May 12, 2009

Statement of Qualifications

Stonewall Resort State Park

Expression of Interest for Timber Pile Pedestrian Bridge

Roanoke, West Virginia

E.L. ROBINSON

the Challenge. the Choice.™

E.L. Robinson Engineering Co.
5088 Washington Street, West
Charleston, WV 25313
Phone: (304) 776-7473
Fax: (304) 776-6426
www.elrobinson.com

E.L. ROBINSON
the Challenge. the Choice.™

May 7, 2009

Mr. Frank Whittaker, Senior Buyer
Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130

Reference: Expression of Interest for a Timber Pile Pedestrian Bridge
Stonewall Resort State Park

Dear Mr. Whittaker,

E.L. Robinson Engineering Co. (ELR) is pleased to have the opportunity to submit our proposal for the referenced project.

ELR and its key personnel have provided services throughout the State of West Virginia and successfully completed multiple projects of similar scope. Our team has a good understanding of the proposed project based on past experience by Mr. Jeff Nelsen, RLA working on the initial planning and design for the Resort.

Our proposal outlines our technical expertise and experience for providing high quality engineering services to the West Virginia Division of Natural Resources. Our proposal will demonstrate that we have the knowledge, personnel, equipment, and resources to provide the services requested. We acknowledge the importance of a quick turn-around and excellent quality service, which our administrative procedures, overall organization, and depth of experience provide.

We are excited in anticipation of our professional involvement with this project and look forward to having the opportunity to present our team's credentials and project approach in a personal interview. If we may provide you with any additional information during the review process, please do not hesitate to contact us.

Sincerely,
E. L. Robinson Engineering Co.

Faheem Ahmad, P.E.

5088 Washington Street, West • Charleston, West Virginia 25313
304-776-7473 • toll-free 800-856-6485 • fax 304-776-6426 • www.elrobinson.com
Other locations: Beckley, WV • Chapmanville, WV • Columbus, OH • Ironton, OH • Inverness, FL • Ashland, KY

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	PAGE
DNR209169	1

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

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE
EL Robinson Engineering Co.
508B Washington St, West
Charleston, WV 25313.

SHIP TO
DIVISION OF NATURAL RESOURCES
STONEWALL JACKSON STATE PARK
ATTN: PARK SUPERINTENDENT
ROUTE 1, BOX 0
ROANOKE, WV
26423 269-0523

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/13/2009				

BID OPENING DATE: 05/12/2009 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
001	1	LS		906-00-00-001		

ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL

THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF NATURAL RESOURCES IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES FOR A TIMBER PILE-SUPPORTED PEDESTRIAN BOARDWALK SYSTEM FOR STONEWALL RESORT STATE PARK LOCATED IN ROANOKE WV, PER THE ATTACHED SPECIFICATIONS.

TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO FRANK WHITTAKER IN THE WEST VIRGINIA PURCHASING DIVISION VIA FAX AT 304-558-4115 OR VIA EMAIL AT FRANK.M.WHITTAKER@WV.GOV. DEADLINE FOR TECHNICAL QUESTIONS IS APRIL 22, 2009 AT 4:00 PM. ALL TECHNICAL QUESTIONS RECEIVED, IF ANY WILL BE ANSWERED BY ADDENDUM AFTER THE DEADLINE.

EXHIBIT 10

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 NOS.:

NO. 1 .....

NO. 2 .....

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

NATURE [signature] TELEPHONE 304.776.7473 DATE 5.7.09.

E Project Manager. FEIN 55-0594633 ADDRESS CHANGES TO BE NOTED ABOVE

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

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

Request for Quotation

RFQ NUMBER	PAGE
DNR209169	2

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

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
DIVISION OF NATURAL RESOURCES
STONEWALL JACKSON STATE PARK
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ROANOKE, WV
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~~04/13/2009~~				

OPENING DATE: ~~05/12/2009~~ BID OPENING TIME ~~01:30PM~~

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT

NO. 3 .....

NO. 4 .....

NO. 5 .....

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF THE 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.

.....SIGNATURE

E.L. Robinson Engineering Co. ....COMPANY

5.7.09 .....DATE

REV. 11/96

BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.

REV. 1/2005

NOTICE

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
	304.776.7473	

E	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

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

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DNR209169	3

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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

A SIGNED BID MUST BE SUBMITTED TO:

DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
BUILDING 15
2019 WASHINGTON STREET, EAST
CHARLESTON, WV 25305-0130

THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:

SEALED BID

BUYER: 44

REQ. NO.: DNR209169

BID OPENING DATE: 05/12/09

BID OPENING TIME: 1:30 PM

PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:

304-776-6426

PLEASE PRINT OR TYPE NAME OF PERSON TO CONTACT CONCERNING THIS QUOTE:

Faheem Ahmad, P.E.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

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

Request for Quotation

RFQ NUMBER	PAGE
DNR209169	4

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VENDOR

RFQ COPY
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SHIP TO

DIVISION OF NATURAL RESOURCES
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BID OPENING DATE: 05/12/2009 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
	****** THIS IS THE END OF RFQ DNR209169 ****** TOTAL:					

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

RFQ No. _____

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: E L Robinson Engineering Co.

Authorized Signature: _____ Date: 5.7.09.

E.L. ROBINSON
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E.L. ROBINSON
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ELR Firm Overview

E.L. Robinson is a multi-disciplined engineering /planning firm with a staff of over 70 full-time professionals and support personnel located in seven offices throughout West Virginia, Florida, Kentucky, North Carolina and Ohio. Over the last 30 years, E.L. Robinson has grown to one of the largest firms in the region, offering a diverse scope of services. Since 1978, E.L. Robinson has provided a full range of quality engineering services, from planning and analysis to design and implementation.

Named for its founder and president, Edward L. Robinson, P.E., P.S., the firm has based its success on a commitment to quality projects with superior client service. Finding new and creative ways to say yes to challenges has brought the firm's vision of excellence into reality. Along with this *"yes, we can do it"* attitude, the firm has grown to understand the ingredients of a professional service firm include not only brick and mortar, but also leading edge technology and a talented, motivated staff that is continually growing and advancing their skills.

The use of technology has allowed the firm to expand engineering capabilities and make use of new resources such as satellite imagery and digital mapping. In addition to the use of technology, E.L. Robinson also continues to strive to invent new and more effective ways to serve our clients. One of these ways is to provide a thorough pre-analysis of every project, saving the client time, money, and legal exposure. When the client is educated on every phase of the job and every challenge, the reputation of the firm grows stronger and attracts business from a larger marketplace.

E.L. Robinson has been providing its clients with quality products and superior service since 1978. Our staff combines state-of-the-art technology, experienced professionals, and innovative methods to help our clients meet their challenges.

- Transportation
- Infrastructure
- Bridge Design
- Structural Engineering
- Geotechnical Engineering
- Environmental Engineering
- Site Development
- Right-of-Way Services
- Construction Administration/Observation
- Surveying/Global Positioning
- Landscape Architecture

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Why Choose E.L. Robinson?

Bridge and Structural Engineering has been ELR's primary area of expertise since 1995. ELR has the proven experience and resources to provide quality bridge design and related services. Our structures staff (which includes post graduate level practitioners) utilizes highly automated procedures using state-of-the-art design software, including finite element analysis, non-linear geometric and material analysis, as well as time-dependent creep and shrinkage analysis. Our staff also has extensive experience in pedestrian and bicycle trails plans and design of those facilities which will serve the resort in its plan to better link the park facilities.

Highly Skilled and Motivated Staff
Our engineers are thoroughly familiar with WVDOH Bridge Design Manual (2006 Interims), AASHTO Bridge Design Specifications (4th Edition), AASHTO Guide Specifications for Design of Pedestrian Bridges.

Understanding and Approach of the Project
ELR staff have visited the site and evaluated the project area. This site review proved instrumental in understanding the scope of work. ELR staff is also familiar with WVDNR and Benchmark Hospitality's desire to develop this boardwalk and bridge structure creating a very unique park element. This feature would resemble the existing golf cart bridge structures but more so WVDNR has an opportunity to create another signature park element much like the boardwalk at Beartown or Blackwater Falls, only across water.

Timeliness and Capacity to Perform as a Team
Responsiveness, quality, and satisfaction are ELR's primary goals. ELR has assigned a project manager with extensive experience for this project. The primary responsibility is to be responsive to the client, provide continuity from project beginning to project completion, and to ensure that a quality project is completed on time. This, coupled with ELR's production management meetings, result in the timely and efficient production of quality projects.

> E. L. Robinson Engineering Co. performed bridge designs under accelerated schedule for seven (7) bridges under the Category Six Bridge Program for the WVDOH Districts 1 and 2 in 2007/2008. Mr. James E. Sothen, P.E. – Deputy State Highway Engineer – Development, in his March 7, 2008 letter stated "***We extended to your firm a challenge of designing and detailing seven bridge projects***

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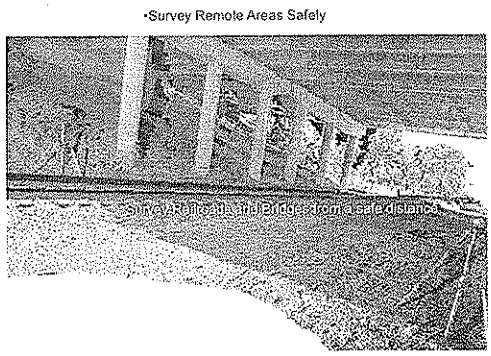
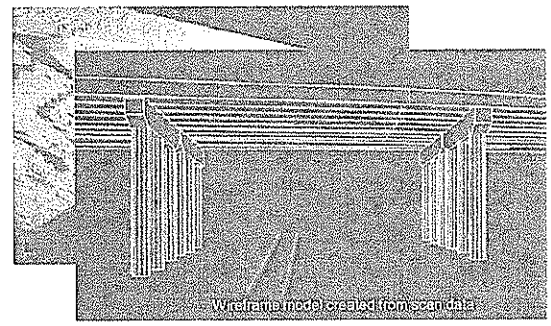
Why Choose E.L. Robinson?

within a time frame of approximately four months. Through hard work, dedication, and commitment, your firm met that challenge and provided all seven bridge projects before the deadline of February 1, 2008." The District One Bridge Engineer, Mr. Steve Campbell, P.E. wrote in the project evaluations that "***Consultant did an excellent job in producing plans in the exceedingly short required time frame.***"

Use of State of the Art Technologies

ELR makes use of latest in technologies such as 3-D Laser Scanning for mapping/surveying. The use of 3-D Laser scanning will provide extremely high level of detail to perform the structural design, a surface DTM with exact tie-in information and accurate field data.





Delivery of Similar Projects within Budget

ELR has a proven track record of delivering projects of similar size and scope within established budgets. Examples are:

Rehabilitation of Tupper's Creek IC Bridge – Kanawha County, WV
(*ELR Estimate $ 1,850,000 Low Bid $1,797,722*)

I-79 Meadowbrook Road Bridge, Harrison County, WV
(*ELR Estimate $ 2,213,960 Low Bid $2,133,244*)

CR 81 Wards Bridge – Kanawha County, WV
(*ELR Estimate $ 1,549,713 Low Bid $1,330,676*)

Indian Creek Road Bridge, Boone County, WV
(*ELR Estimate $ 1,107,272 Low Bid $1,023,000*)

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Why Choose E.L. Robinson?

Communication with Client
The success of any project is based upon open and direct lines of communication with the client. The project manager, in concurrence with the client, is responsible for developing the project scope and project schedule. Once the schedule is established, in-house management procedures identify and track specific work tasks.

Quality Assurance
ELR's Quality Assurance (QA) plan is structured to meet the demands and expectations of each project/client relationship. ***How does ELR accomplishes this?***

- With in-house people informed about project requirements and dedicated to the satisfaction of your expectations.
- With project management that defines tasks, schedules, scope and challenges of the project, and provides the team resource requirements.
- With a QA review process that questions scope content, reviews project alternatives and development at appropriate stages and, of course, include technical review of the process.
- With frequent and detailed project review of the scope status with the client.
- With a project management plan that provides what it takes to deliver the project on time, within budget, and performing to the expectations of the client.

