ORIGINAL

TECHNICAL PROPOSAL

FOR

ENGINEERING SERVICES REQUIRED FOR THE ABATEMENT OF PROBLEMS ARISING FROM THE

ABNEY REFUSE PILE

NOVEMBER 14, 2011
RFQ NUMBER: DEP15602

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
CHARLESTON, WEST VIRGINIA

STAFFORD
CONSULTANTS
INCORPORATED
Engineering, Design and Consulting
Planning and Environmental Services

Post Office Box 5849
1105 Mercer Street
Princeton, West Virginia 24740

Phone (304) 425-9555
Fax (304) 425-9557

ENGINEERING
A PEOPLE SERVING PROFESSION

STAFFORD
A CLIENT SERVING COMPANY

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design, and Consulting
Planning and Environmental Services

November 15, 2011

File: 9998

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

Dear Mr. Bowman:

RE: RFQ No. DEP15602
Abney Refuse Piles Design
Opening 11-16-11 at 1:30 p.m.

Stafford Consultants, Inc. is very pleased to have the opportunity prepare this proposal in response to RFQ No. DEP15602 opening on November 16, 2011 for professional services in connection with the Department of Environmental Protection – Abney Refuse Piles Design.

We are well qualified for this work because of our past experience with Department of Environmental Protection (AML) from 1987 to the present, during which time we completed twenty four assignments. These projects were all successful, and our fees were consistently below estimates with no project reaching 90% of the approved design fee. Additionally, all projects were completed on time. Please refer to the listing in this proposal for actual performance on these projects.

I am enclosing an original, one (1) convenience copy, and a CD as required by the RFQ.

Our firm and members of the project team are in compliance with all regulations called for in the RFQ and we carry professional liability insurance (errors and omissions) insurance in the amount of $1,000,000.

We appreciate having provided AML Engineering Services in the past and would like to continue our relationship with them.

We are a 25 member firm with five (5) registered professional engineers.

We believe our project team approach and quality assurance/constructability review results in projects being constructed on time and in budget.

Additionally, Stafford visited the site on November 9th, 2011, and we feel we have a very good understanding of what it will take to engineer a successful project. There appears to be no

aspect of this project that Stafford has not previously encountered on any of our other twenty four (24) successfully completed projects with your office.

Based on all the information contained in this letter, our attached technical proposal, and our previous experience with your office, we anticipate serious consideration of our firm. Should any portion of our proposal require additional clarification, please feel free to give either of us a call.

Sincerely,

Kenneth R. Crowe, P.E.
Vice-President

Christopher L. Perdue
Project Manager

KRC/clp

Enclosures

TECHNICAL PROPOSAL
for
ENGINEERING SERVICES REQUIRED FOR THE ABATEMENT OF PROBLEMS ARISING FROM THE

ABNEY REFUSE PILES

NOVEMBER 14, 2011

RFQ NUMBER: DEP15602

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Office of Abandoned Mine Lands and Reclamation
601 57TH STREET SE
Charleston, West Virginia 25304
Phone: 304-926-0499

RFQ No. DEP 15602

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, Limited Liability Company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Stafford Consultants, Incorporated

Authorized Signature: [signature] Date: 11-15-11

State of West Virginia

County of Mercer, to-wit:

Taken, subscribed, and sworn to before me this 15 day of November 20 11

My Commission expires September 14, 20 14

AFFIX SEAL HERE

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CATHY L. DURHAM
104 SUMMIT ST.
PRINCETON, WV 24740
My commission expires September 14, 2014

NOTORY PUBLIC Cathy L. Durham

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
DEP15602	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
CHUCK BOWMAN
304-558-2157

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

Stafford Consultants, Incorporated
1105 1/2 Mercer Street
P.O. Box 5849
Princeton, WV 24740

SHIP TO
ENVIRONMENTAL PROTECTION
DEPARTMENT OF
OFFICE OF AML&R
601 57TH STREET SE
CHARLESTON, WV
25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
10/11/2011				

BID OPENING DATE: 11/16/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		

ABNEY REFUSE PILES DESIGN

EXPRESSION OF INTEREST

THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE ABNEY REFUSE PILES PROJECT IN RALEIGH COUNTY, WEST VIRGINIA PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.

BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THIS CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
Kenneth A. Lemon	304/425-9555	November 15, 2011

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Vice President	55-0656181	

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

Table of Contents

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME Abney Refuse Piles Design RFQ No. DEP15602	DATE (DAY, MONTH, YEAR) November 14, 2011	FEIN 55-0656181
1. FIRM NAME STAFFORD CONSULTANTS, INC.	2. HOME OFFICE BUSINESS ADDRESS P.O. Box 5849 Princeton, WV 24740	3. FORMER FIRM NAME Gates Engineering

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
(304) 425-9555	1985	Individual — X Corporation Partnership — Joint-Venture	YES — X NO

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE

P.O. Box 5849, Princeton, WV 24740 / 304/425-9555 / Edward L. Shutt, P.E., President / 24

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS

9. PERSONNEL BY DISCIPLINE

2 ADMINISTRATIVE	___ ECOLOGISTS	___ LANDSCAPE ARCHITECTS	* STRUCTURAL ENGINEERS
___ ARCHITECTS	___ ECONOMISTS	___ MECHANICAL ENGINEERS	* SURVEYORS
___ BIOLOGISTS	1 ELECTRICAL ENGINEERS	___ MINING ENGINEERS	___ TRAFFIC ENGINEERS
2 CADD OPERATORS	___ ENVIRONMENTALISTS	___ PHOTOGRAMMETRISTS	___ OTHER
___ CHEMICAL ENGINEERS	** ESTIMATORS	___ PLANNERS: URBAN / REGIONAL	
6 CIVIL ENGINEERS	___ GEOLOGISTS	2 SANITARY ENGINEERS	
8 CONSTRUCTION INSPECTORS	___ HISTORIANS	___ SOILS ENGINEERS	
4 DESIGNERS	___ HYDROLOGISTS	** SPECIFICATION WRITERS	25 TOTAL PERSONNEL
___ DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 5

* Transportation and structural Engineer is one individual: Professional Surveyor is also Sanitary Engineer.

** Estimating and specification writing is performed by RPE's in firm.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? **YES**

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire".

NAME AND ADDRESS: True Line, Inc. P.O. Box 85 Thorpe, WV 24888	SPECIALITY: Surveying and Mapping	WORKED WITH BEFORE __X__ Yes ______ No
NAME AND ADDRESS: H. C. Nutting 912 Morris Street Charleston, WV 25301	SPECIALITY: Geotechnical Engineering	WORKED WITH BEFORE __X__ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE ______ Yes ______ No

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: ***Landslide Correction (2), Burning Refuse Piles (2), Refuse Pile Reclamation (7), Shaft Sealing (1), Portal Sealing (5), Highwall Elimination (4)***

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: _____

NO ***Any soils parameters required will be determined by our geotechnical engineer, H. C. Nutting and incorporated into Stafford's Design.***

C. Is your firm experienced in hydrology and hydraulics?

YES ***Stafford has a number of individuals with experience in designing large stormwater impoundments based on multiple storm scenarios. Our staff uses the lastest in software including but not limited to AutoCAD Civil and Flowmaster. Stafford also uses software by BOSS International for surface and subsurface runoff modeling.***

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES _____

NO ***Contour mapping will be developed by our surveyor, True Line, Inc.***

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES ***Over 50 water distribution and treatment projects throughout West Virginia, with one being a treatment plant at Danese PSD for AML. Seven studies of water quality and mining practices to determine adverse affect of mining on supply an quality: Maplewood, Summersville (Rt. 39), Mod-Mahan, Keystone (Rt. 52), and three in McDowell County PSD served areas. We provided design, construction administration and resident project representation for the AML funded New Haven PSD project, the McDowell County PSD project, and the Windmill Gap waterline project.***

NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: ***Heizer Creek "A", severe acid mine drainage isolation and collection. Mason County Bond Forfeiture, acid mine drainage collection and treatment with a biological wetland. (Wetland planned but not constructed)***

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Shutt, Edward L. President	25	42	42

Brief Explanation of Responsibilities

Mr. Shutt is President of Stafford Consultants. As principal in charge, he monitors the planning, design, construction and financing of all projects. His management experience consists of design and construction projects such as large water and wastewater collection and treatment facilities. His design experience is primarily related to sanitary projects. However, he is experienced in all areas of civil engineering. Project manager for AML funded water projects in Windmill Gap in Mercer County, New Haven PSD in Fayette County and Glade Creek in Nicholas County. He has served as an expert witness concerning construction claims, change orders and engineering standards of practice. He was project manager for a WVDoH highway project. He has provided quality assurance and constructability reviews of AML projects.

EDUCATION (Degree, Year, Specialization)
BS / 1969 / Civil Engineering / Virginia Polytechnic Institute 1974-75 / Sanitary Engineering / Virginia Polytechnic Institute

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
National Society of Professional Engineers, American Water Works Association, WV Land Surveyors Assoc., WV Society of Professional Engineers, WV Rural Water Assoc.	Sanitary/1977/WV PLS/1996/WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Keaton, William, B. Senior Project Manager	5	5	20

Brief Explanation of Responsibilities

Prepared AML Plans and Specifications for waterline replacement projects in WV and TN. Projects ranged from tank site construction to waterline replacement replacement Projects.

EDUCATION (Degree, Year, Specialization)
BA, 1993, WVIT, BSCE, 1993 WVIT, MA 1993, Webster University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
NSPE, AWWA	Civil, 1999, WV Civil, 2008, TN

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Perdue, Christopher L. Project Manager	4	4	7

Brief Explanation of Responsibilities

Mr. Perdue serves as project manager of water and wastewater projects. Mr. Perdue is currently serving as Project Manager for 2 AML projects located in McDowell County, WV. One project is currently under construction and the other is about to go to construction within the next 12 months. Mr. Perdue has also worked on the Design of the refuse pile projects in Matoaka and McComas. He also has experience working with the AML studies in the Whittaker Ridge and Rockridge areas of McDowell County. Mr. Perdue also has an extensive background in site development and storm-water management using both traditional and innovative methods.

EDUCATION (Degree, Year, Specialization)

BS /2003/Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
National Society of Civil Engineers	N/A

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Fowler, Stacy A. Project Manager	1	15	14

Brief Explanation of Responsibilities

Mr. Fowler's primary responsibility is design and project management for water and wastewater facilities. He has experience and educational training with Hydrology. He provides assistance with permitting and quality assurance reviews.

EDUCATION (Degree, Year, Specialization)

MS / 2007/ Civil Engineering / University of Central Florida; BS / 1995 / Civil Engineering Technology / Bluefield State College

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
National Society of Professional Engineers	Civil/2002/WV Civil/2007/FL

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Berry, Howard Designer/Contract Administrator	12	28	28

Brief Explanation of Responsibilities

Mr. Berry primarily assists in water and wastewater project design including line layout, quantity calculations, permitting and CADD work. In addition he has extensive experience in contract administration including change orders, processing pay requests, substantial and final completion inspections and project closeout. He also has several years experience as a resident project representative on both water and wastewater projects.

EDUCATION (Degree, Year, Specialization)
BA/1994/West Virginia Institute of Technology AS/1980/Mining Technology/Beckley College

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
N/A	N/A

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Wyatt, Timothy D. Resident Project Representative	0	30	34

Brief Explanation of Responsibilities

Mr. Wyatt presently serves as a resident project representative overseeing water projects including line installation, tank installation and treatment plant construction. He has served as a superintendent for an earthmoving contractor and has performed permitting of mining facilities.

EDUCATION (Degree, Year, Specialization)

AS/1977/Civil and Mining Engineering Technology/Bluefield State College

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
N/A	N/A

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Peters, Mathew, A. Engineering Technician	1	1	1.5

Brief Explanation of Responsibilities

Mr. Peters currently works directly with each project manager of the firm to complete design documents such as Preliminary Engineering Reports, Structural Drawings, And other documents related to the design of water and wastewater projects. Mr. Peters has extensive knowledge of AutoCAD Civil 3D related to earthwork, drainage, And site development. Mr. Peters will work directly with Mr. Keaton and Mr. Perdue to develop the construction documents for this project.

