



RFQ No. GSD076403

**Proposal to Provide
Engineering Services
for the Condition
Assessment, Repair
and Maintenance
Program for the
Capitol Campus
Parking Garage
Building 13**

August 28, 2006

**REQUEST FOR PROFESSIONAL
ENGINEERING SERVICES**

PREPARED FOR:

**THE STATE OF WEST VIRGINIA
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
ON BEHALF OF
GENERAL SERVICES DIVISION**



PREPARED BY:

**FOX Engineering, PLLC
101 North Court Street
Ripley, WV 25271
www.FOXengineering.net**

Setting Goals...Raising Standards

TABLE OF CONTENTS

- I. Letter of Interest**
- II. Project Understanding/Approach**
- III. Organizational Chart**
- IV. FOX Engineering Company Information**
- V. Resumes of Key Personnel**

August 28, 2006



Department of Administration
Purchasing Division
2019 Washington Street, East
PO Box 50130
Charleston, WV 25305-0130
Attention: Krista Ferrell

Capitol Campus Parking Garage, Building 13
Condition Assessment, Repair and Maintenance Program

Dear Ms. Ferrell,

FOX Engineering is very interested in providing Architectural / Engineering services to the *Purchasing Division on behalf of the General Services Division* for the above referenced project. We are a Woman-Owned, West Virginia Disadvantaged Business Enterprise with professionals that specialize in structural design, structural inspection, roadway design, storm water design, surveying, and construction inspection.

FOX Engineering is currently involved in numerous projects with related issues to the Capitol Campus Parking Garage. We recently completed a structural and condition inspection of the Kellwood Company manufacturing building in Spencer, West Virginia. The inspection of this 209,000 square foot facility was conducted for the Roane County Development Authority. FOX also recently completed a structural and condition inspection of the Athletic Outfitters building located at 107 Main Street in Ripley, WV.

Additional recently completed projects similar in nature include the inspection and restoration of the historic Alpine Theatre located in Ripley, the restoration of the Jackson County Courthouse, a structural evaluation of historic buildings in downtown Sutton which were damaged by fire, and a ten-year street maintenance plan provided for the Woodridge Plantation Subdivision near Mineral Wells.

Fox Engineering is also currently under contract with the West Virginia Division of Highways for the inspection of seven major bridges crossing both the Kanawha and Ohio Rivers. FOX provides a detailed inspection report with a summary of recommendations for each of these structures.

Our team of engineers (5 registered professional engineers), surveyors, and construction inspectors are ready and willing to assist the General Services Division as needed to conduct a condition assessment and prepare a maintenance plan for your parking facility. A team of FOX engineers are eager to conduct a hands-on inspection of the entire parking structure and provide a condition report summarizing our findings. FOX will then provide the General Services Division specifications for rehabilitating the structure and a preventative maintenance plan to ensure structural stability.

Below are examples of condition assessments and successful renovation and improvement projects that FOX has provided:

- **Kellwood Company Building Inspection**

Owner: Roane County EDA
Post Office Box 1
207 Court Street
Spencer, West Virginia 25276
Attention: Mr. Mark Whitley
(304-372-1151)



FOX was responsible for inspecting and assessing the structural condition of the 209,000 square foot Kellwood Company manufacturing facility in Spencer, West Virginia. FOX conducted a hands-on inspection of the facility to determine its structural competency and soundness. A condition evaluation report summarizing our findings was provided to the Roane County Development Authority.

- **Athletic Outfitters Building Inspection**

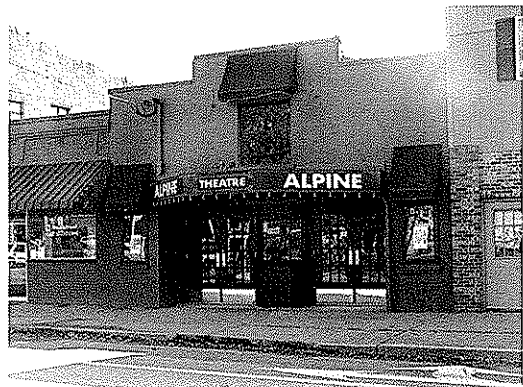
Owner: Hobba Enterprises, LLC
446 - 7 Rt 33 West
Ripley, West Virginia 25271
Attention: Mr. Dave Hobba
(304-373-0184)



FOX was responsible for inspecting and assessing the structural condition of the two-story Athletic Outfitters building in Ripley, West Virginia. FOX conducted a hands-on inspection of the facility to determine its structural competency and soundness. A condition evaluation report summarizing our findings as well as a proposed floorplan upgrade was provided to Hobba Enterprises, LLC.

- **Alpine Theatre Restoration**

Owner: Main Street Ripley
Post Office Box 89
Ripley, West Virginia 25271
(304-372-1637)



FOX was responsible for planning and supervising the complete restoration of the historic Alpine Theatre. The preservation of the interior and exterior architecture was critical in restoring the theatre to its original ambience. The Alpine is a 122-seat facility that serves the citizens of Jackson County with arts and entertainment that is commonly found in larger cities.

- **Jackson County Courthouse Restoration**

Owner: Jackson County Commission
Post Office Box 800
Ripley, WV 25271
(304-372-2011)



FOX has been utilized for architectural recommendations and management for various exterior and interior restorations. These include; new copper roofs, windows, plaster repairs, as well as masonry and stone repairs. Services also include; bidding, construction contract administration, and construction inspection for the historic preservations described above.

- **Sutton Building Fire**

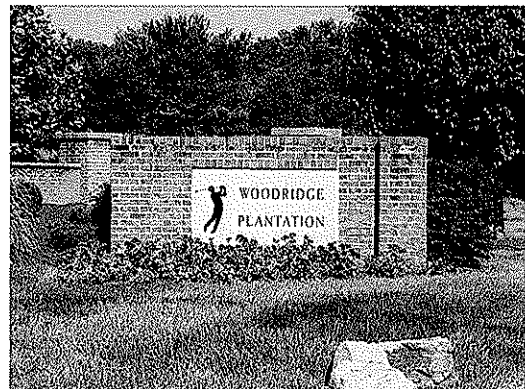
Owner: Mayor Craig Smith
201 2nd Street
Sutton, WV 26601
(304-765-5581)



FOX provided engineering services to evaluate the stability of the storefronts which remained following a fire which occurred in two buildings located in historic downtown Sutton, West Virginia. This work included a hands-on inspection of the building remnants to determine the salvagability of the facades for historical preservation as well as the remaining portions of the buildings for structural competency and soundness. FOX produced a report summarizing the condition of the buildings and provided recommendations.