In-House Surveying, Geotechnical, Structural, Design and Construction Inspection & Services:
Representing the client during all phases of design and construction involves a variety of services. ELR handles all of the paperwork associated with construction, such as work orders, shop drawings, change orders, partial/final payments and punch lists. A final inspection is done before acceptance by the client. All of the services for this project will be provided by ELR staff.

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Why Choose E.L. Robinson?

Proximity

ELR's corporate headquarters is in Cross Lanes, WV with regional offices in Chapmanville and Beckley, West Virginia. This project will be managed from our Cross Lanes Office. We also will utilize the construction inspection services of our field office at Charles Pointe in Bridgeport.

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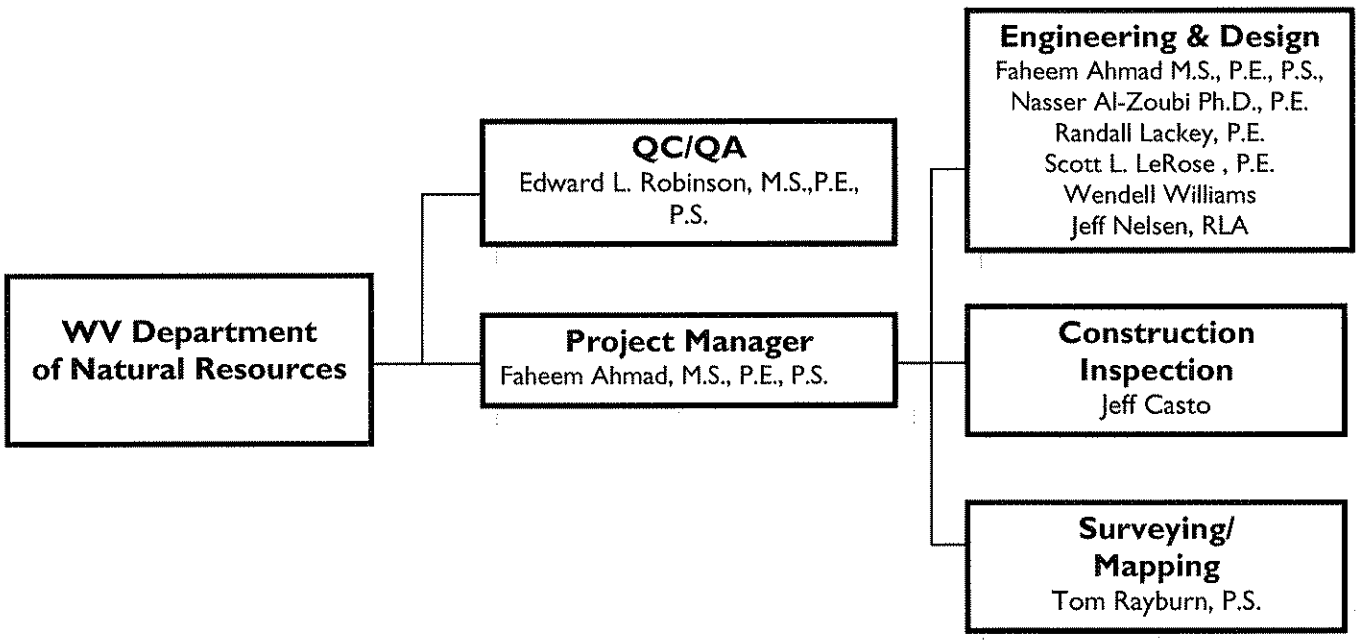
Our Project Team



Edward L. Robinson, P.E., P.S.
President

Education

M.S. Civil Engineering
University of West Virginia, (COGS), 1981

B.S. Civil Engineering
West Virginia Institute of Technology, 1969

Registrations

Registered Professional Engineer in West Virginia, Kentucky, Ohio, Pennsylvania, North Carolina, South Carolina, Virginia, Georgia, Maryland and Colorado.

Registered Professional Surveyor in West Virginia.

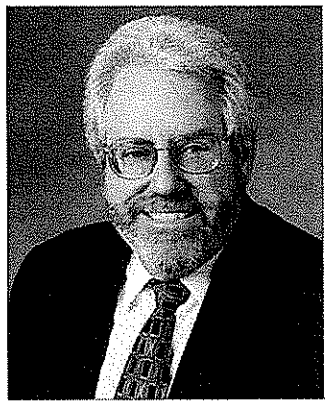
Professional Memberships

- American Society of Civil Engineers
- National Society of Professional Engineers

Professional Experience

Mr. Robinson founded E. L. Robinson Engineering Co. in 1978 with four employees. Initially the firm provided land surveying and land development services.

Under his leadership, E. L. Robinson has entered the new millennium as a multi-disciplined professional services firm that



utilizes the latest technology in the design of highways, bridges, structures, environmental, civil, and geotechnical projects as well as global position satellite surveying, right-of-way, construction inspection and architectural services.

The firm now employs more than 90 engineers, architects, surveyors and support personnel and has been converted to an employee owned company through an Employee Stock Ownership Plan (ESOP).

Representative Projects

Engineering Review of the following projects:

- **US Route 52 - Kermit Bypass:** This project consisted of 2.5 miles of four-lane divided highway, 3,000 LF of four-lane access road design, two 4-ramp intersections, one set of twin structures, one single bridge, and 2,900 LF of stream relocation, all of which resulted in 10 million cubic yards of excavation and an estimated total construction cost of $88 million.

- **Corridor H - Davis to Bismark:** This project consisted of 1.75 miles of four-lane divided highway, one bridge, two at-

grade intersections, and a 6′ x 6′ concrete box culvert. This project has an estimated total construction cost of $9 million.

- **Corridor H – Foreman to Moorefield:** This project consisted of 5 miles of four-lane divided highway, almost 3 miles of access road design, a truck escape ramp, one set of twin structures, one single bridge, a box culvert, and naturalized stream design. This project resulted in 10 million cubic yards of excavation and an estimated construction cost of $75 million.

- **CAMC 33rd Street Relocation:** Engineering design and construction management for the relocation of 33rd street and site development for a five story clinical teaching facility in Charleston, WV.

Offices Held

- Current Chairman of WVUIT Advisory Board
- President of West Virginia Council of Engineering Companies
- Chairman Transportation Committee – WV Association of Consulting Engineers
- State Director of West Virginia Society of Professional Engineers
- President of West Virginia Society of Professional Engineers
- Assistant Treasurer of the American Society of Civil Engineers
- National Director of the ASCE representing WV, NC, SC and VA
- President of West Virginia Section of ASCE

Honors Awarded

- Honorary PhD, *Doctor of Science* – West Virginia Institute of Technology 2002
- Engineering Entrepreneur of the Year – Ernst & Young, 2001
- National Entrepreneur of the Year Finalist – Ernst & Young, 2001
- Engineer of the Year – American Society of Civil Engineers, 1998
- Engineer of the Year – West Virginia Society of Professional Engineers, 1997
- Alumnus of the Year – West Virginia University Institute of Technology, 1992

Faheem Ahmad, P.E., P.S.

Structural and Bridge Engineering Manager

Education

M.S Civil Engineering,
Virginia Tech (VPI & SU), *1991*

B.S. Civil Engineering,
West Virginia Univ. Institute of Technology, *1988*

M.S Information Systems,
Marshall University, *2004*

Registrations & Certifications

Registered Professional Engineer in West Virginia (12870), Virginia (26309), Ohio (65270) and Delaware (10183)

Registered Professional Surveyor in West Virginia (1678)

Certified Bridge Safety Inspector - NHI (130055A)

Professional Memberships

- American Society of Civil Engineers - Structural Engineering Institute (SEI)
- National Society of Professional Engineers
- Transportation Research Board (TRB)

Professional Experience

Faheem Ahmad, P.E., P.S is an experienced engineering manager with over 17 years experience in structural analysis with expertise in design using steel, concrete (reinforced, Post tensioned/prestressed concrete) bridges. As a manager of bridge design projects, he develops design criteria and supervises all phases of the design.

A critical success factor in successful management of his projects has been effective communications. This is accomplished by close interaction with clients, public agencies involved and experts through meetings, working groups and electronic communications. The use of a wide variety of creative graphics in design documentation is distinctive aspect of this work.

He has over 11 years of project management experience with a track record of managing and delivering bridge projects within budget and on schedule. Mr. Ahmad has thorough knowledge of West Virginia and Ohio Bridge Design details and policies, WVDOH Bridge Design Manual and AASHTO LRFD specifications.

Mr. Ahmad also has over 11 years experience with hydraulics engineering projects in West Virginia, Ohio and Kentucky. He is proficient in conducting hydrologic and hydraulic (steady flow/unsteady flow/2D-flow) of rivers and creeks. Representative projects include FEMA flood studies and map revisions, hydrologic studies, floodplain studies, erosion

protection design, bridge hydraulics and scour studies. He is also experienced with water resources regulations, and permitting requirements in West Virginia and Ohio. He is thoroughly familiar with FHWA guidelines contained in HEC-18 "Evaluating Scour at Bridges", HEC-20 entitled "Stream Stability at Highway Structures," HEC-23 entitled "Bridge Scour and Stream Instability Countermeasures."

Hydraulic Modeling Skills: Skilled in the use of computer programs such as HEC--2, WSPRO, HEC-RAS, TR-55, TR-20, RMA-2 and FESWMS-2DH.

Prior to joining ELR, Mr. Ahmad had over six years of professional affiliation with the Structures Divisions of Delaware and Virginia Department of Transportation.

He has conducted bridge inspections (NBIS, Element Level) and load rating evaluations in accordance with *AASHTO Manual for Condition Evaluation of Bridges* complex highway bridges ranging from thru trusses to curved girder bridges to bascule bridges. Experienced in load rating analysis software such as BARS, BRASS FAMILY OF PROGRAMS, MDX, MERLIN-DASH, PennDOT Software, CANDE, STAAD PRO, ABAQUS

He has also prepared annual bridge Inventory submissions to FHWA in accordance with the *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nations' Bridges.* He used PONTIS to prioritize bridge needs for an entire bridge inventory considering life cycle costs and deterioration.

Selected Recent Bridge Design Projects

US35 Design-Build Project (WVDOH) Putnam County, West Virginia: Served as Bridge Project Manager/Lead Design Engineer on this design-build project to construct dual 181 ft long single span dual bridges over Hurricane Creek and 110 ft long dual bridges over WV 34.

Design Engineer and the Project Manager for the Wyoming Truss Bridge Replacement in McDowell County, WV. The spans were 88 feet, 110 feet and 88 feet with a total length of 286 feet. The superstructure consists of HPS70W steel girders. Piers 1 and 2 are hammerhead piers. Piers 1 & 2 are founded on spread foundations. The abutments are semi-integral abutments founded on H-Piles. Estimated construction cost for the bridge is $ 1,900,000.

Design Engineer and the Project Manager for the following dual bridges (1) US 35 over Upper Five Mile Creek and CR 27 (2) US 35 over Lower Five Mile Creek in Mason County, WV. The spans for US 35 over Upper Five Mile Creek are 161 feet, 161 feet with a total length of 322 feet. The spans for US 35 over Lower Five Mile Creek are 145 feet, 145 feet with a total length of 290 feet. The estimated construction cost for the bridges is $ 7.6 million.

Review Engineer for the Design/Build replacement and widening of the existing Route 22 Bridge over Scioto River in Pickaway County, Ohio. The 700'-long, six-span bridge had 90'-0" approach spans and 112'-6" main spans, consisting of four lines of composite steel plate girders supported by hammer-head piers and two semi-integral abutments. The design-build team achieved bridge replacement in just 47 days instead of typical

18-month construction time. Construction cost of $ 2.7 million—$500,000 below the next lowest bidder, and $2.3 million below the Engineer's estimate of $5 million.

