



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
GSD106405

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**KRISTA FERRELL
 304-558-2596**

RFQ COPY

TYPE NAME/ADDRESS HERE

Baker

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

DEPARTMENT OF ADMINISTRATION
 GENERAL SERVICES DIVISION
 BLDG. 9 - CULTURE & HISTORY
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
 25305 304-558-2317

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
07/21/2009				

BID OPENING DATE: **08/13/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		906-07		
<p>A&E SERVICES: DESIGN OF BLDG#9 EXTERIOR RENOVATIONS</p> <p>EXPRESSION OF INTEREST (EOI)</p> <p>PROFESSIONAL ARCHITECTURAL/ENGINEERING SERVICES</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF GENERAL SERVICES, IS SOLICITING PROPOSALS FOR PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES FOR THE DESIGN EXTERIOR CLEANING & REPAIRS FOR BUILDING #9 (CULTURAL CENTER) LOCATED ON THE WEST VIRGINIA STATE CAPITOL COMPLEX IN CHARLESTON, WEST VIRGINIA AND RENOVATIONS TO TWO SUNKEN COURTYARDS INCLUDING ADA COMPLIANT ACCESS AND WATER FEATURES PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS PROJECT MUST BE SUBMITTED TO KRISTA FERRELL IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA FAX AT 304-558-4115 OR VIA EMAIL AT KRISTA.S.FERRELL@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS AUGUST 4, 2009 AT THE CLOSE OF BUSINESS. ALL TECHNICAL QUESTIONS RECEIVED, IF ANY, WILL BE ANSWERED BY ADDENDUM AFTER THE DEADLINE LAPSED.</p> <p>QUESTIONS CONCERNING THE PROCESS BY WHICH A VENDOR MAY SUBMIT A PROPOSAL TO THE STATE OF WEST VIRGINIA ARE NOT CONSIDERED TO BE TECHNICAL QUESTIONS AND MAY BE SUBMITTED AT ANY TIME PRIOR TO THE BID OPENING AND IN</p>						

RECEIVED
 2009 AUG 19 PM 4:36
 WV PURCHASING
 DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>[Signature]</i>	TELEPHONE 304-769-0821	DATE March 20, 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
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 25305 304-558-2317

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ANY FORMAT. 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 X NO. 2 NO. 3 NO. 4 NO. 5 I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. 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. <i>Sumell E. Hall</i>						

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TITLE	FEN	ADDRESS CHANGES TO BE NOTED ABOVE	

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 GENERAL SERVICES DIVISION
 BLDG. 9 - CULTURE & HISTORY
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
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VENDOR

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
07/21/2009				

BID OPENING DATE: **08/13/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>SIGNATURE Michael Baker Jr., Inc. COMPANY August 20, 2009 DATE</p>						
<p>REV. 11/96</p> <p>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.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED PROPOSAL MUST BE SUBMITTED TO:</p> <p style="text-align: center;"> DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130 </p> <p>THE PROPOSAL SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED PROPOSAL</p> <p>BUYER: KRISTA FERRELL-FILE 21</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE	TELEPHONE	DATE	
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RFQ. NO.:				GSD106405		
BID OPENING DATE:				08/13/2009		
BID OPENING TIME:				1:30 PM		
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
304-769-0821						

CONTACT PERSON (PLEASE PRINT CLEARLY):						
R. Todd Schoolcraft, PLA, ASLA						

***** THIS IS THE END OF RFQ GSD106405 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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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:

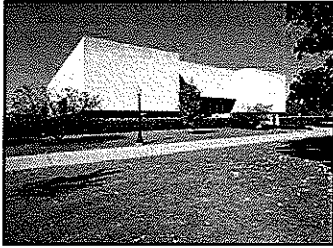
The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure 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: August 20, 2009



Statement of Qualifications for A & E Services
Building 9 Culture Center Exterior Improvements
Michael Baker Jr., Inc. & Michael Gioulis, Preservationist

August 20, 2009

Department of Administration
Purchasing Division
Building 15
2019 Washington Street, East
Charleston WV 25305-0130
Attention: Krista S. Ferrell, Senior Buyer

**Re: Expression of Interest A & E Design Services Building 9 Culture Center Exterior Improvements
West Virginia Capitol Complex, Charleston, West Virginia**

Dear Ms. Ferrell and Project Selection Committee Members,

We appreciate the opportunity to respond to the Request for Expression of Interest for the design of exterior cleaning and repairs plus courtyard renovations to the Culture Center. Building 9 and the associated plaza spaces were originally constructed in 1976 and have been renovated and altered since that time. The Culture Center, though a contemporary design, does compliment quite well with the State Capitol. The Charleston office of Michael Baker Jr. has teamed with Michael Gioulis, Historic Preservation Consultant, to provide the combined skills and experience required to address this important project on the West Virginia Capitol Campus. It is our understanding that the State intends to clean and repair the exterior of the Culture Center, plus improve the sunken courtyards on each side of the building. The purpose of the project is to study, design an approved solution, and prepare bid documents for the renewal of Building 9 and surrounding courtyard areas and provide the completed ACAD documents and specifications to the Owner.

Michael Baker Jr. (Baker) and Michael Gioulis Historic Preservationist (Gioulis) are ideally suited for this renovation and enhancement project. Principals and project staff from our team are very familiar with the Culture Center having recently completed historic research, a survey of utilities and an existing conditions assessment of the West Virginia Capitol Campus as a part of the master planning project that is currently underway. Our proposed team for the Culture Center projects is:

- Baker to provide Surveying, Civil, Mechanical and Structural Engineering, Landscape Architecture and local project management on the entire project, with Russell Hall, PE, Project Principal and Todd Schoolcraft, ASLA, Project Manager
- Gioulis to provide exterior cleaning and repairs design, Michael Gioulis, Principal
- Roman Fountains, for technical review and refinement of fountain systems water supply, pump and filtration, details and specifications, Bryan Had, ME

These team members bring all the technical and design skills required to effectively complete this project. Baker, Gioulis and Roman Fountains have successfully completed numerous historic preservation, restoration, and fountain plaza projects very similar to the Culture Center project. With these diverse areas of expertise, this team will bring all the required professional and technical skills to the project.



Statement of Qualifications for A & E Services
Building 9 Culture Center Exterior Improvements
Michael Baker Jr., Inc. & Michael Gioulis, Preservationist

The overall approach to this project would follow these steps:

- Clarify Culture Center program details articulating the mission/vision stated in the request
- Understand the background, history and evolution
- Document the existing conditions and related issues
- Explore and present a range of appropriate alternatives
- Work with the Owner to select and refine the proposed design
- Develop the required construction project documents

In our multiple related projects we have identified three logical components that will also apply to the Culture Center Exterior Renovations project. Each component requires a sequential approach to developing the knowledge base and proceeding with the design and construction documents process, following the general steps listed above.

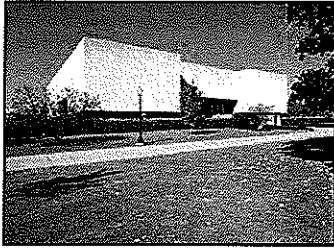
Building Exterior Cleaning

Buildings are often cleaned to remove harmful pollutants, chemicals or stains from the exterior surface. Sometimes buildings are cleaned to make them more attractive. Whatever the reason, it is important that destructive methods be avoided and gentle methods be used. Using chemicals incorrectly will also damage historic materials. Similarly, the incorrect use of water or steam to clean a building may also damage historic materials. It will be our charge to determine the best and gentlest methods possible to reach the appropriate desired results.

Because of the differing types of stone on the building and some of the design elements, protection of the building elements as others are cleaned is critical. The exterior of the Culture Center is veneered with primarily two types of materials, polished granite at the base of the walls, and limestone panels on the remainder of the exterior. Through our preliminary visual observations there appears to be a few limestone panels that have stress cracks and may need replaced. We would anticipate cleansing the remainder of the limestone panels with a mild masonry cleaner. The joints appear to be in fairly good condition and may require only spot pointing. It is unwise to attempt to "grout over" existing joints when re-pointing. Although this procedure is less expensive and looks attractive upon completion, there is a high risk of spalling due to moisture and temperature changes. The better practice would be to clear the joint reservoir in areas needing repair to a minimum depth of ½ inch, and then re-point the joints in these areas. The granite accents at the base of the walls look to be in very good condition. We anticipate the granite will also require only mild masonry cleaner (although mild acidic solutions can be utilized) and spot pointing. Of course granite rock is metamorphic, and retains its waterproof properties, so therefore waterproofing may not be necessary in these areas.

Sunken Plaza Access

The two plaza spaces that are found on either side of the main entrance to the Culture Center are sunken and difficult to access. The existing plaza areas are fairly nondescript and underutilized. All of these features were recently reviewed in the field. The conditions of the hardscape and furnishings were generally fair to poor, and there were obvious accessibility issues. The plaza spaces would again be studied at the outset of this project with the scope and objectives in mind.



Statement of Qualifications for A & E Services
Building 9 Culture Center Exterior Improvements
Michael Baker Jr., Inc. & Michael Gioulis, Preservationist

The relevant functions of the plaza areas are for viewing the bronze honorary plaques, temporary sculpture or artwork exhibit areas, and periodic outdoor receptions and parties. It has been noted that the pavement in this area is in very poor condition, steps are too narrow, and hand railing is not ADA compliant. The redesign may be able to overcome existing barriers to universal access. Informed by the evolution of the on-going master planning effort, these two plaza spaces should fit well into the future plans for the Capitol Campus. The grace and simplicity, durability and flexibility of the Culture Center plaza spaces would all be considered in the redesign process.

Water Feature Design

The sunken plaza areas today are constructed of exposed aggregate concrete retaining walls and paving. The steps are conventional concrete construction with broom finish. The two sunken areas would lend themselves well to a formal cascading fountain or water curtain. Portions of where landscaping exists today in terraced wall areas could serve as water pools, with one cascading into the other. This would work well with the existing topography of the plaza spaces, softening the harshness of the concrete walls, and providing the attractive sound of water falling. A focused report on the conditions of each element would be developed to record field findings. As the conditions are fully vetted, the alternatives can be fully explored and discussed with a direction determined. Further concept designs would be illustrated in the study.

Assurances

The team has reviewed the terms and conditions of this Expression of Interest as set forth by the Purchasing Division and will fully comply with those terms and conditions. It is fully understood that the vendor relationship is that of an independent contractor. The term of contract is 12 months. Insurance coverage at the appropriate levels is in place. No price or fee was requested or permitted and none has been included. Form WV-1 Vendor Registration has been provided as well as a signed affidavit indicating that no debt is owed to the state. Baker's and Gioulis' business and professional licensing is in place. Confidentiality in the preparation of this EOI is certified. There is no conflict of interest, no gratuities have been extended and no lobbying has taken place. The required forms are included in the binder for this EOI response.

Closing

The Michael Baker Jr., Inc. and Michael Gioulis, Historic Preservation Consultant team is pleased to submit this Expression of Interest for the project at the West Virginia Capitol to address the redesign and enhancement of the exterior of Building 9. We appreciate your consideration and would be pleased to respond to any questions and to participate in the interview process.

On behalf of the team,

Russell Hall, PE, Project Principal
Michael Baker Jr., Inc.

Baker Introduction

The West Virginia Department of Administration, General Services is seeking a highly qualified team experienced in program management, planning, and design of the renovation of the exterior of the Culture Center stone, as well as improvements to the sunken plaza spaces at the West Virginia State Capitol Complex that will be both functional and architecturally compatible with the existing facilities. Michael Baker Jr., Inc. (Baker) is a highly qualified firm with extensive experience in providing these services, and we are extremely interested in further establishing our professional relationship with the West Virginia Department of Administration, General Services.

To begin this process, we are already very familiar with the State Capitol complex due to our involvement with the master planning of the Capitol campus. During this time we have been able to better define the scope of the project and identify key issues. From the information collected, Baker has assembled a "Dream Team" of consultants specialized in the design and implimentation of these types of projects. Baker has teamed with the renowned practice of Michael Gioulis, a historic preservation consulting firm with a wealth of experience in historic buildings, façade restorations, and specific experience with Capitol Complex buildings. We also have included Roman Fountains as a team member to provide mechanical, electrical and plumbing expertise as it relates to the proposed fountain mechanics, specifically.

"...we are extremely interested in further establishing our professional relationship with the West Virginia Department of Administration, General Services."



Perspective view of Capitol Complex, looking North

Baker Corporate Overview

Baker is a wholly owned subsidiary of the Michael Baker Corporation (a publicly owned company traded on the American Stock Exchange), employs over 4,700 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, landscape architecture, operations, and technical services worldwide. The firm has a national practice with 34 offices throughout the U.S. from



West Virginia University Student Recreation Center

which to serve our domestic clients. Our multi-national architectural/engineering services result in over \$400M gross revenue per year. 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 West Virginia Department of Administration – Division of General Services 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 have 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:

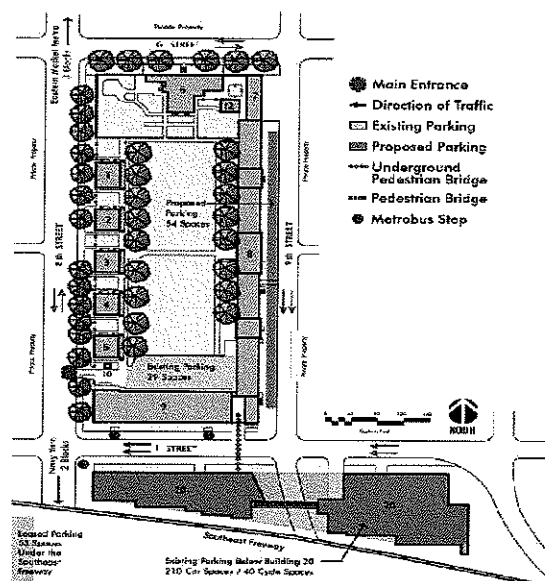
- Nationally recognized expertise in Program Management Assignments
- Facilities (Buildings, Access, Parking, Site Development) Plan Preparation
- Full range of Public Safety Services
- Graphic Design Skills (CADD)
- Coordination with State and Federal Agencies, as required

Baker 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's clients for facilities design and program management 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.

Baker routinely provides architectural/engineering services and project management for the design of municipal 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, and corrosion control systems, HVAC design, oil/water separators, and security systems.

- Program Management
- Conceptual Planning
- Design Charrette
- 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



Naval Facilities Planning, Chesapeake, Virginia

-
- Pre-Bid Meeting
 - Bidding and Contracting
 - Construction Inspection Services

In addition, 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 that are completely familiar with the five elements of the Leadership in Energy and Environmental Design, Green Building Rating System.



View of East Façade. Notice Discoloration of Limestone Panels.

Related Prior Experience

The following Project Descriptions illustrate Team Baker's related prior experience. We have included examples of building facilities and master plans for campuses, government facilities, municipalities and other organizations for both public and private sector 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 planning, engineering and architecture. While we propose to spearhead our activities from our West Virginia operation, these diverse project locations are meant to emphasize our **One Baker** philosophy, which simply means that the West Virginia Department of Administration - General Services will have access to the human resources, expertise, and technology of all our Team Baker locations as particular needs arise.

"...the West Virginia Department of Administration, General Services will have access to the human resources, expertise, and technology of all Baker locations should the need arise."

Mr. R. Todd Schoolcraft, PLA, ASLA, our proposed project manager has provided program management services on engineering/architecture projects in West Virginia for the past 18 years. His experience includes numerous urban planning and public space improvements for both public sector and private clients, elements of which are similar to those which will be required for this project.

In addition to this project experience, members of Baker's Charleston office have established relationships with the numerous funding and regulatory agencies including:

- State Historic Preservation Office (SHPO)
- Federal Highway Administration (FHWA)
- USDA Rural Utility Service
- US Department of Commerce E.D.A.
- US Environmental Protection Agency
- WV Department of Environmental Protection
- WV Department of Transportation / Division of Highways
- HUD Small Cities Block Grant
- HUD Community Development Block Grant

Bessemer Court at Station Square Commercial Development

Pittsburgh, Pennsylvania

The centerpiece of Station Square's development, Bessemer Court, is a riverfront restaurant, nightclub, and festival venue. It features 57,000 square feet of retail, restaurant, and entertainment venues overlooking the best views of downtown Pittsburgh. Bessemer Court, which opened in the summer of 2002, includes Bar Louie, Funny Bone Comedy Club, Hard Rock Cafe, Joe's Crab Shack, and Red Star Tavern. In addition to serving as the entrance to the Riverwalk (paved riverside trail) and The Landing (marina), the plaza features café-style seating, trees, and park benches, forming the backdrop for street theater, live entertainment, and pushcart retailers. It also is home to a 100-foot, state-of-the-art water fountain (40-60 foot sprays) with multi-colored lighting and dancing waters set to music.

In conjunction with the Bessemer Court development, a Riverwalk/Artifact Park, and an overhead bridge to a marina have also been constructed on adjoining properties to enhance the usable area and accessibility to the new development.

Baker was retained to perform engineering services associated with the development of the Bessemer Court area and portions of the Riverwalk/Artifact Park. During the project, Baker provided a wide range of engineering studies, permitting, surveying, final site layout and engineering design, preparation of construction plans and specifications, and construction phase services to facilitate development of the property.