- **Woodridge Plantation Maintenance Plan**

Owner: Woodridge Plantation Homeowner's Association
218 Plantation Drive
Mineral Wells, West Virginia 26150
Attention: Mr. Ron Thompson
(304-489-8130)



FOX was responsible for inspecting the asphalt pavement for the Woodridge Plantation Subdivision in Mineral Wells, West Virginia. FOX provided a detailed report summarizing our findings and developed a ten-year street maintenance plan for the Homeowner's Association detailing the maintenance activities as well as the intervals at which they should be performed.

We encourage you to contact any of our present or past clients for a reference of our work. These clients include The Jackson County & Roane County Development Authority (Mark Whitley), The Jackson County Commission (President Don Stephens), The City of Ravenswood (Mayor Lucy Harbert), Main Street Ripley (Director Monnie Landis), and the Mid-Ohio Valley Regional Planning and Development Council (Grant Coordinator Tim Meeks).

At FOX Engineering we are continually "*Setting Goals...and Raising Standards*" in the engineering community. FOX Engineering strives to provide the highest level of customer service and client satisfaction.

Our cost accounting system is tediously maintained. Each employee assigns his or her time, expenses, etc to project codes. This is entered into our accounting software to segregate and identify accumulating costs for each job, whether it is a cost-plus job or a lump sum contract.

We would appreciate your consideration to be short-listed so that we may discuss this exciting project with the members of the selection committee. We will be available when needed and look forward to this endeavor.

Sincerely,

A handwritten signature in black ink that reads "Jennifer W. Fox". The signature is written in a cursive style with a large, stylized initial "J".

Jennifer W. Fox, P.E., Owner
FOX Engineering, PLLC

II. Project Understanding/Approach

**TO PROVIDE ENGINEERING SERVICES
FOR THE STATE OF WEST VIRGINIA GENERAL SERVICES DIVISION
AUGUST 28, 2006**

Preparation

Prior to any field work, FOX will review the as-built plans (if available) to determine the locations of critical areas such as fatigue prone details, tension zones, and fracture critical details. Special emphasis will be given to these areas during the inspection. The previous inspection reports will also be reviewed to analyze all noted areas with deficiencies.

Field Inspection

FOX shall perform a comprehensive hands-on visual inspection on all components of the structure above the groundline. Special attention shall be given to previously noted areas of deficiency. For the inspection, accurate measurements of member size, condition, section loss and cracking or fractures will be noted.

Access to the structure shall be obtained by the use of a self-propelled articulating boom manlift and extension ladders. Due to the nature of the use of the facility during common working hours, an inspection of the structure may best be obtained during evenings and weekends allowing traffic control during the inspection to be held to a minimum.

Report

FOX shall provide an inspection report, with color photos, quantifying our findings from the field inspection. Areas of concern and major deficiencies will be noted. The report shall address all repairs of structural issues and will provide a preventative maintenance schedule outlining the upkeep of anticipated recurring maintenance issues. This report shall also include procedures for the connection of a water supply for fire suppression and installation of freeze-proof faucets, replacement of existing/missing fire extinguisher boxes, repair and resealing of concrete, and repainting of direction arrows, parking space lines and numbers.

Construction Management

FOX will be available on an as needed basis to answer questions and concerns that may arise during the construction phase.