Design Engineer and the Project Manager for the Ohio Approach spans of Blennerhassett Island Bridge over the Ohio River beginning in Washington County, Ohio and Blennerhassett Island. The spans were 171 feet, 179 feet and 139.75 feet with a total length of 489.75 feet. The superstructure consists of hybrid steel girders. Piers 1 and 2 are two column bents with parabolic tendon profile for the post-tensioned cap. Pier 1 is founded on a single caisson with a caisson cap whereas Pier 2 is founded on steel H bearing piles with pile cap.

Design Engineer and the Project Manager for the Twin Bridges Over Walnut Bottom Run Carrying Corridor H in Hardy County, West Virginia. The bridge consists of single 184 ft long composite welded steel plate girders with integral abutments. Construction Cost for the bridges is $ 2,388,000

Design engineer and the project manager for the deck replacement of the existing WV 10 Buffalo Creek Bridge Over CSX RR and Buffalo Creek in Logan County, WV. This bridge has a four (4) span layout as follows: 222'-0" 264'-6" 215'-9" and 117'-9". The superstructure consists of eight (8) welded steel plate girders with cast-in-place concrete deck. Construction cost is $ 4.3 million.

Design engineer and manager for the design of substructures for the replacement of Perry Street Bridge Over Maumee River in Henry County, Ohio. The substructure for this bridge consisted of precast post-tensioned pier caps and post tensioned abutment caps on drilled shafts to precast, prestressed and spliced post tensioned concrete girders.

Design engineer and manager for the rehabilitation and widening of the existing dual I-75 Bridges over CR 25A and dual bridges over CSX RR and Ramp B in Miami County, Ohio. The bridge consisted of composite steel beam (36") with semi-integral abutments and column bents supported on steel piles.

Design engineer and manager for the Fort Henry I/C Bridge Over I-70 in Ohio County, West Virginia. The bridge consists of two 140 ft long composite welded steel plate girders with integral abutments and pier, on pile foundations.

Design Review Engineer and manager for the replacement of Lower Gassaway Truss Bridge in Braxton County, WV. The bridge consisted of composite welded steel plate girder (81" deep) on semi-integral abutments on drilled shafts and hammerhead piers on single circular (63.8' high) column supported by deep spread footings. The project also included geotechnical investigations and hydraulic studies.

Design engineer and manager for Access Road No. 3 O/P Bridge over US52 in Mingo County, West Virginia. The bridge consists of 180 ft long composite welded steel plate girder (78" deep) simple span with semi-integral abutments, on spread footings.

Design engineer and manager for the rehabilitation and widening of the existing dual I-79 Lodgeville Overpass Bridge in Harrison County, WV to eight lanes. The bridge consisted of composite steel plate girders with semi-integral abutments and two column bents (35.4' high) supported on steel piles.

Design engineer and manager for the replacement and widening of the existing dual I-79 Simpson Creek Bridge in Harrison County, WV to eight lanes. The bridge consisted of curved plate girders on abutments and two-column bents (36′ high) on spread footing. The project also included geotechnical investigations and hydraulic studies.

Design engineer and manager for the replacement and widening of the existing dual I-79 Meadowbrook bridge to six lanes and replacement of existing super structure utilizing existing substructure. The bridge consisted of composite steel beam (36″) on semi-integral abutments and multi-column bents (23.7′ high) on steel piles. The project also included geotechnical investigations.

Review Engineer and manager for three bridges on new Marrowbone Creek Interchange Bridge. Study of span-arrangements, Type Size and Location Report and Final Design. The spans are 112′-3 @125′ –112′ for main bridge, 80′-130′-80′ and 59′-98′-59′ for the other two bridges. Integral and semi-integral abutments are utilized. The pier heights vary from 50 ft to 80 ft. Prestressed concrete girders are used.

Review engineer and manager for Bridge Replacement in Ripley, WV. An existing steel beam bridge was replaced with a three span, 67′-110′-67′, prestressed concrete girders in a three stage construction, including piers and abutments, while maintaining two traffic lanes during construction.

Review engineer and manager for Meadowbrook Bridge over West Fork River in Harrison County, WV. A five span continuous steel plate girder structure, 700 ft long, with piers of average height 80-ft and span lengths of 117.5′-3@ 155.0′-117.5′. The piers are designed as combination wall shaft for the bottom 40 ft followed up by a two-column bent of 40 ft height. Semi integral abutments are used.

Review Engineer and manager for the rehabilitation of Left Hand Fork Bridge carrying I-79 in Kanawha County, a steel plate girder structure. A unique fill solution was used to stabilize abutment movements. Existing abutments were replaced with semi-integral abutments.

Design engineer and manager for the replacement of Lower Gassaway Truss Bridge in Braxton County, WV. The bridge consisted of composite welded steel plate girder (81″ deep) on semi-integral abutments on drilled shafts and hammerhead piers on single circular (63.8′ high) column supported by deep spread footings. The project also included geotechnical investigations and hydraulic studies.

Design engineer and manager for the replacement of Tallman bridge over Middle Island Creek in Tyler County, WV. The bridge consisted of modified Type IV P/S beams (60″ deep), integral abutments on steel piles, wall type (42.5′ high) pier on spread footings. The project also included geotechnical investigations and hydraulic studies.

Design engineer and manager for the replacement of Jackson bridge over Point Pleasant Creek in Tyler County, WV. The bridge consisted of modified Type IV P/S beams (60″ deep), integral abutments on steel piles, wall type (39.4′ high) pier on spread footings. The project also included geotechnical investigations and hydraulic studies.

Design engineer and manager for the Indian Creek Road Bridge Replacement in Boone County, WV. The bridge consisted of modified Type IV P/S beams (78" deep), integral abutments on steel piles, hammerhead pier on single circular column (46.5; high) on spread footing. The project also included geotechnical investigations and hydraulic studies.

Selected Recent Bridge Hydraulics and Related Projects

Hydraulics and scour Analysis for the Proposed Corridor H Bridge crossing the South Branch of the Potomac River - Hardy County, WV The proposed structure crosses South Branch of the Potomac River and its flood plain. The total length of the bridge is 2200 ft. Developed hydraulic models to determine the velocities and flow depths for bridge scour. Evaluated scour potential of piers considering other factors such as river bed changes, instances of historical migration, effect of debris. Prepared hydraulic analysis for the Moorefield Flood Levee freeboard. Additionally, performed hydraulics and scour analysis associated with temporary causeway and access road needed for the construction of the bridge.

Hydraulic, scour and erosion countermeasures studies for Proposed Blennerhassett Island Bridge – Wood County, WV and Washington County, OH The proposed structure consists of a simple span tied arch with a span length of 880 feet (center to center of pier) over the Ohio Channel of the Ohio River. The total length of the bridge is 3985 ft including approach spans. Developed hydraulic models to determine the velocities and flow depths for bridge scour evaluations. Evaluated scour potential of river piers on the Island considering other factors such as long term river bed changes, instances of historical migration. An erosion protection system to minimize the impact of barge traffic and bridge scour along the Island shore in the vicinity of Pier 4 was developed. Additionally, performed hydraulics and scour analysis associated with temporary cofferdams, temporary platforms and docks around bridge piers 3, 4, 8, and 9 including for the access roads on the Blennerhassett Island for the duration of construction.

River Hydrology, Hydraulics and Scour Analyses for the Proposed Ironton Russell Bridge – Lawrence County, OH and Greenup County, KY The proposed structure alternate consists of cable stayed bridge over the Ohio River.

The total length of the bridge is 2500 ft including approach spans. Developed hydraulic models to determine the velocities and flow depths for bridge scour evaluations. Evaluated scour potential of river piers on the Island considering other factors such as river bed changes. The hydraulics and scour reports were reviewed by Ohio Department of Transportation., WV. The bridge consisted of composite welded steel plate girder (81" deep) on semi-integral abutments on drilled shafts and hammerhead piers on single circular (63.8' high) column supported by deep spread footings. The project also included geotechnical investigations and hydraulic studies.

Selected Recent Structural Engineering Projects

Structural Engineer/Manager for the investigation and analysis of General Garage

Collapse for Charleston Area Medical Center, Charleston - West Virginia. Tasks included determination of the cause(s) of the collapse, preparation of report and corrective measures required for the opening of the garages.

Designed foundations for a new assembly hall for the Nazarene Tabernacle Retreat Center, Summersville - West Virginia. E.L. Robinson Engineering Co. Also included review of demolition options and how the new structure would be integrated into the existing facilities.

Structural engineer for the preparation of design calculations, drawings, and construction specifications for the 6th floor of the Ruby Memorial Hospital in Morgantown, WV. Ruby Memorial Hospital is a part of West Virginia University Hospitals. The 6th floor houses Children's Hospital consisting of following centers: Maternal Infant Care Center, Newborn Intensive Care Unit (NICU), Pediatric Intensive Care Unit (PICU), Pediatrics.

Structural engineer for the design of a new waste water treatment addition for the Saint Albans Municipal Sewer Plant in St. Albans, West Virginia. Also prepared structural analysis for the design of main and upper levels of headworks building of St. Albans Waste Water Treatment Plant. The structural analysis was performed using three dimensional structural analysis considering various load combinations.

Publications/Research and Software Development:

Published technical papers and made presentations at conferences:

Ahmad, F. , Zoubi, N. and Mongi, A. *Behavior of Integral Abutments with Tall Back walls* - to be published in the proceedings of 2007 International Bridge Conference

Presentation titled *"Steel Spans Made Continuous for Live Loads* at the Structures IV seminar by West Virginia Division of Highways - Charleston, WV, November 15, 2005

Ahmad, F. and Zoubi, N. *Tension Field Action in the Hybrid Steel Girders for Ohio Approach Spans of Blennerhassett Island Bridge* - Published in the proceedings of Third New York City Bridge Conference - Vol 3, No. 1, September 11 - 13, 2005

Co-Presenter on presentation titled *"Hydraulic and Scour Analysis of Blennerhassett Island Bridge* at the 2002 FHWA Hydraulics Conference - Louisville, KY, September 17-19, 2002

Design and development of analytical processes in client-server and web-based software systems. He has special experience in object-oriented analysis and design, where he has expertise in successfully translating complex business and engineering requirements into streamlined, maintainable software designs to be implemented in Delphi, C++, Visual Basic, Excel, and other modern development tools in COM and .NET frameworks.

Nasser Al-Zoubi, Ph.D., P.E.

Structural Engineering

Education

Ph.D., Engineering,
The University of Akron, 2002

M.S. Structural Engineering,
Jordan University of Science and Technology, 1997

B.S. Civil Engineering,
Jordan University of Science and Technology, 1994

Registration

Registered Professional Engineer in Ohio

Professional Memberships

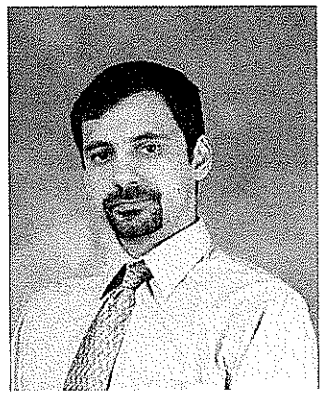
- American Society of Civil Engineers (ASCE)
- Transportation Research Board (TRB)

Awards

Best technical paper for 2002 at NASA's Glenn Research Center branch 5920 (Structural and Acoustics Division) team award.

Professional Experience

Nasser has 9 years experience in analyzing, designing and finite element modeling using computer-aided analysis for different structural applications and developments. Nasser had analyzed and designed structures such as bridge substructure and superstructure, reinforced concrete office buildings, steel pipe support systems, reinforced concrete storage tanks and reinforced concrete pavement.