Specific engineering services provided by Baker for each project are outlined below:

Bessemer Court Project

- Base mapping for the project area – topographic map with existing conditions
- Property boundary plan and survey control points
- ALTA / ACSM land title survey plan
- Master Plan update
- Investigation of existing utilitiesCivil / site design – site layout plan, grading, utilities, erosion control, pavement, storm water management
- Site work construction plans and technical specifications
- Agency submissions and coordination
- Construction-phase services

Client

Forest City Enterprises, Inc.
1100 Terminal Tower
50 Public Square
Cleveland, OH 44113-2203

Will Voegele
216-416-3230

Completion Date

Estimated: 2004

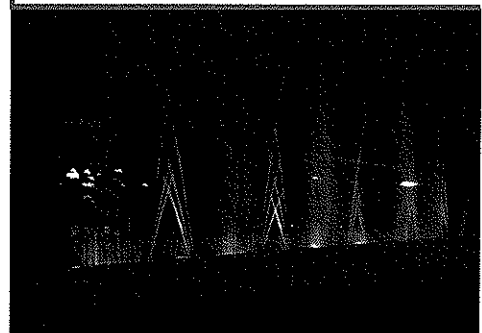
Actual: 2004

Project Costs

\$279,385 (Fee)

Baker's Role

- Base / topo mapping
- Property boundary plan
- ALTA / ACSM land title survey
- Master Plan update
- Document existing utilities
- Civil / site design
- Site layout plan
- Grading plan
- Utilities plan
- Erosion control plan
- Pavement design
- Stormwater management
- Technical specifications
- Geotechnical investigation
- Structural design
- Culvert tunnel design
- Retaining wall design
- Agency submissions
- Bidding / construction admin

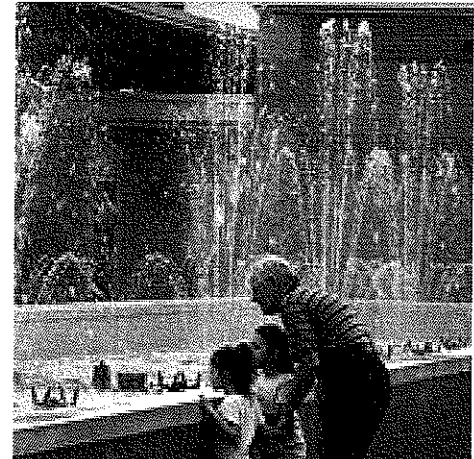
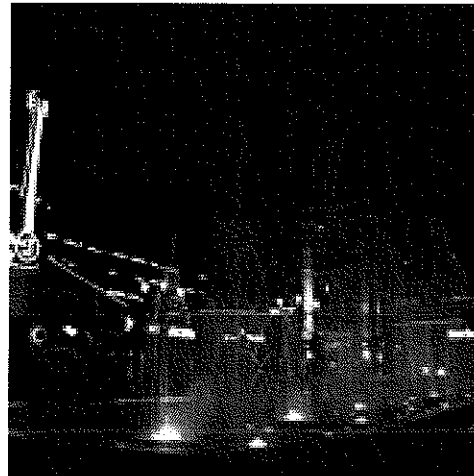
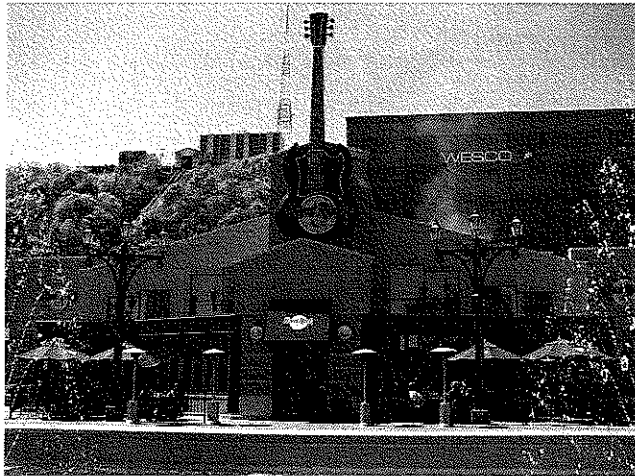


Riverwalk / Artifact Park

- Base mapping – topographic map with existing conditions
- Field surveys
- Master plan update
- Civil / site design – site layout plan, grading, utilities, erosion control, pavement, stormwater management
- Site work construction plans and technical specifications
- Agency submissions and coordination
- Bid-phase support services
- Construction-phase services – oversight and administration

Boardwalk / Access Tunnel

- Geotechnical investigation
- Structural design of culvert tunnel and associated retaining walls
- Construction-phase services



West Virginia State Capitol Campus Master Plan

Charleston, WV

The West Virginia Capitol Campus was created following the vision of Cass Gilbert, one of America's most significant architect of the first half or the 20th century. The Campus Plan and the Capitol Building represent his most mature work, as they were conceived and executed towards the end of his career and life.

Following his death in 1934, his son, Cass Gilbert Jr., continued his father's vision. Later additions and changes to the campus have shaped the site in different directions since the initial plan. A series of campus wide plans and recent additions and changes of the campus have attempted to address current needs on a piecemeal basis. Today, the State of West Virginia is facing a series of pressing needs and a new reality in a post 9-11 world, and is seeking to:

- Address the needs of the government and its important campus in a comprehensive and holistic manner
- Capture the essence of Cass Gilbert's original vision and design
- Create a framework for addressing future needs, and
- Recommend specific project that can begin to implement the recommendations of the plan.

Client

State of West Virginia
 Department of Administration
 General Services
 Building 1, Room MB60
 1900 Kanawha Blvd., East
 Charleston, WV 25305-1023

Mr. Robert Krause, AIA, PE
 304-558-9018

Completion Date

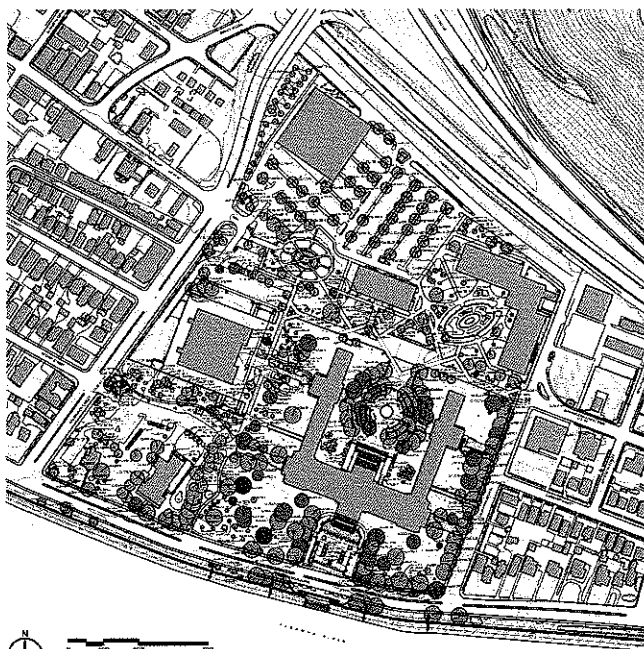
Estimated: 2009

Project Costs

\$887,880 (Fee)

Baker's Role

- Campus Master Planning Services
- Architectural/Engineering Services



PRELIMINARY TREE INVENTORY RESULTS

- Field inventory of 484 Trees
- Recorded Type, Size, Canopy, Trunk, Roots
- 82% - Good to Fair Condition
- 18% - Poor to Failing Condition
- 29% - Oaks/Quercus Most Prominent at 133 Count
- 26% - Crabapple/Malus Second at 124 Count
- 116 Historic Trees over 32" diameter
- Selected trees pre-date Capitol construction

TREE SPECIES CONDITION ASSESSMENT KEY

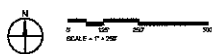
SIZE IN CALIPER	ROOTS	CANOPY	
NUMBER OF TRUNKS	TRUNK CONDITION		
TREE NAME			
GENUS/SPECIES			
CANOPY			

A	GOOD: Full Crown, Vigorous Growth, no Immediate Care Required
B	FAIR: Minor Problems, Maximum of 2" Deadwood, Minor Pruning
C	POOR: Major Problems, Deadwood of 3-4" & Limited Major Pruning, Monitor for Hazard, Possible Removal
D	FALLING: Major Dieback in Crown, Near Decay, Hazard to be Removed
E	DEAD: Standing Dead, Stump or Depression

TRUNKS	
1	No Visible Damage
2	Damage Including Wounds, Mastacoma, Crotches, or Minor Decay Issues

ROOTS	
U	Unrestricted: Open
R	Restricted: Enclosed within 8-10 Feet on One or More Sides

NUMBER OF TRUNKS	
M	Multiple Trunks
T	Two Trunks



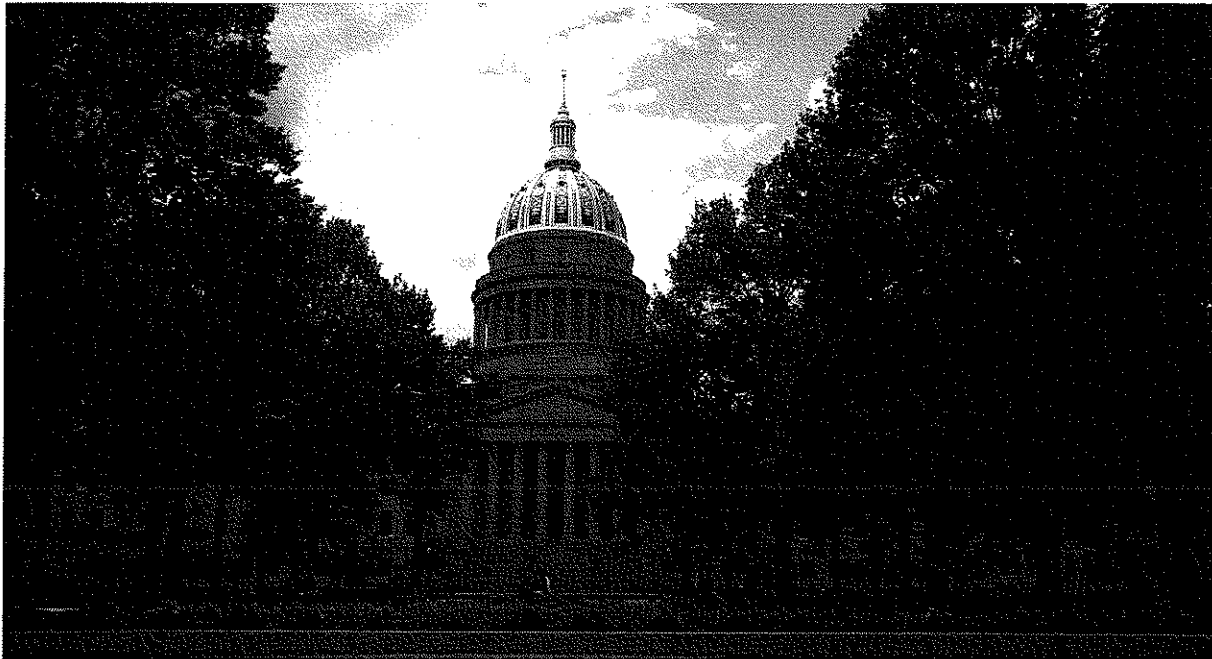
Baker · G · M · J · T · Heritage Landscapes

TREE INVENTORY

West Virginia State Capitol Campus Master Plan
 February 2009

The Master Plan is to be prepared in a collaborative manner, engaging a wide range of government leaders, stakeholders, users and other entities. The engagement of all of those groups of interested parties will include several levels of communication. Items to be addressed in the Master Plan include:

- General Campus Planning
- Programming Planning
- Historic Research
- Pedestrian Flow & Accessibility
- Parking
- Security
- Utilities and Infrastructure
- Hazardous Materials
- Future Growth



David L. Lawrence Convention Center Infrastructure

Pittsburgh, Pennsylvania

Baker provided both professional construction management and construction inspection services on this high profile, fast-track project. The project was quite unique since the majority of the infrastructure work that Baker was involved with lies directly beneath the construction of the new David L. Lawrence Convention Center. Coordination between the two projects was critical, particularly since multiple contractors were sharing the same work areas. The Infrastructure was completed in three phases. Descriptions of the Phases are as follows:

Phase I - \$8.5 million construction value; 4.2 month construction duration; reconstruction of Fort Duquesne Boulevard and Tenth Street Bypass; realignment of Tenth Street; 1000 LF tangent caisson wall; concrete retaining wall new signalization and lighting; pin pile and "H" pile bridge foundation; landscaping.

Phase II - \$6 million estimated construction value; six-month construction duration; new Tenth Street Bypass pre-cast concrete bridge; realignment of Tenth Street; reconstruction of French Street and Garrison Place; water feature pump room; new signalization and lighting.

Phase III - \$10.3 million estimated construction value; six-month construction duration; reconstruction of the Tenth Street Bypass, Eleventh Street and Penn Avenue; construction of a new pedestrian wall walk and bridge including water feature; new signalization and lighting; landscaping.

Client

Sports and Exhibition Authority of Pittsburgh and Allegheny County Regional Resource Center
425 Sixth Avenue, Suite 2750
Pittsburgh, PA 15219

Doug Straley

Project Executive
412-393-0207

Completion Date

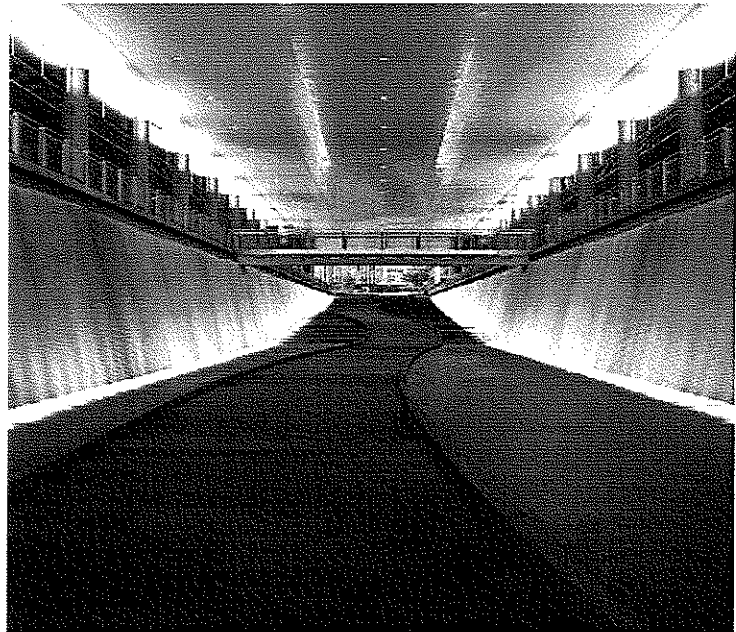
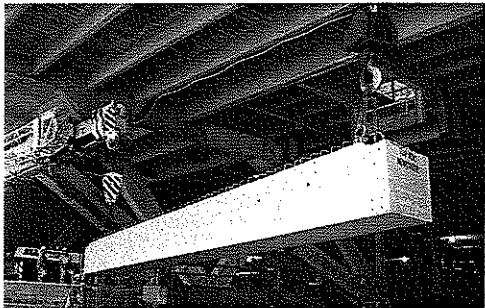
Estimated: 2006
Actual: 2004

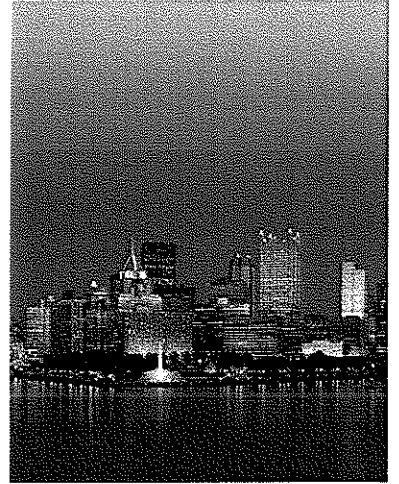
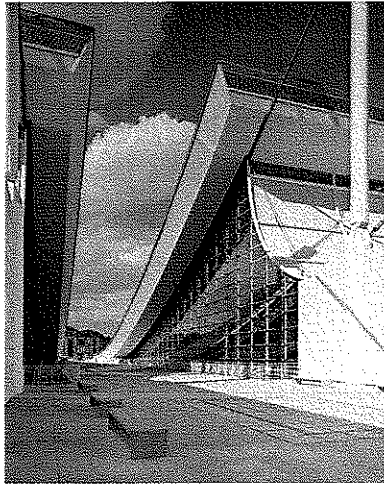
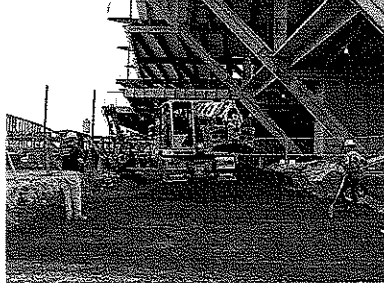
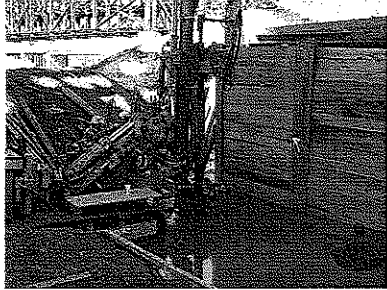
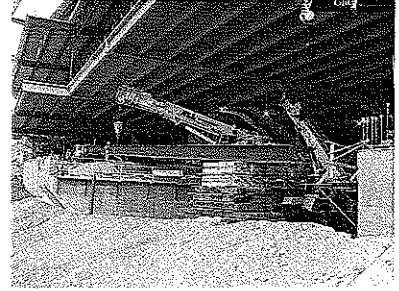
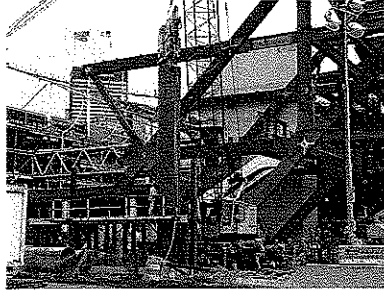
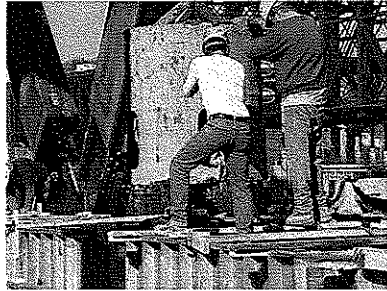
Project Costs

\$22,000,000 (Construction)
\$2,944,876 (Fee)

Baker's Role

- Construction Management and Construction Inspection





West Virginia State Capitol Restrooms Renovation and Restoration Project

Charleston, West Virginia



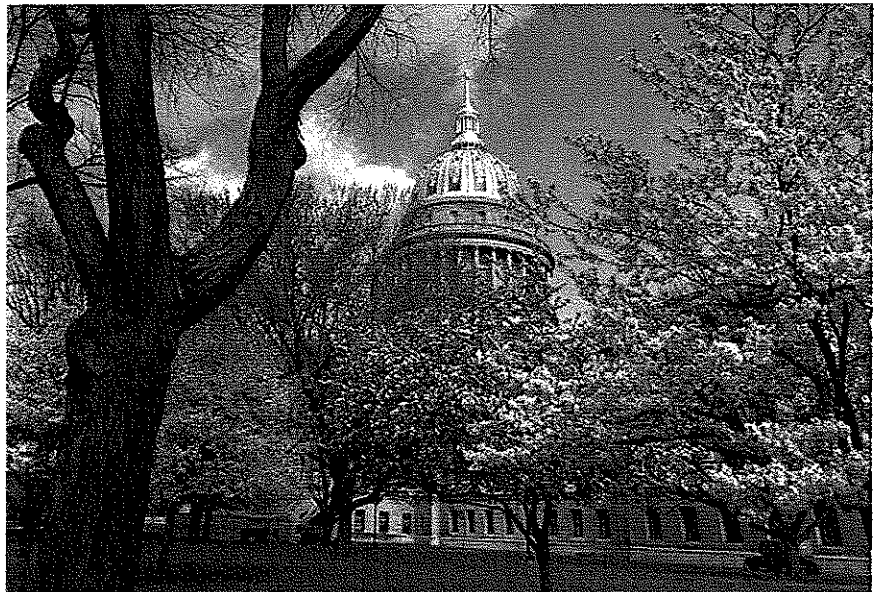
The West Virginia Capitol Building was constructed in the 1930's following the vision of Cass Gilbert, one of America's most significant architects of the first half of the 20th century. The Capitol Building represent his most

mature work, as it was conceived and executed towards the end of his career and life. This multi-phased project will include the renovation / restoration of thirty two existing restrooms, keeping them in the "spirit " of Cass Gilbert's original design, while at the same time rendering them compliant with both the latest building codes and ADA accessibility standards.

Baker's tasks include preparation of a planning study, schematic design, architectural and engineering design, preparation of construction documents and specifications, cost estimating, contract administration, and construction administration. Phase I of the project entails a Planning Study which will be inclusive of the renovation/restoration of three of the existing thirty-two restrooms in the historic West Virginia Capitol Building.