EDUCATION (Degree, Year, Specialization)

BS/2010/Civil Engineering Technology

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
N/A	N/A

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES.
Leitz Set 4 total station with Carlson Explorer data collector.
AutoCAD Civil 2010 and AutoCAD Civil 3D 2010 – General drafting and earthwork modeling software.
HEC-RAS – US Army Corps of Engineers River Analysis System. Used for channel relocation or design.
HEC-1 and 2 – US Army Corps of Engineers Flood Hydrograph and Water Surface Profile programs.
HYDRAIN – FHWA family of hydraulics programs. Includes runoff calculations, pipe sizing, etc.
WinTR-55 – USDA Small Watershed Hydrology software.
EXCEL & WORD – Industry standard spreadsheet and word processing software.
WaterCAD – Waterline Design and Analysis software
HydroCAD – Surface runoff calculations and pond and retention structure analysis.
RETWALL, FOOTING, BeamPro, General Frame Analysis, etc. – Various structural design programs.
HP Plotters – HP800 and HP2800 for final tracing plotting on paper, vellum or film.
Oce TDS320 plotter and scanner system.

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Jumping Branch/Nimitz PSD Madams Creek Water Project Summers County, WV	Jumping Branch/Nimitz PSD P.O. Box 69 Nimitz, WV 25978	Report - Preliminary Engineering Report	N/A	Report – 95%
Oakvale Road Public Service District South Eastern Mercer Water Study Mercer County, WV	Oakvale Road PSD P.O. Box 1061 Princeton, WV 24740	Report, Design, Construction Administration & Resident Project Representation	$5,500,000	Design – 90%
City of Summersville Glade Ck - Phase IIA Waterline Nicholas County, WV	City of Summersville P.O. Box 525 Summersville, WV 26651	Report, Design, Construction Administration & Resident Project Representation	$5,000,000	Construction – 95%
City of Summersville Glade Ck - Phase IIB Waterline Nicholas County, WV	City of Summersville P.O. Box 525 Summersville, WV 26651	Report, Design, Construction Administration & Resident Project Representation	$4,500,000	Design – 5%
New Haven PSD Contracts 15/16 Water Fayette County, WV	New Haven PSD Route 1, Box 123C Fayetteville, WV 25840	Report, Design, Construction Administration & Resident Project Representation	$3,200,000	Construction – 60%
Town of Alderson Water System Greenbrier County, WV	Town of Alderson P.O. Box 179 Alderson, WV 24910	Report, Design, Construction Administration & Resident Project Representation	$1,000,000	Design – 10%
McDowell County PSD Coalwood Wastewater Treatment & Collection System McDowell County, WV	McDowell County PSD HC 31 Box 436 J Welch, WV 24801	Report, Design, Construction Administration & Resident Project Representation	$3,825,000	Design – 25%
Big Bend PSD Ballangee, Barger Springs & Forest Hill Water System Summers County, WV	Big Bend PSD P.O. Box 114 Talcott, WV 24981	Report and Study	$4,300,000	Report – 100%
Coalfields Expressway Highway & Bridge Design McDowell County, WV	WV Division of Highways Building 5, Room A317 1900 Kanawha Boulevard E. Charleston, WV 25305	Design and preparation of contract documents for 5.25 miles of four-lane highway including two bridges and two access roads.	$150,000,000	Design – 80%
City of Princeton Wastewater Treatment Plant Expansion Princeton, WV	Princeton Sanitary Board 227 South Wickham Avenue Princeton, WV 24740	Design and preparation of contract documents needed to expand existing aeration capacity and construct additional aerobic digester.	$10,000,000	Design –100%
Glade Springs Utilities, East 2010 Beckley, WV	Cooper Land Development 903 North 47th Street Rogers, AR 72756	Design and preparation of Contract Documents for waterline construction.	$1,500,000	Design – 90%

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Big Bend PSD Armory/Wiggins Water Summers County, WV	Big Bend PSD P.O. Box 114 Talcott, WV 24981	Plan, Design and Construction phase engineering for waterline extension.	$1,000,000	Design – 30%
Town of Pineville Water Extension Pineville, WV	Town of Pineville P.O. Box 220 Pineville, WV 24874	Report, Design, Construction Administration & Resident Project Representation	N/A	Report Study
Logan County PSD Anchor Road Water Logan/Boone Counties, WV	Logan County PSD P.O. Box 506 Logan, WV 25601	Report, Design, Construction Administration & Resident Project Representation	$2,000,000	Design – 100%
Town of Rainelle Water System Improvements Rainelle, WV	Town of Rainelle P.O. Box 648 Rainelle, WV 25962	Report, Design, Construction Administration & Resident Project Representation	$6,000,000	Report – 100%
City of Hinton Brooks/Barksdale Hinton, WV	City of Hinton 322 Summers Street Hinton, WV 25951	Report, Design, Construction Administration & Resident Project Representation	$4,000,000	Design – 100%
City of Hinton Gold Coast Sewer Hinton, WV	City of Hinton 322 Summers Street Hinton, WV 25951	Report, Design, Construction Administration & Resident Project Representation	$1,400,000	Construction – 95%
McDowell County PSD Coalwood Connector Waterline Ext. AML Project No. 300 Coalwood, WV	**McDowell County PSD HC 31 Box 436J Welch, WV 24801**	**Report, Design, Construction Administration & Resident Project Representation**	**$1,800,000**	**Construction - 95%**
McDowell County PSD Big Sandy/Roderfield Water Ext. AML Project No. 210 Coalwood, WV	**McDowell County PSD HC 31 Box 436J Welch, WV 24801**	**Report, Design, Construction Administration & Resident Project Representation**	**$9,000,000**	**Design - 70%**
WV DEP AML Windmill Gap Waterline Ext. AML Project No. 14351 Windmill Gap, WV	**Bluewell PSD PO Box 3066 Bluefield, WV 24701**	**Report, Design, Construction Administration & Resident Project Representation**	**$2,100,000**	**Design - 80%**
TOTAL NUMBER OF PROJECTS: 20*			TOTAL ESTIMATED CONSTRUCTION COSTS:	$216,125,000

* These are 20 projects currently under design or construction in access of $1,000,000 construction cost. Stafford has numerous other Projects in design or construction under $1,000,000.

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS					
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRM'S RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Epic Event Center Mercer County, WV	Feasibility Study – Site Civil and Utilities	City of Princeton 100 Courthouse Road Princeton, WV 24740	June 2011	$60,000,000	$20,000,000
New Weirton Elem. School Weirton, WV	Site Civil for new school	Hancock County Schools Weirton, WV	May 2013	$26,630,000	$4,000,000
Oak Glen High School New Manchester, WV	Site Civil for Multi-Sports Stadium	Hancock County Schools Weirton, WV	April 2010	$4,600,000	$1,000,000
Weir High School Weirton, WV	Site Civil for Multi-Sports Stadium	Hancock County Schools Weirton, WV	April 2012	$4,800,000	$1,000,000
Mercer County Health Center Mercer County, WV	Site Civil for new building	Mercer County Commission Princeton, WV	November 2011	$2,800,000	$400,000
Cameron High School Cameron, WV	Site Civil for new school	Marshall County Schools Moundsville, WV	April 2012	$25,000,000	$1,700,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Weight Training Facility Marshall University Huntington, WV	Marshall University Sorrell Maintenance Building 20th Street Huntington, WV 25755	$2,900,000	2006	Yes
Chapmanville High School Site Development Logan County, WV	Logan Co. Board of Education Logan, WV 25601	$150,000	2006	Yes
Oakvale Road PSD Pisgah Road - Elgood Water Extension Project Mercer County, WV	Mercer County Commission 1501 W. Main Street Princeton, WV 24740	$800,000	2006	Yes
Center PSD WWTP Improvements Wyoming County, WV	Center PSD P.O. Box 760 Pineville, WV 24874	$200,000	2006	Yes
Logan County PSD Caney-Rocky Waterline Extension Project Logan County, WV	Logan County PSD P.O. Box 506 Logan, WV 25601	$2,000,000	2006	Yes
City of Princeton Various Sidewalk Projects Mercer County, WV	City of Princeton 100 Courthouse Road Princeton, WV 24740	$350,000	2005-2007	On going
City of Welch Tom's Mountain Water/Sewer McDowell County, WV	City of Welch 88 Howard Street Welch, WV 24901	$2,300,000	2007	Yes
Glade Springs Village - West Water & Sewer Raleigh County, WV	Cooper Land Development 903 North 47th Street Rogers, AR 72756	$2,000,000	2007	Yes
Paradise Park Grading and Utilities Princeton, WV	P&G Hospitality, LLC P.O. Box 1715 Princeton, WV 24740	$500,000	2007	Yes
Welch Sewer Improvements Welch, WV	City of Welch 88 Howard Street Welch, WV 24801	$1,000,000	2007	Yes
McDowell County PSD (AML Funds) Iaeger Water System Replacement McDowell County, WV	McDowell County PSD HC 31 Box 436 J Welch, WV 24801	$2,800,000	2008	Yes

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Rolfe Arch Bridge Bridge Replacement Project Rolfe, McDowell County, WV	WV Division of Highways Building 5, Room A317 1900 Kanawha Boulevard E. Charleston, WV 25305	$900,000	2008	Yes
Glade Springs Utilities Beckley, WV	Cooper Land Development, Inc. 903 North 47th Street Rogers, AR 72756	$8,000,000	2009	Yes
Logan County Public Service District North Fork Water Logan County, WV	Logan County PSD P.O. Box 506 Logan, WV 25601	$2,000,000	2009	Yes
Crescent Hospitality Microtel Site Work Mercer County, WV	Mr. Khalid Durrani 216 Third Street St. Marys, WV 26170	$50,000	2009	Yes
P & G Hospitality Country Inn Suites Site Work Mercer County, WV	P&G Hospitality – Mahesh Gadhia P.O. Box 1715 Princeton, WV 24740	$100,000	2009	Yes
Cass Arch Bridge Bridge Replacement Project Pocahontas County	WV Division of Highways Building 5, Room A317 1900 Kanawha Boulevard E. Charleston, WV 25305	$1,700,000	2009	Yes
City of Welch Indian Ridge/Industrial Park McDowell County, WV	City of Welch 88 Howard Street Welch, WV 24901	$6,800,000	2010	Yes
Logan County PSD Phase IIA Sewer Logan County, WV	Logan County PSD P.O. Box 506 Logan, WV 25601	$6,000,000	2010	Yes
Town of Renick / Falling Springs Renick Water System Greenbrier County, WV	Falling Springs Corporation P.O. Box 116 Renick, WV 24966	$2,400,000	2010	Yes
City of Welch Sewer Improvements – Contract 7C McDowell County, WV	City of Welch 88 Howard Street Welch, WV 24801	$1,000,000	2010	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
N/A					

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

Please refer to the following attachments:

Attachment 19A – Abandoned Mine Lands Experience (TAB 6)
Attachment 19B – Proposed Project Management Plan (TAB 7)
Attachment 19C – Project Quality Control (TAB 8)
Attachment 19D – Project Cost Control (TAB 9)
Attachment 19E – Resumes (TAB 10)

20. The foregoing is a statement of facts.

Signature: Kenneth R. Crowe Title: Vice - President Date: November 15, 2011

Printed Name: Kenneth R. Crowe, P.E.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

PROJECT NAME	DATE (DAY, MONTH, YEAR)	FEIN
Abney Refuse Piles Design RFQ NO. DEP15602	**November 14, 2011**	**55-065-1663-001**

1. FIRM NAME	2. HOME OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
True Line, Inc.	**P. O. Box 85, Rt. 103** **Thorpe, WV 24888**	None

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP		6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
(304) 448-2116	**1985**	Individual Partnership	✔ **Corporation** Joint-Venture	**NO**

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE

P.O. Box 85, Thorpe, WV 24888 / 304-448-2116 / Dwight Gillespie / Surveying only

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Dwight Gillespie – President **Vera Gillespie - Secretary & Treasurer**	**John E. Caffrey, P.E. & PLS** **James H. Corner, EIT & PLS** **Stacey B. Mullens, P. E.**

9. PERSONNEL BY DISCIPLINE (Bold Lettering Indicates Minimum Design Team Members)

___ ADMINISTRATIVE	___ ECOLOGISTS	___ LANDSCAPE ARCHITECTS	___ STRUCTURAL ENGINEERS
___ ARCHITECTS	___ ECONOMISTS	___ MECHANICAL ENGINEERS	2 **SURVEYORS**
___ BIOLOGISTS	___ ELECTRICAL ENGINEERS	2 **MINING ENGINEERS**	___ TRAFFIC ENGINEERS
6 **CADD OPERATORS**	___ ENVIRONMENTALISTS	___ PHOTOGRAMMETRISTS	___ OTHER
___ CHEMICAL ENGINEERS	___ ESTIMATORS	___ PLANNERS: URBAN / REGIONAL	
1 **CIVIL ENGINEERS**	___ GEOLOGISTS	___ SANITARY ENGINEERS	
___ CONSTRUCTION INSPECTORS	___ HISTORIANS	___ SOILS ENGINEERS	
___ DESIGNERS	___ HYDROLOGISTS	___ SPECIFICATION WRITERS	25 TOTAL PERSONNEL
___ DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 2

* RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

None

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? **YES**

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Confidential Qualification Questionnaire".