Representative Projects

Design Engineer for Wyoming Truss Bridge Replacement, McDowell County, WV. Three span (88'-110'-88') steel girder-concrete slab bridge. The deck was designed using Empirical LRFD Method. The steel girders were designed using Marlin-Dash software. The substructure consists of two hammerhead Piers and semi-integral Abutments. The Piers were designed using RC-Pier and FB-Pier software. Sap2000 was used to design the Abutments walls and FB-Pier to design Abutments H-Piles. Estimated construction cost for the bridge is $1,900,000.

Design Engineer for US-60 Bridge over Tennessee River, McCracken / Livingston Counties, KY. The Truss Bridge consists of three spans (500'-900'-400') crossing the Tennessee River. For this project, 3D SAP2000 model of the Piers was used in the analysis and design. The response spectrum taken from a site test was incorporated with the SAP2000 model to account for seismic loading. Estimated construction cost for the bridge is $75,000,000.

Design Engineer for Buffalo Creek Bridge, Logan County, WV. Four span (222'-264'-216'-118') Horizontally Curved (variable girder spacing) steel girder-concrete slab bridge. A newly mixed Empirical and Traditional method was used to design the new deck.

Superstructure was analyzed using a 3D SAP2000 model to check the bridge components during deck replacement and stage pouring of the new deck and check the deck stresses in the final stage. Estimated construction cost for the bridge is $4,300,000.

Design Engineer for Haines Branch I/C Bridge, Kanawha County (WV). A simple span bridge (138 ft) with 35 degrees skewed Abutments and cantilevered Wingwalls. In addition to the typical analysis and design steps, Sap2000 3D model was used to analyze the entire bridge. The model was used to check the deck stresses, girder responses during deck pouring and service, diaphragm responses were also checked. The FB-Pier model was used to design the Abutment Piles.

Design Engineer for WV Rout 85 EDG-Robinson Creek Bridge. A simple span bridge (60 ft) with 40 degrees skewed Abutments. The deck was designed using Empirical LRFD Method. Marlin-Dash (line analysis) was used to design the girders. The effect of lateral bending was check. FB-Pier finite element program was used to design the Abutment Piles. Sap2000 3D model was used to verify the Wingwall design

Design Engineer for Ohio Approach spans for the Blennerhassett Bridge over the Ohio River. A three span (171'-170'-139') steel girder-concrete slab bridge analyzed and designed using MDX (line and system analysis) and Marlin-Dash (line analysis). Analysis and design of the concrete slab using SAP2000. The analysis and design of post-tensioned (varying section) pier cap for two piers using SAP2000 (a spread sheet was made for the design). The design of the columns using RC-Pier. The design of the drilled shafts using Florida-pier software. Estimated construction cost for the bridge is $118,000,000.

Design Engineer of substructure for Henry 108 Bridge (Napoleon, Ohio). The design project included front and rear abutments, post-tensioned pier caps, drilled shafts and piles. A three dimensional SAP2000 model was used to analyze the abutments and the caps; special spreadsheet was done to design the post-tensioned beam cap. The bridge was completed only in 9 moths. The project recently won awards from PCI, PCA, and PTI. The construction cost for the bridge was $19,000,000.

Computer Skills

Sap2000, Staad III, ANSYS, ABAQUS, MDX , Merlin-dash, RC – pier, FB-Pier, Brass, AutoCAD, Mathematica and MathCAD. Knowledge of UNIX, DOS and Windows operating systems. Experience in FORTRAN computer language. Proficient in Excel, Power Point, and Word.

Recent Publications

Faheem, A., and Zoubi, N.: "Tension Filed Action Behavior in the Hybrid Steel Girders for Ohio Approach Spans of Blennerhassett Island Bridge" Bridge Structures, v 1, n 3, 2005, pp. 211-221.

Saleeb, A. F., Arnold, S.M, and Zoubi, N. R.: "A Study of Time-Dependent and Anisotropic Effects on the Deformation Response of Two Flywheel Designs" ASTM STP 1436, Composite Materials: Testing and Design Fourteenth Volume, C. E. Bakis, Ed. (Chpt 7).

Saleeb, A. F, Wilt, T. E, Zoubi, N. R. and Gendy A.: "An Anisotropic Viscoelastoplastic Model for Composites – Sensitivity Analysis and Parameter Estimation". Composites B. Accepted, 2003, pp. 21-39.

Randall L. Lackey, P.E.

Project Engineer

Education

B.S. Civil Engineering
West Virginia University Institute of Technology, 1999

Registrations

Registered Professional Engineer in West Virginia, Ohio and Kentucky

Professional Memberships

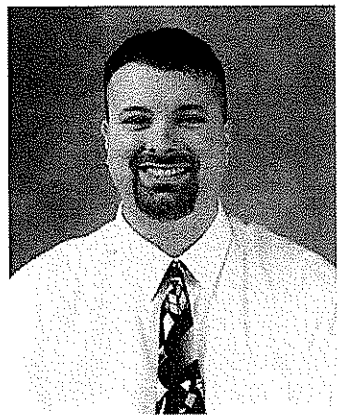
- American Society of Civil Engineers
- Society of American Military Engineers

Computer Skills

C++, AutoCAD, MathCAD, Microstation, MS Excel, MS Word, MS Project, MSPowerPoint, Windows, MDX, MERLIN, BRASS Systems, SIMON, HEC-RAS, RC Pier, and HY8

Professional Experience

Prior to joining E.L. Robinson Engineering Co., Mr. Lackey worked with the WV Division of Highways as an Engineering Co-op Technician. As part of his co-op experiences, he performed calculations for steel, flowrate and roadway. He performed roadway and guardrail design and construction inspection for bridge and roadway projects.



Representative Projects

Mr. Lackey has been intricately involved in the hydraulic design process of the Blennerhassett Island Bridge Project, which will connect West Virginia to Ohio as well as span the Ohio River and Blennerhassett Island. Included in this project are the following: Preparation of flood plain analysis for existing, temporary, and various post construction conditions, scour analysis using FHWA approved publications, analyzing the affects that debris flow will have on the bridge as well as Blennerhassett Island, and studying the potential for lateral channel migration and understanding the affects the migration would have on the design on the bridge substructure.

Mr. Lackey has also been involved with the hydraulic design process of the Corridor H South Branch of the Potomac River Bridge. Included in this project are the following: Preparation of flood plain analysis for existing, temporary, and various post construction conditions, scour analysis using FHWA approved publications, analyzing the affects that debris flow will have on the bridge, studying the affects the proposed conditions

will have on the Town of Moorefield, WV flood level, and studying the potential for lateral channel migration and understanding the affects the migration would have on the design on the bridge substructure.

Mr. Lackey has also performed hydraulics and scour computations for Ripley Town Bridge, Jackson Bridge, Beaver Creek Bridge, Walnut Bottom Bridge, Tallman Bridge, Meadowbrook Road Bridge, Simpson Creek Bridge, Kermit Bypass Bridges and culverts, Left Hand Fork Bridge, and Corridor H Bridges over Walnut Bottom Run and an unnamed tributary.

Mr. Lackey has prepared Section 404 permitting analysis and paperwork for Ripley Town Bridge, Simpson Creek Bridge, Meadowbrook Road Bridge, and the Left Hand Fork Bridge. Along with this work, Mr. Lackey has prepared CLOMR analysis and documentation for Horseshoe Village Subdivision and for The Ohio State University Medical Center's two proposed bridges that connect the University with OH SR 314 over the Olentangy River.

Mr. Lackey has performed calculations for deck drainage, performed girder design and analysis, pier design and analysis, prepared design study reports, type, size and location reports and final plans on many of E.L. Robinson's Division of Highways projects.

Scott LeRose, P.E.

Transportation Manager

Education

B.S. Civil Engineering
West Virginia University Institute of Technology, 1997

Registrations

Registered Professional Engineer in West Virginia and Ohio

Certified Aggregate Sampling Inspector

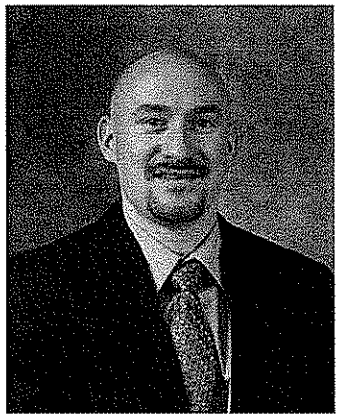
Professional Memberships

- American Society of Civil Engineering

Professional Experience

While pursuing his degree, Mr. LeRose concentrated on Highway Design and Environmental courses.

Prior to joining E.L. Robinson Engineering Co., Mr. LeRose worked for Potesta & Associates, where he gained experience in landfill design, abandoned mine land reclamation, surveying and earthwork calculations. He also worked several co-op terms for the West Virginia Department of Highways. During these co-op terms, he performed bridge construction inspections including the preparation of daily field reports, supervised core drilling operations, participated in groundwater sampling/monitoring projects, aided in the process of underground storage tank



removal and replacement and was involved in various highway design projects.

Since joining E.L. Robinson Engineering Co., Mr. LeRose has worked with the Highway Design Group. He has worked on several DOH projects, which include - US 52 Kermit Bypass, Corridor H - Section 12 - Davis to Bismarck, Corridor H - Section 7 - Foreman to Moorefield, Meadowbrook Road, I-79 Bridgeport to Meadowbrook, Lower Gassaway Bridge Replacement, Meadowbrook Bridge, and US Route 35. While working on these projects, he has gained experience in horizontal and vertical geometry, major drainage design, site-grading design, utility relocation, MOT, signing, and pavement striping. He has performed quantity calculations for pavement, drainage, seeding, pollution control quantities, and other items associated with roadway plans. He has also participated in the development of ROW plans, including deed plots and legal descriptions.

Mr. LeRose has also worked on smaller site development and subdivision layout projects. Included in these are Saturn of Charleston/Huntington, Hurricane Chevrolet Dealership, Charleston Area Medical Center General Division parking area, Sherwood

Forest Subdivision and Centre Court Subdivision.

Mr. LeRose has also been heavily involved in the preparation of gas line relocation plans for several sites owned by Consumers Gas as well as the creation of a land use master plan for Mingo County Redevelopment Authority.

Representative Projects

Mr. LeRose has worked on the following projects:

US Route 35, Couch to Little Five Mile, Mason County: Project Manager and Designer for the roadway and right-of-way plans for 2.8 miles of four-lane divided highway, 0.5 miles of access road design, one at-grade intersection, and two sets of twin structures. This project includes approximately 2.2 million cubic yards of excavation, with an estimated total construction cost of $35 million.

Corridor H, Forman to Moorefield, Hardy County: Project Manager and Design Engineer for the roadway and right-of-way plans for nearly 5 miles of a new four lane divided highway and nearly three miles of access road design and a truck escape ramp. The roadway plans included signing and delineator layout, maintenance of traffic and pavement marking plans. This project has an estimated total construction cost of $77 million.

I-79 Bridgeport to Meadowbrook, Harrison County, West Virginia: Design Engineer for the roadway construction plans for the widening of 2.1 miles of Interstate 79 form four to eight-lanes including three bridges and tie-ins to two interchanges. The roadway plans included signing plans, maintenance of traffic plans and pavement marking plans. This project has an estimated total construction cost of $30 million.

Wendell L. Williams

Project Coordinator/Designer

Education

A.A.S. CAD Technology
West Virginia State University, 1997

B.A. Board of Regents
West Virginia University Institute of Technology, 1999

Registrations

Surveyor in Training Certification, West Virginia, 2003

Professional Memberships

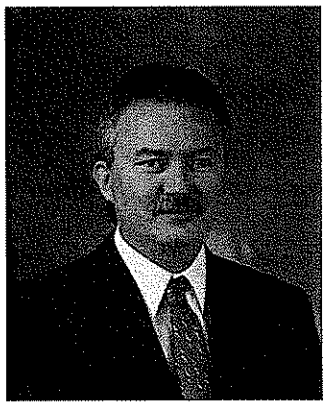
West Virginia Society of Professional Surveyors

Computer Skills

AutoCADD, MicroStation, MS Word

Professional Experience

Mr. Williams has been with E.L. Robinson since 1978, drawing from over 28 years of engineering and design experience to bring to your project. Mr. Williams has been utilizing CAD software since 1990 and has attended supplementary training courses and seminars dealing with third party engineering software programs on a regular basis since then. Recently he earned his Surveyor in Training (SIT/FLS) Certification and will sit for his Professional Surveyors



exam very soon. Mr. Williams' project experience includes numerous highway construction projects for the WVDOH, including highway plans, right-of-way plans and bridge construction documents. Also included in his experience is utility design, residential subdivision layout, survey boundary map preparation, parking lot layout and site development documents.