The Planning Study is intended to assess the existing facility and its conformance to current code requirements and code required capacities, compliance with ADA requirements, quantification of the building occupancy (during normal and peak periods) and an evaluation of existing gender distribution of restrooms within the Capitol.

The Study will address in a more general manner the design framework for the renovation of



Client

State of West Virginia
Department of Administration
General Services
Building 1, Room MB60
1900 Kanawha Blvd., East
Charleston, WV 25305-1023

Mr. Robert Krause, AIA, PE
304-558-9018

Completion Date

Estimated: 2010

Project Costs

\$315,750 (Fee)

Baker's Role

- Planning
- Architectural restoration
- Architectural Services
- Engineering Services
- Construction Administration

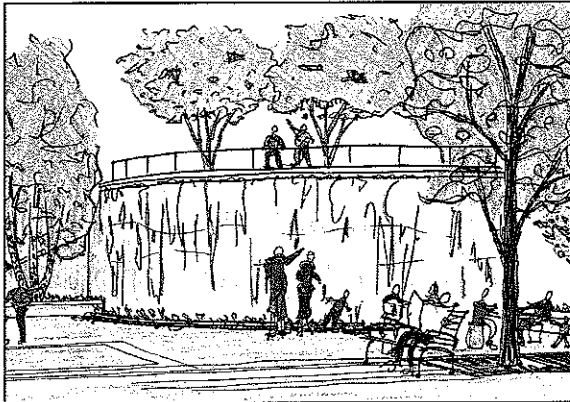
the selected restrooms, provide an overall project cost and propose a logical sequence of design, construction and schedule of implementation for the next three years.

The renovation/restoration of the three restrooms will include a short, combined, Schematic/Design Development Phase (5 weeks) followed by a (7 week) Construction Document Phase. We expect a four-month construction period within which we would expect this first phase of work to be completed.



Starburst Plaza

Washington, DC



The "Starburst Plaza" is a complicated junction of six roadways - H Street NE, Florida Avenue NE, Bladensburg Road NE, Maryland Avenue NE,

Benning Road NE, and 15th Street NE. Baker provided design and public outreach services for the District Department (DDOT) of Transportation following the completion of the H Street NE Transportation and Streetscape Study completed by Baker in 2004. Baker worked closely with the local community, government agencies, and the client to develop a design for the plaza including the design of a major fountain, the selection of a public artist, and the integration the artwork into the programmed open space.

A key factor in the success of the plaza's design was the public engagement process. The process involved two separate advisory boards consisting of local business leaders, civic leaders, government officials, and other pertinent stakeholders. This process provided a venue for the community to express its concerns and needs to the client. In addition, the process allowed the design team to educate participants about the value of open space and jointly develop a plan that works for the community and DDOT.

The vision for the plaza is as a destination for the neighborhood and a gateway to the U.S. Capitol, as well as a catalyst for future development. The plaza will reflect the history and character of the local community while also providing convenience and comfort for transit users.

Client

DC Department of Transportation
2000 14th Street, NW
7th Floor
Washington, DC 20009-4473

Zahra Dorriz, P.E.

Project Manager
202-671-4653

Karina Ricks

202-671-2542

Completion Date

Estimated: 2007

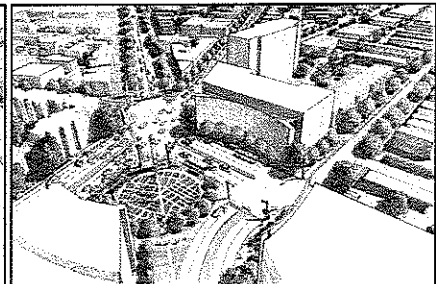
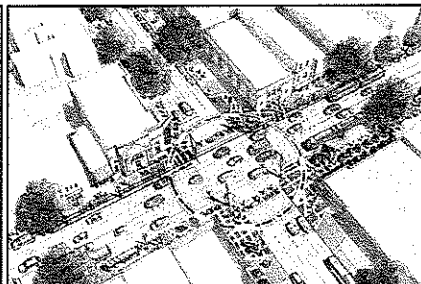
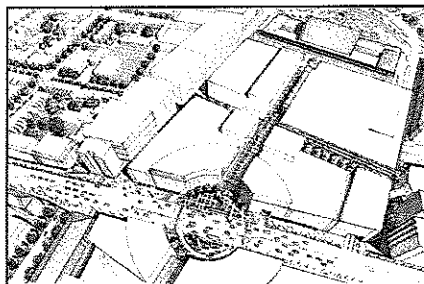
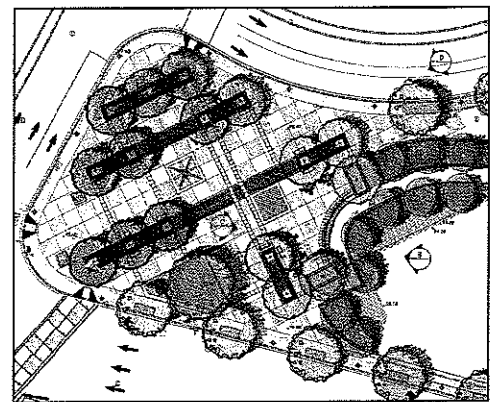
Actual: 2005

Project Costs

\$193,623 (Fee)

Baker's Role

- Landscape Architecture
- Urban Design
- Site Planning
- Place Making
- Public Engagement



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

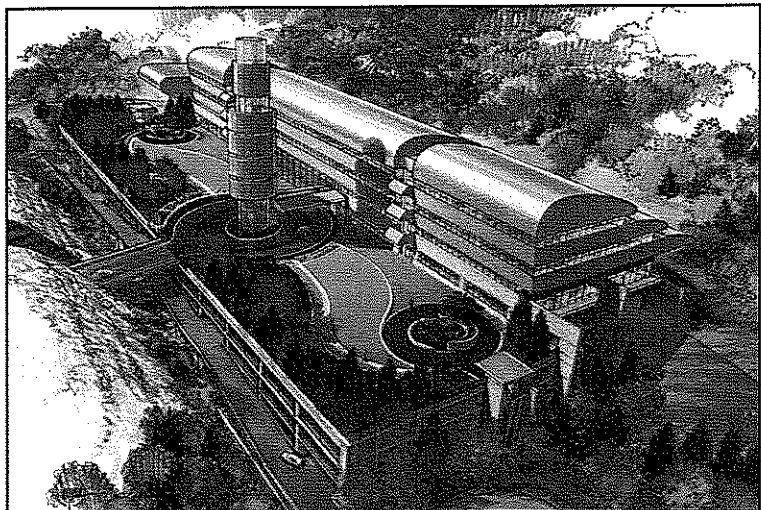
Institute for Scientific Research, Inc.
1000 Technology Drive
Fairmont, WV 26554

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.



Grand Floridian Resort and Spa Interior and Exterior Renovations

Condition Assessment

Lake Buena Vista, Florida

This Victorian-style beachfront facility is one of the key hotels serving Walt Disney World. The 900-room luxury hotel and resort offers comprehensive meeting facilities, dining, retail, and recreational facilities. Baker provided comprehensive design and construction services for renovations to the exterior of the building to correct problems such as leaking roofs, leaking siding, and deteriorated detailing. In addition, Baker provided construction services for renovations to public areas of the building.

Baker performed Condition Assessment and Preconstruction Services for interior and exterior renovations to the Grand Floridian Beach Resort and Spa project at Lake Buena Vista. The interior renovations were to consist of renovating 898 guestrooms and suites, including building corridors and lodge building lobbies. The scope of work included each of the five separate lodge buildings (#5, #6, #7, #8, #9) and the Main Building (#4) and seven satellite buildings containing restaurants (Narcoossee), lounges and retail shops, a Marina Building, a Convention Center, a Monorail Station, the Summer House, Trolley House and a Swimming Pool Support Building.

Interior renovations were to include generally the liquidation of existing FF&E and installation of new Owner furnished FF&E, selected demolition, installation of new bathroom marble, carpet, paint, wall-covering, toilet accessories, plumbing fixtures, minor electrical and interior lighting modifications.

The exterior renovations were to consist of limited corrections and/or modifications to specified areas of the Lodge and Main Buildings. Corrections were to generally include the

Client

Walt Disney World Contract Services
P.O. Box 10000
3401 Vista Boulevard
Lake Buena Vista, FL 32830-1000

Stephen W. Coole

Project Manager-Facility Asset Management Support

Bob Nolan

Field Rep. Senior - Architecture & Facilities Engineering

Completion Date

2000

Project Costs

\$113,930 (Fee)

Baker's Role

- Architecture
- Structural Engineering
- Conditional Assessment
- Preconstruction Services
- Construction Management
- General Contracting
- Design/Build



replacement of exterior wall finish materials, window replacement, and incidental finish work such as flashing and gutters. In addition, complete removal and replacement of the roofing system.



North Shore Riverfront Park

Pittsburgh, Pennsylvania

The North Shore Riverfront Park project consists of a new public park along the Ohio and Allegheny Rivers. The project involved a multi-discipline civil, structural, transportation, electrical and landscape architectural design team for a large urban riverfront park. Park design included specialty water features with recirculating waterfalls, pedestrian bridges, piers, commercial and private river traffic docking facilities, utility relocations, new utilities, public art, and landscaping. The project presented all the challenges of design in a highly urbanized area: coordination with numerous underground utilities, relocation of facilities to accommodate construction, water and sewer lines for future development and coordination with permitting agencies. Additional challenges included mitigation of project impacts to Threatened and Endangered Species river habitat; design coordination with concurrent Steelers Stadium, PNC Park (baseball stadium), and North Shore Infrastructure design projects; and a fast-track design schedule.

Baker participated in public design meetings with user groups, schematic phase design, design development, and construction document preparation.

Client

Sports and Exhibition Authority of Pittsburgh and Allegheny County
Regional Resource Center
425 Sixth Avenue, Suite 2750
Pittsburgh, PA 15219

Completion Date

Estimated: 2004

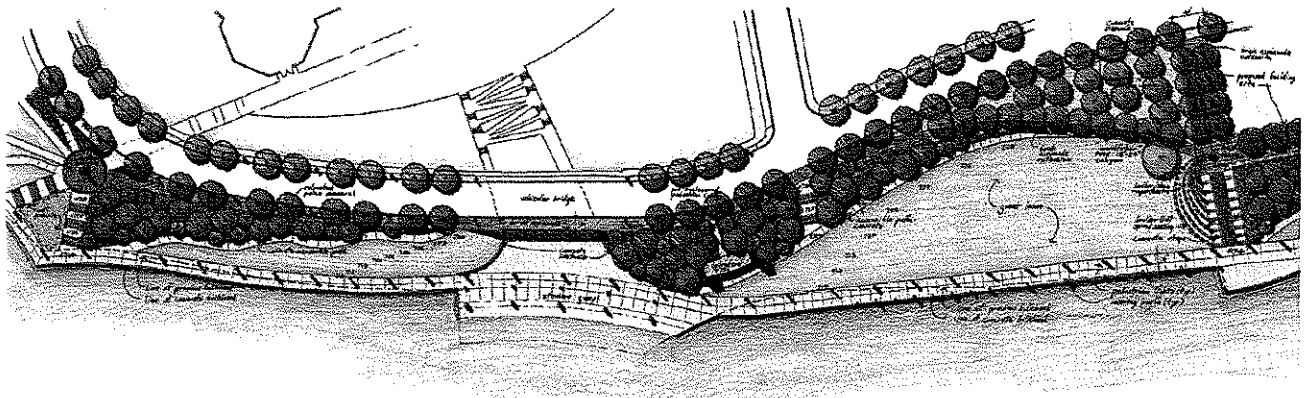
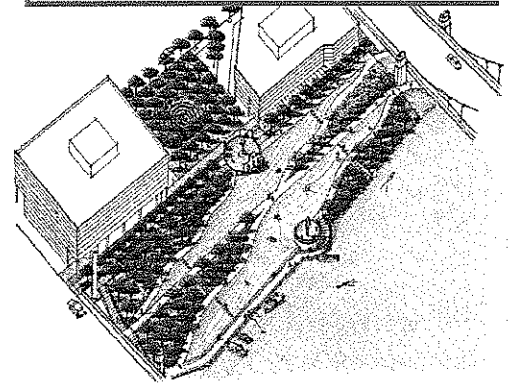
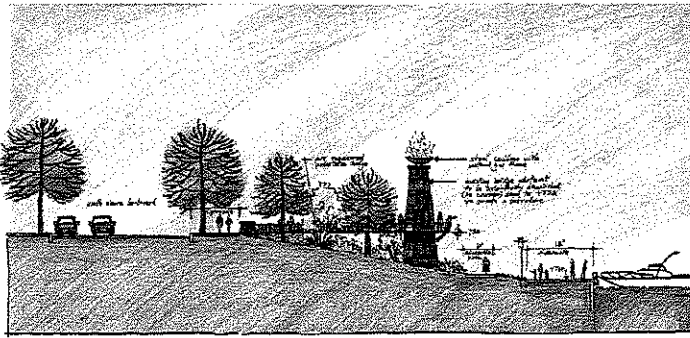
Actual: 2004

Project Costs

\$475,788 (Fee)

Baker's Role

- Engineering Design
- Permitting
- Preparation of Construction Plans and Specifications
- Construction Phase Services



Tempe Town Lake Marina/Lagoon Design

Tempe, Arizona



Baker played an integral part in the development of the City of Tempe's Rio Salado Town Lake, having performed three projects associated with the development. The Marina

project was comprised of a lagoon with a large water feature and boat docks, a boat launch ramp, a boat storage facility and parking lot facilities. In-depth knowledge of project issues and experience in working with the Flood Control District of Maricopa County and FEMA regulations were important factors in completing the work and enabling the lake to fill on schedule.

Baker was responsible for providing development of the site plan as well as final design of the civil and structural engineering elements of the project, including drainage, the design of a water circulation system for the fountain, and a cofferdam for portions of the construction. Civil and structural design services, including specialized engineering for levee and floodwalls were provided. Baker reviewed existing hydrologic analyses of the project area and designed the levee penetrations. Final construction plans, specifications and cost estimates were prepared for modifications to the existing storm drain outfall and the three levee penetrations (including two new box culverts) and a partial penetration for access to the future marina.

A portion of the Salt River North Levee and an existing reinforced concrete box culvert were removed due to the proposed lagoon and the boat launch ramp. Detention basins



were constructed to retain the runoff from the off-site area north of the freeway and the on-site drainage

before metering into the lagoon. An interactive water circulation system was built to improve the water quality for the marina lagoon. This circulation system was integrated with a water feature 'Water Muse', designed by a local artist. Up to five cubic feet of water per second can be pumped from the Town Lake through an underground pipe to begin

Client

City of Tempe, Arizona
31 East Fifth Street
Tempe, AZ 85280

James Bond
Principal Engineer
480-350-8897

Completion Date

Estimated: 2004

Actual: 2004

Project Costs

\$3,000,000 (Construction)

\$720,952 (Fee)

Baker's Role

- Civil Engineering
- Development of Site Plan
- Structural Engineering
- Reviewed Existing Hydraulic Analyses
- Levee Lowering Hydraulic Modeling
- Final Construction Plans and Specifications
- Developed Condition Letter of Map Revision (CLOMR)
- Levee Penetration (Civil and Structural Design)
- Marina Design
- Utility Coordination
- Agency Coordination
- Cost Estimating

the journey through the Water Muse. Water emerges from underground into a quiet source pool located at the top of the amphitheater. From the source pool it flows down an aerating waterfall into the main sluiceway. Visitors to the site can walk across metal grating that spans the sluiceway to try their hand at controlling the flow of water through the site. Hand operated wheels can be turned by children or adults to open and close water gates that direct the flow into underground pipes. The water feature was designed to echo the traditions of water distribution found throughout the Salt River Valley and to encourage contemplative interaction with flowing water.

Substantial utility and agency coordination were vital to the success of this two-phase project. The Flood Control District of Maricopa County was consulted for compliance of levee protection and penetration to the lagoon as part of the Phase 1 portion of this two-year construction project. Salvage, storage, and reconstruction of the National Weather Station and artistic plaza constructed with Transportation Enhancement Funds were coordinated between both project construction phases.

One acre of critical right-of-way was acquired from the Arizona Department of Transportation to accommodate parking, the loop road, and the relocation of the multi-use trail. Special design and coordination was required with the Salt River Project to comply with safety with the 230 Kv overhead power lines poles to avoid the arcing of power to boat masts, light poles, sluice gates, and drilling equipment while installing dry wells during the construction. The 54" sewer line, owned by the City of Phoenix, required new lining installation prior to the installation of the cast-in-place lagoon walls. The Maricopa Association of Government was consulted for relocation of the multi-use trail. National Pollutant Discharge Elimination Systems EPA permitting and Maricopa County Dust Control Permits were obtained for construction activities. Coordination with Papago Stables was required during construction to not impact this business operation. The construction and maintenance of a cofferdam was of prime importance to allow installation of the lagoon walls and clay liner. Considerable cost and environmental concerns/mitigation of draining the lake were avoided through the use of the cofferdam.

The marina was designed to accommodate rising floodwaters and to drain the lake without removal of boats. In addition, the design also incorporated a floating dock concept, which can adapt to the fluctuating water levels. Upland amenities and retail space surround the marina, providing attractions and services to the public.



Glendale Downtown Plaza Bead Museum and Civic Center Annex Glendale, AZ

The City of Glendale is one of the fastest growing cities in the United States. Baker was selected to provide our planning, design and streetscape expertise to the development of a new plaza and adjacent facilities. The plaza and building designs are based on the city's primary goal - to create an environment with a small town atmosphere, yet able to provide a solid foundation towards the economic growth of downtown Glendale.

The schedule called for the design and completion of construction within 18 months of design team selection. A plan and process was developed to accomplish the work that involved very close coordination and collaboration with City of Glendale and Glendale Economic Development representatives to assure that their needs and concerns were incorporated into the project development.

The design solutions were developed utilizing information from a variety of sources. Baker conducted on-site interviews of facility managers and select department managers to gather information on operations and space requirements. Questionnaires were distributed to gather statistics such as number of anticipated conference attendees and museum visitors at peak periods of the year.

A collaborative design charette was accomplished with City of Glendale participation. Several preliminary schemes were generated for each facility and the plaza. This intense process resulted in the development of final concepts within only a few days.