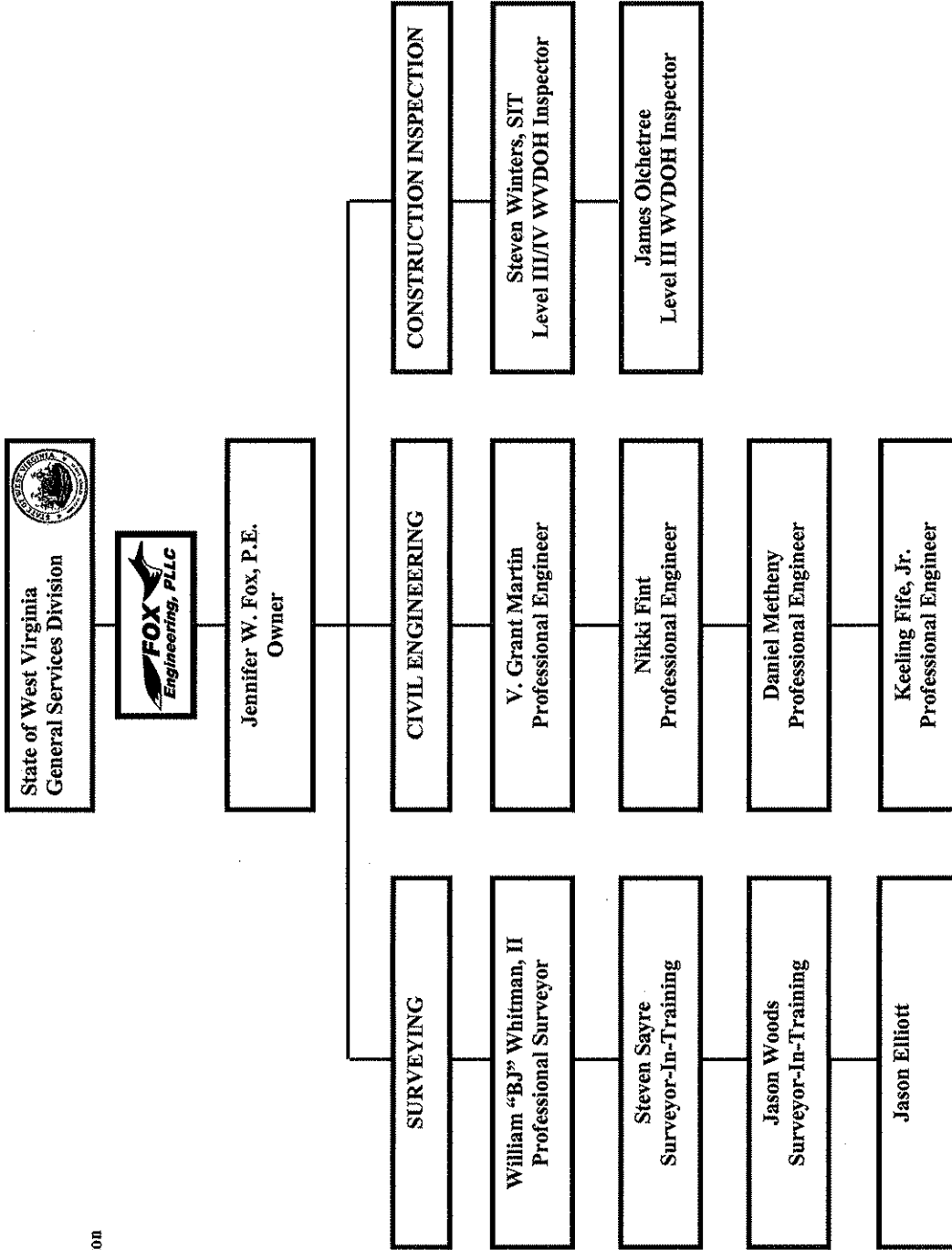
Estimated Project Schedule

Project Milestone	Estimated Date(s)	Working Days											
		5	10	15	20	25	30	35	40	45	110	150	
Project Awarded	Oct. 2, 2006												
Receive/Review Previous Inspection Reports and As-built Drawings	Oct. 2-6, 2006	■											
Perform Hands-on Visual Inspection	Oct. 9-13, 2006		■										
Prepare Inspection Report and Repair Specifications	Oct. 16, 2006 - Nov. 17, 2006			■	■	■	■	■	■				
Review of Report and Specifications by General Services Division	Nov. 20-24, 2006									■			
Address Comments and Submit Final Report and Specifications	Nov. 27, 2006 - Dec. 1, 2006										■		
Advertise and Award Construction Contract	Winter 2006											■	
Construction to Begin	March 2007												■
FOX Monitors and Oversees Construction (Construction time is dependant upon findings of field inspection.)	March 2007 - April 2007												■



III. Organizational Chart

Organizational Chart
 August 28, 2006
 State of West Virginia
 Department of Administration
 General Services Division



IV. FOX Engineering Company Information

**TO PROVIDE ENGINEERING SERVICES
FOR THE STATE OF WEST VIRGINIA GENERAL SERVICES DIVISION
AUGUST 28, 2006**

OVERVIEW

FOX Engineering is a multi-disciplined consulting engineering firm offering innovative solutions to our clients. FOX Engineering is a certified Disadvantage Business Enterprise (DBE) in Engineering Design services as well as Surveying and Mapping services.

FOX Engineering was founded with the goal of providing a local choice to the large firm atmosphere offered at most engineering firms. Growing up in Ravenswood, West Virginia and now residing in Silvertown, Jennifer Fox, P.E., owner of FOX Engineering, wanted to stay close to her Jackson County home. With this in mind Jennifer established FOX Engineering out of her home in 2001. With years of hard work and dedication, FOX Engineering has grown and is currently located in historic downtown Ripley, West Virginia. The rapid growth of FOX Engineering has proven that this was a niche waiting to be filled.

Jennifer has positioned the company with the ability to provide the services available at larger firms without compromising on the values that were the basis of establishing FOX Engineering. As a **full service firm**, FOX Engineering provides surveying, civil engineering, construction inspection, contractor services and structural inspections to our clients including government agencies, municipalities, consultants, contractors as well as private clients. By providing this wide range of services, FOX Engineering can work as the lead engineer performing most aspects of projects in house, from the initial planning and analysis to the design and construction while still providing larger firms the types of services they often seek in subconsultants.

When you couple the experience level available at FOX Engineering with the employees' strong work ethic and commitment to quality, it is easy to see how FOX Engineering would be a valuable addition to your next project. Add to that the benefit of the Disadvantage Business Enterprise credit earned from working with FOX and you can see why the company has undergone such phenomenal growth. The DBE credits are only as valuable as the work that goes along with them, and FOX's recruitment of a top level staff with a range of expertise is one particular asset to working with FOX Engineering. Another benefit is the ease of working with a smaller firm. You will be working with people who have made a professional choice to work locally, support area businesses, and take personal investment in the quality of their work.



Jennifer W. Fox, P.E., Owner



**TO PROVIDE ENGINEERING SERVICES
FOR THE STATE OF WEST VIRGINIA GENERAL SERVICES DIVISION
AUGUST 28, 2006**

WORK FORCE AND PERSONNEL QUALIFICATIONS

Jennifer W. Fox, P.E. – Owner

A 1994 graduate of West Virginia University, Jennifer brings over a decade of experience involving structural design and inspection. She has been responsible for the complete design of both state and federally funded bridge projects which involve hydraulic studies, superstructure design, substructure design, and contract plan preparation. She is also experienced in structural inspection and rehabilitation, inspection equipment operation, and non-destructive testing. Jennifer is a Registered Professional Engineer in West Virginia, Indiana, South Carolina, and Ohio.

Structural Design:

Complete structural design of various structure types is a specialty of FOX Engineering. Structural Design work for FOX Engineering is undertaken by Grant Martin, Nikki Fint, and Jennifer Fox. Some of their design experiences include the following:

- complete structural design of various structure types, from small culverts and retaining walls to large multi-span curvilinear structures
- hydraulic analysis including scour analysis and design
- design studies
- structural inspection with adherence to the NBIS Program
- structure/bridge rehabilitation
- shop drawing review



Grant Martin, P.E. – Design Engineer

A 1999 graduate of West Virginia Institute of Technology, Grant brings extensive bridge design experience to FOX Engineering. While working in the consultant industry, he has prepared design studies, contract plans, performed structural analyses, and developed load ratings for various WVDOH design projects. Grant has vast design experience in curved steel plate girders, ranging in length up to 2,200 feet, and concrete piers, ranging in height up to 110 feet. Grant is a Registered Professional Engineer in West Virginia, Kentucky, and Ohio.