Other administrative responsibilities include reviewing contract plans, scheduling of survey crews, cost estimate proposals and general project coordination. Mr. Williams has also spent a considerable amount of time providing construction administration and observation services for a large dichotomy of representative projects. He has served as construction inspector on various water, sanitary sewer, storm sewer, roadway construction projects. In assisting the Surveying and Right-of-Ways Departments, he often performs survey office calculations, note reduction, plat plotting and courthouse research.

Representative Projects

Throughout his extended career, both in the field and the office, Mr. Williams has been involved in the design, construction and

coordination of over 15 single- and multi-family residential subdivision projects. A few of his subdivision and gated community projects include Centre Court, South Hills; South Gate, South Hills; Quail Pointe, Mink Shoals; Bedford Glen, Charleston; Briar Meadow, Cross Lanes; and Sherwood Forest, South Hills.

Mr. Williams has designed and coordinated the development of commercial property. Some of his projects are Saturn of Hurricane/Charleston, Pizzaria Uno's in Bridgeport, Hurricane Chevrolet, Sleep-Inn, Charleston and WV Air National Guard in Bridgeport.

Among his many responsibilities for these projects were acquiring permits from public and private agencies for new or extended utilities, development of site plans, profiles and construction details, estimation of quantities, coordination with owners and contractors and cost estimates.

eff Nelsen, RLA

roject Manager

ducation

achelor of Science in Landscape Architecture
West Virginia University, 1976

egistrations

egistered Landscape Architect
West Virginia, Indiana, Ohio,
Maryland, Virginia

rofessional Memberships

- Affiliate Member West Virginia Chapter of American Institute of Architects

rofessional Experience

lr. Nelsen has practiced landscape architecture for ver 30 years principally in West Virginia but also as completed projects in Ohio, Indiana and ennsylvania. His professional experience has forded him opportunities to assist clients with ark and recreation planning and design, ommunity and urban planning, streetscape design, ampus planning for elementary, secondary and gher education facilities and site planning and esign for residential, commercial and public aces. He has been involved in environmental anning and restoration especially lands degraded om past mining practices. He has managed site evelopment on significant projects such as the onewall Jackson Resort and the Tamarack Art enter yet enjoys working with clients and ommunities assisting them visualize the nprovements for their parcels and neighborhoods.

Representative Projects

Clay Center for the Arts and Sciences, Charleston, WV: Prepared construction and bidding documents and provided construction administration for a new public plaza space at the corner of Leon Sullivan Way and Washington Street for Charleston's premier performing arts and science center. The site's design called creating a cool green zone for people to gather informally and as an entertainment venue for special events. The relative flat site consisted of a circular plaza and fountain surrounded by a concentric ring of granite seat walls at the edge of the pavement radiating outward into the lawn area. Large 4" and 6" caliper Linden and Honeylocust trees were planted to create a shaded canopy for the space in front of the center.

Washington Street Streetscape, Charleston's East End, WV: Prepared master plan, construction and bidding documents and provided construction administration services for the remaining segment of the Washington Street streetscape from the state Capitol grounds to Charleston Area Medical Center which entailed a ½ mile of sidewalk replacement, new street lighting, brick accent pavements, street trees, landscaping, utility line relocation and burial and new underground electrical service for 30 structures. Total budget for the project was approximately two million dollars.

Rich Mountain, Laurel Hill and Corricks Ford Civil War Battlefields, Randolph, Barbour and Tucker Counties, WV: These are three distinct battlefields but are all related to each other because they are a progression of the first major conflict in northwestern Virginia

July, 1861 between approximately 9000 Union ldiers led by General George McClellan and 5000 onfederate troops led by General Robert Garnett. ıe armies engaged each other at these three cations over a week's time resulting in the defeat the Confederate forces. This early Union victory lowed Union sympathizers in the western counties Virginia to organize a secessionist movement to rm the new state of West Virginia.

ovided master planning, interpretation commendations, signage and trail development r each of these sites with archeological and storical consultants on the team. The planning and sign efforts of these new public lands were cused on preservation and interpretation of each te's story about West Virginia's role in the Civil ar.

amarack Art Center, Beckley, WV: orking with the architect for the project prepared e site master plan and managed design for all terior improvements including access road, bus ıd car parking, earthwork, stormwater anagement, utility design, pedestrian walkways ıd plaza spaces, fountain design, landscaping, and rigation design. This $20 million facility is widely cognized in West Virginia and surrounding states one of the finest venues for West Virginia tisans.

tonewall Jackson Resort, Roanoke, WV: the most recent major expansion of a West irginia State Park, assisted the developer in an ıique public private partnership to build new cilities at the park which included master planning r a lodge, golf course, expanded campgrounds, ıbins, expanded day use facilities, trails and other te features. Prepared documents for regulatory view by the USACOE, WVDEP, and WVDNR. lanaged the development of site preparation nstruction documents for the lodge, golf ubhouse, cabin area, and future campground eas. Assisted the golf course design team with orm water management and permitting issues. After the completion of new facilities have continued to assist the developer on future proposed amenities for the resort.

BOPARC Master Plan Update, Morgantown, WV: Due to the significant growth in Morgantown, assisted the Morgantown Board of Park and Recreation Commission with an update of the existing and proposed park facilities maintained by the City of Morgantown. This involved site review of approximately 20 facilities, development of a needs analysis survey and interpretation of its findings, preparation of new master plans for each park, preparation of cost opinions and phased recommendations for the planned $12 million of improvements.

Aspen Village, Timberline Resort, Canaan Valley, WV: Provided master planning and managed site design, permitting and engineering for a new 50 lot subdivision near Timberline. The development involved grading layout for lots, roads, drives, utilities, pond enlargement, and site amenities. Project entailed 30 duplex and triples units and 20 single family lots. Coordinated utility extensions with each respective company and assisted several of the property owners with site planning of their home sites.

West Side Community Renewal Plan, Charleston, WV: Working with the Charleston Urban Renewal Authority, Charleston Planning Department and community leaders on the West Side developed the largest urban renewal plan within the city encompassing 228 acres and almost 900 buildings. With assistance of a public facilitation consultant held a series of meetings with residents and business owners to gain input into their vision for the plan. The adopted recommendations identified significant public and

ivate recommendations with the strongest focus
ı a new home ownership zone around the new
ementary school planned on Florida Street.

Jeff Casto

Construction Inspector

Education

Herbert Hoover High School, 1975
Carver Career Center, 1975

Certifications

- Fairmont State University Level IV (TET-SC)
- NICET Level IV Construction Certification
- Class A CDL License
- WVDOH PCC Inspector
- WVDOH Aggregate Sampler
- OSHA 40 Hour Training Class
- Lead Worker in Safety Course
-Turn of the Nut & Rotational Capacity

Professional Experience

Mr. Casto has 13.5 years experience with WVDOT District I. He has experience in all phases of construction projects. He has worked as an inspector on WV Highways and Bridge Projects throughout the state.

Some of the projects Mr. Casto has been involved with include: lead removal, pipe replacements, slip repair, bridge replacement, and ramp and road widening.

Representative Projects

Corridor D, Route 50, Parkersburg, WV - Supervisor - 5 separate projects which included 9 bridges with construction of all phases.

Ohio DNR, Pomeroy, Ohio - Lead Inspector - Remove and repair slip.

Earl Ray Tomblin Industrial Park, Logan County, WV - Installation of storm and sanitary sewer, water line and construction of roadway, curbs, gutters and lighting.

Charleston Area Meadical Center General Division, Charleston, WV - Lead Inspector Repairment of collapsed parking building.

Charleston Area Medical Center Memorial Division, Charleston, WV - Lead Inspector - Two construction projects that required roadway construction, storm sewer, sanitary sewer and water line relocation work of 33rd Street replacement.

Chief Logan State Park, Logan, WV - Lead Inspector - Inspected excavation and compaction of materials in preparation of building pad for recreational center.

Charles Pointe - North Land Bay, Bridgeport, WV - Lead Inspector - Inspected construction work on Charles Pointe Development. The work consisted of installation of storm and sanitary sewer, water line construction, curbs, lighting and roadway construction.

West Hamlin Sewer line Replacement & Sludge Removal Project, West Hamlin, WV - Lead Inspector - Cleaning and removal at waste pond. Replacement of sewer lines and manholes.

Route 35 Design Build Project, Putnam County, WV - Inspection of work performed by contractor with emphasis on fills and culvert backfilling operations. Quality Control Testing on fills and culvert backfilling. Documentation of work performed through daily reports and the necessary WVDOH forms as needed.

James T. Rayburn, P.S.

Chief Surveyor

Education

A.S. Mechanical Engineering,
West Virginia Institute of Technology,
1970

Registrations

Registered Professional Surveyor in West Virginia

Professional Memberships

American Congress on Surveying and Mapping

The American Association for Geodetic Surveying (AAGS)

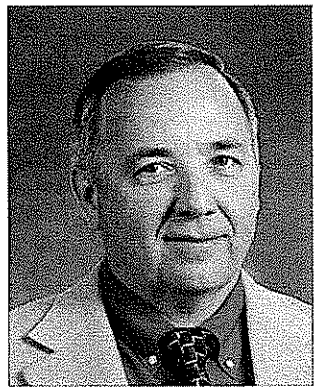
Member Organization of ACSM.

Cartography and Geographic Information Society (CaGIS)

Geographic and Land Information Society (GLIS)

National Society of Professional Surveyors (NSPS)

West Virginia Association of Land Surveyors, Inc.



Professional Experience

Mr. Rayburn currently serves as Manager of Surveying for E.L. Robinson Engineering (ELR) and has more than 30 years of Design Surveying and Construction Surveying experience. The responsibilities include management of surveying and control for various design projects, including highways, buildings, and bridges. In addition, Mr. Rayburn manages and performs work consisting of courthouse research for property ownership resolution for the above mentioned project types. This includes preparation of property resolution maps, deed descriptions for property acquisitions required for project plan preparation. Mr. Rayburn has experience in Geodetic Control Surveys, 3D Laser Scanning, Photogrammetric Control, Topographic Surveys, Cemetery Surveys, Boundary Surveys, Construction Stakeout, Subdivision Surveys, along with Hydrographic surveys of river and lake bottoms. A few of the more notable surveying projects performed by ELR under the supervision of Mr. Rayburn, has been the Blennerhassett Bridge Project, 11 continuous miles of Corridor H design surveys, GPS Control for the West Virginia Statewide Mapping and Addressing Board Project, 3D Laser Scan and mapping of the

CAMC Parking Garage partial collapse, and 3D Laser Scanning of I64/I77 Retaining Wall for Monitoring.

Representative Projects

Design Surveys

- **Corridor H (WVDOT) Hardy County, WV:** Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately 11 miles of Corridor H in Hardy County, WV. This was for Sections 6 & 7 of Corridor H, both Sections of which are now under construction. Estimated construction cost of $150 million dollars.

- **WV Route 10 (WVDOT) Logan to Man WV, Logan County, WV:** Lead Surveyor for Design Surveys for a section approximately five miles in length from Man, WV, to Rita, WV, including the Man Bridge. Also provided control surveying for the entire project length of approximately 12 miles. The approximate five miles section of roadway is now under construction at an estimated cost of $51 million dollars.

- **Blennerhassett Bridge, Corridor D (WVDOT), Wood County, WV :** Lead Surveyor for Design Surveys for this landmark Bridge Project which is now under construction at an estimated cost of $120 million dollars.