Client

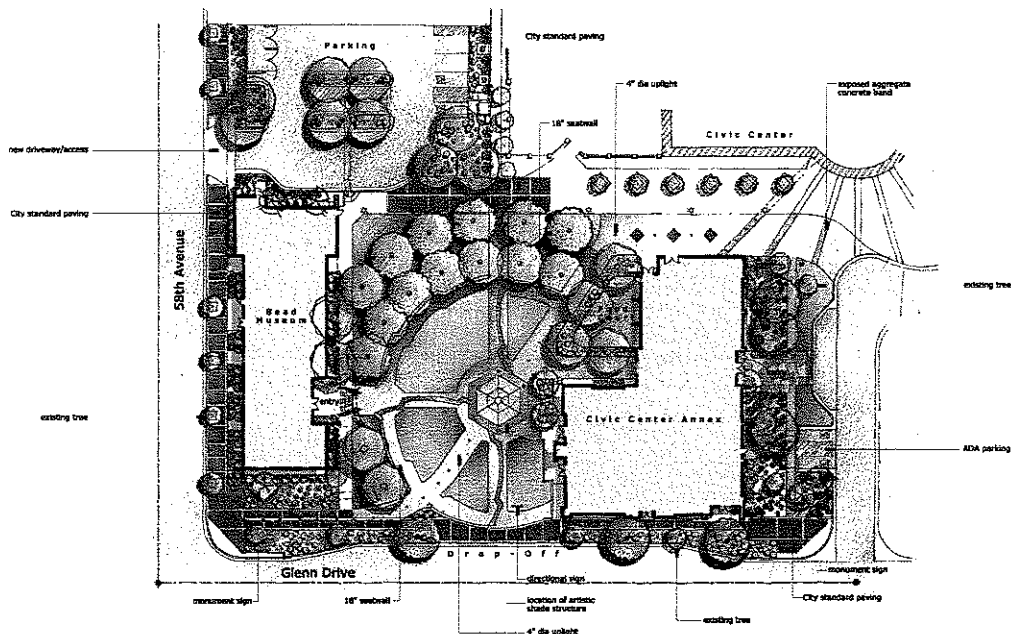
City of Glendale

Location

Glendale, Arizona

Baker's Role

- Architectural Programming
- Space Planning
- Conceptual Layouts
- Cost Estimating
- Cost/Benefit Analysis
- Architecture
- Civil Engineering
- Construction Administration



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

R. Todd Schoolcraft, PLA, ASLA

Project Manager

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 Landmarks 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. The existing building was constructed of non-dimensional timber framing and board with batten siding. The perimeter posts were originally buried below grade and the primary floor beams rested on the ground. 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 perimeter concrete wall raised the finish floor elevation by 12" and provide a barrier against storm water intrusion. Unit costs and additive/deductive alternates were used in the bidding of the project, allowing the Town flexibility in final bid award to meet the extensive

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

Transportation Enhancement Grant funding limitations. Baker also provided construction administration services as well as periodic site review during construction.

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 of Parsons, WV. The City, over time, had acquired many parcels of FEMA-condemned properties due to the flood-prone topography of Parsons. In an effort to properly manage 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 developed with recommendations for ball fields, hiking and biking trails, recreation center, miniature golf course, play structures, picnic facilities, ADA-compliant fishing access, interpretive signage, and landscaping improvements for existing and new park areas.

Ararat River Greenway Parks Projects, Mount Airy, North Carolina. *City of Mount Airy, North Carolina.* Project Landscape Architect. Responsible for design and document quality oversight. Baker prepared construction documents and provided construction administration and inspection services for three parks along the Ararat River in North Carolina. 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/classroom, picnic facilities, nature trails, parking area, pedestrian bridge to the nearby middle school, fishing access and canoe launch facility. The final park, Tharrington Park, will include a premier soccer field, additional soccer fields to create a soccer complex, access road and parking, fitness trail, restroom facility, concessions, and maintenance building.

City of Parsons Sidewalk Improvements Project, Parsons, West Virginia. *City of Parsons.* Project Manager. Responsible for design and document quality oversight. Baker performed complete planning, design, and construction management services for new sidewalks and storm sewer improvements for various locations in historic Parsons, Tucker County. The improvements included concrete sidewalks with adjacent 2-foot lawn panels, new concrete curb and gutter, driveway curb cuts, ADA accessible curb ramps with truncated domes, ladder-style crosswalks, storm water improvements, benches, trash receptacles, and landscaping. The final design made accommodations for original wrought-iron fencing at various locations, and a historic "carriage step" from the turn of the century. Baker also provided construction administration and periodic site review during construction.

WV Route 62 Phase II Streetscape Improvements, Mason, West Virginia. *City of Mason.* Project Landscape Architect. Responsible for detailed design and construction document preparation. Baker performed complete detailed design, construction document preparation and construction management services for new sidewalks and storm sewer improvements for the Mason Phase II Streetscape Project. The improvements included concrete sidewalks with integral concrete curbs, driveway curb cuts, ADA accessible curb ramps with truncated domes, ladder-style crosswalks, storm sewer improvements, benches and trash receptacles. Baker is currently providing construction administration and periodic inspection services.

Maple Avenue Streetscape, Moorefield, West Virginia. *City of Moorefield.* Project Landscape Architect. Responsible for detailed design and construction document preparation. Baker performed complete detailed design, construction document preparation and construction management services for new sidewalks and storm sewer improvements for the Maple Avenue Streetscape Project, Moorefield, WV. The improvements included concrete sidewalks with integral concrete curbs, driveway curb cuts, ADA curb ramps with truncated domes, crosswalks, storm sewer improvements, and landscaping.

Kanawha & Putnam County Bicycle – Pedestrian Master Plan, South Charleston, West Virginia. *Regional Intergovernmental Council (RIC).* Project Landscape Architect. 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 II 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 for the 2-county area was proposed to improve bicycle and pedestrian safety and user-friendliness throughout the project area.

Country Roads Scenic Byway Corridor Management Plan, Boone, Logan and Mingo Counties, West Virginia. *Coalfield Convention and Visitors Bureau.* Project Landscape Architect. Responsible for field inventory and analysis, community input facilitation, and document preparation. Baker prepared a Corridor Management Plan for the Country Roads Byway in southern West Virginia in preparation for Federal recognition in the National Scenic Byway Program. The plan showcased the story of organized labor and its relation to the industrial revolution in West Virginia, as well as developing recreational opportunities and improving safety along the nearly 180-mile scenic corridor loop.

Non-Baker Project Experience

Huntington Museum of Art Sensory Trail and Butterfly Garden, Huntington, West Virginia. *Huntington Museum of Art.* Project Manager. Responsible for field inventory and analysis, base map preparation, concept development, detailed design, and construction documents preparation. The Huntington Museum of Art was awarded a Transportation Enhancement grant, as well as an endowment from a private donor, to construct a butterfly garden and the first known handicap accessible sensory trail in WV. The garden was planted with extensive butterfly-attracting plants and flowers, and plants that support larvae development of butterflies. A stone planter with seatwalls, and a contemplation fountain were also included in the garden. The trail was adapted for use by the blind and the hearing impaired, with textured pavement and brail interpretive signage. Unique features along the trail included a sound attenuation device, olfactory sensory hood, rock sculpture, and a trail surface constructed of native soils and Polypavement.

Tamarack Arts Center, Beckley, West Virginia. *West Virginia Parkways Authority.* Project Landscape Architect. Responsible for conceptual design, detailed design, construction documents, and construction administration. Was instrumental in the design and construction of all site-civil and landscape architectural improvements and amenities for the Tamarack Arts Center. Improvements included extensive landscaping, festival promenade, brick plaza spaces, geyser fountain at main entry, center courtyard with bubbler fountains, children's playground, natural stone seatwalls, public and employee parking, loading dock, and nature trail through nearby woods. Storm sewer, lighting and grading improvements were also included in the final design.

Brooke-Hancock County Veterans Memorial Park, Weirton, West Virginia. *Brooke County Commission and Brooke-Hancock County Veterans Memorial, Inc.* Project Manager. Responsible for conceptual design, detailed design, construction documents, bidding, and construction administration. Developed a concept plan for the expansion of the Veterans Memorial Park in Weirton. Improvements to the Park included brick sidewalks, parking, lawn area, Vietnam-era fighter jet display, WWII naval anchor, and a 911 Twin Towers display. The 911 Monument consisted of a contemplation garden with a bench and sculpture constructed from Ground Zero steel salvaged from the aftermath of the Twin Towers site in New York City. Landscaping, lighting, and grading improvements were also included in the final design.

Summers and Christopher Streets Streetscape Concept Master Plan, Charleston, West Virginia. *Charleston Urban Renewal Authority (CURA).* Project Manager. Responsible for field inventory and analysis, conceptual design and cost estimate preparation. Developed design and concept plans for the development of new streetscape improvements for three blocks of Summers Street and one block of Christopher Street in Charleston's Downtown Village District. Amenities included new concrete sidewalks with brick appointments, brick crosswalks, granite curbing, period light fixtures, 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.

Star City Phase II Streetscape and Trailhead Improvements, Star City, West Virginia. *Town of Star City.* Project Manager. Responsible for conceptual design, detailed design, construction documents, bidding, and construction administration. Developed schematic concepts, complete detailed design and construction documents, and provided bidding and construction management services for a phase II streetscape and trailhead improvements project for Star City, Monongalia County, WV. Project consisted of five blocks of streetscapes along the scenic riverfront of the Monongahela River, tying into the Caperton Trail, a destination rail-trail in northern West Virginia. Amenities included concrete sidewalks with brick accents, architectural brick gravity retaining wall with lighting niches, “gas light” period light fixtures, concrete curb and gutter, driveway curb cuts, ADA accessible curb ramps with truncated dome specialty pavers, crosswalks, storm sewer improvements, benches, trash receptacles and landscaping.

Sophia Main Street Improvements, Sophia, West Virginia. *Town of Sophia.* Project Manager. Responsible for conceptual design, detailed design, construction documents, bidding, and construction administration. Prepared concept designs for public input meetings, then further developed detailed design and construction documents, and provided bidding and construction management services for sidewalk improvements and streetscape enhancements for the Town of Sophia, Raleigh County, WV. Project consisted of four blocks of city street improvements to include concrete sidewalk replacement, period light fixtures, concrete curbing, driveway curb cuts, ADA accessible curb ramps with truncated domes, ladder-style crosswalks, storm sewer improvements, benches, trash receptacles and landscaping.

Hale Street Morrison Building Streetscape Repair, Charleston, West Virginia. *R. Brawley Tracy, Esq., Owner.* Project Landscape Architect. Responsible for field inventory and analysis, conceptual design and cost estimate preparation. Developed design and concept plans for the repair of an existing streetscape along the Morrison Building of Hale Street in Charleston’s Downtown Village District. Amenities included new stamped colored concrete sidewalks, granite curbing, period light fixtures, and wrought-iron trash receptacles. The stamped colored concrete was specified to match the existing red bricks found in the sidewalks throughout Charleston, while also providing a watertight solution for a leaky basement that protruded two feet under the existing sidewalks.

Oakmont Park Improvements, Charleston, West Virginia. *City of Charleston.* Project Landscape Architect. Responsible for field inventory and analysis, base map preparation, concept development, detailed design, construction documents and bidding. Developed concept design for the expansion of the existing community park in South Hills, Kanawha County, West Virginia. Proposed improvements included a new children’s play structure, new stone walkways, expanded parking area, baseball field improvements, half-court basketball court, water fountain, landscaping and associated infrastructure.

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 – ASLA; 2008 Merit Award – Kanawha & Putnam County Bicycle – Pedestrian Plan
- WV Chapter – ASLA; 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 Streetscapes
- WV Chapter – ASLA; 1999 Merit Award – Tamarack: The Best of West Virginia
- WV Chapter – ASLA; 1995 Honor Award – NorthGate Business Park

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. 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.

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-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:

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)

-
- 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 an 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 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 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.

Timothy G. Zinn

Architectural Historian

General Qualifications

Mr. Zinn is a historic preservation specialist and architectural historian manager for the Pittsburgh office. He has over 20 years of experience in the Mid-Atlantic region, serving as both principal investigator and project/task manager for numerous historic resource projects in multiple states.

Mr. Zinn has a proven track record in Section 106 documentation, including Historic Resource Surveys, Determination of Eligibility studies, Criteria of Adverse Effect findings, Memoranda of Agreement, National Register of Historic Places nominations, Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) documentation, and State Historic Resource surveys.

Experience

Site 2 FAA Environmental Evaluation Form C, Pittsburgh International Airport (PIT), Pittsburgh, Pennsylvania.

Allegheny County Airport Authority. Architectural Historian. Responsible for conducting a pedestrian reconnaissance of the project area to determine the presence or absence of historic resources. Baker conducted an environmental assessment using FAA Form C for Site 2, a mixed use warehousing and office complex near Pittsburgh International Airport. Potential impacts, including wetlands, streams, cultural resources, construction, traffic and land use impacts were documented for review by the FAA prior to permitting.

US-VISIT Program Management, GIS, and Environmental Support Services - Nationwide, Nationwide.

Department of Homeland Security, US-VISIT. Architectural Historian. Assisted with the preparation of Historic Resource Survey and Determination of Eligibility Reports for all Land Ports of Entry along the Canadian and Mexican borders. Baker provided program management and related planning, environmental, engineering design, and geospatial services that supported the mission of the Department of Homeland Security (DHS) in modernizing and improving the nation's immigration and border management system and thereby strengthening national security.

Washington Crossing Gateway Park and Streetscape Project, Washington Crossing, Pennsylvania.

Pennsylvania Department of Transportation, District 6-0. Architectural Historian. Prepared Pennsylvania Historic Resource Survey Forms, assessed project effects to identified historic resources, and authored a Determination of Effect Report. This project involved the design of the Washington Crossing Gateway Park: Village Streetscape and Pedestrian/Bicycle Linkages within the historic village of Washington Crossing. As part of this 1.0 mile long project, a series of shared use paths and paver sidewalks were constructed to connect residential areas to the Delaware Canal state park, to Washington Crossing State Park and Visitor Center. The project also included roadway improvements to create uniform 4 wide shoulders to enhance bicycle travel, period style ornamental street lights, stamped crosswalks and landscaping. All work was on public lands such as DCNR and PHMC properties or within the PENNDOT right-of-way along state highways.

Archaeological and Historic Resource Survey of the Bizzack Fill Areas, Parkersburg, West Virginia.

Bizzack, Inc. Architectural Historian. Responsible for preparing West Virginia Historic Property Inventory

Years with Baker: 15

Years with Other Firms: 7

Education

M.A., 1996, Historic Preservation,
Middle Tennessee State University

B.S., 1986, Accounting/Computer
Science, Salem College

Licenses/Certifications

Architectural Historian (36 CFR61)
Qualified

Railroad Safety Training,
Pennsylvania, 2006

Forms and a Determination of Eligibility Report. Baker performed a Phase I archaeological survey and historic resources survey and eligibility assessment of two noncontiguous, upland drainages that were selected for permanent dumping of residual soils resulting from construction of the Appalachian Corridor D highway system. The two proposed areas collectively spanned roughly 24 ha (60 ac). The work was conducted for Bizzack, Inc., Lexington, Kentucky. As part of the Phase I archaeological survey, two historic archaeological sites and a historic isolated find site were identified. The historic resources survey identified two unrecorded historic resources over 50 years of age.

Design and Construct One Mile of Bicycle/Pedestrian Trail, Doylestown, Pennsylvania. *Doylestown Borough/Doylestown Township.* Architectural Historian. Responsible for assessing project effects to identified historic resources. Also served as author of Determination of Effect Report. Baker provided engineering, project management, and agency coordination services for the design and construction of an approximately 0.75-mile extension to a portion of an existing multiuse path at the intersection of S.R. 202 and New Britain Road. The extension provides the necessary link in the ongoing expansion of the community trail system.

Valley View Downs Race Track and Casino, Mahoning Township, Lawrence County, Pennsylvania. *Centaur, Inc.* Architectural Historian. Assisted with the identification and recordation of historic resources and the preparation of Pennsylvania Historic Resource Survey forms. Baker was retained by Centaur, Inc. to provide general civil and environmental engineering services associated with the proposed Race Track and Casino complex. The 250-acre site will contain a 270,000-square-foot Grandstand/Clubhouse/Casino building, a one-mile harness racing track, eight horse barns, an administration building, dormitory, paddock and various support buildings, a 4,000-vehicle customer parking lot and 100-horse-trailer parking spaces..

On-Call Planning and Environmental Services, Pittsburgh International, and Allegheny County Airports (PIT/AGC), Pittsburgh, Pennsylvania. *Allegheny County Airport Authority.* Architectural Historian. Responsible for conducting various historic resources surveys. Prepared Determination of Eligibility, Determination of Effects, and Criteria of Effects Reports, Memoranda of Agreement, and Section 4(f) Evaluations. Since 2002, Baker has provided On-Call Planning and Environmental Services to the Allegheny County Airport Authority for Pittsburgh International and Allegheny County Airports.

Elkins Coal Refuse Reclamation, Preston County, West Virginia. *West Virginia Department of Environmental Protection.* Architectural Historian. Responsible for assisting with the field study to produce HABS-level historic building recordation of mining complex consisting of industrial buildings, mine entrances, coke ovens, and rail beds. Baker was responsible for developing construction plans and specifications for reclamation of the Elkins coal and coke abandoned mine site. Baker performed Historic American Engineering Record (HAER) Documentation, which included large format photography, measured drawings, and written reports.

BAKER I/S PLUS 1 PROJECT. *West Virginia Department of Transportation, Division of Highways.* Architectural Historian. Assisted with the delineation of an Area of Potential Effect and the field identification of historic resources. Coauthored a Determination of Eligibility Report.

HABS/HAER Documentation for Overbrook Trolley Line, Stage II LRT Corridor, Pittsburgh, Pennsylvania. *Port Authority of Allegheny County.* Project Manager. Responsible for recording the National Register eligible Overbrook Trolley Line and four associated historic bridges according to Historic American Engineering Record standards. Baker's Cultural Resources Section assembled Historic American Engineering Record (HAER) information on the Port Authority of Allegheny County's Overbrook streetcar line, which included four historic bridges. Engineering changes and technological improvements to the line were documented and HABS/HAER-level photo-documentation of the resources was performed. These efforts were performed as mitigation of impacts to historic bridges identified in the Environmental Assessment for the Stage II LRT project.

FAA Environmental Evaluation Form "C" Preparation for Runway 3-21 Safety Area Improvements, Wheeling-Ohio County Airport (HLG), Wheeling, West Virginia. *Ohio County Commission.*

Architectural Historian. Responsible for conducting historic resources survey, prepared a West Virginia Historic Property Inventory Form for an identified resource, and assisted with the preparation of a letter report to clear the area of further cultural resources studies. Baker will prepare a Federal Aviation Administration Environmental Evaluation Form "C" to meet environmental documentation requirements for the extension of the Runway 3-21 Runway Safety Area at Wheeling-Ohio County Airport.

Historic Structures and Terrestrial Archaeological Site Identification and Analysis Services, Statewide, Maryland. *Maryland State Highway Administration.* Architectural Historian. Responsible for assisting with various historic resource surveys and the preparation of cultural resources compliance studies. Baker provides consulting services on various task orders to the Office of Planning and Preliminary Engineering. The results of these task orders are then incorporated in environmental evaluations prepared by the SHA or by other consultants. Baker's architectural historians and archaeologists are especially conscious of the importance of sound historic resource evaluations in larger environmental evaluations.