NAME AND ADDRESS: **N/A**	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No
NAME AND ADDRESS:	SPECIALITY:	WORKED WITH BEFORE _______ Yes _______ No

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: _____

Surveying only

NO

B. Is you firm experienced in Soil Analysis?

YES Description and Number of Projects: _____

Surveying only

NO

C. Is your firm experienced in hydrology and hydraulics?

YES _____

Surveying only

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES _____

Surveying and Contour Mapping

NO

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES _____

Surveying only

NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: _____

Surveying only

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
James H. Corner	**0**	**6**	**0**

Brief Explanation of Responsibilities

Plot Surveys
Produce Site plans
Overburden calculations
Hydrologic designs
Property Plats
Gas Well Plats

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering (Graduation Dec. 2004)
B. S. Mining Engineering (Graduation Dec. 2006)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
WV Secretary of Professional Surveyors	**Professional Surveyor (2006) WV# 213750** **Engineer Intern (2004) WV# 8649**

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Stacey B. Mullens	**0**	**17**	**0**

Brief Explanation of Responsibilities

Plot Surveys
Produce Site plans
Overburded calculations
Hydrologic designs

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering (Graduation 1995)
B. S. Mining Engineering (Graduation 2007)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
None	**Professional Engineer (2002) WV# 15423** **Professional Engineer (2003) VA# 039682**

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES.

Leica Single Frequency GPS System

Sokkia Set 610 Total Station

Sokkia Set 630R Total Station

Sokkia Set 4B Total Station

Carlson Explorer Data Collector (SurvCE 2.0 software)

HP 48 / SMI Data Collector (version 5.0 software)

AutoCAD 2005

SurvCADD 2006 for Auto CAD (COGO, DTM, Profile & Mining Modules)

SKI GPS Post Processing Software

SEDCAD 4.0

Corpscon 6 (Coordinate Conversion Software)

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
	Surveying only			

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRM'S RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Bradshaw School / Road Re-location		Potesta & Associates, Inc. 7012 MacCorkle Ave., S.E. Charleston, WV 25304	11/01/07		Project Oversite
City of Welch water tank site		Clark Construction Group 101 Federal Drive Welch, WV 24801	2007		Surveying

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
	Surveying only			

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Toms Mountain Wastewater Collection system extension project	Stafford Consulting P. O. Box 5849 Princeton, WV 24740		2005		Surveying
Layout weight room at Marshall University	Stafford Consulting P. O. Box 5849 Princeton, WV 24740		2005		Surveying
Logan County PSD, Phase II	Stafford Consulting P. O. Box 5849 Princeton, WV 24740		2006		Surveying
Logan County PSD, North Fork Water distribution System extension	Stafford Consulting P. O. Box 5849 Princeton, WV 24740		2007		Surveying

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

True Line, Inc. has been providing surveying, mapping, site design and permit surface coal mining applications for operations in McDowell and Wyoming counties since 1985. The applications include overburden balance and storage areas, ditch and culvert designs, sediment structure designs and final reclamation plans.

True Line, Inc. has also provided pre-surveying and post surveying services and mapping for several companies that have been awarded contracts to complete AML projects in southern West Virginia for over ten years.

20. The foregoing is a statement of facts.

Signature: Dwight Gillespie Title: President

Printed Name: Dwight Gillespie

Date: November 15, 2011

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT QUALIFICATION QUESTIONNAIRE Attachment "B"

PROJECT NAME	DATE (DAY, MONTH, YEAR)	FEIN
Abney Refuse Piles Design RFQ No. DEP15602	November 14, 2011	31-0394550

1. FIRM NAME	2. HOME OFFICE BUSINESS ADDRESS	3. FORMER FIRM NAME
H. C. Nutting A Terracon Company	611 Lunken Park Drive, Cincinnati, OH 45226	

4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YEAR)	6. TYPE OWNERSHIP	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise)
513.321.5816	1921	Individual **Corporation** Partnership Joint-Venture	YES **NO**

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE

PRIMARY AML DESIGN OFFICE: 912 Morris Street, Charleston, WV 25301 / 304.344.8021 / John Blair / 38

ALL OTHER H.C. NUTTING/TERRACON OFFICES:

611 Lunken Park Drive, Cincinnati, OH 45226 / 513.321.5816 / Jess A. Schroeder / 101
790 Morrison Road, Columbus, OH 43230 / 614.863.3113 / Prasad Rege / 32
349 Walnut Street, Suite 8, Lawrenceburg, IN 47025 / 812.539.4300 / Fred Erdmann / 1
470-B Conway Court, Suite B-8, Lexington, KY 40511 / 859.455.8530 / Jess A. Schroeder / 9
1414 E Schaaf Rd, Brooklyn Heights, OH 44131 / 216.459.8378 / Jim Princic / 20

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
R. Jackson Scott, James P. Cahill, Jess A. Schroeder, George C. Webb, Ronald J. Ebelhar, Swaminathan Srinivasan, Terry Stransky, Jason Sander, Ron Lech	

9. PERSONNEL BY DISCIPLINE

12 ADMINISTRATIVE	— ECOLOGISTS	— LANDSCAPE ARCHITECTS	— STRUCTURAL ENGINEERS
— ARCHITECTS	— ECONOMISTS	— MECHANICAL ENGINEERS	— **SURVEYORS**
— **BIOLOGIST**	— ELECTRICAL ENGINEERS	**1 MINING ENGINEERS**	— TRAFFIC ENGINEERS
2 CADD OPERATORS	6 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	17 OTHER
— CHEMICAL ENGINEERS	— ESTIMATORS	— PLANNERS: URBAN/REGIONAL	
8 CIVIL ENGINEERS	**3 GEOLOGISTS**	— SANITARY ENGINEERS	
107 CONSTRUCTION INSPECTORS	— HISTORIANS	41 SOILS ENGINEERS	
— DESIGNERS	4 HYDROLOGISTS	— SPECIFICATION WRITERS	201 TOTAL PERSONNEL
1 DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 3

***RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? **YES**

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED.

NAME AND ADDRESS: **None Anticipated**	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE _____ Yes _____ No

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

X YES Description and Number of Projects: HCN has extensive experience on site grading and landslide repair projects, many of them associated with AML projects. HCN routinely performs mine subsidence investigations for the Ohio Mine Subsidence Insurance Underwriting Association, and has designed several mine grouting programs to mitigate the effects of future mine subsidence in Kentucky, Ohio and West Virginia.

B. Is your firm experienced in Soil Analysis?

X YES Description and Number of Projects: Over 80 years experience on thousands of projects in Geotechnical, Environmental and Materials Engineering.

NO

C. Is your firm experienced in hydrology and hydraulics?

X YES Description and Number of Projects: Commercial, industrial, and residential storm water drainage projects for landfill development and closure, dam/lake spillway structures, site development drainage design, erosion and sediment control, stormwater pollution prevention plans. Dam spillway structures.

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES Description and Number of Projects: _____

_____

X NO

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: _____

_____

X NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: _____

_____

X NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Bruce, Rome E.	0	30	0

Brief Explanation of Responsibilities

Responsibilities include conceptual and final design, report and drawing preparation, development of construction specifications, construction bidding and contract documents, coordination and management of construction observation, volume and cost estimate calculations, hydrologic analysis, and hydraulic analysis of drainage channels, spillways, and detention ponds.

EDUCATION (Degree, Year, Specialization)

Bachelor of Science, CEE, University of Wisconsin-Madison 1979
A.A.S., Civil, Gateway Technical Institute, Racine, WI 1974

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
American Society of Civil Engineers Solid Waste Assoc. of North America	Professional Engineer in Indiana 1991, Kentucky 1995, Michigan 1988, Ohio 1988, and Wisconsin 1982

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES **RESPONSIBLE FOR AML PROJECT DESIGN** (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Erdmann, Fred W.	1	42	0

Brief Explanation of Responsibilities

Senior Consultant
West Virginia Experience in Mining Engineering, Geotechnical Engineering, Groundwater Engineering, and Waste Management.

EDUCATION (Degree, Year, Specialization)

B.S., 1967, Geological Engineering
M.S., 1971, Geological Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)
Association of Engineering Geologists American Institute of Professional Geologists	P.E., 1982, West Virginia/P.E., 1982, Ohio/P.E., 1989, Florida/P.E., 1982, Kentucky/P.E., 1990, Pennsylvania/P.E., 1990, Indiana/P.G., 1993,Kentucky/ P.E., 1982, Missouri/ P.G., 1988, Tennessee

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES
AutoCAD 2007 / Land Development Desktop
Microstation Version 8
Microsoft 2003 Office Suite – (Word, Excel, Access, PowerPoint, Publisher)
Slope Stability Analyses (Visual Slope, STABL, ReSLOPE, etc.)
SHAKE2000 – Seismic Site Response Analyses
PLAXIS – Finite Element Analysis Software
AutoCAD Workstations (4)
Desktop Computers (100+)
Laptop Computers (200+)
Laser Printers (50)
Plotters – HP750C (Color) (3) OCE TDS450 Plotter – Large Format Flat Bed Scanner (1 ea.)
FLAC 3D Finite Difference Analysis Software

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
US 65 Iowa Falls Bridge	Iowa Department of Transportation	Retaining Wall Design	2M	0%