Nikki Fint, P.E. – Design Engineer

A 1995 graduate of West Virginia Institute of Technology and West Virginia University (1998), Nikki brings years of bridge design and related experience to FOX Engineering. While working in the consultant industry, she served as Project Manager and Design Engineer on various projects. She has design experience with steel and concrete bridges as well as mechanically stabilized earth retaining walls. She has prepared contract plans, hydraulic studies, and preliminary roadway designs and performed bridge inspections. Nikki is a Registered Professional Engineer in West Virginia.

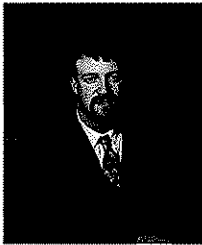
**TO PROVIDE ENGINEERING SERVICES
FOR THE STATE OF WEST VIRGINIA GENERAL SERVICES DIVISION
AUGUST 28, 2006**

Highway Design:

FOX Engineering's design experience encompasses all phases of the highway development process and all sizes of projects including:

- new limited-access highways
- complex interchange design and improvements
- intersection improvements
- safety improvements
- highway/roadway resurfacing, rehabilitation and reconstruction
- maintenance and protection of traffic
- stormwater drainage
- stream mitigation
- site development

This experience enables us to quickly respond to wide-ranging scopes of services in order to meet client needs. Highway design work for FOX Engineering is undertaken by Dan Metheny and Keeling Fife.



Dan Metheny, P.E. – Design Engineer

A 1997 graduate of West Virginia Institute of Technology, Dan brings years of highway design and related experience to FOX Engineering. While working in the consulting industry, Dan has served as Project Manager and Design Engineer on various WVDOH projects. His experience includes four-lane divided highway and interchange geometric design; analysis and study of various interchange configurations; coordination of design efforts with surveying and geotechnical sub-consultants as well as a large in-house design team; quality assurance and quality control reviews and development and production of highway construction plans. Dan is a Registered Professional Engineer in West Virginia and Kentucky.



Keeling Fife, P.E. – Design Engineer

A 1998 graduate of West Virginia University, Keeling brings vast highway and drainage design experience to FOX Engineering. While working in the consulting industry, Keeling has been involved in the design of various roadway projects, including roadway design, drainage design, hydraulic and hydrologic analysis, and right of way. Keeling is involved in stream mitigation where he has completed four courses of the natural stream restoration program. He also brings experience in structural inspection as well as bridge inspection, rehabilitation, stress analysis, and load rating. Keeling is a Registered Professional Engineer in West Virginia, Kentucky, and Ohio.

**TO PROVIDE ENGINEERING SERVICES
FOR THE STATE OF WEST VIRGINIA GENERAL SERVICES DIVISION
AUGUST 28, 2006**

Construction Inspection:

FOX Engineering is committed to providing quality inspectors familiar with the WVDOH policies and procedures in executing and constructing highway projects. Construction inspectors on staff are currently Steve Winters and Jim Ocheltree.



Steve Winters, SIT – C/I Manager - Crew Chief

Steve Winters holds a Bachelors degree in Civil Engineering Technology and is a Registered S.I.T. He currently holds a dual role with FOX Engineering serving as the Construction Inspection Manager, as well as working with the survey department. A seasoned layout surveyor, he has been the responsible crew chief on a variety of major bridge and highway construction projects covering four states (WV, MD, KY, VA). Steve, with over 10 years experience on WVDOH crews, is a certified inspector for aggregate, concrete and compaction, and is classified as a Level IV Construction Inspector.

**TO PROVIDE ENGINEERING SERVICES
FOR THE STATE OF WEST VIRGINIA GENERAL SERVICES DIVISION
AUGUST 28, 2006**

LOCATION OF OFFICE:



If selected for the project, all work will be performed out of our Historic Downtown Ripley Office.

FOX Engineering is pleased to employ local engineers, inspectors, and surveyors.



V. Resumes of Key Personnel

Ms. Fox has over eleven years of bridge design and related experience, some of which was acquired while an employee of WVDOT. She has been responsible for the complete design of both state- and federally-funded bridge projects which involve the completion of hydraulic studies, superstructure design, substructure design, and contract plan preparation. Ms. Fox founded FOX Engineering in 2001 and continues to serve as the sole owner and decision maker of this growing firm.

EDUCATION

West Virginia University – BS, Civil Engineering 1994

REGISTRATION

Registered Professional Engineer: WV (13985), OH (64206), SC (20031), IN (10201196)
Safety Inspection of In-Service Bridges – NHI Course 130055A

RELEVANT BACKGROUND

Bridge Design and Rehabilitation – Project engineer responsible for management, design, review, and coordination of different areas and phases of bridge projects. The types of bridges include steel plate girders, both straight and horizontally curved, prestressed concrete I-beams, and timber bridges. The bridges range in length from 150 to 2,300 feet. Substructure design includes conventional, semi-integral and integral abutments, mechanically stabilized earth retaining walls, as well as single and multicolumn piers. Representative projects include:

- Corridor H – Bismark to Forman; Grant County, West Virginia
- Cotton Hill Bridge; West Virginia Route 16, Fayette County, West Virginia
- Earling Bridge; West Virginia Route 10, Logan County, West Virginia
- East River Bridge; Interstate 77, Mercer County, West Virginia
- Elkins Bypass – U.S. Route 219 to Canfield; Randolph County, West Virginia
- Man Bridge; West Virginia Route 10, Logan County, West Virginia
- Mercury Boulevard Interchange; Hampton, Virginia
- Millville Quarry Access Bridge; West Virginia Route 9, Jefferson County, West Virginia
- Milton Covered Bridge Historic Restoration; Pumpkin Festival Grounds, Cabell County, West Virginia
- Moorefield Interchange Bridge; Hardy County, West Virginia
- Rita Bridge; West Virginia Route 10, Logan County, West Virginia
- Spring Valley Bridge; Wayne County, West Virginia
- Three Forks Creek Bride; Tyler County, West Virginia
- Trace Fork Pony Truss Bridge Replacement; Route 32, Lincoln County, West Virginia
- West 19th Street Overpass Bridge; Interstate 64, Cabell County, West Virginia

Box Culvert Design – Project engineer responsible for design, review, and coordination of different areas and phases of concrete box culvert projects. The culverts range in length from 70 to 250 feet. Representative projects include:

- Elkins Bypass – U.S. Route 219 to Canfield; Randolph County, West Virginia
- Spring Valley Bridge; Spring Valley Drive, Wayne County, West Virginia



Retaining Wall Design – Project engineer responsible for design, review, and coordination of different areas and phases of retaining wall projects, including cast-in-place walls and mechanically stabilized earth (MSE) walls. Representative projects include:

- Spring Valley Bridge; Spring Valley Drive, Wayne County, West Virginia
- West Virginia Route 10 Walls, West Virginia Route 10 – Man to Rita; Logan County, West Virginia

Structural Condition Inspections – Served as a Team Leader and assisted in the inspection of bridges ranging in length from 20 feet to 2,400 feet. Services included preparation of reports, load ratings, and stress analysis. Representative projects include:

- Bigley Avenue Bridges; Charleston, West Virginia
- High Street Bridge; Morgantown, West Virginia
- Lee Avenue Bridge; Weirton, West Virginia
- Milton Covered Bridge; Milton, West Virginia
- West 19th Street Overpass Bridge; Huntington, West Virginia
- Wheeling Tunnel; Wheeling, West Virginia

Bridge Rating and Analysis – Assisted in conducting stress analysis and load rating for a variety of bridges throughout West Virginia. Representative bridge projects include:

- High Street Bridge; Morgantown, West Virginia
- West 19th Street Overpass Bridge; Huntington, West Virginia

Municipal Engineering Services – Provided engineering services such as preliminary and final design, construction inspection and management, assistance with funding applications, development of construction cost estimates, and utility coordination. Representative clients include:

- Alpine Theatre Restoration Chairman, Subcommittee of Main Street Ripley; Ripley, West Virginia
- City of Ravenswood Downtown Beautification; Ravenswood, West Virginia
- Jackson County Commission; Ripley, West Virginia
- Main Street Ripley; Ripley, West Virginia

TRAINING

- Safety Inspection of In-Service Bridges – NHI Course No. 130055; Richmond, Virginia, 1999
- Introduction to Stream Functions and Processes: Course I; Canaan Valley, West Virginia, July 2002

MEMBERSHIPS, AFFILIATIONS AND HONORS

American Council of Engineering Companies (ACEC)
American Council of Engineering Companies of West Virginia (ACEC/WV)
American Institute of Steel Construction (AISC)
American Society of Civil Engineers (ASCE)
Architectural Engineering Institute (AEI)
National Society of Professional Engineers (NSPE)
2005 Who's Who in West Virginia Business
2004 Jackson County Businessperson of the Year



Mr. Martin has over six years of bridge design and related experience. His experience includes the design and structural analysis of several types of bridge superstructures and substructures, the preparation of contract plans, and structural condition inspection of in-service bridges.

EDUCATION

West Virginia Institute of Technology – BS, Civil Engineering 1999

REGISTRATION

Registered Professional Engineer: WV (15808), OH (69419), KY (24364)

RELEVANT BACKGROUND

Bridge Design – Project Engineer responsible for design, review, and coordination of different areas and phases of bridge projects. The types of bridges include steel plate girders, both straight and horizontally curved, and concrete I-beams. The bridges range in length from 76 to 2,200 feet, and have had skew angles up to 36 degrees. Substructure design includes conventional, semi-integral, and integral abutments, as well as single and multicolumn piers up to 100 feet in height. Representative projects include:

- Big Wana Bridge; West Virginia Route 7, Monongalia County, West Virginia
- Earling Bridge; West Virginia Route 10, Logan County, West Virginia
- Holcomb Bridge; County Route 20, Nicholas County, West Virginia
- Indian Fork Bridge; County Route 13, Gilmer County, West Virginia
- Man Bridge; West Virginia Route 10, Logan County, West Virginia
- Martin Bridge; West Virginia Route 10, Logan County West Virginia
- Merritt Creek Bridge; West Virginia Route 10, Cabell County, West Virginia
- Rita Bridge; West Virginia Route 10, Logan County, West Virginia
- Rum Creek Bridge; County Route 14, Logan County, West Virginia
- Shiloh Bridge; County Route 14/4, Tyler County, West Virginia
- Trace Fork Bridge; County Route 32, Lincoln County, West Virginia
- Webster Bridge; U.S. Route 119, Taylor County, West Virginia
- Wellington Bridge; County Route 9, Roane County, West Virginia

Services During Construction – Engineer responsible for constructability checks and sizing of temporary construction shoring. Representative projects include:

- I-64 Over Hubbards Branch; Interstate 64, Wayne County, West Virginia
- Allensville Low Water Crossing; County Route 3/2, Berkeley County, West Virginia
- Knocking Run Box Culvert; West Virginia Route 7, Monongalia County, West Virginia

Structural Condition Inspection – Served as a team member and assisted with the inspection of bridges of lengths up to 2,400 feet, and preparation of reports. Representative projects include:

- Silver Memorial Bridge over the Ohio River; Point Pleasant, West Virginia
- Williamstown/Marietta Bridge over the Ohio River; Williamstown, West Virginia



TRAINING

- Structures IV Training; WVACE/WVDOT, Charleston, West Virginia, November 2005
- Bridge Manual Training; ACEC/WV & WVDOT, Charleston, West Virginia, May 2004
- LRFD Bridge Design Training – Beyond the Basics; ACEC/WV & WVDOT, Charleston, West Virginia, October 2003
- Structures III Training; WVACE/WVDOT, Charleston, West Virginia, November 2001

MEMBERSHIPS, AFFILIATIONS AND HONORS

American Society of Civil Engineers (ASCE)
American Institute of Steel Construction (AISC)
Structural Engineering Institute (SEI)

Ms. Fint has over seven years of bridge design and related experience. Her experience includes the design of single span bridges, bridge replacement projects, preparation of construction plans, hydraulic studies, preliminary roadway design, shop drawing review and structural condition inspection of in-service bridges.