- **James Ramsey Bridge (WVDOT) Potomac River, Shepardstown, WV:** Lead Surveyor for Design Surveys for this Bridge Project which is now completed at an estimated cost $15.5 million dollars. This project involved working in an environmentally historic area, which adjoined a National Park.

- **US Route 35 (WVDOT) Mason County, WV:** Lead Surveyor for Design Surveys for two Design Sections each approximately 2.5 miles in length from Lower Five Mile Road to Upper Nine Mile Road. Also provided control surveying for the entire US 35 design project length of approximately 22 miles.

- **I64/US 35 (WVDOT) I64 to US 34 Crooked Creek, Putnam County, WV:** Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately four miles of US 35 including Interstate 64 Ramps and Flyovers in Putnam County, WV. This included the I64 Bridges and Flyovers, which is now under construction.

- **ATB-Parrish Road (ODOT) Ashtabula County, Ohio:** Project Design Surveyor for rail grade separation project. Project involved roadway realignment, 900' new bridge, new waterline, storm and sanitary sewers. Project is currently under construction. Estimated construction cost: $8.6 million.

- **PIC-23-3.21 and Various (ODOT) Pickaway County, Ohio:** Project Design Surveyor for ODOT Project PIC-23-3.21 and Various. Project involves deck replacements along 11 miles of US 23 in Pickaway County. Project includes large diameter culvert liner, interchange upgrade that includes mainline profile correction, ramp reconstruction, and addition of barrier wall and storm drainage. Project is currently under design (90%). Project scheduled for construction in 2007. Estimated construction cost: $12 million.

- **ATB-90-22.06 (ODOT) Ashtabula County, Ohio:** Project Design Surveyor for Interstate Reconstruction Project. Project includes total pavement replacement, bridge widening, and contra – crossover maintenance of traffic, culvert replacements and storm sewer rehabilitation and sign replacements. Project is currently under design (50%) and scheduled for construction in 2011. Estimated construction cost: $36 million.

Construction Surveys

- **Corridor D (WVDOT) Wood County, WV:** Lead Surveyor for Highway/Bridge Construction Monitoring surveys for the following segments of Corridor D and related relocation projects:
    - Godbey Athletic Field Relocation Construction
    - Godbey Colt Field and Soccer Field Construction
    - West WV 47-East WV 47 Highway/Bridge Construction
    - East Buckeye-West Little Kanawha River Highway/Bridge Construction
- **Interstate I-79 Widening and Median Barrier (WVDOT) Harrison County, WV:** Lead Surveyor for construction layout surveys for the widening of I-79 from the Meadowbrook Exit, north to the Jerry Dove Exit approximately three miles in length, as a subcontractor to the prime contractor.
- **CAMC 33rd Street Relocation and Building Expansion, Charleston, WV:** Lead Surveyor for construction layout surveys for 33rd Street relocation along with ancillary items including sidewalks, drainage and utilities. Also layout surveys for building expansion project.
- **Saturn Dealership, Hurricane, WV:** Lead Surveyor for Saturn Dealership site development and access roads at Hurricane Interchange of Interstate 64.
- **Arch Coal WV Mining Operations:** Lead Surveyor as a subcontractor to Arch Coal operations for Valley Fill Construction (Up to 27 million cubic yard fills), mine haul road layout, drill line staking, and dragline pit layout.

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Past Performance on Bridge Projects

E.L. Robinson Engineering Co.'s past performances related to cost control, quality of work and compliance with performance schedule are summarized as follows:

- E. L. Robinson Engineering Co. performed bridge designs under accelerated schedule for seven (7) bridges under the Category Six Bridge Program for the WVDOH Districts 1 and 2 in 2007/2008. Mr. James E. Sothen, P.E. – Deputy State Highway Engineer – Development, in his March 7, 2008 letter stated "***.We extended to your firm a challenge of designing and detailing seven bridge projects within a time frame of approximately four months. Through hard work, dedication, and commitment, your firm met that challenge and provided all seven bridge projects before the deadline of February 1, 2008.***" The District One Bridge Engineer, Mr. Steve Campbell, P.E. wrote in the project evaluations that *"**Consultant did an excellent job in producing plans in the exceedingly short required time frame.**"*

- E.L. Robinson Engineering Co. received Division of Highway's 2007 Engineering Excellence Award for Large Roadway Category for US Route 35 – Couch - Little Fivemile, Mason County, West Virginia.

- Scored 4.6 out of maximum 5.0 score for the Five (5) Category 6 Projects in District 1 as evidenced from March 21, 2008 Final Consultant Evaluation by WVDOH.

- E.L. Robinson Engineering Co. received Division of Highway's 2004 Engineering Excellence Award for Large Roadway Category for Corridor H Grant/Hardy County Line – U.S. 220.

- Haines Branch IC Bridge (Kanawha County) - E. L. Robinson Engineering Co. provided quality contract plans from notice to proceed (given on December 7, 2004) to PS&E date of February 15, 2005. For all the submittals for this project, ELR **met or exceeded the project performance schedules**. E. L. Robinson Engineering Co. was nominated for the WVDOH Engineering Excellence Award (Small Bridge Category) by the Engineering Division's Project Manager.

- Quotes from WVDOH Project Manager Mr. Jimmy Wriston, P.E. on WV10 Buffalo Creek Bridge Deck Replacement Project – "***A great job and good work always***". Mr. Jimmy Wriston, P.E. commented in the project evaluation on 8/31/2007 that *"**Consultant exhibited extraordinary competence and diligence, responding to the needs of the Division in a timely fashion; accomplishing their tasks efficiently while dealing with issues in a manner above and beyond expectations.**"*

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Past Performance on Bridge Projects

- Quote from Mr. Jeffrey P Ball, P.E. - Assistant District Two Engineer, Construction on the Rehabilitation of I-64 Guyandotte O/P Bridge in Cabell County "***E. L. Robinson Engineering Co. (ELR) met the challenge to develop cost effective and rapid rehabilitation plans for the I-64 Guyandotte Overpass Bridge. Link Slabs were used to replace the superstructure joints at Piers 1 and 13. ELR developed innovative design concepts of Temporary Supports using "Jackets". This innovation resulted in significant time and cost savings for the Citizens of West Virginia. The contract plans were well liked by both the Contractor and WVDOH".***

- Quote from Joe Krolak FHWA Hydraulics Engineer on Blennerhassett Island Bridge Project – "***HIBT commends the authors of this June 18, 2004 report on the content and information. In many regards, this serves a model for a well written and thorough hydraulic and scour report. In fact I have already used the project materials to assist in the hydraulic orientation of a new FHWA Hydraulics Engineer as a "This is a very good set of plans***".

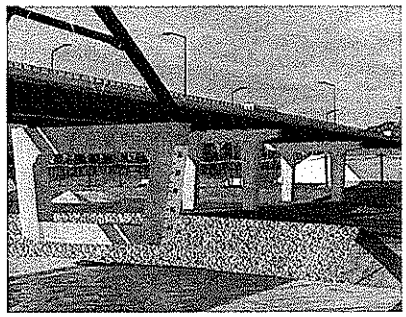
- Quotes from WVDOH Structures Project Manager Mr. Ben Beerman on Blennerhassett Island Bridge – "***The design team at E.L. Robinson met the Division's challenge by using tension field action, which resulted in an economical design and significant savings for the citizens of West Virginia***".

- Quote from WVDOH Roadway Project Manager Mr. Jason Foster on US Route 52, Kermit Bypass – "***Using innovative techniques and a common sense approach to the design of a rugged section of US 52, the team at E.L. Robinson Engineering Company was able to save the WVDOH an estimated $25 million in construction costs. The timely submissions and diligent effort on the part of E.L. Robinson Engineering Company made the whole process go well. Incorporation of cutting edge technology allowed more detailed evaluations and quicker analysis of proposed solutions.***"

Blennerhassett Island Bridge

Wood County, West Virginia and Washington County, Ohio

E.L. Robinson Engineering Co. prepared the engineering design, construction plans and specifications of superstructure and substructure components for the Ohio Approach Spans (1 thru 3).



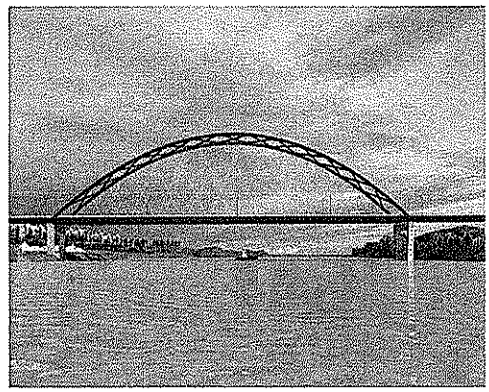
The Ohio approach spans consisted of composite welded steel plate girders (66" deep) on semi-integral abutments and two column bents tapered rectangular shafts (53' to 58' high) supported by spread pile footings and drilled shafts.
Piers 1 and 2 are two column bents with parabolic tendon profile for the post-tensioned cap. Pier 1 is founded on a single caisson with a caisson cap whereas Pier 2 is founded on steel H bearing piles with pile cap.

The proposed structure consists of a simple span tied arch with a span length of 880 feet (center to center of pier) over the Ohio Channel of the Ohio River. The total length of the bridge is 3985 ft including approach spans. Developed hydraulic models to determine the velocities and flow depths for bridge scour evaluations. Evaluated scour potential of river piers on the Island considering other factors such as long term river bed changes, instances of historical migration. An erosion protection system to minimize the impact of barge traffic and bridge scour along the Island shore in the vicinity of Pier 4 was developed. Additionally, performed hydraulics and scour analysis associated with temporary cofferdams, temporary platforms and docks around bridge piers 3, 4, 8, and 9 including for the access roads on the Blennerhassett Island for the duration of construction.

Client
WV Dept. of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd., East
Charleston, WV 25305

Completion Date
2007

E.L. Robinson's Role
- Preparation of the engineering design, construction plans for Spans 1-3, hydraulic and scour studies for the analysis.



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Bridge 2447.1 - Lodgeville Road O/P Bridge
I-79 Over B & O Railroad
Harrison County, West Virginia

Prepared the engineering design, construction plans and specifications of superstructure and substructure components and widening of the existing dual I-79 Lodgeville Overpass Bridge to eight lanes.

The bridge consisted of composite steel beam (26" deep) with semi-integral abutments and two column bents (35.4' high) supported on steel piles.

The project also included geotechnical investigations.

Bridge No. 2447.1 has a total width of 70.0 feet (out to out) and a total length of 305 feet (c/c bearings). There are a total of five (5) spans on the bridges with the longest being 73 feet.

Client
WV Dept. of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd., East
Charleston, WV 25305

Completion Date
2000

Project Cost
$3,054,000 (est.)

E.L. Robinson's Role
- Preparation of the engineering design, construction plans, geotechnical & hydraulic analysis.

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Bridge No. 2448.1 - Simpson Creek Bridge
I-79 Over Simpson Creek
Harrison County, West Virginia

Prepared the engineering design, construction plans and specifications of replacement of existing superstructure and substructure components and widening of the existing dual I-79 Simpson Creek Bridge to eight lanes.

The bridge consisted of composite steel beam (36") on semi-integral abutments and two-column bents (36' high) on spread footing.