TOTAL NUMBER OF PROJECTS: 1

TOTAL ESTIMATED CONSTRUCTION COSTS: $2M

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS					
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Coalfields Expressway, Helen, WV	Geotechnical Engineering Analysis and Design	WVDOH, M. C. S & T		Unknown	$29,000
Appalachian Corridor H - Section 6, Moorefield, WV	Geotechnical Engineering Analysis and Design	WVDOH c/o Michael Baker, Jr., Inc.		Unknown	$14,000
Corridor H - Bismarck to Forman Section, Bismarck, WV	Geotechnical Engineering Analysis and Design	WVDOH c/o Chapman Technical Group		Unknown	$14,000
Corridor H Bismarck RTO Form, Grant County, WV	Geotechnical Engineering Analysis and Design	WVDOH C/O Buchart Horn, Inc .		Unknown	$150,000
Six Proposed Design Build Bridges, Charleston, WV	Geotechnical Engineering Analysis and Design	WWOH c/o Wilbur Smith Associates		Unknown	$30,000
WV 10 - Dabney to Stollings, Dabney, WV	Geotechnical Engineering Analysis and Design	WVDOH C/O Chapman Technical Group		Unknown	$97,000
South Branch Bridge Abutment 1 Slope Protection, Moorefield, WV	Geotechnical Engineering Analysis and Design	WVDOH C/O Michael Baker, Jr., Inc.		Unknown	$23,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Proposed New Dormitories, Mine Subsidence Assessment and Grouting Specifications	Hocking College, Nelsonville, Ohio	$110K	2006	Yes
Mine Grouting Specifications for the Proposed Marion County 911 Building, Fairmont, WV	WVDOH C/O Burgess & Niple 4424 Emerson Avenue Parkersburg, West Virginia 26104	Unknown	2006	No
Ventilation Tunnel Remediation and Sealing, Marathon Fuel Terminal, Covington, KY	Marathon Petroleum, LLC Finlay, Ohio	Unknown	2006	Yes
Mine Subsidence Assessment, Melody Mountain Development Project, Ashland, KY	R.G. Properties 8163 Old Yankee Road Suite B Dayton, Ohio 45458	$200K	2006	No
Peoples Bank of Mullens, Mine Subsidence Assessment and Preparation of Grouting Specifications	Peoples Bank of Mullens P.O. Box 817 Mullens, WV 25882	Unknown	2007	No
James Rumsey Potomac River Bridge Shepherdstown, West Virginia and Sharpsburg, Maryland	West Virginia DOT	$600K	2006	Yes
St. Anthony Falls I-35W Bridge St. Anthony Falls, Minnesota	Minnesota DOT	$40,000	2007	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
McComas AML Coal Mine Refuse Pile Mercer County, West VA	West Virginia Office of Abandoned Mined Lands and Reclamation.	$28,000	2008	Yes	Stafford Consultants Incorporated, Princeton, WV
Mine Subsidence Assessment, Mountain View High School Addition, Welch, WV	Mountain View High School	Unknown	2006	Yes	ZMM, Inc.
Highwall Stability Assessment and Rock Fall Protection Design, Welch, WV	U.S. Bureau of Prisons	$172K	2006	Yes	DMJM Harris
Stabilization of Mine Spoil by Dynamic Compaction for Substations and Transmission Towers.	GenPower Longview Power Project Maidville, WV and Dunkard, PA	Unknown	2006	Not Yet	Beta Engineering
Marmet Locks and Dam Construction Belle, West Virginia	USACE	$100K	2008	Yes	Kokosing Fru-Con

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

20. The foregoing is a statement of facts.

Signature: _____ Title: Office Manager-Charleston, WV

Date: November 15, 2011

Printed Name: John T. Blair

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis C=Corp P=Personal *	Additional Info Provided in Section(s) **	PROJECT EXPERIENCE REQUIREMENTS															PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional				
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Evaluation	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation/ Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/ Mitigation/Replacement	Construction Inspection/ Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Edward L. Shutt, P.E.	Kenneth R. Crowe, P.E.	James R. Bolton, P.E.	Christopher L. Perdue	
Williamson Nursing Home Slide	C	19		X	X						X		X				X		P	P		
Mason County Bond Forfeiture	C	19	X	X	X	X					X	X		X	X				P			
Weyanoke Portals	C	19		X	X						X							P	P			
Sarah Ann Drainage	C	19	X	X	X						X				X			P	P			
Heizer Creek "A"	C	19		X	X	X					X	X						P	P	P		
Canebrake Complex	C	19		X	X			X			X				X		X	P	P			
Millersville Road Refuse	C	19	X	X	X						X							P	P			
Milburn Red Dog	C	19						X			X						X	P	P			
Charleston Portals	C	19		X	X						X							P	P			
Mill Branch Refuse	C	19									X					X	X		P			
Ameagle Complex	C	19								X	X				X			P	P			
Cabin Branch Refuse	C	19									X						X	P	P			
Shoemaker Landslide	C	19									X						X		P			
Birds Creek Refuse	C	19	X	X	X						X								P			
Kermit (Hatcher) Drainage	C	19									X								P			
Maplewood Study	C	19										X							P			
Summersville (Rt 39) Study	C	19										X							P			
Mod-Mahan Study	C	19										X						P	P			
Danese Water Treatment Plant	C	19									X			X				P		P		
Blue Pennant Complex	C	19		X	X		X				X				X		X	P	P			
Keystone (US 52) Study	C	19										X						P	P			
New Haven PSD	C	19									X		X	X								
McDowell PSD	C	19											X	X				M/P		M/P	M	
Logan County PSD	C	19											X	X						M		
McComas Refuse	C	19			X						X						X		P		M	
McDowell County Feasibility Studies	C	19										X						P	P		M	
Thompson, Young, & Crespo Drainage	C	19			X						X						X		P		M	

* List whether project experience is corporate or personal based or both. ** Use this area to provide specific sections or pages if needed for reference.

*** List Primary Design personnel and their functional capacity for the projects listed.

ATTACHMENT 19A

ABANDONED MINE LANDS EXPERIENCE

ABANDONED MINE LANDS EXPERIENCE

Stafford Consultants has performed Engineering and Design for twenty four (24) projects for the West Virginia Department of Environmental Protection – Division of Abandoned Mine Lands and Reclamation. Each design was delivered on schedule and within budget. These projects are as follows:

1) **Williamson Nursing Home Slide** (Mingo County): This project consisted of corrections to a major slide that was endangering the building and parking lot at the Williamson Nursing Home. Stafford provided subsurface investigations, preparation of contract plans and specifications, and construction inspection.

2) **Mason County Bond Forfeiture:** This project involved several areas of unreclaimed highwalls, spoil piles, and mine portals. While not constructed, the design contained relocation of a large pond and treating acid mine drainage by the use of a biological wetland, planted with specialized plants. This project is extensive in nature and size.

3) **Weyanoke Portals** (Mercer County): This project consisted of sealing existing portals and providing for draining which was being used for a water supply. This project involved both dry and wet seals, and was constructed within budget and on time.

4) **Sarah Ann Drainage** (Logan County): This project consisted of elimination of several highwalls, a refuse pile, entries and an abandoned shaft. The project is complete and is an excellent example of Abandoned Mine Reclamation at its best. This project utilized pneumatic backstowing in its construction.

5) **Heizer Creek "A"** (Putnam County): This project consisted of elimination of four large entries that were discharging acid mine water. In addition to these, more than 15 other openings were eliminated. This project involved wet and dry seals, grading and major water problems. The project is complete and looks very good.

6) **Canebrake Complex** (McDowell County): This project included several large refuse piles (one of which is burning) placed on very steep mountainsides, and the removal of abandoned mining structures. Also, this work was adjacent to a stream whose banks and water had to be protected.

7) **Millersville Road Refuse** (Upshur County): This project consisted of elimination of refuse piles, highwalls, and spoil piles located in a hollow directly above a populated area. It also included the consideration that a mine directly below the piles was full of water. Although it proved that mine water was not a serious problem, provisions were made in the design to deal with the problem if it had arisen. That project is complete and is very attractive.

8) **Milburn Red Dog Refuse Pile** (Fayette County): This refuse pile was along the side of the WV Turnpike and had been burning and slipping for several years. Work effort consisted of total regrading and drainage improvements.

9) **Charleston Portals** (Kanawha County): This project consisted of the elimination of some fifteen mine openings located above a populated area. The work consists of wet and dry seals and grading.

10) **Mill Branch Refuse Piles** (Wyoming County): This project consisted of the elimination of two refuse piles placed on a steep mountainside above Bud, West Virginia. This was a straightforward grading, drainage and revegetation project, but required extreme care because of the steepness of the terrain.

11) **Ameagle Complex** (Raleigh County): This project included the removal of a large coal preparation plant and associated facilities and several refuse piles. The preparation plant would have been a relatively straightforward demolition project, except that the area was very cramped and the plant was sided with asbestos panels.

12) **Cabin Branch Refuse Piles** (Logan County): This project consisted of the grading, drainage, relocation and revegetation of three refuse piles. Extreme care was required because the piles were located on both sides of a road serving a community, gas compressor station and mining operation. Also, a stream runs along the piles and was protected.

13) **Shoemaker Landslide** (Upshur County): This project included the construction of a soldier pile retaining wall and regrading of a previously reclaimed fill area which was slipping.

14) **Birds Creek Refuse** (Preston County): Two refuse piles and 1200 linear feet of highwall were reclaimed in this project.

15) **Kermit (Hatcher) Drainage** (Mingo County): This was not your normal AML project. An existing structure was located over a draining mine slope. The work consisted of installing a drainage pipe from the slope, through the building, and tying into the local storm sewer system. Some interior remodeling was also performed.

16) **Maplewood (Route 41) Waterline Feasibility Study** (Fayette County): This study was conducted to determine if pre-1977 mining activity contributed to the degradation of the water supply for the Danese Public Service District.

17) **Mod-Mahan Road Waterline Feasibility Study** (Marion County): This study was conducted to determine if pre-1977 mining activity contributed to the water quality problems of the wells used for water supply of the local residents.

18) **City of Summersville (Route 39) Waterline Feasibility Study** (Nicholas County): This preliminary investigation was performed to determine if pre-1977 mining activities affected the local water supply wells.

19) **Danese Water Treatment Plant Modifications** (Fayette County): As a result of the findings of project 16 (above) a new 350-gpm plant was designed. The old plant was in very poor shape and had insufficient capacity to meet the system demands.

20) **Blue Pennant Complex** (Boone County): This reclamation project consists of the regrading of three refuse sites, one of which was burning. Several old conveyors and structures were also demolished.

21) **Keystone (US Route 52) Feasibility Study** (McDowell County): This preliminary investigation was performed to determine if pre-1977 mining activities affected the supply wells for the Town of Keystone's municipal water system. (The fee included the Phase 2 study as well which was not required due to results of Phase 1 Study).

22) **McComas (Poca Land) Refuse Pile** (Mercer County): This reclamation project consisted of regrading a refuse pile, installing wet seals into two abandoned mine portals, and installing site drainage improvements. Construction was completed in early 2010.

23) **Rockridge, Little Slate Creek, Route 80, Baker Ridge, Whittaker Ridge, State Line Ridge and US52 Water Systems Feasibility Study** (McDowell County): This preliminary investigation was performed in areas than can be, or are, covered by McDowell County PSD to determine if pre-1977 mining activities affected the water supply in the Rockridge, Little Slate Creek, Route 80, Baker Ridge, Whittaker Ridge, and State Line Ridge areas where there are presently no public water systems; and the water sources for several old coal company systems in the eastern end of McDowell County along and adjacent to US52. This investigation is complete. (The fee included Phase 2 studies as well, but only Rockridge proceeded to that phase).

24) **Thompson (McComas), Young (Matoaka), and Crespo (Matoaka) Drainage** (Mercer County): The Thompson project entailed sealing two draining portals while maintaining a water supply source for one local resident. Stability of a potentially unstable slope immediately behind a house was also included. The Young and Crespo projects consisted of sealing draining mine portals and construction of collection ditches. Plans have been completed on this project and construction is nearly complete.

Stafford's Design Fee Estimates have historically been exceptional with no fee overruns. The maximum Design Fee used to date is 88% of the approved fee. All 24 projects done to date have been completed on schedule.

In addition to these projects, we have provided design, construction administration and/or resident project representation for AML funded water projects for New Haven Public Service District, Logan County Public Service District, McDowell County Public Service District, City of Summersville, and Bluewell PSD.

ATTACHMENT 19B

PROPOSED PROJECT MANAGEMENT PLAN

PROPOSED PROJECT MANAGEMENT PLAN

Stafford's Approach to the Project

On November 9, 2011, Stafford visited the site to determine what design alternatives were possible and also what factors needed to be included in the preparation of a detailed grading plan of the sites. Upon review, Stafford made the following observations.

Stafford spent the majority of our time reviewing Site No. 1 directly adjacent to Woodpeck Road. It appears that there were two portals in the southern face of the hillside.

Picture showing what appears to be one of two adjacent portals

It appears as refuse was dumped to the northeast of the portals along Woodpeck Road. The following picture shows the extent of the refuse at this location.

View of Refuse Pile Looking North

The refuse appears to be dumped over the hill at the end of a hollow. The grade coming down the hollow is fairly flat, thus the mound created by the top of the refuse pile does impact the existing drainage of the hollow. In the event of a large storm event, it appears that the refuse material erodes and discharges directly into a stream approximately 30 feet from the toe of the slope. The refuse pile is currently graded at a slope of approximately 1.5:1.