On-Call Engineering and Architectural Services, Wheeling-Ohio County Airport (HLG), Wheeling, West Virginia. *Ohio County Commission.* Architectural Historian. Responsible for conducting historic resources survey, prepared West Virginia Historic Property Inventory Form for an identified resource, and assisted with the preparation of a letter report to clear the area of further cultural resources studies. Since 2001, Baker has provided on-call engineering and architectural services at Wheeling-Ohio County Airport under a comprehensive engineering services agreement with the Ohio County Commission. Typical tasks performed include feasibility studies and surveys, bituminous pavement design, runway lighting design, civil site design, construction cost estimation, and construction management and inspection services.

New River Parkway Environmental Impact Statement, New River Gorge, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Task Manager. As an Architectural Historian, identified and recorded historic resources. Co-authored the Cultural Resources Technical Report and Criteria of Effects Report. Principal author of the four-volume Addendum Report. Baker worked with the Community Design Assistance Center at Virginia Polytechnic Institute and State University to complete a historical, architectural and archaeological survey and evaluation of the New River Gorge area between Hinton and Sandstone, West Virginia. Baker's work also included Indiana Bat mist net survey and an extensive analysis of secondary and cumulative impacts.

Cultural Resource Services, Statewide, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Architectural Historian. Responsible for conducting historic resources surveys and prepared various cultural resources compliance studies. Michael Baker Jr., Inc. (Baker) was contracted by the West Virginia Department of Transportation, Division of Highways (WVDOH) to conduct NHPA Section 106 services. Baker's Charleston-based cultural resource and environmental staff, engineers, designers, planners, and technicians also support this project, if necessary.

Allegheny Power System Hydro-Electric, Washington County, Pennsylvania. *Allegheny Power Systems.* Architectural Historian. Responsible for investigating and evaluating four circa 1,925 hydroelectric stations. Also served as Principal Author of a Cultural Resource Management Plan.

Non-Baker Project Experience

Allegheny Historic Preservation Society, Pittsburgh, Pennsylvania. Assisted in the restoration of Calvary United Methodist Church, an elaborate 1895 Gothic structure located in the Allegheny West neighborhood of Pittsburgh's North Side. Duties included conducting research, documenting structural and cosmetic changes made to the building, restoration/construction project management, new materials selection, historic fabric conservation, providing guided tours, and performing paint analysis to determine the building's original color schemes.

Mount Washington Community Development Corporation, Pittsburgh, Pennsylvania. Prepared and maintained computer databases for membership, vacant and deteriorated housing recordation, and a historic

properties inventory; provide storefront rehabilitation proposals for buildings in the commercial district; and prepare marketing and public relations materials.

South Side Local Development Company, Pittsburgh, Pennsylvania. Served as Director of Economic Development/Main Street Program Manager. Duties for this community-based development and preservation organization included marketing city economic development programs, business recruitment and retention activities; historic preservation planning, grant writing and administration; grassroots fund raising; and providing technical support/assistance to the design and economic development committees.

New Martinsville Main Street, Inc., New Martinsville, West Virginia. As director, responsible for overseeing implementation of the Main Street Program, a commercial revitalization strategy for traditional business districts which utilizes historic preservation as an integral foundation for economic development. It is a project of the National Trust for Historic Preservation. Duties included managing all administrative aspects, volunteer coordination and management, conducting design review, administering a low interest loan program and a facade grant program, and developing and conducting public awareness and educational efforts.

Center for Historic Preservation, Middle Tennessee State University, Murfreesboro, Tennessee. *Middle Tennessee State.* Research Assistant. Responsible for the daily use of personal computers and software and for instructing students in the use of the equipment. Assisted in developing a computerized database for a 10,000-slide/photograph collection organized by architectural style.

Clarksburg Development Corporation, Clarksburg, West Virginia. Intern. Completed internship under the direction of the project manager of Clarksburg's Main Street Program. Established a historic photograph collection of the downtown area to assist in storefront rehabilitations. Assisted a local civic organization in developing a preservation plan for a historic site. Assisted director in developing an educational project for the Harrison County Board of Education. Participated in meetings to establish a county landmarks commission and a low interest loan program.

Main Street West Virginia, Charleston, West Virginia. *State of West Virginia Department of Local Development.* Historian. Prepared design guidelines for new Main Street cities in the state.

Historic Structure Report, Wheeler Plantation, Decatur, Alabama. *Alabama Preservation Alliance.* Team Member. Produced a comprehensive 300-page report focusing on the present condition and future preservation needs of the 14,000 acres, three houses, and outbuildings which comprise the Wheeler Plantation. Report included a family history, structural analysis, and recommendations for future use. (1988)

Proposal for Stabilization and Reuse, Brown's Mill, Lascassas, Tennessee. *City of Murfreesboro.* Student. As part of a student team, compiled a report which analyzed this post-Civil War grist mill. Researched history, determined structural stability, and provided recommendations for future use. Report submitted to the city of Murfreesboro, owner of the property. (1988)

Grant Writing Project, Sumner County Chapter, Gallatin, Tennessee. *Association for the Preservation of Tennessee Antiquities.* Team Member. A team project which involved preparation of a successful grant submitted to the Institute of Museum Services to undertake an environmental and conservation survey at Cragfont, an eighteenth century mansion and historic site. (1988)

Historic Structure Report, Clover Bottom Mansion, Nashville, Tennessee. *Tennessee Department of Finance and Administration.* Team Member. Determined adaptive reuses for this nineteenth century antebellum plantation home and its dependencies. Documented the history of the property and the present condition of the buildings. (1988)

Pride in Place Project, Gallatin, Tennessee. *Middle Tennessee State University.* Team Member. Worked with a North Carolina based consultant team to assess the community's cultural amenities. Assisted in conducting citizen interviews and evaluating information. Prepared illustrations for the report. (1988)

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, WV. Mechanical Engineer.

Raleigh General Hospital Surgery Suite; Beckley WV, Mechanical Engineer.

Riverside High School; Charleston, WV Mechanical Engineer.

Jackson County High School; Jackson, OH Mechanical Engineer.

Huntington High School; Huntington, WV Mechanical Engineer.

Summerville High School; Summersville, WV Mechanical Engineer.

Kings Daughters Medical Center Parkview addition; Ashland, KY Mechanical Engineer.

Ashland Community and Technical College; Ashland, KY Mechanical Engineer.

Emergency Response Center (911) Huntington, WV Mechanical Engineer.

Mountaineer Challenge Academy; Camp Dawson Kingwood, WV Mechanical Engineer.

Louis Mittelman, P.E., PMP, LEED® AP

QA/QC Manager

General Qualifications

Mr. Mittelman is a program/project manager with experience in the government, military, power, pharmaceutical, industrial, commercial, and educational/institutional industries. He is responsible for all Baker work within the Department of Energy. Program/Project management responsibilities include proposal preparation, contract negotiations, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and oversight, change management, risk management, document management, Sarbanes-Oxley compliance, project closeout, and business development.

Mr. Mittelman's management experience includes private and public projects and programs, utilizing design/bid/build and design/build approaches with cost-plus and lump-sum contracts. Industries/building types include laboratories, office buildings, industrial manufacturing/processes, pharmaceutical manufacturing, research and development, guardhouses, kitchens, shipping and receiving, recreation, warehouses, locker rooms, schools, banks, computer centers, military facilities, district heating/cooling-central utility plants, utilities, barracks, and aviation.

His engineering experience includes design of HVAC and utility systems from the conceptual phase through construction and validation, including design basis, equipment procurement, and subcontracts. Industry and technology experience includes desiccant dehumidification, bag-in/bag-out HEPA filters, explosion relief, explosion suppression, process heating and cooling systems, cold rooms, fuel oil, natural gas, steam and condensate, heating hot water and glycol, chilled water, condenser water, compressed air, nitrogen, custom air handling units, VAV fume hoods, dust collection, heat recovery, Class 100 to Class 100,000 clean rooms, containment systems, and noise control.

Experience

Production Support Complex, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. Baker prepared design/build RFP documents for a 50,000-square-foot, two-story administrative office building that includes a complete kitchen serving up to 1,500 people and dining area, and an emergency control center. The servery area offers a range of "a la carte" stations for self-service. Beyond the fixed seating area in the dining room, there is a multi-purpose space that accommodates up to 300 people. Additionally, partitions are provided that can create smaller dining or conference spaces. The Emergency Control Center (ECC), located near the secure campus gate, is two-stories with a mezzanine, and is equipped to accommodate up to 70 personnel. In

Years with Baker: 8

Years with Other Firms: 19

Education

B.S., 1985, Architectural Engineering, The Pennsylvania State University

A.S., 1982, Solar Heating & Cooling Technology, The Pennsylvania State University

Licenses/Certifications

LEED® Accredited Professional, 2006, 1705

Project Management Professional (PMP), 2006, 318455

Professional Engineer - Mechanical, Idaho, 2004, P-11332

Professional Engineer, Pennsylvania, 1988, PE037429E

the event of extreme weather or other emergency, internal and external communications will be maintained in this space where any situation can be safely monitored and controlled.

Renovations to Cask Shipping and Receiving Building, Confidential Location. *Confidential Client.* Program Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. Baker provided complete design and cost estimating services for a major reconfiguration and renovation of this 22,000-square-foot heavy-industrial production facility with a 90-foot tall high-bay. The design includes demolition of multiple existing platforms and overhead crane, and addition of a new railroad spur, gates, fences, utility relocations, structural platforms, massive (W33) floor inserts, articulating catwalks/platforms, installation of a new 310-ton overhead crane, seismic restraints, process and material flow, HEPA exhaust, recirculating (radioactive) water systems, hydraulic systems, and associated electrical modifications. Baker's team prepared a LEED® scorecard and sustainable design report. The Department of Energy requires projects of this size to meet the Gold rating.

Renovation of Historic Building 39, Fort McNair, Washington, DC. *U.S. Army Corps of Engineers, Baltimore District.* Technical Manager. Responsible for performing an intra-disciplinary quality review of the mechanical engineering design. Baker provided services for renovation of Building 39, a 40,000 square foot building designed by the renowned American architectural firm of McKim, Mead, and White which was constructed in 1903. The renovation updated the existing building to provide sophisticated computer and office space, a SCIF (a secure space), a Command Center executive suite, an emergency operations center, and provost marshal offices.

Radioactive Liquid Processing System, Title II Design, Confidential Site, Idaho. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. Baker worked with the user and the Nuclear Services Facility Planning Yard (NSFPY) in Newport News to complete the detail of the design of a radioactive liquid processing system. The design included an impervious containment reservoir/curb, PLC controls, processing tanks, filters, pumps, and piping distribution system, connection to existing systems, and 3D CAD design.

Office Building 100 and Parking Structure, Airside Business Park, Moon Township, Pennsylvania. *Airside Business Park, L.P.* Technical Manager. Responsibilities included intra-discipline quality control reviews and mechanical engineering design of the HVAC system, as well as start-up and commissioning. This new 117,000-square-foot design/build-to-suit office building was custom-designed to serve as a corporate headquarters, yet offers the built-in flexibility to accommodate potential new tenants in the future. 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. Separate air handlers are provided for each floor, to accommodate future usage by multiple tenants. 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.

NRF Utility Expansion, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. Baker designed

expansions to campus utilities to the northeast quadrant of the site for future planned development, including the following: sanitary sewer extension; stormwater drainage; 2,500 volt 4x4 power distribution duct banks; 2x4 communication duct bank; domestic water system; and firewater distribution piping. The utilities expansion also included: Idaho Department of Environmental Quality permits; duplex VFD sanitary and triplex VFD stormwater lift stations; tie-in to and relocation of existing sanitary force main; manholes; fire hydrants; and multiple utility crossings and encasements.

West Busway, Pittsburgh, Pennsylvania. *Port Authority of Allegheny County.* Mechanical Engineer. Responsible for providing mechanical engineering consultation. Baker served as the General Architectural and Engineering Consultant, providing Program Management, Design Services, and Construction Phase Services for the West Busway, a five-mile, two-lane buses only roadway. The busway runs from Carnegie to downtown Pittsburgh and includes an interchange with the Parkway West (Interstate 376), a rehabilitated and widened railroad tunnel, six stations, and four park-n-ride lots adjacent to the facility. The total project budget was \$326 million.

West Substation Replacement, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. Baker prepared the conceptual design and cost estimates for the replacement of the west electrical substation at an Extended Core Facility. The work included: installation of new substation equipment, associated structural support, and associated amenities; installation of raceways, pull boxes, junction boxes, and supports; installation and connection of the medium voltage main feeder cables from the new substation to manhole #1; testing the new substation and putting it into service; power management system communication wiring; lightning protection system; and a life-cycle-cost analysis. Replacement transformers were increased in capacity from 750 to 1,000 kVA each.

West Ruislip Family Housing, London, England. *Naval Facilities Engineering Command, Atlantic Division.* Technical Manager. Responsible for performing an intra-disciplinary quality review of the mechanical engineering design. Located in the United Kingdom, this project included comprehensive design and construction documentation for a total of 69 single family homes. Nearby historic buildings and traditional English landscapes were the inspiration for renovation of these two military family housing neighborhoods.

West Cargo City Hardstand Deicing System, Philadelphia International Airport (PHL), Philadelphia, Pennsylvania. *US Airways.* Technical Manager. Responsible for performing an intra-disciplinary quality review of the mechanical engineering design. In an exclusive design/build teaming arrangement, Baker designed the Phase 3A Deicing System for Philadelphia International Airport. US Airways selected the patented Ice Wolf system for installation at Philadelphia due to the cost savings and reduction in environmental impacts. The project included the installation of twelve "hardstand" deicing stations. Each deicing station includes two hardstand booms with enclosed cab for the operators; each hardstand is provided with a boom enclosure in which in-line mixing of the deicing fluids occurs. The two booms serving each deicing station work in tandem to ensure the same mix is used on each plane. Also included in the project is a central pump house for distributing fluids to each boom, and an interface with a central control room for monitoring the deicing operations. The central control room proceeded as a separate project phase; the previous project phases included site preparation work for the pad and the extension of underground utilities to the vicinity of the deicing booms. Baker coordinated these activities to assure compatibility with the boom design requirements.

Subgrade Evaluation, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk

management, document management, Sarbanes-Oxley compliance, and project closeout. Baker evaluated the existing parking lot subgrade material to determine suitability for repaving or replacement to eliminate future asphalt failures.

Design/Build RFP Documents for the Central Office Building, Confidential Site, Idaho. *Confidential Client.* Project Manager. Responsibilities included project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, document management, Sarbanes-Oxley compliance, and project closeout. Baker prepared Design/Build Request for Proposal documents, an energy conservation report, and cost estimate for construction of a \$4 million office building. The structure will be a 33,000-square-foot, three- or four-story office building to accommodate up to 200 personnel.

Design/Build Addition to Communication Equipment Building 246 & Renovation & Repair of Critical Power Systems, Fort Belvoir, Virginia. *U.S. Army, Fort Belvoir.* Technical Manager. Responsible for performing an intra-disciplinary quality review of the mechanical engineering design. The 20,000-gross-square-foot Communications Equipment Building (CEB) is an essential mission-critical facility at Fort Belvoir, Virginia. The design/build team of Baker and Mascaro Construction Company, LP was tasked with providing a new electrical service for the facility, which was to be powered from two separate 34.5 KV electrical sources as well as redundant diesel-driven standby generators for N+3 reliability. The critical nature of the existing equipment installed at the facility required redundant Uninterruptible Power Supply (UPS) systems for N+1 reliability. All new components are housed in a 42- x 70-foot, single-story, 3,000-square-foot addition to this historic structure. All support systems for the addition were included in the design, such as HVAC, electrical, plumbing, communications, fire detection and protection, security, grounding, lightning protection, and site lighting. Overall building envelope and equipment energy performance, and efficiency of system components must meet or exceed Bronze SPiRiT level sustainable requirements and ASHRAE Standard 90.1-2001.

Architectural/Engineering Services, Air Force Center for Environmental Excellence, Worldwide. *Air Force Center for Environmental Excellence.* Engineering Manager. Responsibilities included coordination of structural, mechanical, electrical, plumbing, and fire protection scope, schedule, and budget with branch office architectural and civil departments for the task orders performed under this agreement. The work under this worldwide indefinite delivery indefinite quantity architectural-engineering services contract consisted of architectural and planning services. Task orders included design services and construction surveillance. The following projects are samples of work completed under this contract: Visiting Quarters, Temporary Lodging Facility, and Geothermal System Design at McGuire Air Force Base, NJ; Temporary Lodging Facility at Dover Air Force Base, DE; and New Dormitory at Thule Air Base, Greenland.

APG 2nd IDC Contract for Master Planning and GIS, Aberdeen Proving Ground, Aberdeen, Maryland. *U.S. Army Corps of Engineers, Baltimore District.* Technical Manager. Responsible for performing technical quality reviews. Baker held a second five-year contract with the Baltimore District Corps of Engineers to provide U.S. Army Master Planning, GIS, other computerized and digital technology applications and related services for U.S. Army Aberdeen Proving Ground (APG), Maryland. This re-bid was from September 1999 through September 2004 and allowed the Baker Team to continue to provide master planning, GIS, related computer and web-based applications and general A/E services to APG.

2004 Facilities Engineering Contract, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout.

Airside Business Park Master Planning and Design Services, Moon Township, Pennsylvania. *Airside Business Park, L.P.* Technical Manager. Responsibilities included conducting a technical quality control review. Baker worked with Airside Business Park, LP and The Elmhurst Group to develop Airside Business

Park, approximately 26 acres of property owned by Allegheny County at the Pittsburgh International Airport. The site is the location of the old airport terminal parking lot along Business Route 60, between University Drive and the Thorn Run interchange. The Elmhurst development, under long-term land lease, was planned and designed to include five buildings - three 63,000-square-foot flex buildings, one 93,000-square-foot three-story office building, and one 117,000-square-foot three-story office building - plus all the associated site work.

2007 General Task Order, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. This omnibus task order included multiple tasks including the following: cost estimates for an emergency vehicle garage; expansion of the overpack storage building; enhancement to the Plant Services' building egress and locker room addition; fuel transfer station; structural analysis of a concrete vault; seismic analysis of the container processing pit; structural analysis of two stack platforms; geotechnical analysis of a million-pound crawler path; and 3D laser imaging and virtual AutoCAD modeling of the container processing pit.

2006 General Task Orders for Open-End Facilities Engineering Services, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout.

Domestic Water Distribution System Evaluation, Confidential Site. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout. Baker performed a condition assessment and feasibility study to evaluate the campus domestic water distribution system. Recommendations were made for modifications and alternate protection methods to eliminate bacteria contaminants, and to ensure that safe drinking water was supplied to sinks and fountains.

ECF Subst Title III, Confidential Location. *Confidential Client.* Project Manager. Responsibilities included business development, proposal preparation, negotiation of contracts, project financial administration, quality management, client relations, development of project scope, controlling project schedules, budgets, and construction costs, reporting and projects oversight, change management, risk management, document management, Sarbanes-Oxley compliance, and project closeout.

Non-Baker Project Experience

Mechanical System Renovation, Cheltenham, Pennsylvania. *Cheltenham High School.* Lead Mechanical Engineer. Design for a three-year phased renovation of entire mechanical systems including kitchen/cafeteria, auditorium, gym, pool, science rooms, classrooms, administration wing, central boiler and chiller plant.

