutoCAD Civil 3D 2009 Essentials Course, February 16 & 17, 2009

Seminars/Conferences

E&S Mining Seminar: Workshop on Plan and Preparation and Permitting performed by the Allegheny Conservation District at Lexington Technology Park, Building #1 – Suite 102, 400 North Lexington Street, Pittsburgh, PA 15208-2566 on 11-17-2006

2008 WV Mine Drainage Task Force Symposium: Ramada Inn, Morgantown, WV on April 22-23, 2008

2009 WV Mine Drainage Task Force Symposium: Ramada Inn, Morgantown, WV on March 31 and April 1, 2009

Specialized Experience

Lab: Performed soil analysis and classification. Superpave Asphalt Mix Design. Experience with the total station. Analyzed and tested aggregates, steel, aluminum, Portland Cement Concrete, mortar, and wood.

Computer Skills

ArcCatalog
ArcMap
ArcToolbox
AutoCAD Civil 3D
Autodesk AutoCAD
Autodesk Land Desktop
Bentley Haestad Methods (FlowMaster)
Bentley MicroStation
CheckRAS
Corpscon
EPANET
HEC-HMS
HEC-RAS
Hydroflow Hydrographs
IntelliSolve-Hydraflow Storm Sewer Design Software
Microsoft Excel
Microsoft Power Point
Microsoft Word
National Flood Frequency Program (NFF)
Oracle (Web Application Server)
RASPlot
TR 55

Instrument Proficiency

Conductivity Meters
Flow Meters
GPS
pH Meters

Jason T. Smithson, P.S.
Civil Associate

General Qualifications

Mr. Smithson is currently employed as a Civil Associate at the Charleston, West Virginia office of Baker's South Region.

Mr. Smithson has over ten years of diverse experience that includes assignments in civil design, geotechnical engineering, environmental science, surveying, drilling, construction inspection and field and laboratory materials testing.

Experience

Various Sidewalk Projects, West Virginia. *Various West Virginia Municipalities.* As a Project Surveyor, Mr. Smithson established horizontal and vertical control and provided topographic mapping by conventional and GPS survey methods, to provide data for the creation of plan sheets for the construction of new sidewalks, as well as civil engineering to correct existing poor drainage concerns in various communities throughout West Virginia including: Town of West Milford, West Virginia; Town of Mason, West Virginia; Town of Hambleton, West Virginia; and the Town of Moorefield, West Virginia.

Various WVDOH Highway Projects, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Geotechnical Geologist, Project Surveyor and Engineering Technician.

Mr. Smithson provided subsurface investigation data, topographic mapping, and right of way services on several WVDOH projects for various highway consulting engineering firms. Responsibilities on these projects consisted of the generation of site surveys, property boundary mosaics, courthouse research, right of way questionnaires, and the development of right of way plans and parcel descriptions. Additionally, he provided geologic analysis data for the subsurface investigation to support the Geotechnical Engineering functions toward the development of highway construction plans. This work included locating all physical and topographic features, utility locations, storm drainage features, property boundary lines, courthouse research and interaction with all existing property owners to complete property questionnaires for right of way acquisition, drill program planning, core logging and analysis, and cut-fill slope design.

Bob Evans Farms, Inc., Columbus, Ohio. *Bob Evans Farms, Inc.* Project Surveyor. Mr. Smithson provided complete services for an ALTA/ACSM Survey of the Bob Evans Restaurants in Huntington, West Virginia and Canonsburg, Kentucky. Services included field surveying (boundary and topographic), courthouse research and assessment of the Title Commitment for the subject property.

Three Gables Surgical Center, Proctorville, Ohio. *Three Gables Surgical Center.* Project Surveyor, Mr. Smithson provided complete services for an ALTA/ACSM Survey of the new surgical center in Proctorville, Ohio. Services included field surveying (boundary and topographic), courthouse research and assessment of the Title Commitment for the subject property.

Huntington Industrial Corporation, Huntington, West Virginia. *Huntington Industrial Corporation.* Project Surveyor, Mr. Smithson provided complete services for an ALTA/ACSM Survey of the Prichard Industrial Park in

Years with Baker: 3

Years with Other Firms: 7

Education

B.S., 1999, Geology, West Virginia University

Licenses/Certifications

Professional Surveyor, West Virginia, 2007, 2153

OSHA 40-Hour HAZWOPER Certification, 1999

OSHA 10-Hour Safety Training, 2005

Certified Well Driller, West Virginia, 2002, WV00316

Wayne County, West Virginia. Services included field surveying (boundary and topographic), courthouse research and assessment of the Title Commitment for the subject property.