Under normal conditions, Stafford would propose to re-grade the site to a slope recommended by H.C. Nutting based on their subsurface report and then place a layer of topsoil over the site suitable to establish vegetative growth. One issue noted during our site investigation is that the lower limit of the refuse pile is directly adjacent to Woodpeck Road. Stafford recommends that approximately 3 feet of the refuse pile be removed to allow for proper top soil placement without affecting Woodpeck Road. It also appears that some material will need to be removed from the top of the refuse pile. There is currently a mound of refuse material approximately 3 to 4 feet high which, as previously stated, disrupts the drainage of the hollow. Based on the existing topography of the site, it appears that some of this material will need to be spoiled off-site. Assuming the geotechnical

engineer recommends a re-graded slope of 2:1, a significant portion of the refuse pile will need to be removed. This site is small and therefore to properly dispose of the material on-site, a significant amount of earthwork may be required to grade the site to where the cut and fill balance. This could also potentially impact the construction cost of the project.

Picture showing Toe of Refuse Embankment adjacent to Woodpeck Road

Stafford did observe the stone wall and steel located on site. In previous projects, we have made it a requirement of the construction documents to make the contractor locate a disposal site and dispose of accordingly.

Picture of Stone Wall

Based on our field investigation and previous experience with similar projects, Stafford proposes the following design approach once selected and an A/E Agreement negotiated and executed with the state:

1. Perform an additional site visit to visually evaluate each site in great detail.

2. Contract Trueline, Inc. to perform a topographic survey of each site.

3. Upon completion of the topographic survey, Stafford will contract H.C. Nutting to perform subsurface investigation of each site.

4. Once H.C. Nutting has completed their subsurface investigation and prepared their geotechnical recommendations Stafford will proceed with design of each refuse site.

5. Stafford will generate a grading plan and prepare approximate cut and fill calculations to determine if any material will need to be spoiled off-site.

6. Stafford will then prepare contract documents directing the contractor to dispose of the abandoned structures.

7. Once the construction documents are complete and approved by DEP, Stafford will assist the Agency with bidding the project as well as providing observation of construction activities by one of our knowledgeable Resident Project Representatives.

Stafford will complete each of these items within 60 days after issuance of a purchase order.

Project Management

An organizational chart for this AML project is included to graphically depict Stafford Consultants' plans for management and reporting.

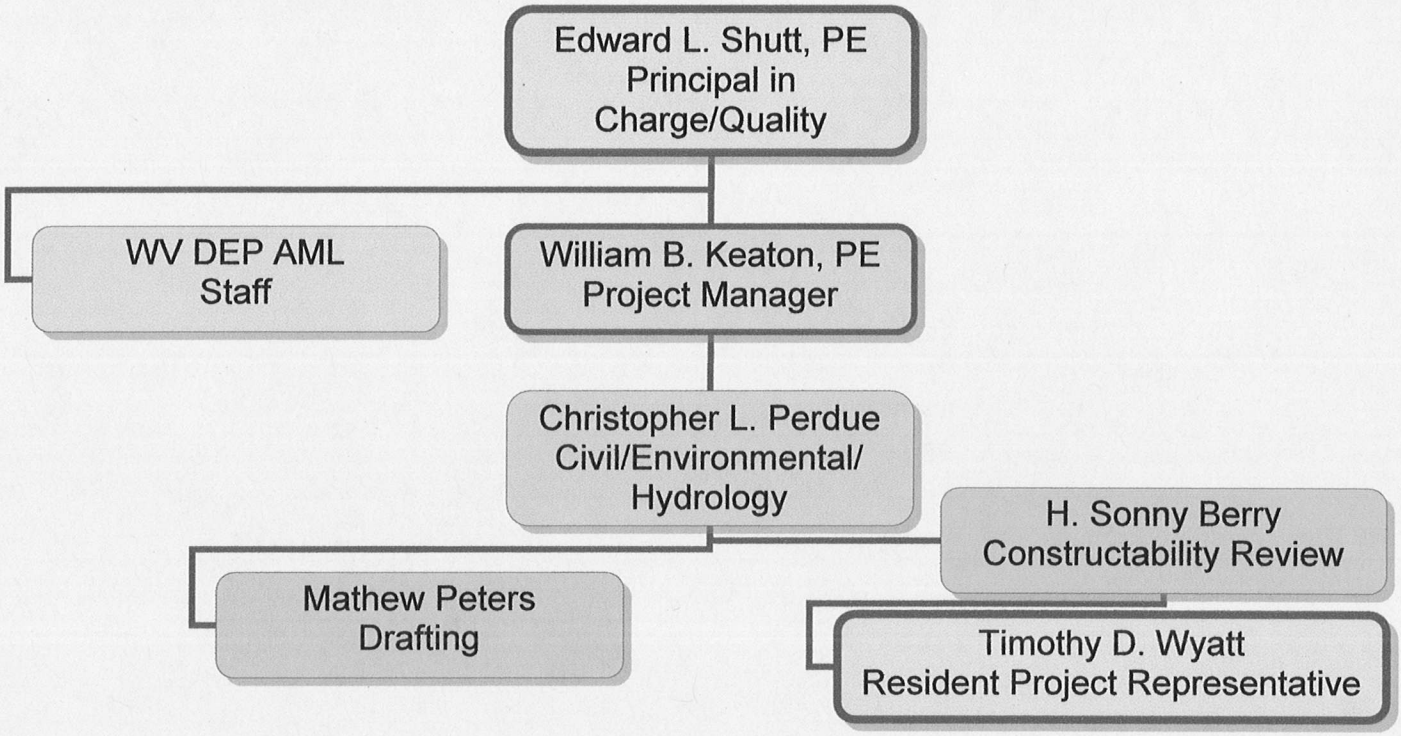
Because we take this work very seriously, we have placed Mr. Edward L. Shutt, P.E., our President, in the direct line as principal in charge. Mr. Shutt will review all aspects of the project.

Mr. William B. Keaton, P.E. will manage the project on a day-to-day basis and have direct professional responsibility. Final approval of the project will be made after Mr. Keaton and members of our constructability review team have reviewed the project.

Mr. Christopher L. Perdue will handle all design aspects of the project. Mr. Perdue has experience working with several AML Project previously completed by Stafford. He worked on the McComas and Matoaka Refuse Pile Projects as well as other AML Projects in McDowell County.

A. Project Team

We have established a project team for this AML project which reflects the required technical expertise and available management time. Below is a flow chart of our proposed in-house project team for the Abney Refuse Pile Project:



Once a scope of work and fees are agreed upon, we will prepare a Gantt Project Summary Report which identifies each activity (tasks) to be performed to achieve the project's objectives. This will identify who is responsible for the specific activity, starting and ending dates, manhours/expenses estimated (used), unit cost and total costs for each activity.

This Project Summary Report will be updated monthly to monitor task completion versus schedule and costs.

The information input for the Project Summary Chart will generate a Project Schedule Chart which will provide a bar chart over time for each activity to indicate actual or planned schedule, milestone, and the time increments.

We have monthly staff meetings to review each project. We also recommend client project meetings at least monthly to review the status and issues associated with each project.

Should the work of sub-consultants be required, those we will utilize we have worked with as a team for at least ten (10) years. This generates the ability to promptly respond to our client's needs.

We are experienced in management as indicated by our record of many successful construction projects. We are prepared to provide a Gantt report in as much detail as the Department of Environmental Protection may require. These reports will consist of reports for construction progress, anticipated completion dates and milestones, cost control and a summary of problem areas with recommendations for solutions.

B. **Location of Facilities**

Stafford Consultants, Incorporated is located at 1105 Mercer Street, (P.O. Box 5849), Princeton, West Virginia. Our office is within easy driving distance to this project.

All work associated with AML projects will be performed in our office in Princeton, West Virginia. Work subcontracted to consultants will be performed in the following locations:

1. True Line, Inc. – Thorpe, West Virginia
2. H. C. Nutting Company – Charleston, West Virginia

ATTACHMENT 19C

PROJECT QUALITY CONTROL

PROJECT QUALITY CONTROL

General: The following are general statements which are the underpinning of our quality control program. From planning to project completion, the emphasis must be on quality control.

I. PLANNING

Planning is the beginning. Quality in work is not an accident. The end result of such a program is a plan which guides the firm toward the delivery of quality professional services and a profitable operation.

II. ORGANIZING

Organize to determine, specify and structure tasks which will accomplish the desired objective – quality services. The clear assignment of responsibility and assumption of authority by those in each position in the firm, is the beginning of the implementation of the quality control program. The establishment of performance standards, policies and procedures by which tasks are to be performed, must be stated with clarity.

III. STAFFING

The careful selection and training of personnel to perform the specified tasks is essential.

IV. DIRECTING

Directing is the responsibility of management – firm and project – to coordinate performance of each and every task to make the quality control programs function as planned, organized and staffed.

V. CONTROLLING

Controlling is a top management responsibility. It is monitoring and measuring to assure that the "actual" results are consistent with the "planned" results. A critical element is the implementation of immediate corrective action when results are not in compliance with the planned predetermined program objectives.

VI. COORDINATION

The success of Stafford's quality control program depends on coordination among parties involved or individual projects. Professional associates – in-house or outside consultants – must be included in the decision making process during design and construction. Good communication and well-structured coordination are essentials to a successful project.

VII. RECORDATION AND RETENTION

All discussions with all parties – clients, outside consultants, contractors – should be recorded in **objective** detail and those records retained in the project file.

Summary: In summary, a quality control program is effective only if management is committed to it. Management is not only the principals but also design professionals at all levels with the firm. Achievement of quality control is first and last a management attitude transmitted to all within the firm.

Several elements are required for delivery of quality professional services. Following are the elements normally utilized by Stafford Consultants, Incorporated.

SECTION A

PRE-PROPOSAL SCOPE EVALUATION

I. ANALYSIS OF PROJECT CHARACTERISTIC

A. Pre-Proposal scope meeting with client.

B. Pre-Proposal site meeting to review clients' objectives and goals.

C. Verify ability to perform including:

1. Licensed Professionals

2. Project Team Personnel

a. knowledge
b. experience
c. current workload

SECTION B

I. PROJECT PRE-SCHEDULING

A. Outline of estimated work effort of each engineering discipline and prepare Gantt project summary charts.

1. Prime professional will not commit to schedule or budget limitations prior to coordination with consultants.

B. Analyze Project

1. List basic information required to perform each phase of the project.

2. Designate priority of services by discipline.

SECTION C

I. CONTRACT NEGOTIATIONS / EXECUTION

A. Prepare clearly written scope of work for clients approval.

B. Prepare a clearly written Project Schedule with project milestones including client reviews.

C. Prepare an estimate of all fees anticipated and costs for any additional services.

D. Use an accepted engineering agreement.

SECTION D

PROJECT MANAGER AND DESIGN TEAM SYSTEM

General: Because the performance of most Engineering designs require the efforts of more than one individual and since a number of people will be working on a project simultaneously over an extended period of time, it is usually advisable to develop a team approach for accomplishing the work, with a project manager as team leader. The team approach offers a degree of continuity, awareness of the status of a project and a formal mechanism for exchange of information amount team members, whether they be in-house or outside consultants.

I. MANAGEMENT CONSIDERATIONS

A. A Project Manager and a representative of each applicable design discipline comprise the design team.

B. It is likely that an individual may simultaneously perform in more than one function on more than one design team.

C. It is the responsibility of management to determine that proper assignments have been made to accomplish each required activity for each project.

II. TEAM SELECTION

A. Identify key services to be provided on a project and select team members who are experienced and qualified in those particular areas.

B. The average experience on a project team is a valuable measure of the overall team ability.

1. Compute "Experience Quotient"

$$\text{E.Q.} - \frac{\text{Total Years of Experience (applicable to project)}}{\text{Number of Team Members}}$$

2. As a general rule, if the E.Q. is less than ten (10), consideration should be given to provide closer supervision and/or checking of that project.

C. Experienced personnel should be assigned as lead personnel of large projects.

D. Inexperienced personnel should be carefully assigned and work only under supervision of experienced personnel.

III. TEAM COMPOSITION

The following listed positions are normally designated for a large project:

A. Project Manager

B. Project Engineer

C. Design Engineer

D. Technicians

E. Draftsmen

F. Construction Administrator

G. Estimator/Specification Writer/Cost Estimator

H. Resident Project Representative

A. <u>Project Manager (PM)</u>

1. He is responsible to the client and the firm for the successful execution of the project. He has complete authority and responsibility for the project throughout the duration of the contract. The Project Manager may be an officer of the firm or assigned by the officers of the firm.