Young Conaway Stargatt and Taylor, Wilmington, Delaware. Project Manager/Lead Mechanical Engineer. Tenant fit-out of 3 floors of Class A law offices on top floors of 18-story building utilizing fan powered VAV and straight shut-off VAV terminals.

Voorhees Police Station, Voorhees, New Jersey. Project Manager/Lead Mechanical Engineer. Renovation of existing post office into police station with Sallyport, dispatch, evidence room, and holding cells.

Wyeth Lederle, Pearl River, New York. Project Manager/Lead Mechanical Engineer. Various projects including central plant control room, steam vent project, fume hood exhaust fan replacement, and low humidity warehouse study.

Liberty Bell Bank, Cherry Hill, New Jersey. Project Manager/Lead Mechanical Engineer. Fit-out of shopping center bank for new financial service center.

Bristol Myers Squibb, Lawrenceville, New Jersey. Project Manager/Lead Mechanical Engineer. Investigation and installation of two 4,000-ton field-built concrete shell cooling towers above existing utility tunnel and associated pumps to support central utility building.

Leggat McCall Properties, Various locations in New Jersey and Pennsylvania. Lead Mechanical Engineer. Tenant improvement/fit-out projects including Trox, Krantz, Titus and York underfloor air conditioning systems, heat recovery systems, VAV systems, single zone systems, etc.

Silver Lake, Camden County, New Jersey. Lead Mechanical Engineer. Commercial building utilizing bypass-type VAV system.

PP9, Riyadh, Saudi Arabia. SCECO (C). Lead Mechanical Engineer. Responsible for ventilation, plumbing, and fire protection for 2 square kilometer site including 17 main buildings/areas and interfacing with 15 support buildings/areas for 1,200 mW combined cycle electric generating plant. (1995-1996)

Atlantic Thermal Systems, Atlantic City, New Jersey. Lead Mechanical Engineer. District Cooling and Heating Plant. Responsible for developing system concept for proposal for 30,000-ton chiller plant. (1996)

American Trading and Real Estate Properties Incorporated I and II, Christiana, Delaware. Lead Mechanical Engineer. Packaged VAV systems with perimeter radiation for two, four-story 90,000 square foot speculative office buildings.

Provident National Bank, Philadelphia, Pennsylvania. Lead Mechanical Engineer. Completed the construction documentation for the renovation of several floors of office space.

White Clay Center IV, Newark, Delaware. Lead Mechanical Engineer. Packaged heat pump, VAV and bypass systems for 56,000 square foot credit card processing computer facility.

First Pennsylvania Bank, Philadelphia, Pennsylvania. Lead Mechanical Engineer. Fit-out VAV system for full service center city branch bank and automated teller center.

Ethyl Corporation, Richmond, Virginia. Lead Mechanical Engineer. Built-up VAV systems for Management Information Center, including kitchen/dining, telecommunications boardroom, and exercise area with swimming pool. Special emphasis on noise control.

Presentations

"HVAC Systems for Pharmaceutical Manufacturing Facilities," ISPE Seminar, Iselin, New Jersey, September 1991; Tampa, FL, December 1992; and Boston, MA, May 1993

"Pressurization in HVAC Systems," Pennsylvania Environmental Balancing Association (PEBA) annual meeting, Philadelphia, Pennsylvania, 1999

Computer Skills

ARCOM MASTERSPEC

Dr. Checks

MasterWorks

Microsoft Excel

Microsoft Power Point

Microsoft Project

Microsoft Word

Professional Affiliations

Project Management Institute (PMI)

Todd Dorius, P.E.

Mechanical Engineer

General Qualifications

Mr. Dorius is a mechanical engineer with over 23 years of experience. His facility consulting experience includes government, commercial, institutional, retail, educational, residential, and medical buildings. Duties involved project management, production of complete construction documents, and construction management services. The initial ten years of his career were focused on the design and manufacturing of process equipment, including product design and oversight, and project management.

Experience

RTC Common Support Building. *C&H Construction.*

Mechanical Engineer. As Lead Mechanical Engineer, provided oversight of the mechanical and plumbing designs, and production of construction documents for a new office building. This design/build project consists of providing space for operations and engineering personnel at the Reactor Technology Complex (RTC). The RTC Common Support Building (CSB) will contain approximately 17,000 square feet and house 50 to 75 offices plus space for electronic control development. The objective is to maximize office space in the facility, including offices, conference room, control laboratory area, and restrooms and other support areas such as mechanical, electrical, and communications. Baker's team prepared a LEED® scorecard and design qualifying this building for a LEED®-certified rating.

Staff Augmentation, Confidential Location. *Confidential Client.* QA/QC. Performed an interdisciplinary technical quality review of a study of existing conditions and recommendations for a site problem. As an extension of our client's staff, Baker personnel provided design services for multiple projects, including the following representative projects: documenting as-built conditions and modifying existing Information Technology systems in approximately 50 buildings; designing modifications to water pit gates; designing stormwater management upgrades; designing railroad switch and pedestrian crossing repairs and upgrades; and documenting fire protection sprinkler as-built conditions for all buildings on site.

Clove Road Facilities Upgrade, Staten Island, New York. *New York City Department of Environmental Protection.* QA/QC. Conducted an interdisciplinary quality review of the project prior to submission. Baker was selected by the New York City Department of Environmental Protection (DEP) to provide full architectural and engineering services and design services in connection with the construction of the Department's newest full-service vehicle facility in Staten Island, New York. Baker's responsibilities under this multi-disciplined project included: site analysis; conceptual, preliminary and final design; contamination removal; and community outreach.

Armed Forces Reserve Center, Camp Bullis, San Antonio, Texas. *U.S. Army Corps of Engineers, Louisville District.* Mechanical Engineer. Responsible for LEED® documentation related to energy consumption for the three-building complex. Estimated the total energy savings with respect to ASHRAE Standard 90.1-2004, with the goal of an overall 30% energy savings, to meet Silver LEED® certification. Baker teamed with builders Walbridge / Bartlett Cocke, J.V. under a Design/Build contract for the full design of an Armed Forces Reserve Center (AFRC) to be located at Camp Bullis, Texas. The \$39 million, 189,071-

Years with Baker: 1

Years with Other Firms: 23

Education

M.S., 1993, Mechanical Engineering,
University of Utah

B.S., 1985, Mechanical Engineering,
University of Utah

Licenses/Certifications

Professional Engineer, Utah, 1993,
189171-2202

Professional Engineer - Mechanical,
Nevada, 1999, 013851

Professional Engineer, Washington,
2005, 42121

square-foot complex consists of five buildings, including a Training Center, Organizational Unit (Heated) Storage building, Vehicle Maintenance Shop, and two Unheated Storage (UHS) buildings. Designs are also required for Comprehensive Interior Design (CID) and Structural Interior Design (SID), utilities, storm drainage, communications, electric, HVAC, fire protection/alarm systems, Intrusion Detection System, Emergency Management Communication System, anti-terrorism and force protection measures, paving, walks, curbs, parking, access roads, exterior lighting, site improvements, grading and landscaping. The project will be designed to meet the Silver Level of LEED®.

91st Military Police Operation Facilities Design/Build, Ft. Drum, New York. *U.S. Army Corps of Engineers, New York District.* Mechanical Engineer. Responsible as the lead mechanical engineer to complete the mechanical and plumbing design for the TEMF building. This effort involved all mechanical and plumbing systems associated with a large vehicle maintenance facility with office and training spaces. The MP Unit Operations Facilities design-build project consists of the design and construction of three facilities: one FIVE-Company Operations Facility (COF); a Battalion Headquarters (BNHQ) building; and one Tactical Equipment Maintenance Facility (TEMF).

Non-Baker Project Experience

Chilled Water Systems (up to 1350-tons)

- All types of chillers including liquid-cooled by way of cooling towers, air-cooled chillers, and remote dry-cooled refrigerant
- Natural cooling systems utilizing heat exchangers and cooling towers to take advantage of low local wet bulb temperatures
- Chiller replacements with active data center systems

DX Refrigeration Systems

- Several system conversions from R-12 to R-22
- Staged systems utilizing VFD condensing units, electronic unloaders and split coils
- Several Mitsubishi City Multi systems (Diamond Designer) using essentially pump refrigerant technology
- Several stand-alone remote condenser and packaged systems

Air Handling Systems

- Design of multiple N+1 Data Center systems utilizing custom air handlers with critical temperature maintenance requirements
- Several conversions of multi-zone systems to VAV
- All types of systems from constant volume to VAV reheat
- Several designs with rooftop packaged systems utilizing hot water coils or gas-fired heat exchangers

Plumbing Systems

- Commercial and residential plumbing systems
- Domestic water pressurization systems
- Instantaneous and storage hot water systems with recirculation
- Water softening systems

Humidification Systems

- Data Center steam humidification systems with building steam plants
- Ultrasonic humidification systems for various electronic rooms utilizing stainless steel piping and de-ionized reverse osmosis water treatment

Smoke Control Systems

- Smoke control system for a data center involving six floors of mainframe computer rooms and office space. The smoke control system was capable of isolating each floor through pressurization utilizing control dampers, exhaust fans, and air handler air pressure control.

Retail & Office Space

- Complete HVAC and Plumbing for several retail stores in strip malls and enclosed malls
- Complete HVAC and Plumbing for restaurants in malls and stand-alone buildings
- Complete HVAC and Plumbing for professional office space including medical

Lodging

- Several hundred thousand square feet of condominium and hotel space in resort centers. Systems ranged from simple DX systems to four-pipe complete hydronic and air systems. Most systems included significant snow melt systems and pool equipment. All included parking garages. All included all plumbing.
- Multi-million dollar home HVAC and plumbing design

Steam Systems

- Steam distribution systems for utility tunnels on college and university campuses
- Steam distribution for separate buildings from campus central plants
- Central plant systems including new boilers

Hot Water Systems

- Hot water system design on several projects utilizing pre-heat coils with glycol loops in air handlers, and internal VAV reheat systems
- Heat exchanger designs for glycol loops and swimming pool systems
- Residential radiant floor heating
- Snow melt systems

Industrial Control Systems

- Complete control panel, wiring, PLC programming, and commissioning of industrial filtration and separation systems
- Automated control systems for equipment and pump systems located on oil platforms and remote locations (i.e. Yemen and Amazon)

Building Control Systems

- Fully versed in the layout and operation of several building automation systems, including a good background in BACnet- and Lon-based systems
- System consulting on controls for various projects including hospitals, three-stage air handlers, museums, and various office complexes
- Certified in Phoenix laboratory control systems. Consulted on the design of several university laboratory designs.

Commissioning

- Experienced in commissioning and installation of industrial equipment including steel domes and structures, heavy equipment, and control systems
- Experienced in commissioning and testing of all types of building mechanical and control systems mentioned in this document

Pumping Systems

- High volume industrial pumping systems for filtration and separation equipment
- Pumping systems for chilled water, hot water, fire protection, irrigation, and domestic building water systems

Equipment Design

- High-volume industrial filtration and separation equipment and systems
- Large mixing and aeration equipment with direct and geared down drives

Process Systems

-
- Process equipment system layout utilizing P&IDs

Investigation

- Building energy studies
- Industrial trouble shooting

Previous Work History

Heath Engineering Co., ECE, ICPE, Lead Consulting Engineer, 1995-2001

- Experience involved designing building systems and industrial processes for clients including designs, documents, and project management. Systems experience with HVAC, plumbing, industrial processes, and controls.

Spectrum Engineers, Lead Consulting Engineer, 2003-2008

- Experience involved designing building systems and industrial processes for clients including designs, documents, and project management. Systems experience with HVAC, plumbing, industrial processes, and controls.

Atkinson Electronics, Project/Sales Engineer, 2001-2003

- Experience involved working with consulting engineers and contractors in the layout and design of building DDC control systems. Projects included designs, bids, proposals, and marketing for a variety of clients.

Baker-Hughes Process Systems (EIMCO, WEMCO), Product / Project Engineer, 1986-1990, and 1991-1995

- Experience involved design and fabrication of process equipment including product engineering, control automation, new product development, marketing support, and field commissioning. Projects include several equipment lines, support structures, and control systems used in large industrial facilities, worldwide, designed for automated remote operation.

Nevada Power, Technical Representative, 1985-1986

- Technical representative for the local power utility in Las Vegas, NV

Hawk Autogiro, Engineering Manager, 1990-1991

- Start-up aircraft company working on FAA certification for an experimental aircraft, in conjunction with M.S. degree.

Community Activities

Boy Scouts of America, Scout and Cub Master, 20 years

UYSO Little League Soccer, Coach, 8 years

Continuing Education/Training

Management Supervisory Certificate, University of Utah, May 1993

Honors and Awards

Department Scholarship and Honors at Entrance, University of Utah at Salt Lake City, UT

24 Hours A.P. College Credit, National Honors Society, Skyline High School, at Salt Lake City, UT

Eagle Scout and Order of the Arrow, Boy Scouts of America

Presentations

Dorius, Todd, Sales Demonstrations for DDC Controls for Atkinson Electronics, 2001-2003

Publications

Dorius, Todd, 1993, Master's Thesis. *Yaw Aerodynamics of Horizontal Axis Wind Turbines*. Submitted to the University of Utah.

Research

University of Utah, Master's Thesis Research. Horizontal axis wind turbine load research including a series of Fortran 77 simulation programs designed and operated.

Rachel A. Sharp, P.E.

Civil Engineer, Structures

General Qualifications

Ms. Sharp spent a year of her five plus years at Baker in a rotation program. This experience includes three months of experience in each of the following departments: Construction Management, Airport Design, Cultural Resources, and Traffic Engineering. Beyond that rotation experience, Rachel has roughly 5.5 years of experience in the design and construction inspection of bridges for transportation projects. This experience includes analysis and design of bridges and retaining walls. Prior to joining Baker, Ms. Sharp had completed an internship for the Pennsylvania Department of Transportation (PennDOT), District 12-0, Bridge Inspection and Rating Unit.

Experience

S.R. 1014 over I-70, Collapsed-Beam Emergency Inspection, Washington, Pennsylvania. *Pennsylvania Department of Transportation, Central Office.* Civil Associate.

Responsibilities included performing a sensitivity study and conduct an emergency bridge analysis for several noncomposite prestressed bridges in PennDOT District 12. Baker conducted an emergency inspection of the bridge after one of the fascia beams collapsed onto I-70. Non-destructive testing was performed on the remaining beams. Structural analysis was performed to determine the structural capacity of the remaining beams as well as a sensitivity analysis to determine the effects of the loss of various numbers and patterns of prestressing strands.

S.R. 18 Relocation Project (Geneva College) - Preliminary Engineering, Beaver County, Beaver Falls, Pennsylvania. *Pennsylvania Department of Transportation, District 11-0.* Civil Associate. Responsible for determining noise impacts on relocation alternatives and collected socio economic data. The proposed project will realign S.R. 0018 to eliminate the two 90-degree turns on 32nd Street by providing a sweeping diagonal curvilinear alignment with two travel lanes, sidewalks and standard width parallel parking lanes on both sides of the roadway between 4th and College Avenues. In addition, the intersection of S.R. 0018 and 31st Street will have curb bulbouts to enhance pedestrian safety at the street crossing.

S.R. 0279, Section A33, Fort Pitt Boulevard Reconstruction, Pittsburgh, Pennsylvania. *City of Pittsburgh, Pennsylvania.* Civil Associate. Responsibilities included performing final design services for the rehabilitation of a five-span steel plate-girder bridge and three-span prestressed concrete girder bridge. Responsibilities included the design of the elastomeric bearings and other miscellaneous items. Performed geometry calculations. Baker and SAI Consulting Engineers, Inc. joined forces to complete design for reconstruction of Fort Pitt Boulevard to improve interstate connection between State Routes 279 and 376. Baker's responsibilities encompassed geotechnical engineering for the entire project, WELCOM scheduling, right-of-way plans, and utility coordination. Baker was also responsible for a portion of the structural design; namely, relocated Fort Pitt Boulevard from Wood Street to Smithfield Street, the Smithfield Street Bridge approach spans over the Parkway, and Ramp B from Smithfield Street to Grant Street.

S.R. 0219, Section 022, Design/Build Best Value, Somerset, Pennsylvania. *New Enterprise Stone & Lime Co., Inc.* Civil Associate. Assisted with proposal. Baker was the design subconsultant to the prime construction contractor, New Enterprise Stone & Lime Co., Inc., under contract to Pennsylvania Department

Years with Baker: 8

Years with Other Firms: 0

Education

M.S.C.E., 2000, Civil and Environmental Engineering/Structures, West Virginia University

B.S.C.E., 1998, Civil and Environmental Engineering, West Virginia University

Licenses/Certifications

Professional Engineer, Pennsylvania, 2006, PE073266

Engineer-In-Training, West Virginia, 1999, EI 7342

of Transportation, District 9-0, for this first ever Design/Build Best Value project in Pennsylvania. This \$23 million project included the design and rehabilitation of ten existing structures and approximately 4.3 miles of pavement (four lanes) on S.R. 0219, Section 022 in Somerset Township, Somerset County. Also included within the project scope was the rehabilitation of the ramps comprising the S.R. 8001 and 8003 interchanges and the installation of interchange lighting for the six interchanges included within the overall project area.

S.R. 0079, Section A23, Interstate 79 Missing Ramps, Collier and Robinson Townships, Pittsburgh, Pennsylvania. *Pennsylvania Department of Transportation, District 11-0.* Civil Associate. Responsible for Foundation Submission MPT. Project consisted of an addition of two direct connection ramps to an existing interchange, plus widening and realignment of more than a mile of limited access highway. Estimated construction cost \$60 million.

S.R. 0218, Section A10 - Highway/Railroad Grade Separation Project, Waynesburg, Pennsylvania. *Pennsylvania Department of Transportation, District 12-0.* Bridge Engineer. Responsibilities included preparing the foundation, TS&L, and final design submissions for a seven-span continuous composite prestressed concrete PA 24/45 I-beam bridge. Baker was selected to perform preliminary engineering and prepared final design documents for a grade separation structure spanning Norfolk Southern Railroad tracks, South Fork Ten Mile Creek, and local streets of Waynesburg. The designed structure was approximately 595 feet in length and consisted of a 7-span P/S I-Beam superstructure on curved alignment with a radius of 3,820 feet. S.R. 0218 was realignment for 1,615 feet to accommodate two 12-foot lanes, 2'-0" curb gutters, and a 5-foot sidewalk. Preliminary engineering involved environmental, H&H, traffic control, geotechnical, TS&L and drainage studies, in addition to required surveying, utilities, and right-of-way investigations.

S.R. 4009, Section A02, Widening of Asbury Road and Replacement of Two Overhead Railroad Structures, Millcreek Township, Pennsylvania. *Pennsylvania Department of Transportation, District 1-0.* Civil Associate. Assisted with signing and pavement. Baker performed preliminary and final design for widening 0.6 miles of S.R. 4009, Section A02 (Asbury Road) from two lanes to five lanes including replacement of a CSX railroad bridge (four tracks) and a Norfolk Southern railroad bridge (two tracks).