Structures Resources, Inc., Huntington, West Virginia. *Structures Resources, Inc.* Project Surveyor. Mr. Smithson provided complete services for numerous ALTA/ACSM Surveys of various sites in Cabell, Putnam, Kanawha, and Wayne Counties in West Virginia. Services included field surveying (boundary and topographic), courthouse research and assessment of the Title Commitment for the subject property. Sites have included the following: Commerce Park, Cabell and Wayne Counties; The Hamlets, Cabell County; Lakeview Manor, Wayne County; Carriage Hill, Kanawha County; and Teays Commons, Putnam County.

84 Lumber Inc., Elkview, West Virginia. *84 Lumber Inc.* Project Manager/Surveyor. Mr. Smithson provided complete services for an ALTA/ACSM Survey of the Elkview 84 - Lumber site in Kanawha County, West Virginia. Services included field surveying (boundary and topographic), courthouse research and assessment of the Title Commitment for the subject property.

Wood County Schools, Parkersburg and Williamstown, West Virginia. Field Crew Supervisor. Responsible for providing complete boundary and topographic information for the upgrade of three Wood County High Schools. During this project Mr. Smithson was responsible for three survey field crews that incorporated the use of GPS and conventional survey methods.

St. Mary's Hospital, Huntington, West Virginia. *St. Mary's Hospital.* Field Supervisor. Responsible for collecting data for drainage improvement, parcel consolidation, and right-of-way abandonment. Mr. Smithson was responsible for three survey field crews that incorporated the use of GPS and conventional survey methods. Along with these responsibilities he also interacted with St. Mary's Hospital and the City of Huntington to satisfy the requirements and needs of both parties.

Yeager Airport Runway Safety Area Upgrade, Charleston, West Virginia. Geotechnical Geologist. Throughout this project Mr. Smithson was responsible for the geologic evaluation of the soil overburden and bedrock qualities along with coordinating drilling activities for the subsurface investigation.

Grant County Airport Runway Extension, Grant County, West Virginia. Geotechnical Geologist. Throughout this project Mr. Smithson was responsible for the geologic evaluation of the soil overburden and bedrock qualities along with coordinating drilling activities for the subsurface investigation.

Tri-State Airport Runway Safety Area, Huntington, West Virginia. Geotechnical Geologist. Throughout this project Mr. Smithson was responsible for the geologic evaluation of the soil overburden and bedrock qualities along with coordinating drilling activities for the subsurface investigation.

Mine Safety and Health Administration - Martin County Coal, Slurry Impoundment Failure Investigation, Martin County, Kentucky. Project Geologist. Mr. Smithson's duties included the coordination of drilling activities with multiple drilling crews supported by a team of engineers and geologists. He supervised and participated in the subsurface investigation logging activities, the creation of bedrock contour maps, report preparation, and analytical testing on samples extracted from the drilling efforts.

Part 9 – References

Each of the Project Profiles found in Part 7 lists Baker's client and contact information for your use as a reference. Additionally, we offer the following diverse list of past or current clients and contact information:

- West Virginia Department of Transportation – Division of Highways
1900 Kanawha Boulevard East,
Building 5, Room A-109
Charleston, WV 25305
Mr. Darrell Allen, P.E., Deputy State Highway Engineer
(304) 558-3304
- City of Charleston
915 Quarrier Street, Suite 5
Charleston, WV 25301-2607
Mr. Chris Knox, City Engineer
(304) 348-8106
- WV Division of Homeland Security & Emergency Mgmt., E-911 Mapping
1900 Kanawha Boulevard, East
Building 1, Room EB-80
Charleston, WV 25305
Mr. Jimmy Joe Gianato, Director of Homeland Security
(304) 530-6142
- WV Statewide Addressing and Mapping Board
1124 Smith Street, Room LM-10
Greenbrooke Building
Charleston, WV 25301
Ms. Leigh Cielensky, Executive Assistant
(304) 558-4218
- Harrison County Planning Commission
301 West Main Street
Clarksburg, WV 26301
Ms. Terry Schulte, Director
(304) 624-8690
- Habitat for Humanity of Kanawha & Putnam County ReStore
815 Young Street
Charleston, WV 25301
Ms. Amy McLaughlin, Director
(304) 720-0141
- West Virginia Army National Guard – Division of Engineering and Facilities
1707 Coonskin Drive
Charleston, WV 25311-1099
Major Michael J. Beckner, Facilities Management Officer
(304) 561-6333