2. The Project Manager:

   a. Must be capable and experienced person with authority to speak for the firm in dealing with the client and to direct and expedite the work.

   b. Should be involved early in the negotiations and the establishment of the contracts with the owner.

   c. Should participate in establishing the total time requirements for project completion.

   d. Must be fully aware of the client's objective and must satisfy the client's goals.

   e. Reports to management.

f. Must analyze the project for its scope and organize the work on the project.

g. Must determine the skills required.

h. Participate in the selection of the project engineer and design team.

i. Must schedule the project through the office.

j. Should be responsible for recommending outside consultants or additional help.

k. Responsible for coordinating and scheduling outside consultants.

l. Monitors the progress of the project to determine percent complete versus money spent, versus design budget.

m. Is responsible for completing the project on time.

n. Is responsible for adhering to project budget.

o. Receives all information coming into the office on a project and disseminates it to in-house design team and outside consultants.

B. **Team Members**

1. The Project Engineer has the responsibility of carrying out the design work on a project for a specific discipline.

2. The Project Engineer:

a. Is responsible for quality control for the design function.

b. Is responsible to the Project Manager.

c. Establishes the design parameters together with the Project Manager.

d. Provides guidance to other members of that design discipline.

e. Must know the capabilities of the design team in order to obtain specialized help when needed.

f. Is responsible for the accuracy of each segment of the work as it is completed.

g. Is responsible for the final check of work product.

h. Assures that the office design policies, procedures, and standards are followed.

i. Is responsible for adherence to applicable codes.

j. Is responsible for the preparation of the technical specifications.

k. Will be responsible for processing of shop drawings.

l. Will analyze and respond to alternate designs.

m. Will respond to questions during construction and will make field visits.

n. Is responsible for keeping the work on schedule.

o. Establishes the manpower requirements.

p. Shall be registered engineer.

q. Should seal the plans for the team or be willing to do so.

r. Should remain with the project throughout its time in the office.

s. Is responsible for all drafting.

3. The Project Engineer is the vital key to implementation of the quality control program.

4. Other team members should be identified and their responsibilities defined.

SECTION E

WRITTEN PROJECT PROGRAM

General: The written project program follows immediately after the signing of the Owner/Engineering Agreement. A Written Project Program should be prepared for every job regardless of its size. This document will form the basis for all design work performed and should be approved by both the engineer and client.

A definitive outline of the scope of the project should be prepared before starting any work. This outline should be confirmed in writing by the client. It is absolutely essential that both the client and the engineer have a mutual understanding of the project requirements.

The responsibility of developing a written project program rests with the Project Manager. The written program must establish the design parameters for all Engineering disciplines and reflect the client's budgetary limitations.

I. PROJECT PROGRAM

The written Project Program should contain most, if not all, of the following:

A. Client Aims and Concepts

1. Define the function of the project.

2. Provide characteristics of the equipment used.

3. Indicate anticipated future expansion.

4. Set out other items resolved with the owner that would affect the project.

B. Cost Limitations

1. Total project limitations.

2. Cost limitations for the various segments of the project should be developed.

C. Space Requirements

1. Identify each individual function with its associated space requirements.

2. Designate all functional groupings or separations.

3. Describe each space giving occupancy load, ceiling height or head room, access points, crane loads, lighting and electrical requirements, etc.

D. Functional Description and Requirements

1. List construction materials and finishes.

2. Describe all site improvements.

3. Describe all structural, mechanical and electrical requirements.

E. Site Data

1. Boundary and topographical survey.

2. Soils Testing.

3. Location and size of existing utilities.

4. Zoning restrictions.

5. Access and traffic data.

6. Investigate history of drainage features.

F. Master Plan and Expansion

1. Include a drawing showing the location of the proposed facility on the site and show all planned future improvements and possibilities for expansion if the information is available.

G. Code Restrictions – Regulatory Permit Requirements

1. List all applicable codes.

2. List all restrictive code requirements which will affect the project.

H. Time Restriction

1. Establish a project time schedule listing dates for:

   a. Schematic design Phase
   b. Design Development Phase
   c. Contract Documents Phase
   d. Bid Period
   e. Construction Period
   f. Project Completion

2. List lead time required for major items requiring long delivery periods.

3. Consider potential time delays due to reviewing authorities.

I. Bidding and Contract Procedures

1. Determine contractor selection procedure (negotiated contract, competitive bid, and direct selection).

2. Determine client imposed alternates or requirements.

3. Determine A/E responsibilities at contract award.

II. ADMINISTRATION OF PROJECT PROGRAM

A. Distribution of Program

1. Establish a written distribution list with the name and position of each team member, including outside consultants.

2. Include the client or client representative on the distribution list.

B. Changes or Revisions

1. Any change which deviates from the formal written Project Program should be issued and distributed as a numbered and dated addendum to the program.

2. If changes are excessive, the entire program should be reviewed.

3. Clearly indicate to client the impact of requested changes.

C. Program Coordination

1. Responsibility for strict adherence to the program must be acknowledged at all levels including outside consultants.

2. Each discipline, in-house or outside consultant, must be responsible for its own activities.

3. At each distribution of program information, ample time should be given for a thorough review and acknowledgement by all disciplines prior to completion of the project phase.

4. A thorough check of the written Project Program should be accomplished at the completion of each phase and confirmed with the client.

ATTACHMENT 19D

PROJECT COST CONTROL

PROJECT COST CONTROL

Stafford Consultants, Incorporated recognizes the client desires to control project cost during design and construction.

Stafford Consultants, Incorporated has established a project management system which has successfully controlled design and construction costs.

Following is Stafford Consultants, Incorporated's Design Budget and Time Schedule Policy to control cost and insure probability.

SECTION A

DESIGN BUDGET AND TIME SCHEDULE

General: Prior to the preparation of budget and time schedule, the entire scope of the project has been defined, the design fee has been set, the contractual agreement has been signed, the project organization has been formed and the project program has been written and reviewed.

Before work commences, the Project Manager should budget both money and time for each phase thus providing each discipline with a yardstick against which to measure performance and monitor progress. Regardless of the office size or the size of the Project, quality tends to suffer when a Project runs behind schedule and/or over budget.

Point to Remember: Each discipline must agree to its budget of time and money prior to starting work. It should evaluate both budget and schedule against is computed effort, advise the Project Manager of its acceptance or rejection and provide the Project Manager with recommended adjustments as appropriate. This is essential where outside consultants are involved.

I. DESIGN BUDGET

A. Budget Determination

The total design fee should be broken down at the start of the Project to determine the design cost.

1. Design Cost is the budgeted figure for salary cost to all disciplines. Each discipline should receive a proportionate amount depending upon its estimated effort in the Project.

Note: Initial proportioning of design cost to the individual disciplines may be estimated by historical data from comparative past projects, by estimated man hour requirements, by estimated drawings to be

produced, by estimated construction dollar values of each discipline, or by other reasonable process.

B. Other Factors Affecting Design Budget

1. Requirements for outside consultants.
2. Requirements for overtime as determined in computing time schedule.
3. The impact of a new project on the schedule of other projects in progress.
4. Project delays due to extended review periods or program changes resulting from such reviews.
   a. Be especially cognizant of potential delays resulting from public agency review and approval procedures.

II. TIME SCHEDULE

A. Review Owner's Requirements

1. The Owner naturally has strong recommendations for early project completion.
2. Management should be very careful at the outset not to "overstate" the capabilities of the firm at the time of negotiations. The client rarely forgets the first date mentioned for design completion.
3. "Fast-tracking" or split contracts is becoming commonplace. Firm should be aware of the great amount of coordination required and the inherent problems of control of manpower and finished product. Extra fees, top quality management and high priority over other projects are necessary for success when designing under these requirements.

B. Review Other In-House Project Commitments

1. Determine if overtime will be required to meet commitments.
2. Work priorities should be established by Firm Management for all projects. Each department or discipline must determine the impact of each new project on its workload. It is **not** up to individual departments or disciplines to establish project priorities.

C. Time schedule should be continually measured against man hour effort computed in budget analysis. This shall be compared to the Gantt Project Summary Report or other management programs being utilized.

III. ADMINISTERING DESIGN BUDGET AND TIME SCHEDULE

A. Distribute final Design Budget and Time Schedule to all disciplines.

B. Require confirmation of both Design Budget and Time Schedule by each discipline.

C. Cost

Distribute and review current costs with each discipline periodically.

1. Compare dollars expended to percentage complete.
2. Do not permit any discipline to overspend without investigation.

D. Project Control

Without proper project control, the entire project may become a "panic situation" leading to "short cutting" and elimination of necessary checking time resulting in undetected errors.

E. Outside Consultants

If outside consultants are required, remember that their performance directly affects your own. Impose the same controls on them as imposed on disciplines within your own organization. Also involve them in the same communication and coordination procedures as applied to the in-house team.

F. Small Jobs

Schedule small jobs carefully. Remember that small projects are just as important to the firm as large projects.

Each employee assigned to the project must complete a daily time sheet which indicates the project name, project number, accounting code to match budget, time worked and description of work. Each employee's time sheet will be approved by the Project Engineer, Project Manager and Vice President.

Each employee must also complete an expense report form for each project which must be approved by Project Engineer, Project Manager and Vice President.

The Project Manager will negotiate a written subconsultant agreement with each subconsultant, which sets forth the scope of work, time schedule, and fees for each project. Prior to beginning work the President or Vice President must execute the Agreement and issue Notice to Proceed.

All subconsultant invoices must be approved by Project Manager and President. These are compared to budget and agreement prior to payment.

Owners also desire to control construction costs and change order costs. Following is Stafford Consultants, Incorporated's Construction Cost Control recommendations to control construction costs.

I. DEVELOP REALISTIC CONSTRUCTION COST ESTIMATE

A. Develop contract bid documents which provide a clear scope of work by in-house and client review which focuses on issues which generate change orders.

B. Value Engineering should be considered.

C. Base estimates on past experience.

D. Use known contractors to discuss cost saving options during design process.

E. Owner has option to employ a specialized, professional estimating firm.

II. CONTINGENCY FUND

A. Provide for a realistic contingency fund to allow for unanticipated conditions.

B. Minimize change orders. Change orders are a normal part of the construction process and consist of the following general categories:

1. Changes in market conditions.
2. Changes in owner's requirements (scope of work).
3. Design errors.
4. Uncovering undisclosed existing conditions.
5. Unknown existing (latent) conditions.
   a. unexpected soil conditions
   b. unknown conditions of an existing structure
6. Changes to initiate better, faster and less costly construction.
7. Design changes to improve final product.
8. Discrepancies in contract documents.
9. Changes in codes and government regulations.
10. Final adjustment of quantities.

NOTE: Change orders are not always bad and do not always result in a negative outcome. Many times the owner is able to provide for a better or expanded project by using available funds to initiate change orders.

III. RESPONSIVE CONSTRUCTION BIDS

This is accomplished by applying several rules.

A. Make sure all known contractors who have performed well on past projects are aware of the project well before bids are due.

B. Conduct mandatory Pre-Bid Conference with all interested contractors.

C. Be available and respond to all of contractors' questions.

D. Amend contract documents by addenda if problems are discovered prior to bidding, or to incorporate changes desired.

E. Select only bids which are **responsive** and **realistic**.

IV. CONSTRUCTION ADMINISTRATION

A. Conduct Pre-Construction Conference with Owner, Contractor, Regulatory Agencies and other affected parties.

B. Require submission of pre-construction videos prior to beginning work.

C. Require Contractor's superintendent to prepare daily field report of construction activities using Stafford standard form.

D. Require Resident Project Representative to prepare daily field report using Stafford standard form.

E. Contractor's superintendent and Resident Project Representative shall agree weekly on quantities installed.

F. Conduct on-site monthly progress meetings to review project and discuss issues required for successful completion of project and review Contractor's monthly requisition for payment.

G. Promptly notify Owner of any potential change orders.

H. Promptly investigate and resolve all Contractor change order requests.

I. Notify Owner of status of change orders.

J. Resident Project Representative shall prepare a preliminary punch list for Contractor's assistance in achieving substantial completion.