Woodhill-Buckeye-Shaker Bridge Replacement (CUY-87-4.24), Cleveland, Ohio. *Ohio Department of Transportation, District 12.* Civil Associate. Responsibilities included performing a preliminary traffic signal design for the intersection. Conducted signal warrant analysis, capacity analysis, left turn conflict factor calculations, and signal timing calculations. Developed traffic control plans for the reconstruction which included specifications and cost estimates for the project. Baker provided preliminary and final design engineering services for the replacement of an 86-year-old reinforced concrete and steel frame bridge that carries a high volume of traffic through a six-legged signalized intersection over the Greater Cleveland Regional Transit Authority System.

Tunkhannock Transportation Improvement Project, S.R. 0006, Sections E10 and E11, Tunkhannock, Pennsylvania. *Pennsylvania Department of Transportation, District 4-0.* Civil Associate. Responsibilities included performing field traffic counts and assisted in data reduction. Baker was the lead design consultant for the Tunkhannock Transportation Improvement project. This project consisted of constructing a rural, two-lane limited-access bypass of S.R. 0006 (U.S. Route 6) around the Tunkhannock Central Business District. The major project features included - one three-span, one four-span, and one five-span bridge constructed over Tunkhannock Creek; a grade-separated interchange with S.R. 0006; an at grade intersection with S.R. 0006 and signalized intersections with S.R. 0029 and S.R. 0092; 4,000 feet of noise walls; a pedestrian underpass; and a runaway truck escape ramp.

Saltillo, MS Signal Project, Saltillo, Lee County, Mississippi. *Mississippi Department of Transportation.* Civil Associate. Assisted with traffic analysis and signal timings report. Projected volumes and determined level of Service for the intersections using Synchro. Baker provided professional engineering services for traffic signal plans and permanent signing plans for the US Highway 45 and MS Highway 145 bypass in Saltillo, MS. The project included the design of five (5) new traffic signals located on MS Highway 145, at the intersection with US Highway 45.

Security Upgrades to Perimeter Fence, Guard Shelters, and Gates, Pittsburgh International Airport (PIT), Pittsburgh, Pennsylvania. *Allegheny County Airport Authority.* Civil Associate. Assisted with determining a cost estimate for four retaining walls. Designed the foundations for each retaining wall, which included several spread footings and footings supported by piles using PennDOT Abutment and Retaining Wall Design Program (ABUT 5 v5.3). This project included the design of numerous upgrades to the perimeter fence, security gates, and guard shelters at the Pittsburgh International Airport (PIT). The perimeter fence and gates demarcating the Air Operations Area (AOA) were visually inspected for deficiencies, and sections were replaced as needed. This project updated the existing West Vehicle Guard Shelter with a new guard shelter configured in a much more desirable location, and includes a new guard shelter at the Hangar 1 AOA entrance. Tire shredders were added to the new Hangar 1 and West Vehicle Gates to prevent access to the AOA through the gate exit lanes.

S.R. 0018 Geneva College, Beaver Falls, Pennsylvania. *Pennsylvania Department of Transportation, District 11-0.* Civil Associate. Responsible for preparing Signing and Pavement Marking Plans as well as designed a signal at an intersection. Baker was responsible for the final design and construction services of the relocation of S.R. 0018 between 4th and College Avenues passing through the Geneva College Campus. The realignment of S.R. 0018 (1,700 feet) eliminated the two existing 90 degree turns on 32nd Street and provided improved safety for vehicular and pedestrian traffic.

David L. Lawrence Convention Center Infrastructure, Pittsburgh, Pennsylvania. *Sports and Exhibition Authority of Pittsburgh and Allegheny County.* Civil Associate. Responsibilities included performing Cost Estimate for water feature / pump room and saved client money through negotiations, mapped cracks, reviewed shop drawings and submittals, assisted in writing work orders (change orders), and project correspondence such as invoice documentation, coordinated construction effort between contractors and client. Baker provided CM/CIS services for the \$22 million reconstruction of the transportation infrastructure associated with the construction of the David L. Lawrence Convention Center. This multi-phased work included renovation of major roadways and construction of new bridges and retaining walls.

31st Street Bridge Rehabilitation, S.R. 2122, Section A03, Pittsburgh, Pennsylvania. *Pennsylvania Department of Transportation, District 11-0.* Bridge Engineer. Responsibilities included performing final design services for the rehabilitation of a twenty-eight span bridge. Responsibilities included the analysis of the girders, floorbeams, and stringers for retrofit purposes and design of floorbeam splices for the main spans. As part of Construction Consultation Services, responsible for reviewing shop drawings, RFI's, and calculations. Baker provided preliminary and final design services for the rehabilitation of the historic 31st Street Bridge in the City of Pittsburgh, Pennsylvania. In addition to structural rehabilitation, the objective of this project is to widen the bridge deck as much as possible. Investigations included consideration for replacement of approach spans versus rehabilitation.

LRFD for Highway Bridge Substructures and Earth Retaining Structures, Nationwide. *U.S. Department of Transportation.* Bridge Engineer. Responsibilities included modifying the courses so they were 504/508 Compliant. Under a Task Order from FHWA, Baker was awarded development and delivery of a training course that provided a "core-curriculum" in the application of the AASHTO LRFD Bridge Design Specifications and AASHTO LRFD Bridge Construction Specifications. The full course was 5 days in length and included LRFD theory geared toward application to design examples, and illustrated step-by-step LRFD design procedures through a series of detailed process flowcharts. The course materials included the extensive use of student exercises and example problems to demonstrate overall design and construction principles addressed in the reference materials. Options were provided to tailor courses for 1-day, 3-day and 4-day presentations.

Roadway Rehabilitation, S.R. 2001, Sections 401, 402, and 405, Lehman and Delaware Townships, Pennsylvania. *Pennsylvania Department of Transportation, District 4-0.* Civil Associate. Responsibilities included performing crash / safety study. Calculated crash rates, determined crash clusters from collision diagrams, and analyzed crash patterns. Determined probable cause for crash clusters and developed a list of potential countermeasures for remedial action. The project consisted of a 17-mile, two-lane, rural arterial

roadway in the Pocono region with several single span bridges and culverts. The project included wetland and exceptional value stream impact mitigation; Phase I archaeology, historical evaluations and preparation of a Categorical Exclusion Evaluation, Section 4(f) involvement with National Park Services, design of drainage systems, design of traffic control plans to maintain traffic during construction, right-of-way plans, utility relocation, erosion control, hydraulic reports, and final bid documents for three construction projects.

Community Activities

Baker Employees Combined Charities 2002-2006.

Presentations

"Comprehensive Package for Design of Short-Span Steel Bridges" (01-0391), Washington, D.C. Presentation at TRB 80th Annual Meeting, January 8, 2001.

Publications

Barth, K.E., C.W. Roeder, R.A. Christopher, and H. Wu. 2003. Evaluation of Live Load Deflection Criteria for I-Shaped Steel Bridge Design Girders. *ASCE Journal of Structural Engineering Special Publication. High Performance Materials in Bridges*. 193 – 208.

Roeder, C.W., K.E. Barth, A. Bergman, and R.A. Christopher. 2001. Improved Live Load Deflection Criteria for Steel Bridges. *Interim Report to NCHRP 20-7*, National Research Council, Washington, D.C.

Comprehensive Package for Design of Short-Span Steel Bridges. January 8, 2001 (01-0391), Washington, D.C. Presentation at TRB 80th Annual Meeting.

Teaching

Performed duties as a Teaching Assistant at the West Virginia University during graduate school. Duties included tutoring students, grading homework, and assisting professors in the instruction of undergraduate engineering courses.

Computer Skills

Bentley MicroStation
COGO Classic
LRFD Abutment and Retaining Wall Analysis and Design (ABLRFD)
LRFD Prestressed Concrete Girder Design and Rating (PSLRFD)
LRFD Steel Girder Design and Rating (STLRFD)
Mathcad
MDX
Microsoft Excel
Microsoft Power Point
Microsoft Word
PCA Column
PennDOT Bridge Design and Rating Programs (BAR7)
Pennsylvania Pier Analysis (PAPIER)
RISA-3D
Steel Girder Splice Design and Analysis
Structural Analysis and Design (STAAD)
Synchro (Trafficware)
Visio

Professional Affiliations

Association for Bridge Construction and Design (ABCD).

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.

PRESERVATION



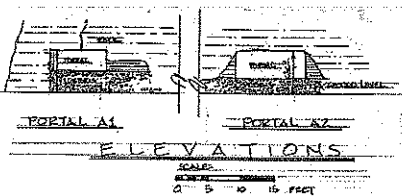
The firm of Michael Gioulis specializes in the preservation of historic structures and the preservation and interpretation of historic sites. Mr. Gioulis has been a historic preservation professional since 1977. Since 1984, he has been practicing as a private Historic Preservation Consultant dedicated to enhancing awareness of historic preservation through historically accurate restorations and rehabilitations of many prominent buildings in West Virginia and surrounding areas.

PLANNING



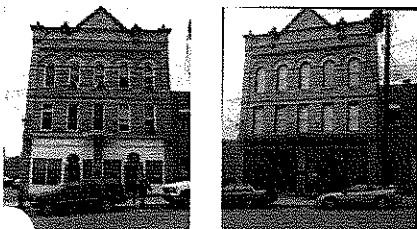
Since 1988, Mr. Gioulis has held a contract with the State of West Virginia as their Main Street West Virginia Design Contractor. Revitalization of commercial downtown buildings is the focus of the program emphasizing the preservation of historic integrity.

REPORTS



In conjunction with his work in historic preservation, Mr. Gioulis also offers services in the following areas: HABS/HAERS Reports, 106 Reviews, Feasibility Studies, Design Guidelines, Historic Preservation Certification Applications for tax credits, National Register Nominations, Historic Resource Surveys, and CAP Assessments.

REHABILITATION



Consulting with architects and property owners, Mr. Gioulis is also involved in several rehabilitation projects involving residential and commercial buildings. Preservation of historic fabric and character-defining elements of these extant buildings are the ingredients providing for their efficient, contemporary use within the community.

MICHAEL GIOULIS

HISTORIC PRESERVATION CONSULTANT, INC

MICHAEL GIOULIS

Mr. Gioulis has been active in Historic Preservation in West Virginia since 1977. He served as Historical Architect for the West Virginia Department of Culture and History and as Assistant Director of the Historic Preservation Unit. While there he was involved in a number of programs, including: Survey and Planning grants; historic resource surveys; review of construction grant projects; and tax certification applications. He is familiar with all aspects of interpreting standards for rehabilitation of existing and historic buildings. In private practice, (established 1984) he has been involved in rehabilitation projects and design assistance programs for downtown structures. This includes services to the West Virginia Main Street Office, resulting in over 800 individual design projects, as well as workshops, resource team visits and technical assistance responses. Resource teams involve intensive site visits in a charrette environment reviewing community resources and developing strategies for revitalization. He has participated in over 30 teams. In addition, Michael has written a Maintenance Manual for downtown property owners. He has completed a number of successful tax certification applications and has participated in individual rehabilitation and restoration projects including the restoration of 20 building facades in downtown Matewan, WV.

A number of training and technical workshops have been conducted by Mr. Gioulis. These include design workshops for the Main Street program from 1989 up to and including the present; Pinnacle Rock State Park for the Division of Culture and History, 1990; State Main Street Annual Conference 1990-2006; National Association of FRP manufacturers, 1995; Elkins and Beverly Historic Landmarks Commission, 1997; and others. He has also been a guest instructor at Shepherd State College and the West Virginia Graduate School and an instructor at the University of Charleston.

In St. Clairsville, Ohio he worked with the city and property owners to successfully rehabilitate seventeen downtown buildings and public projects such as entrance signs to the town, and a National Register nomination for the historic district. He also revised the city's design guidelines. In Wheeling he worked with a planning team for the revitalization of the historic waterfront into a major urban park. He has also worked with communities in reviewing rehabilitation projects and as an advisor to historic review committees; and wrote or revised historic district review ordinances and design guidelines in towns such as Shepherdstown, Elkins, Beverly, and Bramwell.

Updated 01/2007

MICHAEL GIOULIS

HISTORIC PRESERVATION CONSULTANT, INC

MICHAEL GIOULIS HISTORIC PRESERVATION CONSULTANT

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mike@michaelgioulis.com (EMAIL)
www.MichaelGioulis.com (WEB SITE)

page 1 of 2

EDUCATION:

B.S., City University of New York, City College, 1975.
B. Arch., City University of New York, City College,
1977.

BUSINESS EXPERIENCE:

June 1984-Present	Self-employed: Historic Preservation Consultant; Design; Construction supervision and management.
June 1979-June 1984	State of West Virginia, Department of Culture and History, Historic Preservation Unit: Coordinate state, local and federal Programs; review construction and other projects for compliance with standards; administer grant, survey and tax incentive programs; public addresses.
September 1982-January 1983	University of Charleston, Charleston, West Virginia: Instructor, "Principles of Planning", urban design, planning and historic preservation curriculum.
October 1977-June 1979	Vecellio and Kreps. Architects, Charleston, WV: drafting; working drawings; review shop drawings; preliminary sketches and site layout; finish selection; specification writing; design.
September 1975-June 1977	Jeri-Jo Knitwear, New York City, NY: Assistant Manager; Supervised seven employees; billing.
1968-1973	Various temporary occupations including home construction and remodeling; tree trimming and landscaping.
1968-1973	Prescott Merrill and Turben, New York City, NY: stockbrokers; clerk; head of segregation department.

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page 2 of 2

CONTINUING EDUCATION:

Historic Preservation Workshop, Cornell University, Ithaca, NY, June 9-16, 1979.
Main Street Revitalization Conference, Charleston, WV, November 1979.
Society for Commercial Archaeology, Washington, D.C., November 1979.
Association for Preservation Technology: Quebec, October 1980; Banff, October 1982; Nashville, October 1983; Toronto, October 1984; Chicago, 1989; Chicago, 1997.
Preservation Tax Incentives, National Trust for Historic Preservation, Philadelphia, December 1981.
Sandstone Restoration Seminar, New York City, December 1982.
The Window Conference and Exposition for Historic Buildings, Boston, MA, December 1986.
National Main Street Center Town Meeting: Tulsa, OK 1992; Milwaukee, WI 1993; Tampa, FL 1994; Nashville, TN 1996; Portland, OR 1997; Pittsburgh, PA 1998; San Diego, CA 1999; Boston, MA 2000; Indianapolis, IN 2001; Ft. Worth, TX 2002; Cincinnati, OH 2003; Albuquerque, NM 2004; Baltimore, MD 2005; New Orleans, LA 2006; Seattle, WA 2007; Philadelphia, PA 2008; and Chicago, IL 2009.

ACCOMPLISHMENTS:

Chairman, Braxton County Historic Landmarks Commission, 1981.
Member, Bulltown Advisory Committee, 1980-1982.
Speaker, Preservation Tax Incentives Workshop, Charleston, WV, April 1982.
Speaker, Preservation Alliance of West Virginia: Harpers Ferry, WV, June 1982; Bluefield, WV, June 1983; Bramwell, WV, June 1988; Lewisburg, WV, June 1990; Martinsburg, WV, May 1997; Charleston, WV, May 1998; Weston, WV, September 2000; Elkins, WV, September 2001.
Speaker, Planning Association of West Virginia, February 1983.
Speaker, Energy Conservation in Historic Buildings, September 1983,
Speaker, National Main Street Conference, Charleston, WV, December 1984.
Speaker, Preservation Tax Incentives Workshop, National Conference of State Historic Preservation Officers, Charleston, WV, 1982.
Guest Lecturer, Architectural History, Shepherd College, Shepherdstown, WV.
Speaker, Main Street West Virginia Conference and Workshops – 1991 to the present.
Guest Lecturer, College of Graduate Studies, Charleston, WV, 1996.
Tour lecture, Goldenseal Annual Fall Tour, 1996.
State Designers Representative on the National Executive Committee of Main Street Coordinators, 2008.

PUBLICATIONS:

Co-Author, "Historic Resource Surveys in West Virginia", 1983.
Wonderful West Virginia, Volume 48, #11, "Marion County Round Barn".
Culture and History, July/August 1984, "Maintenance of Structural Pigmented Glass Storefronts".
Goldenseal, West Virginia Traditional Life, Volume 13, #1, Spring 1987, "Evidence of Times Past, A Preservationist Looks At The Sutton Photographs".
Downtown Property Owners Maintenance Manual, West Virginia Development Office, May 1992.
Tax Credits for Historic Properties, West Virginia Development Office, 1996.

MICHAEL GIOULIS

HISTORIC PRESERVATION CONSULTANT, INC

WV State Office Building 3 Interior Paint Color Analysis Charleston, West Virginia

2008

A visual crater analysis of paint colors was performed in the lobby and on the second floor of West Virginia State Office Building 3 was conducted on May 15, 2008 by Michael Gioulis.

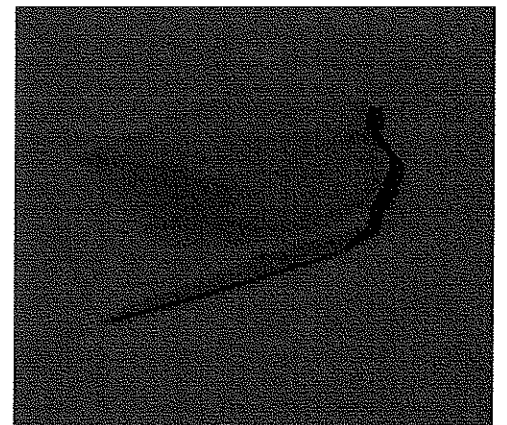
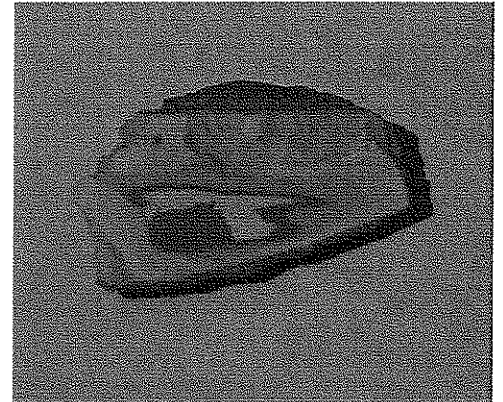
Research was conducted on the conservation of painted surfaces on architectural materials, including both plaster and metal, and samplings were taken from the walls of the lobby and second floor of the referenced building. The samples were then scraped and sanded to reveal accumulated paint layers, as well as the original paint used in these areas. Cross section analysis of the samplings confirmed the original paint colors used.

By photographing the build-up of paint layers from the plaster and metal surfaces, our firm created a precise record of what was found, comparing the original elements with later replacements and alterations.

As well as providing photographs and an in-depth report of what was found, our firm provided a map indicating where the samples were taken or observations conducted.

In addition to Munsell standard notation, our firm provided approximate matches to Sherwin Williams standard color palettes for the samples.