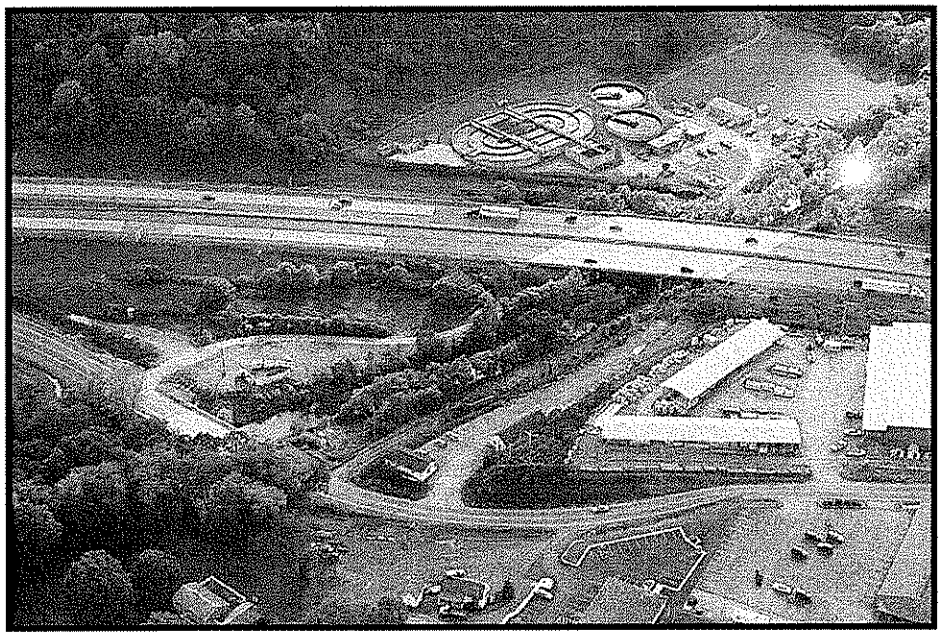
Bridge No. 2448.1 has a total width of 68.0 feet (out to out) north & southbound each and a total length of 230 feet (c/c bearings). There are a total of three (3) spans on the bridges with the longest being 87 feet.

The project also included geotechnical investigations, hydraulic and scour studies.

Client
WV Dept. of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd., East
Charleston, WV 25305

Completion Date
2003

E.L. Robinson's Role
- Preparation of the engineering design, construction plans, geotechnical & hydraulic analysis.



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Bridge No. 10059 - Ripley Town Bridge
US33 over Mill Creek
Jackson County, West Virginia

Prepared the engineering design, construction plans and specifications for the replacement bridge over Mill Creek. The plans were developed for stage construction.

The bridge consisted of modified Type IV P/S beams (66" deep), integral abutments on steel piles, wall type (29.6' high) piers on spread footing.

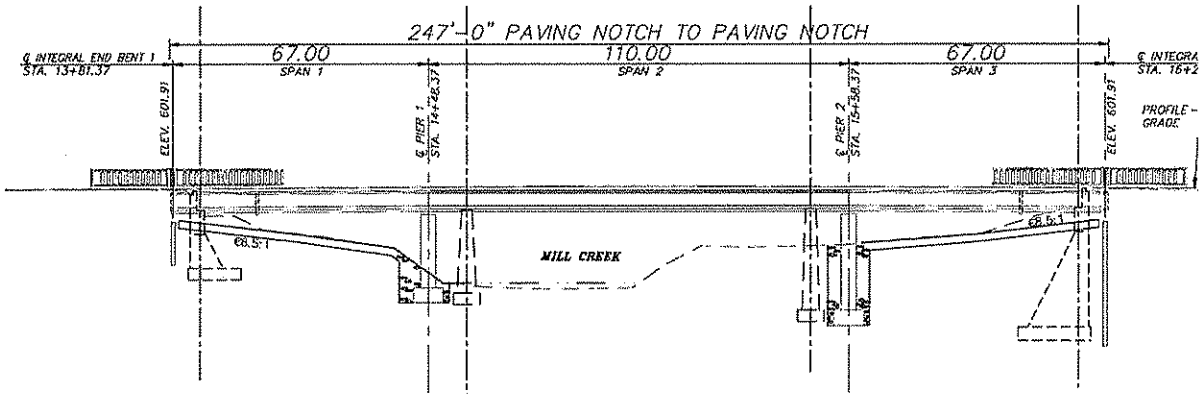
Bridge No. 10059 has a total width of 48.0 feet (out to out) and a total length of 247 feet (c/c bearings). There are a total of three (3) spans on the bridges with the longest being 110 feet.

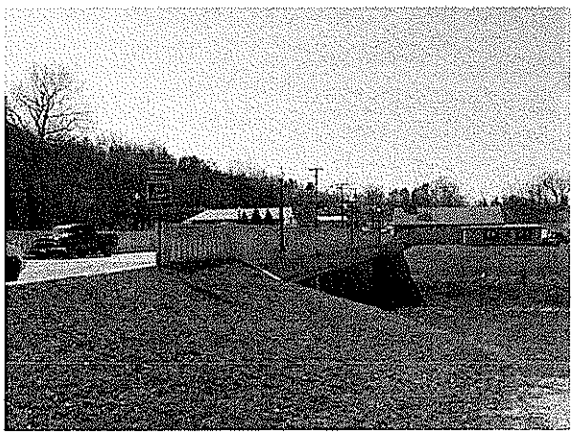
The project also included geotechnical investigations, hydraulic and scour studies.

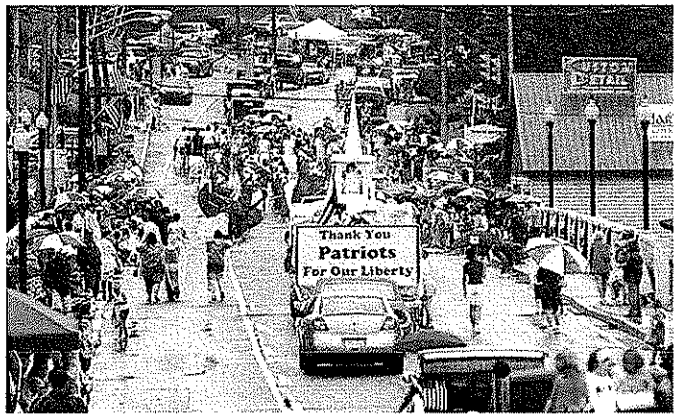
Client
WV Dept. of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd., East
Charleston, WV 25305

Completion Date
1999

E.L. Robinson's Role
- Preparation of the engineering design, construction plans, geotechnical investigation, & hydraulic studies.







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Laurel Park Truss Bridge Replacement
CR 34 Over West Fork River
Harrison County, West Virginia

Prepared the engineering design, construction plans and specifications for a truss bridge over the West Fork River in Harrison County, WV.

The project included topographic survey, geotechnical investigations, hydrology and hydraulic studies, structural design and roadway for the new alignment.

The construction plans were completed in three (3) months from notice to proceed.

This bridge has a total width of 32.0 feet (out to out) and a total length of 248 feet (c/c bearings). There are a total of two (2) spans on the bridge with the longest being 122 feet.

Client
WV Dept. Of Transportation
Roadway Division
Bldg. 5, Room A-416
1900 Kanawha Blvd., East
Charleston, WV 25305

Completion Date
1995-96

E.L. Robinson's Role
- Preparation of the engineering design, construction plans, geotechnical investigation, & hydraulic studies.

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Bridge No. 4426 - Lower Gassaway Bridge
WV 4 Over Elk River
Braxton County, West Virginia

Prepared the engineering design, construction plans and specifications for the Lower Gassaway Bridge.

The bridge consisted of composite welded steel plate girder (81" deep) on integral abutments and hammerhead piers on single circular (63.8' high) column supported by deep spread footings.

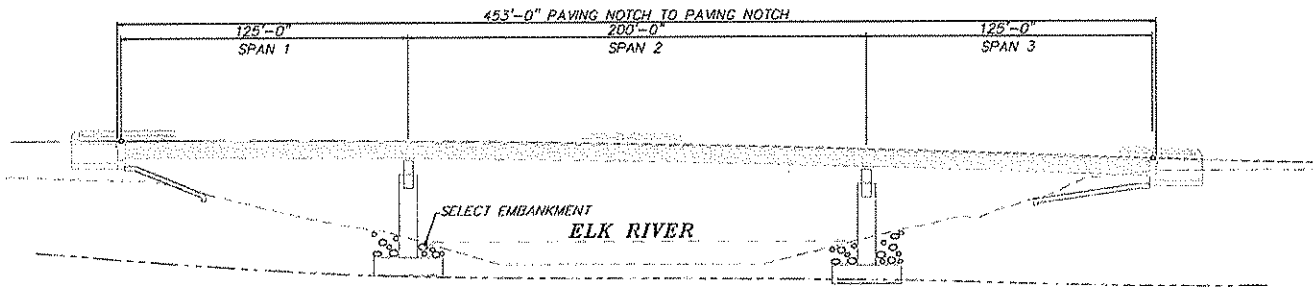
Bridge No. 4426 has a total width of 35.3 feet (out to out) and a total length of 450 feet (c/c bearings). There are a total of three (3) spans on the bridges with the longest being 200 feet.

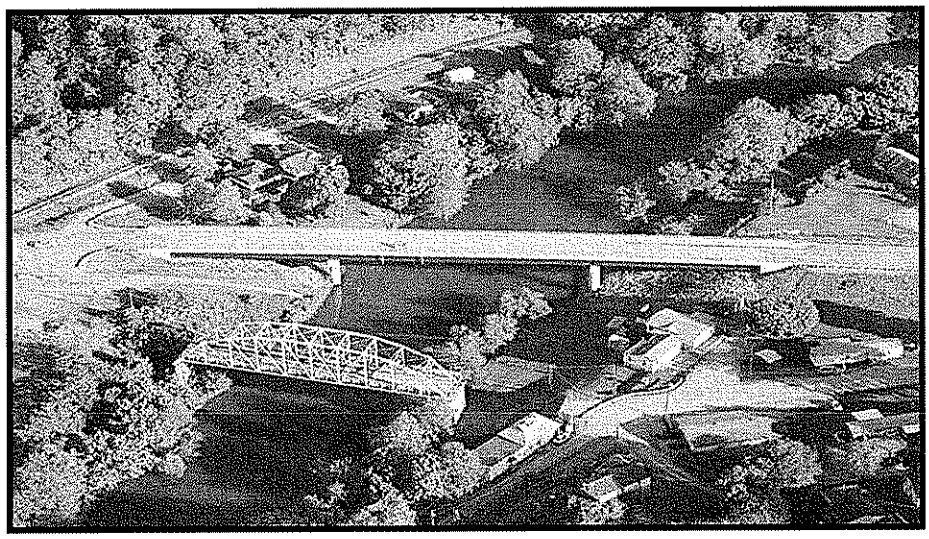
The project also included geotechnical investigations, hydraulic and scour studies.

Client
WV Dept. of Transportation
Division of Highways
Building 5
1900 Kanawha Blvd., East
Charleston, WV 25305

Completion Date
1999

E.L. Robinson's Role
- Preparation of the engineering design, construction plans, geotechnical investigation, & hydraulic studies.





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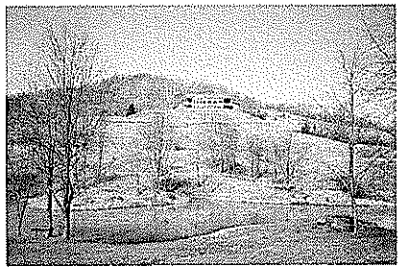
Stonewall Jackson Lake Resort

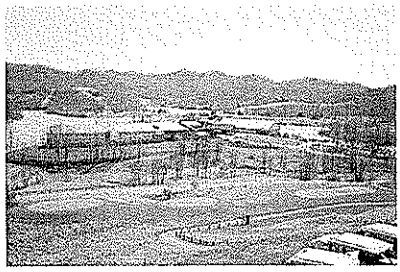
Stonewall Jackson Lake State Park represents a new beginning for state supported recreation development in West Virginia. The 35 million dollar Resort planned by E.L. Robinson's landscape architects as part of the developer's team, was the first public/private partnership formed in the state for the development of facilities at a state park. The developer was responsible for coordinating all design and construction activity, while the state assisted in the financing package.