EDUCATION

West Virginia University – MS, Civil Engineering 1998

West Virginia Institute of Technology – BS, Civil Engineering 1995

REGISTRATION

Registered Professional Engineer: WV (15185)

RELEVANT BACKGROUND

Bridge Design and Rehabilitation – Project engineer responsible for management, design, review, and coordination of different areas and phases of bridge projects. The types of bridges include steel plate girders, prestressed concrete I-beams and concrete box beams. Substructure design includes semi-integral and integral abutments, mechanically stabilized earth retaining walls, as well as single and multicolumn piers. Representative projects include:

- Bluestone Gorge Bridge Replacement; County Route 3, Mercer County, West Virginia
- Center Street Bridge Replacement; Bridgeport, Harrison County, West Virginia
- Clark Memorial Bridge Rehabilitation; Louisville, Kentucky
- Huntington Commerce Park Bridge; County Route 52/9, Cabell County, West Virginia
- Midway Plaza Bridge; West Virginia Route 10, Logan County, West Virginia
- Paw Paw Overpass Bridge Replacement; West Virginia Route 9, Morgan County, West Virginia
- Radnor Thru Truss Bridge Replacement; County Route 36, Wayne County, West Virginia
- River Hill Road Bridge; County Route 34/4, Parkersburg, Wood County, West Virginia
- Scraggs Drive Bridge Replacement; Charleston, Kanawha County, West Virginia
- Shiloh Bridge Replacement; County Route 14/4, Tyler County, West Virginia
- U.S. Route 50 Bridge over Buckeye Street; Parkersburg, Wood County, West Virginia
- U.S. Route 50 Bridge over County Route 50/2; Parkersburg, Wood County, West Virginia
- West Virginia Route 10 Bridge over Madison Branch; Logan County, West Virginia

Retaining Wall Design – Project engineer responsible for design, review, and coordination of different areas and phases of mechanically stabilized earth (MSE) retaining wall projects. Representative projects include:

- West Virginia Route 10 MSE Walls, West Virginia Route 10 – Rita to Dabney; Logan County, West Virginia
- West Virginia Route 892 MSE Wall, Appalachian Corridor D – Ohio Route 618 to Greenland Addition; Wood County, West Virginia

Structural Condition Inspections – Assisted in the inspection of bridges and preparation of reports. Representative projects include:

- 35th & 36th Street Bridges over the Kanawha River; Charleston, West Virginia
- Richard J. “Dick” Henderson Memorial Bridge over the Kanawha River; St. Albans, West Virginia



Hydraulics Analysis – Performed a hydraulic analysis through the use of HEC-RAS and HEC-2 to determine the impact of a proposed construction project on a watershed area. Representative projects include:

- Center Street Bridge Replacement; Center Street over Ann's Run, Bridgeport, Harrison County, West Virginia
- Radnor Thru Truss Bridge Replacement; County Route 36 over West Fork of Twelvepole Creek, Wayne County, West Virginia

Roadway Design – Engineer responsible for preliminary roadway layout and design, as well as final quantities and cost estimates. Representative projects include:

- 2.5 Miles of U.S. Route 50, Appalachian Corridor D – Interstate 77 to Alternate Route 14/East Street; Wood County, West Virginia
- 1.55 Miles of U.S. Route 50, Appalachian Corridor D – Ohio Route 618 to Greenland Addition; Washington County, Ohio and Wood County, West Virginia
- Paw Paw Overpass Bridge Replacement; West Virginia Route 9, Morgan County, West Virginia

Services During Construction – Engineer responsible for conflict resolution, plan interpretation, and shop drawing reviews including structural steel, prestressed concrete, and mechanically stabilized earth walls. Representative projects include:

- Eckman Overhead Bridge Replacement; U.S. Route 52, McDowell County, West Virginia
- Huntington Commerce Park Bridge; County Route 52/9, Cabell County, West Virginia
- Paw Paw Overpass Bridge Replacement; West Virginia Route 9, Morgan County, West Virginia
- Scraggs Drive Bridge Replacement; Charleston, Kanawha County, West Virginia
- U.S. Route 50, Appalachian Corridor D – Interstate 77 to Alternate Route 14/East Street; Wood County, West Virginia
- U.S. Route 50, Appalachian Corridor D – Ohio Route 618 to Greenland Addition; Wood County, West Virginia

TRAINING

- Structures IV Training; ACEC/WV & WVDOT, Charleston, West Virginia, November 2005
- Bridge Manual Training; ACEC/WV & WVDOT, Charleston, West Virginia, May 2004
- LRFD Bridge Design Training – Beyond The Basics; ACEC/WV & WVDOT, Charleston, West Virginia, October 2003
- Structures III Training; WVACE/WVDOT, Charleston, West Virginia, July 2001
- FHWA Demonstration Project 82 Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Design and Construction Workshop; Charleston, West Virginia, October 1999
- GEOPAK Road I Training Course; AEC CADCON, Columbus, Ohio, November 1998

MEMBERSHIPS, AFFILIATIONS AND HONORS

American Institute of Steel Construction (AISC)
American Society of Civil Engineers (ASCE)
Structural Engineering Institute (SEI)
Tau Beta Pi, Engineering Honor Society



Mr. Metheny has over eight years of highway design and related experience. His experience includes the geometric design of four-lane divided highways, two-lane arterials and interchanges on new and existing alignments; as well as, structural condition inspections of in-service bridges, structural design of bridge substructure units, structural shop drawing review and sanitary sewer collection systems.

EDUCATION

West Virginia Institute of Technology – BS, Civil Engineering 1997

REGISTRATION

Registered Professional Engineer: WV (16389), KY (24365)

NHI – Safety Inspection of In-Service Bridges – NHI Course 130055A

RELEVANT BACKGROUND

Highway Design – Served as a designer on various highway projects ranging in size from small bridge replacements to over two-mile sections of four-lane divided highway on new alignment. During this time he has designed horizontal alignments, vertical alignments, intersections and superelevation for four-lane divided highways, interchanges, two-lane arterials and secondary routes; as well as, preparing all aspects of right-of-way plans and highway construction plans. He has also performed design studies requiring design and evaluation of alternate horizontal and vertical alignments for various corridors and interchanges. He has served as Project Manager on multi-million dollar design contracts where he has coordinated the design efforts of large in-house design teams, design sub-consultants, surveying sub-consultants, geotechnical sub-consultants, managed soil boring contracts and performed quality assurance/quality control reviews of highway construction plans. Representative examples of his experience include:

- 2.5 Miles of U.S. Route 50, Appalachian Corridor D – Interstate 77 to Alternate Route 14/East Street; Wood County, West Virginia
- 1.55 Miles of U.S. Route 50, Appalachian Corridor D – Ohio Route 618 to Greenland Addition; Washington County, Ohio and Wood County, West Virginia
- 0.20 Miles of Huntington Commerce Park Access Road; Cabell County, West Virginia
- 0.14 Miles of County Route 36 at Radnor; Wayne County, West Virginia
- 0.13 Miles of Interstate 77 at the Medina Interchange; Jackson County, West Virginia
- 0.11 Miles of West Virginia Route 10 Bridge Replacement over Merritt Creek at Sarah; Cabell County, West Virginia
- New River Parkway Design Study – Hinton, West Virginia to Interstate 64; Raleigh & Summers Counties, West Virginia

Highway Bridge Design – Served as a designer on various bridge replacement projects. During this time he has designed sub-structure units, reviewed shop drawings and assisted in the preparation of Span Arrangement and Type, Size & Location submissions. He has also served as Project Manager on large Corridor projects coordinating the design of as many as nine highway bridges and 950-feet of retaining wall on a single project. Representative examples of his experience include:

- Fort Washington Way, Contract No. 6 – Ramp J Bridge; Hamilton County, Ohio
- Eckman Overhead Bridge Replacement; U.S. Route 52, McDowell County, West Virginia

Structural Condition Inspections – Assisted in the inspection on various bridges throughout West Virginia. Responsibilities included hands-on inspection, visual inspection, and the preparation of inspection reports. Representative examples of his experience include:

- Bigley Avenue Bridges; Charleston, West Virginia
- Richard J. “Dick” Henderson Memorial Bridge over the Kanawha River; St. Albans, West Virginia
- Corporal Thomas Bennett Memorial Bridge “Uffington Truss” over the Monongahela River; Morgantown, West Virginia

Wastewater – Served as a design engineer assisting in the design and preparation of construction plans for a gravity sanitary sewer collection system. Services included plan and profile layout of the collection system and preparation of easement exhibits. Representative examples of his experience include:

- Wastewater Collection System – Lubeck Public Service District, Wood County, West Virginia

Geographic Information Systems (GIS) – Technician responsible for preparation of Land Base mapping from aerial photography utilizing GIS mapping software as part of development of a fully integrated digital mapping system of gas utilities. Utility and customer locations were established through the use of Global Positioning System (GPS) equipment. Line information such as installation date, type, pressure, leaks, and customers were attached to elements within the digital map using an Oracle database system.

TRAINING

- Moving to MicroStation Training Course; AEC Cadcon, Cincinnati, Ohio, July 1998
- GEOPAK Road I Training Course AEC Cadcon; Columbus, Ohio November 1998
- GEOPAK Road II Training Course GEOPAK Corporation; North Miami Beach, Florida, June 1999
- GEOPAK Survey Training Course AEC Cadcon; Columbus, Ohio, March 2005
- Safety Inspections of In-Service Bridges – NHI Course No. 130055; West Virginia Department of Highways, August 2005

MEMBERSHIPS, AFFILIATIONS AND HONORS

American Society of Civil Engineers (ASCE)

Mr. Fife has over seven years of design and related experience. His experience includes the design of various roadway projects, including highway design, drainage design, hydraulic and hydrologic analysis and right-of-way. He also brings experience in structural condition inspection, rehabilitation, stress analysis and load rating of in-service bridges.

EDUCATION

West Virginia University – BS, Civil Engineering 1998

REGISTRATION

Registered Professional Engineer: WV (15620), OH (68417), KY (24376)
Safety Inspection of In-Service Bridges – NHI Course 130055A

RELEVANT BACKGROUND

Structural Condition Inspections – Served as a Team Leader and assisted in the inspection of bridges ranging in length from 20 feet to 2,400 feet. Responsibilities included hands-on inspection, preparation of condition reports, load ratings, and stress analysis. Representative projects include:

- 35th & 36th Street Bridges over the Kanawha River; Charleston, West Virginia
- 40 Small Bridges, District One; West Virginia Department of Transportation
- Arch Moore Tied Arch Bridge over the Ohio River; Moundsville, West Virginia
- Bigley Avenue Bridges; Charleston, West Virginia
- Fifth Street Bridge over Little Kanawha River; Parkersburg, West Virginia
- Fort Hill Bridge over the Kanawha River; Charleston, West Virginia
- Hi Carpenter Bridge over the Ohio River; St. Mary's, West Virginia
- Interstate 64-South Charleston-Dunbar Bridge over the Kanawha River; Dunbar, West Virginia
- Interstate 77-Williamstown Bridge over the Ohio River; Williamstown, West Virginia
- Market Street Suspension Bridge over the Ohio River; Steubenville, Ohio
- Parkersburg-Belpre Bridge over the Ohio River; Parkersburg, West Virginia
- Richard J. "Dick" Henderson Memorial Bridge over the Kanawha River; St. Albans, West Virginia
- Silver Memorial Bridge over the Ohio River; Point Pleasant, West Virginia
- Williamstown/Marietta Bridge over the Ohio River; Williamstown, West Virginia

Bridge Rating and Analysis – Assisted in conducting stress analysis and load rating for a variety of bridges throughout West Virginia. Representative bridge projects include:

- Arch Moore Tied Arch Bridge over the Ohio River; Moundsville, West Virginia
- Fifth Street Bridge over Little Kanawha River; Parkersburg, West Virginia

Services During Construction – Engineer responsible for the construction inspection of various design projects which included plan interpretation, quantification of materials, generation of progress reports, conflict resolution and project finalization. Representative bridge projects include:

- Over 1800 feet of storm sewer pipe and manhole installation, Mid Ohio Valley Regional Airport; Parkersburg, West Virginia
- Installation of New Substation for providing electrical services to the Terminal, Mid Ohio Valley Regional Airport; Parkersburg, West Virginia



Roadway Design – Assisted in the design of roadway improvement projects including roadway design, drainage design, storm sewer design, hydraulic and hydrologic analysis, quantities, cost estimates, and right of way. Representative projects include:

- 4.36 Miles of U.S. 33 Scott Miller Hill Bypass; Peniel to Spencer, Roane County, West Virginia
- 2.85 Miles of West Virginia Route 10 – Rita to Dabney; Logan County, West Virginia
- 2.5 Miles of U.S. Route 50, Appalachian Corridor D – Interstate 77 to Alternate Route 14/East Street; Wood County, West Virginia
- 1.55 Miles of U.S. Route 50, Appalachian Corridor D – Ohio Route 618 to Greenland Addition; Washington County, Ohio and Wood County, West Virginia
- 0.20 Miles of Huntington Commerce Park Access Road; Cabell County, West Virginia
- 0.13 Miles of Interstate 77 at the Medina Interchange; Jackson County, West Virginia
- 0.11 Miles of West Virginia Route 10 Bridge Replacement over Merritt Creek at Sarah; Cabell County, West Virginia

Hydraulics Analysis – Performed a hydraulic analysis through the use of HEC-RAS to determine the impact of a proposed construction project on a watershed area. Representative projects include:

- Big Wana Bridge; West Virginia Route 7 over Big Wana Creek, Monongalia County, West Virginia
- Merritt Creek Bridge; West Virginia Route 10 over Merritt Creek, Cabell County, West Virginia
- Shiloh Bridge; County Route 14/4 over Middle Island Creek, Tyler County, West Virginia

Recreational Parks – Assisted with drainage layout and design of recreational facilities and parks including various athletic fields. Representative projects include:

- Relocation of Godbey Athletic Fields; Wood County, West Virginia
- North Fork Hughes River Recreation Project; Ritchie County, West Virginia

TRAINING

- Moving to MicroStation Training Course; AEC Cadcon, Columbus, Ohio, July 1999
- GEOPAK Road I Training Course; AEC Cadcon, Columbus, Ohio, February 2000
- Microsoft Power Point Training Course; Dils Center, Parkersburg, West Virginia, May 2000
- Introduction to Stream Functions and Processes: Course I; Canaan Valley, West Virginia, July 2002
- Methods for Stream Channel Assessment and Analysis II; Summersville, West Virginia, May 2003
- Introduction to Natural Stream Channel Design: Course III; Lewisburg, West Virginia, July 2004
- Advanced Natural Stream Channel Design: Course IV; Pipestem Resort, West Virginia, August 2004
- Safety Inspections of In-Service Bridges – NHI Course No. 130055; West Virginia Department of Highways, August 2005

MEMBERSHIPS, AFFILIATIONS AND HONORS

Tau Beta Pi, Engineering Honor Society
Chi Epsilon, Civil Engineering Honor Society



STEVEN D. WINTERS, SIT

CONSTRUCTION SUPERVISOR

Mr. Winters has over ten years experience on WVDOH construction inspection crews and is a certified inspector for aggregate, concrete, asphalt, and compaction. He currently is working as a Level III Inspector as well as a seasoned surveyor and construction supervisor. He has been the responsible crew chief on a variety of major bridge and highway projects covering four states (WV, MD, KY, and VA).

EDUCATION

West Virginia Institute of Technology – BS, Civil Engineering Technology 1994

West Virginia Institute of Technology – AS, Civil Engineering Technology 1992

REGISTRATION

Registered Surveyor in Training: WV (47)

WVDOH Certification for Compaction Technician, 1997

WVDOH Certification for Aggregate Sampling Inspector, 2000

WVDOH Certification for Portland Cement Inspector, 2001

WVDOH Certification for Asphalt, 2006

RELEVANT BACKGROUND

Services During Construction – Served as a Level III inspector responsible for quality assurance of density compaction, material inspection, concrete testing, and generation of as-built drawings.

Representative WVDOH highway projects include:

- U.S. Route 50, Blennerhassett Bridge over the Ohio River; Parkersburg, WV
- County Route 622, Big Tyler Turning Lane; Cross Lanes, WV

Design Surveys – Served as survey party crew chief and instrument man on a variety of roadway and bridge design projects. Responsibilities for these projects included horizontal and vertical control surveys, underground mine surveys, site layout, structure layout, pipe and inlet layout, slope staking, quantity estimation, design of temporary structures, cross-section and topographic surveys, haul road layout, and mine structural layout. Also involved in numerous river crossing surveys including the following projects:

- Route 19 over Bluestone River; Spanishburg, WV
- Route 52 over New River; Tazwell, VA
- Hobet Mining over Mud River; Madison, WV
- Route 55 over South Branch of the Potomac River; Moorefield, WV
- Original New River Gorge Bridge Replacement over New River; Fayetteville, WV
- Route 127 over North River; Forks of Cacapon, WV
- Route 259 over Cacapon River; Wardensville, WV
- Water Street Bridge over Guyandotte River; Logan, WV
- Route 5 over Little Kanawha River; Elizabeth, WV
- Route 259 over Cacapon River; Yellow Springs, WV
- Whitesville Town Bridge over Big Coal River; Whitesville, WV
- Route 60 over Greenbrier River; White Sulphur Springs, WV
- Route 250 Bypass over Tygart River; Philippi, WV
- Jacksons Mill Bridge over West Fork River; Jacksons Mill, WV
- Route 52 over Guyandotte River; Gilbert, WV



STEVEN D. WINTERS, SIT

CONSTRUCTION SUPERVISOR

WVDOH Design Surveys – Served as survey party crew chief and instrument man on a variety of roadway and bridge design projects for the West Virginia Division of Highways. Representative projects include:

- Merritt Creek Bridge, Cabell County, WV
- Durhing Arch Bridge, Mercer County, WV

Site Design Surveys - Served as survey party crew chief and instrument man on a variety of site development and design projects for a variety of clients. Representative projects include:

- King's Daughters Medical Center, Ashland, KY
- West Virginia Welcome Center I-64, Huntington, WV
- West Virginia American Water Pump Station, Treatment Plant, Fayetteville, WV
- Massey Coal Company Coal Prep. Plant Facilities and Belt Line, Whiteville, WV

Construction Supervision – Served as a construction supervisor on a variety of WVDOH construction projects. Representative projects include:

- Superintendent for drainage inlet and pipe installation
- Roadway cut and fill operations

TRAINING

- Hazardous Waste Operations Training, 40 Hours, 1996
- Nuclear Regulatory Commission – Safety Officer/Manager

MEMBERSHIPS, AFFILIATIONS AND HONORS

West Virginia Society of Professional Surveyors (WVSPS)