Contact/Reference:
Mr. Robert Krause
General Services Division
Capitol Complex
Charleston, WV 25305
(304) 558-9018

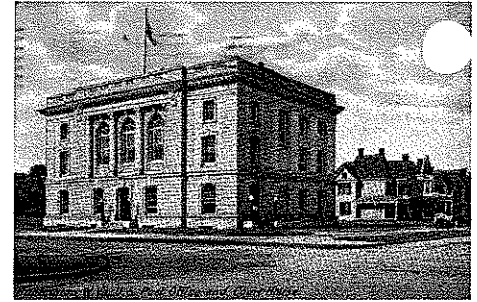


Sidney Christie Federal Building Huntington, WV

2006-2008

Our firm has worked on several projects on this building, including the Courtroom rehabilitation, exterior work, as well as a window and door replacement project.

The Courtroom project entailed the rehabilitation of the interior of the courtroom. The exterior work included site improvements and canopy restoration. The window and door replacement project included color selection, selection of manufacturers, glass selection, etc.



Wheeling Federal Building Wheeling, WV

2005-2007

Our firm was involved in a window restoration project and a rest room rehabilitation project for this building, as part of a 106 Review.

We investigated the historic window and door configurations, as well as the existing conditions and proposed treatment and provided recommendations for the repair, finishes and replacement of the doors and windows. The rest room rehabilitation project entailed the rehabilitation of the rest rooms for ADA compliance.



Abingdon Federal Building Abingdon, VA

2006-2007

Our firm was contracted to determine the eligibility of the Abingdon Federal Building for the National Register of Historic Places. This process entailed an in-depth review of the interior and exterior of the building, as well as its' significance to the historic area of Abingdon, Virginia.



Contact/Reference:

William R. Whittington, Jr.

General Services Administration

300 Virginia Street East

Charleston, WV 25301

(304) 347-5155 ext. 18

LIST OF PROJECTS

HISTORIC RESOURCE SURVEYS

Reconnaissance Survey of Arden Area, Berkeley County
Reconnaissance Survey of Pikeside Area, Berkeley County
Reconnaissance Survey of Marlowe Area, Berkeley County
Reconnaissance Survey of Braxton County
Intensive Survey of Sutton, Braxton County
Intensive Survey of Mt. Hope, Fayette County
Intensive Survey of Glen Jean, Fayette County
Intensive Survey of the Community of Tanner, Gilmer County
Reconnaissance Survey of Center District, Gilmer County
Intensive Survey of City of Glenville, Gilmer County
Intensive Survey of the Master Works of Architect, Albert West, Gilmer County
Reconnaissance Survey of Dekalb-Troy District, Gilmer County
Reconnaissance Survey of Glenville District, Gilmer County
Partial Intensive Survey of Lewisburg, Greenbrier County
Intensive Survey of Alderson, Greenbrier and Monroe Counties
Reconnaissance Survey of Agricultural Resources in Harrison County
Intensive Survey of Ravenswood, Jackson County
Intensive Survey of Charleston's East End, Kanawha County
Intensive Survey of Washington Street in Charleston, Kanawha County
Intensive Survey of Elk City, Kanawha County
Intensive Survey of Downtown Weston, Lewis County
Intensive Survey of Mannington, Marion County
Reconnaissance Survey of Marshall County
Intensive Survey of Moundsville, Marshall County
Intensive Survey of Bluefield, Mercer County
Intensive Survey of South Bluefield, Mercer County
Intensive Survey of Bramwell, Mercer County
Intensive Survey of Matewan, Mingo County
Intensive Survey of Morgantown Riverfront Area, Monongalia County
Intensive Survey of Wiles Hill District, Morgantown, Monongalia County
Reconnaissance Survey of Second Creek, Monroe County
Reconnaissance Survey of Nicholas County, Phase I, II, III
Reconnaissance Survey of Summersville District, Nicholas County
Reconnaissance Survey of Grant District, Nicholas County
Reconnaissance Survey of Beaver District, Nicholas County
Intensive Survey of Summersville, Nicholas County
Intensive Survey of Richwood, Nicholas County

HISTORIC RESOURCE SURVEYS

Reconnaissance Survey of Wilderness District/Phase I, Nicholas County
Reconnaissance Survey of Kentucky District, Nicholas County
Reconnaissance Survey of Wilderness District/Phase II, Nicholas County
Intensive Survey of St. Clairsville, Ohio
Reconnaissance Survey of Pocahontas County
Intensive Survey of Rowlesburg, Preston County
Reconnaissance Survey of Union District, Preston County
Intensive Survey of the WV Northern RR Line, Preston County
Reconnaissance Survey of Putnam County
Intensive Survey of Downtown Elkins, Randolph County
Intensive Survey of Wees Addition in Elkins, Randolph County
Intensive Survey of Beverly/Phase II, Randolph County
Reconnaissance Survey of Middlebourne, Tyler County
Intensive Survey of New Martinsville, Wetzel County
Reconnaissance Survey of the Town of Creston and the Little Kanawha River Locks and Dams, Wood and Wirt Counties

NATIONAL REGISTER NOMINATIONS

Maple Street Historic District, Lewisburg, WV
Church Street Historic District, Lewisburg, WV
North Street Historic District, New Martinsville, WV
Downtown Historic District, New Martinsville, WV
See-Ward House, Randolph County, WV
14 sites in Berkeley County, WV
Alderson Historic District, Alderson, WV
Downtown Bluefield Historic District
South Bluefield Historic District
Jefferson Street Historic District, Bluefield, WV
Upper Oakhurst Historic District, Bluefield, WV
Country Club Historic District, Bluefield, WV
Easley House, Bluefield, WV
Sutton Historic District, Braxton County, WV
See House, Randolph County, WV
Peacher House, Charlestown, WV
Thornburg House, Barboursville, WV
Moundsville Historic District, Marshall County, WV
Kingwood Historic District, Preston County, WV
Gassaway RR Depot, Braxton County, WV
Price House, Williamson, WV
Alderson Memorial Bridge, Alderson, WV
Bramwell Additions Historic District, Mercer County, WV

NATIONAL REGISTER NOMINATIONS

Evans Farm, Washington County, near Lowell, Ohio
Downtown Elkins Historic District, Randolph County, WV
Mannington Historic District, Marion County, WV
Parsons RR Depot
Pocahontas County Courthouse and Jail
Camp Bartow, Pocahontas County, WV
Wellsburg Historic District
St. Clairsville Historic District, St. Clairsville, Ohio
The Manor, Berkeley Springs, WV
Daniel Boone Hotel, Charleston, WV
Bethany Historic District
Downtown Thomas Historic District
Liggett & Meyers Tobacco Warehouse, Huntington, WV
Matewan Historic District
Morgantown Wharf and Warehouse Historic District
Lockwood Historic District, Nicholas County, WV
Halstead House, Nicholas County, WV
Mason Drennen House, Nicholas County, WV
Peacock Building, Marlinton, WV
Marlinton Opera House, Pocahontas County
Nicholas County Bank, Summersville, WV
Downtown Richwood Historic District, Nicholas County, WV
Beaver Mill, Nicholas County, WV
Carden House, Nicholas County, WV
James Funkhouser Log Cabin, Hardy County, WV
Mercer Street Historic District, Princeton, WV
Beard/Spreen House, Pocahontas County, WV
Smith/Giltinan House, Charleston, WV
Mt. Iser Cemetery and Civil War Fortifications, Randolph County, WV
Wheeling Warehouse Historic District, Wheeling, WV
Virginian Railway Yard Historic District, Princeton, WV
Johnston/Meek House, Huntington, WV
Wiles Hill School, Morgantown, WV
Ripley Downtown Historic District, Ripley, WV
Greenmont, Morgantown, WV
Kennedy Dairy Barn, Fairmont, WV

REHABILITATION, REPORTS, CONSULTING

Towngate Theatre, Wheeling, WV: exterior, stage, interior phase I and II.
Renfrew Museum, Fahnestock Barn Restoration, Waynesboro, PA.
Hayden Log Residence, Huntington, WV
E&M Building, Matewan, WV

Wheeling Custom House, WV Independence Hall: Handicap access, exhibit lighting, signage, entrance doors, paint research and selection, 19th century stencil documentation, restoration of Marshalls and Custom House rooms, restoration of Judges and Clerks rooms, exterior lighting, roof.

Carrolton, Dents Run and Walkersville Covered Bridge restoration

Covered Bridges of West Virginia: Status report and inspections

Rehabilitation specifications for the Cass worker's housing, Cass Historic District

Piper House rehabilitation, Antietam National Battlefield, Sharpesburg, Maryland

Catoctin Furnace National Historic Landmark stabilization study, Maryland

Haymond Building, adaptive re-use, Sutton, WV

Rumsey Bath House rehabilitation, Berkeley Springs, WV

Garrett Building rehabilitation, Gassaway, WV

Back Street and Mate Street storefront restorations, Matewan, WV

Webb Building storefront rehabilitation, Huntington, WV

Downtown St. Clairsville storefront rehabilitations, St. Clairsville, Ohio

Gore Hotel, adaptive re-use, Clarksburg, WV

Payne Building, adaptive re-use, Welch, WV

Alderson National Bank Building, adaptive re-use, Alderson, WV

Gassaway Depot Facility Report, Gassaway, WV

Parsons RR Depot Facility Report, Parsons, WV

Tunnelton Depot restoration, Tunnelton, WV

Pocahontas County Court House, handicap access, Marlinton, WV

3 commercial building rehabilitations and 1 residential rehabilitation in Huntington, WV

Old Main Facility Report, Summersville, WV

Cutlip Building rehabilitation, Webster Springs, WV

Star City Hall Building, ADA access, Star City, WV

Wilson Building rehabilitation, Kingwood, WV

Brown Building rehabilitation, Kingwood, WV

Dering Building rehabilitation, Morgantown, WV

Saab House report, Morgantown, WV

Thomas Redevelopment Plan, Thomas, WV

Putnam County Historic Preservation Plan Report

Pennsboro RR Depot rehabilitation, Pennsboro, WV

Alderson RR Depot rehabilitation, Alderson, WV

Preston Academy Building rehabilitation, Kingwood, WV

CAP Assessment for the Southern WV Youth Museum, Beckley, WV

CAP Assessment for the Belle Boyd House, Martinsburg, WV

CAP Assessment for the Plains Art Museum, Moorehead, Minnesota

CAP Assessment for the Kentucky Highlands Museum, Ashland, KY

CAP Assessment for Marion County Museum, Marion Co., WV

Hotel Morgan rehabilitation, Morgantown, WV

Peacock Building report, Marlinton, WV

Nicholas County Bank Building rehabilitation, Summersville, WV

Chancery Row Building report, Morgantown, WV

Clarksburg City Hall Facility Report, Clarksburg, WV

Peery Building rehabilitation, Bluefield, WV

Master Plan for the Rich Mountain Battlefield, Pocahontas County, WV
Elkins RR Depot & Square rehabilitation and development, Elkins, WV
Masonic Temple Building report, St. Clairsville, Ohio
St. Thomas Catholic Church report & rehabilitation, Gassaway, WV
Gassaway Senior Center report, Gassaway, WV
Hinton RR Depot rehabilitation, Hinton, WV
Hinton Senior Center report, Hinton, WV
Kanawha County Courthouse rehabilitation, Charleston, WV
Preston County Inn report, Kingwood, WV
Clarksburg City Hall facility report, Clarksburg, WV
St. Thomas Roman Catholic Church rehabilitation and restoration, Gassaway, WV
Warner Theatre report, Morgantown, WV
Preston County Inn report, Kingwood, WV
Brown Building rehabilitation, Kingwood, WV
Metropolitan Theatre rehabilitation, Morgantown, WV
Coca-Cola Building rehabilitation, Morgantown, WV
Dorsey & Kiger Building report, Morgantown, WV
Parson RR Depot rehabilitation, Parsons, WV
Webster Spring Bike Trail report, Webster Springs, WV
Innskeep Hall facility report, Moorefield, WV
Arthurdale Administration Building rehabilitation, Arthurdale, WV
Marion County Courthouse report, Fairmont, WV
Thomas Engineering Building rehabilitation, Thomas, WV
Campbell/Flanagan/Murrell House facility report, Hinton, WV
Thomas Kent Jr. House report, Greene County, PA
McGrew House facility report and rehabilitation, Kingwood, WV
Frontiers to Mountaineers Heritage Tourism report, 7 northern counties in WV
Garlow House rehabilitation, Morgantown, WV
Oakland Hall report, Moorefield, WV
Elkins Mill rehabilitation project, Elkins, WV
Federal/GSA Building rehabilitation, Huntington, WV
McCoy Building report, Fairmont, WV
Martinsburg Steam Laundry Building rehabilitation, Martinsburg, WV
Montwell/Withrow House rehabilitation, Lewisburg, WV
Rose City Press Building rehabilitation, Charleston, WV
Cass Doctor's House report and rehabilitation, Cass, WV
Charmco Warehouse report, Charleston, WV
Lawrence County Jail report and restoration, Ohio
Monongalia County Courthouse Square report, Morgantown, WV
Westover Exxon rehabilitation, Morgantown, WV
Hinton Manor rehabilitation, Hinton, WV
Berry House rehabilitation, Sutton, WV
Courthouse Memorial Plaza rehabilitation, Kingwood, WV
Arthurdale Industrial Building rehabilitation, Preston County, WV
Preston County Hospice Building report, Preston County, WV
John Wesley UM Church rehabilitation, Lewisburg, WV

Master Plan for the Town of Sutton, Sutton, WV
Master Plan for Town of Ronceverte, WV
Master Plan for Guyandotte, WV
Master Plan for Cass, WV
Cass School rehabilitation, Cass, WV
Riverfront Park and Memorial Park, planning study, Morgantown, WV
Pleasant Street Gateway Arch, Morgantown, WV
Abingdon Federal Building rehabilitation, Abingdon, VA
Redesign of Arch Reed/Westover Exxon, Monongalia County, WV
Braxton County Animal Shelter construction project, Sutton, WV
Braxton County Courthouse Annex redesign, Sutton, WV
Bramwell Church of Holy Trinity, Mercer County, WV
Braxton County Courtroom Rehabilitation, Sutton, WV
Brock, Reed, Wade Building rehabilitation, Morgantown, WV
Bramwell Streetscape Project, Mercer County, WV
Cameron Depot rehabilitation, Marshall County, WV
Cameron Depot Swimming Pool, Marshall County, WV
City of St. Clairsville, OH Design Guidelines
Court Street Building rehabilitation, Summersville, WV
Deerwood/Kiger Retreat rehabilitation, Preston County, WV
Dyer House addition/construction project, Lewisburg, WV
Gilmore/Harden House rehabilitation, Charleston, WV
Charleston Grocery Store new construction project
Gulf Gas Station rehabilitation, Alderson, WV
Building rehabilitations in Ironton, OH
Jackson County Courthouse Courtroom renovation
Jackson's Mill facility rehabilitation, Lewis County, WV
Joan Montgomery House rehabilitation, Lewisburg, WV
Landmark Studio for the Arts facility report, Sutton, WV
Lick Run Plantation Barn design consultation, Berkeley County, WV
Logan House facility report, Beverly, WV
Marlinton Opera House rehabilitation, Marlinton, WV
Morgantown Masonic Temple rehabilitation, Morgantown, WV
Morgantown Beauty Academy rehabilitation, Morgantown, WV
Olson House rehabilitation, Lewisburg, WV
Master Plan for the Town of Richwood, WV
Richwood Railroad Depot rehabilitation, Richwood, WV
Riverview Center rehabilitation, Morgantown, WV
Shannon Mansion design consultation, St. Clairsville, OH
Shelton House rehabilitation, Lewisburg, WV
Shook/House of Cards Building rehabilitation, Morgantown, WV
Silas Mason House rehabilitation, Lewisburg, WV
Stealey, Goff, Vance House rehabilitation, Clarksburg, WV
The Barracks' facility report, Lewisburg, WV
Warner Theatre new construction project, Morgantown, WV
Webster County Courthouse consultation, Webster County, WV

Town of Webster Springs design consultation, Webster County, WV
Wiles Hill School facility report, Morgantown, WV
Withrow House rehabilitation, Lewisburg, WV
Yackel House rehabilitation, Pennsylvania

TAX CERTIFICATIONS

Piper House, Antietam National Battlefield, Sharpesburg, Maryland
Washington House Hotel, Chambersburg, Pennsylvania
Lassen Hotel, Topeka, Kansas
Myers Kurstan Building, Hagerstown, Maryland
Wilson Building, Kingwood, WV
Shank Building, Huntington, WV
Nasser Building, Huntington, WV
Touma Building, Huntington, WV
Old National Bank, Huntington, WV
Thornburg House, Barboursville, WV
Liggett & Myers Tobacco Warehouse, Huntington, WV
Coca-Cola Building, Morgantown, WV
Nicholas County Bank, Summersville, WV
Hatfield Building, Matewan, WV
Payne Building Apartments, Welch, WV
Gwinn Plantation, Manor House, Lowell, WV
Gore Hotel, Clarksburg, WV
Hotel Morgan, Morgantown, WV
Dering Building, Morgantown, WV
Peery Building, Bluefield, WV
Brick Row, Morgantown, WV
Warner Theater, Morgantown, WV
Deerwood/Kiger Retreat, Kingwood, WV
Lake Polan, Huntington, WV
Oliver Fearing building, Huntington, WV
Underwood Building, Huntington, WV
Virginian Rail Yard, New Market Tax Credit Project

OTHER

Addition to The Inn at Snowshoe, Randolph County, WV
Paint investigation and inspection report, General Jenkins Home, Greenbottom, WV
Report on Fishtrap United Baptist Church and McKenzie dwelling, Paintsville Lake, U.S.
Army Corps of Engineers, Paintsville, Kentucky
Report on Pinnacle Rock Log House, Bramwell, WV
Report on B&C Oil Building, Matewan, WV
HAER Report, Recordation of the New River Mine Portals, New River Gorge, WV
Resource Team Visits, National Main Street Center, 20 to date
Storefront rehabilitation designs, Main Street West Virginia, 700 to date

Report on the George House, Matewan, WV
HABS Report on the Veterans Administration Medical Center, Huntington, WV
106 Report on the Wheeling Area Heritage Waterfront Project, Wheeling, WV
106 Report on the Marmet Locks & Dam, USACE, Huntington, WV
HABS Report, First Ward School, Morgantown, WV
106 Report, Morgantown Armory, Morgantown, WV
Storefront rehabilitation designs for Downtown Moundsville, WV
Storefront rehabilitation designs for Downtown St. Clairsville, Ohio
Design Guidelines for Beverly and Elkins, Randolph County, WV
Design Guidelines for Bramwell, Mercer County, WV
106 Report for Moundsville Streetscape Drawings
Streetscape Rendering of High and Pleasant Streets, 64 buildings, Morgantown, WV
Streetscape Rendering of 4 residences, Fairmont, WV
Grants Monitor for the WV Division of Culture and History, 2001, 2002 and 2003
Design Consultant for Hinton Technology Center, new construction, Hinton, WV
City of St. Clairsville Zoning Revisions Consultant
Thomas Planning Project/Team Member
Design Consultant to the City of St. Clairsville, Ohio
Design Consultant to the Lewisburg Historic Landmarks Commission
Photography to document the restoration of 4 covered bridges, WV
Streetscape Project, Bramwell, WV
Statewide Heritage Tourism study and report, WV
Charleston Coloring Book project, Charleston, WV buildings
Frontiers to Mountaineers Heritage Tourism Report, WV

End of list