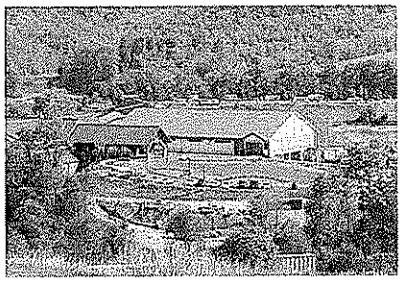
ELR landscape architects were responsible for master planning and site construction design for the 2,000 acre resort, including a 180-room lodge, an 18-hole signature golf course by Palmer Course Design Co., a 100-unit campground, cabins, day use improvements, a swimming pool, trails, access and parking. The firm was also responsible for permit coordination with the various state and federal agencies for wetlands, riparian corridors, utilities, stormwater and erosion controls. An extensive tree preservation and relocation program was planned and was coordinated by the firm.

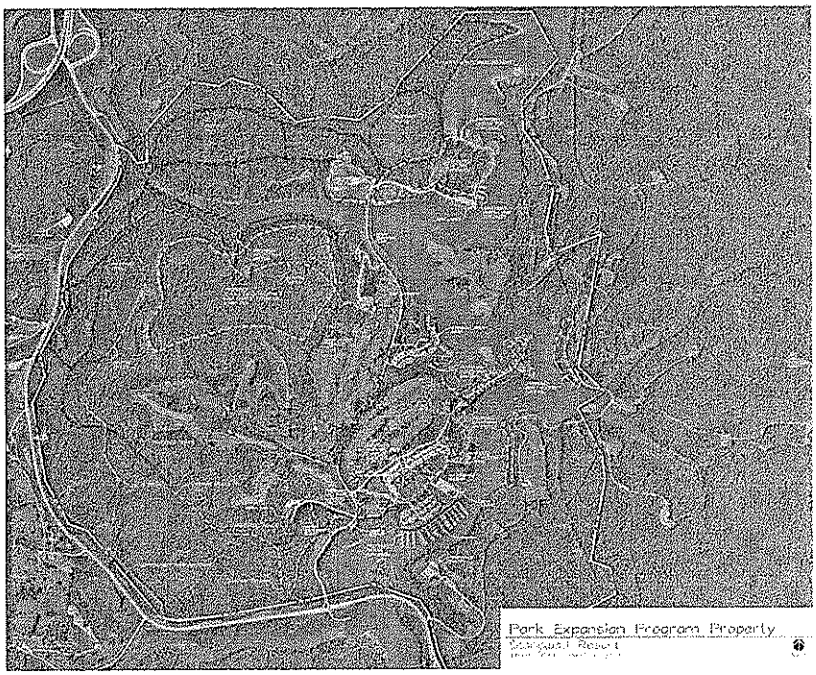
This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.

CLIENT:
McCabe-Henley Properties for West Virginia State Parks
LOCATION:
Weston, West Virginia









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Falls of Hills Creek Trail

E.L. Robinson's landscape architects provided a master plan report and construction documents for a trail system along scenic Hills Creek. The trail which follows the stream was planned to afford visitors views of three spectacular waterfalls ranging in height from 25 to 63 feet. The last waterfall at 63 feet is the highest falls in the State of West Virginia. Wood deck viewing areas were located at strategic points and at the top of the falls.

The design required an understanding of the slip prone soils in this narrow valley where rainfall averages 60-inches annually. To overcome the soils problems steel staircases were designed to descend the rock cliffs with the waterfalls at two locations. An extensive timber boardwalk and stairs system was designed for the trail because of the difficult terrain. A prefabricated trail bridge was incorporated for crossing Hills Creek. The construction of the trail system relied on intensive manpower and helicopter delivery of materials due to the difficult access.

This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.

CLIENT:
U.S. Forest Service
LOCATION:
Monongahela National Forest, near the Cranberry Visitors Center, West Virginia

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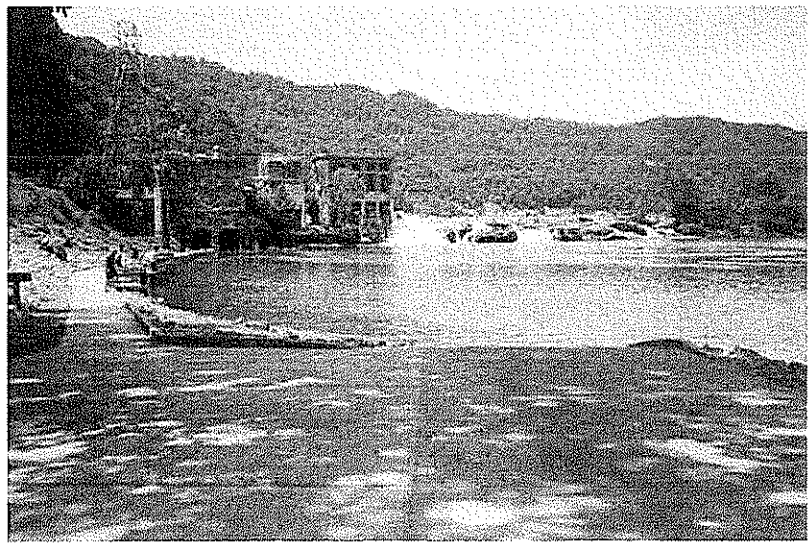
Kanawha Falls Public Access

E.L. Robinson's landscape architects prepared construction documents for this unique natural landmark on the Kanawha River just down stream from its formation at Gauley Bridge. This project included a boat launch, access road, parking facilities, fishing pier, trails, and picnic sites for this excellent fishing area as well as a very scenic tourist spot along US route 60 in Fayette County.

This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.

CLIENT:
West Virginia Division of Natural Resources
LOCATION:
Gauley Bridge, West Virginia



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Laurel Hill Battlefield Master Plan

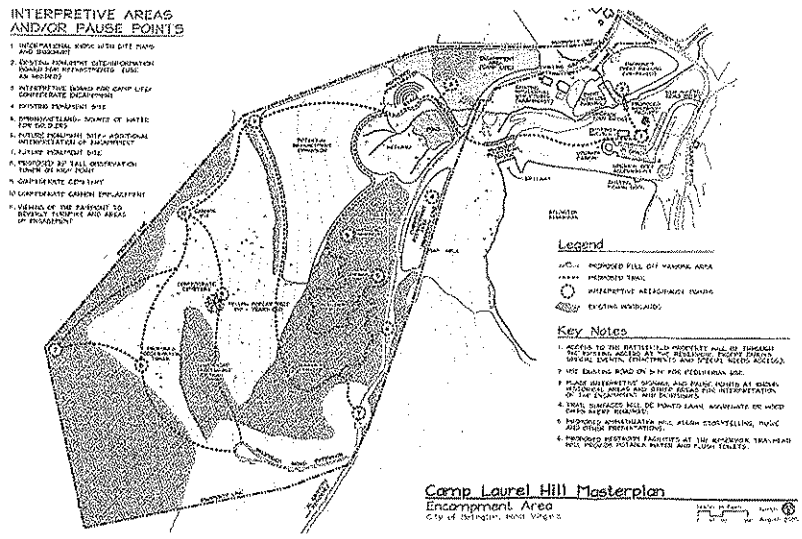
From July 7 through 11, 1861, 4,000 Union soldiers engaged 5,000 Confederate soldiers encamped at the western base of Laurel Hill Mountain, near Belington, WV. The Confederate fortifications were along the Fairmont to Beverly Turnpike, one of two east/west arteries in western Virginia at the outbreak of the Civil War.

With victory by the Union at nearby Rich Mountain, the confederate withdrew from Laurel Hill during the night of July 11th, to be later re-engaged on July 13th at Corricks Ford near Parsons, WV where the Confederates commanding General, Robert Garnett was killed in action.

E.L. Robinson's landscape architects provided master planning, archaeological investigations, historical research, and construction documents for the interpretation of this significant historical event in the Nations' and West Virginia's history. Program elements included trail development, interpretive signage, pedestrian bridge, and drilling a well for use by the public.

This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.

CLIENT:
City of Belington
LOCATION:
Belington, West Virginia



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Mill Creek Recreation Area

E.L. Robinson's landscape architects provided master planning, design and construction documents for the recreation development for a new 100- acre lake located in Grant County, WV. The recreational development is located on old homestead and field areas where fencerows and large shade trees were part of the old farm landscape. The master plan consisted of picnic areas, campground and boat launch with roads, infrastructure and trails linking these primary use areas together.

Phase one construction included an access road, parking area for cars and boat trailers, boat launch, fishing pier, lakeside trail, picnic area, restroom facilities and signage.

This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.

CLIENT:
Natural Resources Conservation Service
LOCATION:
Grant County, West Virginia

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Mud River Recreation Area

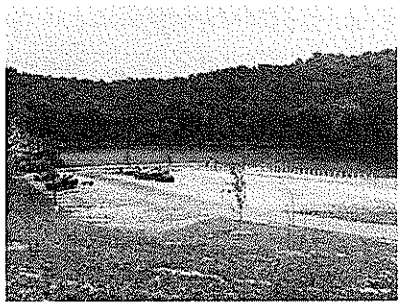
E.L. Robinson's landscape architects provided a master plan and construction documents for the development of a 200-acre recreation facility associated with a new flood control lake on the Upper Mud River in rural Lincoln County, WV. The recreational use area features a diverse natural habitat with steeply sloping mature beech, oak and hemlock forests, rock outcrops and upland meadows dotted with young maples and pine thickets. Historic Native American habitat is documented at a rock ledge shelter located on-site.

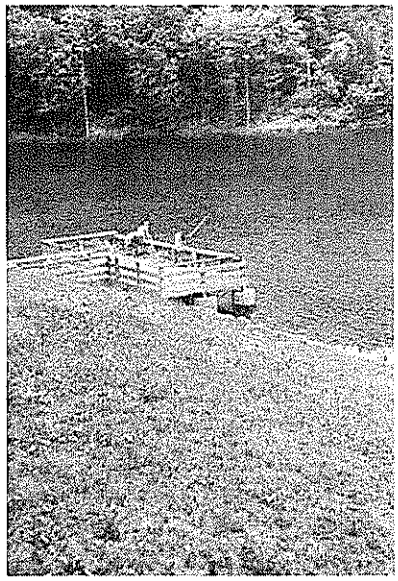
Development included a boat launch, beach, bath house, picnic areas, shelters, trails, tot play playfields along new-formed park roads and parking areas.

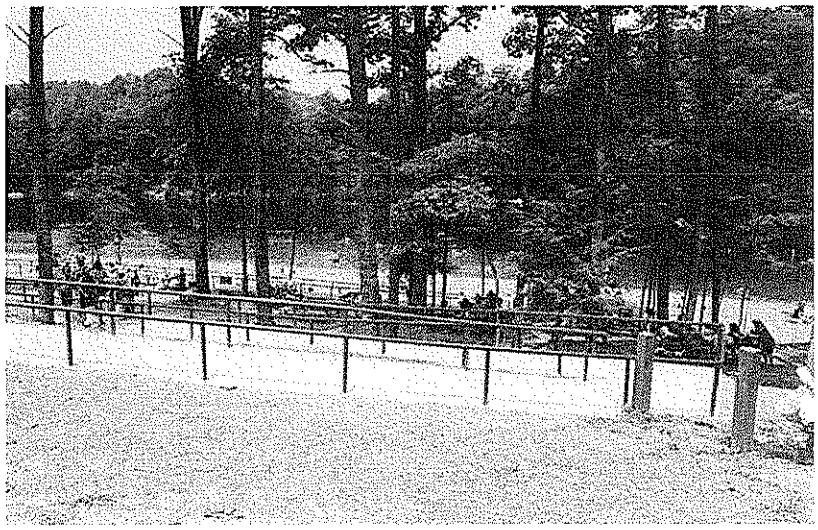
Utility service to the facility is provided through on-site water and wastewater systems for collection, distribution and treatment.

This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.

CLIENT:
Natural Resources
Conservation Services
LOCATION:
Lincoln County, West Virginia







E.L.ROBINSON
the Challenge. the Choice.