K. Conduct substantial completion inspection with Contractor, Owner and Resident Project Representative and issue Definitive Certificate of Substantial Completion.

L. Conduct final inspection with Contractor, Owner and Resident Project Representative and issue recommendation for final payment.

ATTACHMENT 19E

RESUMES

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

Edward L. Shutt, P.E./P.L.S.

President

Education: Virginia Polytechnic Institute and State University
Bachelor of Science in Civil Engineering, 1969

Studies for graduate degree in Sanitary Engineering VPI 1974 & 1975; Water Storage Facilities Design - 1977, University of Wisconsin; Professional Liability/A/E Quality Control - 1980, Victor O. Schinnerer & Company; EPA Construction Grants Administration - 1980, The Cilren Company; Construction Claims and Disputes - 1984, Engineering News Record; Claims - Anticipation and Avoidance - 1986, WV Rural Water Association; EPA Construction Grants Survival Training; Construction Contract Administration - 1994 American Institute of Architects; Understanding and Managing Risk - 1995 Victor O. Schinnerer and Company; Better Management – Leading Your Firm and it's Project Manager – The Picus Group; Balanced Evaluation of Public/Private Partnerships – AWWA Research Foundation; Management of Public Works Construction Project – American Public Works Association; West Virginia Construction Law: Can This Job Be Saved – Lorman Education Services – Ethics for Engineers – Chitester Management System, Inc. - 2000; Water Storage Tank Inspections – WVACE/WV Rural Water; Modern Contracting Practices for Infrastructure Projects – Professional Development Option. 2001 – Construction Issues in West Virginia – Lorman Education Services; 2005 - Victor O. Schinnerer and Company, Inc.- Contracts for Professional Services / Alternate Methods for Project Delivery / Insurance for Design Professionals / Dispute Prevention and Non-Adjudicative Resolution - Litigation on Arbitration / Planning for Success in the International Project Arena / Concepts in Risk Management / Legal Liability of Design Professionals / Developing the Capacity to Manage Risk / Evaluation of Projects and Clients / Planning Phase and Design Phase Risk Management / Bidding or Negotiation Phase Risk Management / Construction Phase Risk Management.

Professional Registration West Virginia (Engineer)

West Virginia (Surveyor)

Professional Memberships: National Society of Professional Engineers, American Water Works Association, West Virginia Rural Water Association and West Virginia Society of Professional Engineers.

Business and Civic Activities: Member Johnston Chapel Church, Past Member Finance Committee; Johnston Chapel Church, former Sunday School Teacher; Former Mercer County Democratic Executive Committee, Treasurer; Former member West Virginia Association of Consulting Engineers; Former member West Virginia Association of Consulting Engineers Infrastructure Committee; Member Joint Utilities Committee Contractor's Association of West Virginia.

Experience:

2011 to present Stafford Consultants Incorporated, President

1985 - 2011 Stafford Consultants Incorporated, Vice President

- Operating officer in charge of design, construction administration activities and quality assurance. Responsibilities have involved conceptual planning, preliminary engineering, final design, financing, bidding and negotiations, construction administration, supervision of resident project representation and final closeout for water and wastewater projects ranging from $250,000 to $44,000,000 in size.

- Design/Quality Assurance Review for various projects.
- Expert Witness in construction claims, change orders and engineering standards of practice.

1977 - 1985 **Gates Engineering Company, Chief Environmental Engineer, Chief Sanitary Engineer, Assistant Chief Engineer - Sanitary, and Civil Engineer**

- Responsible for the supervision of civil and sanitary projects, as well as the day-to-day supervision of three engineers and the coordination of designers and draftsmen.
- Assisted clients by performing preliminary engineering studies and cost estimates for grant applications to secure funding from various government agencies, as well as performing detailed work in financing through revenue bonds.
- Prepared feasibility studies, rate studies and operational and maintenance budgets.
- Design and construction administration services for water and wastewater systems.
- Supervised design of 1.1 miles of WV Route 290/1 for the WV Department of Highways.
- Participated in planning and design of the West Virginia University Stadium.
- Participated in planning and design of expansion of Martinsburg Veterans Administration Hospital.
- Provided engineer's services during construction and supervised resident project representatives.

1975 - 1977 **Region I Planning and Development Council, Sanitary Engineer**

- Prepared grant applications and assisted communities in obtaining funding for water and sewer projects.

1975 **Pentree Incorporated, Design Civil Engineer**

- Responsible for design of water treatment plant, distribution system, sewage collection systems, property surveys and site development.

1974 - 1975 **Virginia Polytechnic Institute and State University, Graduate Student and Graduate Research Assistant.**

1972 - 1974 **Pentree Incorporated, Design Civil Engineer**

- Coordination and supervision of all survey work. Survey work including topographic surveys, land surveys, control surveys for aerial mapping and construction surveys for contractors in the layout of their work.
- Design of wastewater plant, runway expansion and airport layout.

1970 - 1972 **United States Army, Draftsman**
Honorably discharged with the rank of Sergeant (E5)

Summer 1969 **Frank R. McGuire Construction Company, Draftsman**

- Responsible for preparation and obtaining approval of all working drawings from Architect/ Engineer on the Big Walker Mountain Tunnel Portal Building (I-77) in Wytheville, VA.

Summers 1966, 1967 & 1968 **West Virginia Department of Highways**

- Worked on survey crew in 1966, which was involved in layout of various highway projects. Also surveyed projects for final quantities. Worked as a laborer on bridge repair and as a survey taker for determining traffic counts.

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

Stacy A. Fowler, P.E.
Project Manager

Education:	Bluefield State College Bachelor of Science in Civil Engineering Technology, 1995 University of Central Florida MSCE Degree in Civil Engineering (Water Resources), 2007	**Professional Registration Engineer**	West Virginia Florida Georgia (Inactive)

Professional Memberships: National Society of Professional Engineers

Experience:

2009 - Present Stafford Consultants Incorporated, Project Engineer

Mr. Fowler's responsibilities at Stafford Consultants include the development of projects from conceptual planning through construction and initial operation of facilities. His education and background (from both the consultant and municipal perspective) give him an exceptional insight to water, wastewater, and storm water issues.

2011 - Present Bluefield State College

Teaching various Engineering related courses.

2004 - 2009 Engineering, Design & Construction, Inc.—Fort Pierce, FL

- Prepared construction drawings for various commercial, institutional, and governmental projects.
- Prepared conceptual drainage designs for multiple ± 3,000 acre properties with numerous internal sub-basins and multiple control elevations.
- Performed site inspections and prepared reports to various governmental agencies for certification of construction completion.
- Prepared permit applications and followed up on requests for additional information.
- Performed construction site stakeout and prepared digital terrain models for existing and proposed site conditions.
- Performed well flow calculations for consumptive use and pump dewatering calculations for construction activities.
- Prepared horizontal control plans, erosion control plans, and short-form specifications. Prepared bid documents and managed various projects.

2001 - 2004 City of Port St. Lucie Utility Systems Department—Port St. Lucie, FL

- Performed regulatory review of commercial projects. Prepared reports related to anticipated water and sewage flows to various water and wastewater plants. Compiling information to prepare an electronic model of the existing and proposed wastewater infrastructure. Prepared various presentations to procure funds for various engineering projects.

1998 - 2001 Velcon Group, Inc.—Port St. Lucie, FL

- Prepared construction drawings for various commercial, institutional, and governmental projects. Performed drainage calculations, lift station calculation, and water main calculations. Performed site inspections and prepared reports to various governmental agencies for certification of construction completion. Prepared permit applications and followed up on requests for additional information. Performed construction site stakeout and prepared digital terrain models for existing and proposed site conditions.

1998 **Pentree, Inc.—Princeton, WV**

- Prepared digital elevation models of existing and proposed site conditions. Performed earthwork calculations. Prepared cross sections of roadway using CAD software to create balanced earthwork calculations. Prepared roadway plan alternates for public hearings and government section.

1997—1998 **Computects, Inc.—Beckley, WV**

- Performed construction surveying to establish topographic maps of existing conditions. Performed construction stake-out of construction projects. Performed drainage and earthwork calculations along with preparing grading plans, utility plans and horizontal control plans. Additionally, performed structural load and sizing calculations on protective canopies for underground mining equipment.

1997 **Appalachian Engineering & Surveying—Bluefield, WV**

- Performed construction surveying to establish topographic maps of existing conditions. Performed construction stakeout of construction projects.

1995 - 1997 **Visualizations, Inc.—Beckley, WV**

- Coordination of various aspects of design-build projects, included grading, drainage, and site inspections. Managed construction surveying team, performed site stakeout calculations, earthwork calculations, and establishing vertical benchmarks.

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

William B. Keaton, P.E.
Senior Project Manager

Education:	West Virginia Institute of Technology Bachelor of Science in Civil Engineering, 1993 Webster University, MBA, 1992 B.A. West Virginia Institute of Technology 1987 21 hours Marshall University Graduate College (Environmental Engineering) Gulf War Veteran
Professional Registration Engineer	West Virginia #13988 Tennessee #00112901

Business and Civic Activities: American Society of Civil Engineers; American Water Works Association; National Society of Professional Engineers; Water Environment Federation; American Water Works Association; Society of American Military Engineers; Former Infrastructure chairperson of the ACEC of West Virginia from 2007 to 2009.

Experience:

May 2011 - Present **Stafford Consultants Incorporated,**

Design Engineer and Senior Project Manager for several projects, including:

Responsibilities consist of the design and project management of water and wastewater projects including tanks, booster stations, treatment plants, pipelines and appurtenances for utility projects.

- City of Welch combined sewer overflow separation projects along Franklin Street, Summers Street, and River Street.
- Indian Ridge Industrial Park - Phase II utilities.
- Princeton Sanitary Board - project manager on wastewater treatment plant upgrade project.
- Town of Alderson - project manager on water distribution system upgrade and Water Loss Study Project.
- Big Bend PSD - Hilldale Booster Station/Tank Rehabilitation Upgrade Project.

2008 - 2011 **McGill Associates, Knoxville, TN**
Senior Project Manager

Responsibilities consisted of directing Senior Engineers, Junior Engineers, Technicians and Inspection Crews relating to the design and construction of infrastructure projects ranging in value from $25,000 to $10 million. Prepared 3-month, 6-month and yearly labor/revenue projections for corporate. Reported directly to President and Former President. Prepared annual review of all personnel. Supervised 4 young engineers, 2 senior level engineers, and 4 inspectors, depending on workload and other support personnel.

Projects Responsible for:

- West Knox Utility District ARRA West Hampton/Ball Camp Rd. Sanitary Sewer Extension.
- Hallsdale Powell Pump Station/Forcemain Replacement Project.
- South Blount County Utility District 129 Waterline Extension Project.
- City of Jellico Wastewater Treatment Plant.
- City of Jellico ARRA Water Well/ Water Tank/ Raw Waterline Project.
- City of Jellico Abandoned Mine Lands Projects.
- City of Jellico Oswego Tank Rehabilitation.
- City of Jellico Automatic Water Meter Replacement Project.
- Madisonville ARRA Wastewater Treatment Plant/Forcemain Project.
- Madisonville 2009 CDBG Inflow/Infiltration Project.

- Madisonville 2010 CDBG Inflow/Infiltration Project.
- Madisonville Automatic Water Meter Replacement Project.
- City of Sweetwater 2009 Jayne's Street SDBG Sanitary Sewer Extension Project.
- *City of Allardt Water System Improvements Project.*
- Jamestown 2009 CDBG Sanitary Sewer Improvements Project.
- Jamestown Water Treatment Plant Improvements Project.
- Brownlow Utility District Mining Raw Water Well Project.
- Brownlow Utility District Town Road Waterline extension Project.
- Brownlow Utility District Clearwell Rehabilitation Project.
- Big Sandy Fork Park Wastewater Treatment Plant Upgrade Project.

2007 - 2008 **Chapman Technical Group, St. Albans, WV**
Manager, Civil Engineering

Responsible for budgeting and project management for all projects, including:

- 3.4 miles of Corridor H for the West Virginia Division of Highways
- Design of the 100 lot Bella Woods Subdivision which included detention pond, storm drainage, permitting, access road, and utilities
- Site design for the VA Rehabilitation Site in Huntington including water, sanitary sewer, and storm drainage.

2005 - 2007 **HNTB Corporation, Scott Depot, WV**
Section Leader

Responsibilities consisted of directing Senior Engineers, Junior Engineers, Technicians and Inspection Crews relating to the design and construction of infrastructure projects ranging in value from $25,000 to $14 million. Prepared quarterly, annual and five-year budget projections for group. Reported directly to Vice President of operations for Southeast District of the United States. Prepared annual review of all personnel directly relating to infrastructure group. Supervised 5 to 6 young engineers, 2 senior level engineers, and 5 to 10 inspectors, depending on workload and all other support personnel.

- Assistant project manager for rehabilitation of the 20 mgd Charleston, WV wastewater treatment plant including new headworks structure, additional clarification, rehabilitation of the anaerobic digester and high purity oxygen treatment system, new maintenance facility and new effluent diffuser.
- Project manager and design engineer for two raw water intake impoundments for the City of Salem, WV including new intake structures and piping.

2001 - 2005 **Buchart-Horn Corporation, Charleston, WV**
Regional Manager

Responsibilities consisted of managing all aspects of a regional office employed in the markets of transportation, architecture, infrastructure water/wastewater and site development. Responsibilities involved the management of all physical assets and personnel of a twelve-person office. Responsible for marketing of all service areas and development of new clients to diversify niche groups. Provided monthly analysis of P/L statements, provided sales and revenue projections, approved invoicing and accounts receivables. Performed yearly evaluations of all employees. Prepared and submitted 3-year and 5-year business plan.

Overall responsibility for projects, including:

- Design of 4.2 miles of Corridor H in Grant County, WV for the WV Division of Highways.
- Site design of a business park in Bridgeport, WV. Work included all utilities.
- Design, permitting, and construction administration for construction of Rite Aid stores in Huntington and Beckley, WV. Work effort included site grading, utilities including gas, sewer, water, electrical, and cable. Permitting including NPDES construction storm water.
- US460/I77 bridge replacement consisting of a new four lane bridge over I-77 in Mercer County, WV. Work effort also included relocation of water and sanitary sewer. water, and storm water). Also included a 1.2 mile access road.
- Design of the replacement for the Dunlow Truss Bridge in Randolph County, WV. Work included hydraulics, structural design, approach roadways, and permitting for a 180' structure.

2000 - 2001 **Environmental Design Group, Charleston, WV**
Section Leader/Project Manager/Senior Engineer

Responsibilities consisted of marketing infrastructure services such as water and wastewater treatment plant design, water and wastewater transportation systems, site development, including industrial parks and stormwater management design. Built infrastructure services fees from $40,000 annually to $500,000 annually. Performed project management consisting of cost estimation, personnel management, labor scheduling, client contact and all aspects of project engineering.

1996 - 1997 **Dunn Engineers, Inc., Charleston, WV**
Project Engineer

Responsibilities consisted of design and construction management of water and wastewater transmission lines, water tanks, wastewater and water booster stations, water and wastewater treatment plants.

1993 - 1996 **Kelley, Gidley, Blair and Wolfe, Inc., Charleston, WV**
Project Manager / Project Engineer

Responsibilities consisted of design and construction management of water and wastewater transmission lines, water tanks, wastewater and water booster stations, water and wastewater treatment plants, site development projects, coordinated inspectors and inspection services, marketing services.

1989 - 1992 **United States Air Force, Myrtle Beach, SC**

Served in Desert Storm and Desert Shield. Awarded Outstanding Airman award for 1991. Served as senior airman in charge of computer applications and training during 1991 for Detach 3, 3rd Weather Squadron.

1992 - 1996 ***United States Air Force National Guard, Charleston, WV***
130th Airlift Wing

SPECIAL SKILLS: Experienced with all aspects of grant applications for infrastructure projects including but not limited to: RUS (formerly FmHA), ARC, Small Cities Block Grant Program, Tennessee Revolving Fund Applications, Governor's Partnership Grant Application, Office of Surface Mining/Abandoned Mine Lands Program.

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

Christopher L. Perdue
Project Manager

Education:	Bluefield State College Bachelor of Science in Civil Engineering Technology May, 2003	**Professional Registration R.L.D.**	Virginia #26145 (Exp. 10-30-09)

Professional Memberships: American Society of Civil Engineers (Since 2001), Engineers and Surveyors Institute (ESI)
Designated Plans Examiner (Fairfax and Loundoun Counties, and City of Alexandria, VA)

Experience:

January, 2008 - Present Stafford Consultants Incorporated, Assistant Project Manager

Mr. Perdue's responsibilities at Stafford Consultants include project management, design assistance and construction phase assistance for water, wastewater, stormwater management, and development projects.

Assignments include the following projects:

- ***Coalwood Connector Water Extension, McDowell County, WV.*** Design and project management assistance for a $3,500,000 water system expansion that will provide the Town of Iaeger with water from the Coalwood Water Treatment Facility.
- ***Unity Road Water System Extension, Mercer County, WV.*** Project Management and Preliminary Engineering for a $1,000,000 water system extension that will serve new customers along Unity Road in Athens, WV.
- ***North Fork Water Extension, Logan County, WV.*** Provided Project Management assistance and Construction Oversight for a $2,295,000 water extension project to serve new customers in the North Fork and Big Ugly areas of Logan and Boone Counties.
- ***National College Sewer Extension, Princeton, WV.*** Provided Project Management and Bidding Assistance to the Oakvale Road Public Service District for a 600 foot sewer line extension to serve the National Business College.
- ***Wastewater Collection System Expansion and Wastewater Plant Improvements, Hinton, WV.*** Preliminary design and project engineering for 2.0 MGD (peak flow) plant improvements, 2 pumping stations and 16,000 L.F. of Gravity Sewer and Sanitary Force Main.
- ***Anchor Road Water System, Logan County, WV.*** Design and project management assistance for $2,500,000 water system expansion project.
- ***Douthat Water System Extension, Alleghany County, Virginia.*** Prepare VMRC and Corps permit applications and assist with construction phase engineering services.

July, 2004 - October, 2007 VIKA, Incorporated, Project Manager/Project Engineer

Project Management responsibilities included; Initial Project Feasibility Studies, conceptual design, Final Design to include Sediment and Erosion Control Plans, Wet Utility Design, Storm Water Management Facilities (Wet and Dry Ponds, regional impoundments, Underground Facilities, etc.), Traffic Control Plans. Responsibilities also included Construction Administration services from construction commencement to project occupancy or completion.

- ***Fort Lincoln Town Homes, Washington, DC.*** Planning, design and construction administration services for 222 townhouse unit development. Project included stormwater management and retaining wall structures.

- ***The Villages at Washington Gateway, Washington, DC.*** Feasibility study and planned urban development preparation for 22 acre tract. Project included development of a regional stormwater management pond.

- ***Stonewall Estates, City of Fairfax, VA.*** Planning, design and construction administration services for 7-lot subdivision. Plan included utilities, roadway and storm water management.

- ***Riverside Park Apartments, Fairfax County, VA.*** Planning for new amenities to existing 1500-unit residential development. Amenities included new clubhouse, amphitheater, two swimming pools, leasing office and other site improvements.

- ***Southeast Federal Center, Washington, DC.*** Preliminary planning, site grading, hydraulic design related to floodplain issues and permitting for roadways and utilities in areas surrounding the Washington Nationals Stadium along the Anacostia River in Southeast D.C.

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

Matthew W. Peters
Engineering Technician

Education: Bluefield State College
Bachelor of Science in Civil Engineering Technology, Graduated, May 2010

Bluefield State College
Bachelor of Science in Architectural Engineering Technology, 2009

Mercer County Technical Educational Center
Computer Aided Drafting, 2003-2005

Experience:

July 2009 - Present **Stafford Consultants Incorporated, Engineering Technician**

- Performed topography and location surveys.
- Princeton Wastewater Treatment Plant Upgrades
  - Aided in the site, piping, and building layouts.
  - Aided in the structural design for buildings, channels, concrete tanks, stairwells, etc.
  - Drafting of plan drawings

July 2006 - May 2009 **Bluefield State College, Architectural Department Assistant**

- Performed campus topography and location surveys using global positioning systems (GPS) and conventional total stations.
- Updated the majority of the floor plans for the campus.
- Produced as-built drawings for buildings on and off campus.
- Aided in the design for the renovations to the Mitchell Stadium locker rooms in Bluefield, WV.
- Designed the campus map directory.
- Designed a proposed outdoor plaza for the Student Center.
- Designed a proposed façade for the entryway at Bowen Field in Bluefield, WV.
- Aided in teaching Google SketchUp to Bluefield State Architecture Students.
- Taught Bluefield State Students how to use Autodesk Inventor software for one semester.
- Monitored the computer aided drafting laboratory and answered engineering and engineering software related questions.

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

Howard "Sonny" Berry
Director of Construction Services

Education:
West Virginia Institute of Technology
Bachelor of Arts, 1993

Beckley College
Associate of Science in Mining Technology, 1980

Fayette Plateau Vocational Technical Center - Drafting, 1974
WVU - Course work in Landscape Architecture, 1974

Licensed: West Virginia DoH
Compaction Technician

Troxler Certified Nuclear
Density Gauge Operator

Experience:

1985 - Present **Stafford Consultants Incorporated; Construction Administrator and Supervisor**

- ***Present:*** Construction administration for various civil engineering projects. Work includes responsibility for writing change orders, reviewing pay estimates, maintaining construction project files, project cost estimates, permit applications, shop drawing review and approval. Supervises and coordinates field personnel. Recent projects include New Haven PSD Regional Water Project, City of Welch Water System Expansions, City of Summersville Water Project and Oakvale Road PSD Mercer/Summers Phase IVA Water Project.
- ***Past:*** Design layout and drafting various projects, including the City of Summersville Regional Water Treatment Plant, City of Welch Wastewater Treatment Plant, Big Bend PSD, New Haven PSD Waterline Extension Project, City of Mullens Street Paving Project, Wilderness PSD Nallen-Old Nicholas Road Waterline Extension Project and Oakvale Road PSD Water and Sewerline Improvements.

1984 - 1985 **Gates Engineering Company, Resident Project Representative**

- Resident project representative for Town of Alderson wastewater facilities.
- Checking shop drawings for West Virginia University Stadium Expansion.
- Resident project representative for the Crab Orchard-MacArthur PSD wastewater facilities.

1983 - 1984 **Trion Construction Company, General Laborer**

1981 - 1983 **Republic Supply Company, Field Sales Representative**

- Servicing oil and gas field supply accounts.
- Inventories and purchasing
- Valves and fitting make-up

1980 **Roger Hornsby Construction, General Laborer**

1977 - 1979 **Riverton Coal Company, Mine Clerk**

- Responsible for production records, time records, mine supplies, underground communications, EMT and other duties.

1975 - 1977 **Ben Bob, Inc., Survey Party**

- General rodman and chainman for survey party.

1974 **Long Airdox, Inc.**

- Draftsman

STAFFORD CONSULTANTS INCORPORATED

Engineering, Design and Consulting
Planning and Environmental Services

Timothy D. Wyatt
Resident Project Representative

Education:	Bluefield State College *Associate of Science in Civil and Mining Technology, 1977*	Licensed:	Bituminous Concrete Technician - Virginia (Plant No. 0220) and (Paving No. 1275) Aggregate Technician Virginia, No. 0768 Concrete Technician Virginia, No. 2805 Red Cross EMT Trained Virginia Hazardous Material Training 1989 Class I Septic and Water Plants (West Virginia) Impoundment Inspections (MSHA) Miner's Card (West Virginia) Noise and Dust-Sampling Cards Training Card (Surface and Underground) Troxler Certified No. 32166 Blasting Certification - Federal

Business and Civic Activities: Past President and District Officer - Rocky Gap Ruritan Club, past officer for Bland County Bears Athletic Boosters program

Experience:

1990 - Present Stafford Consultants Incorporated, Resident Project Representative

Performs on-site observation of construction of water systems, wastewater systems, athletic facilities, storage tanks, building construction and repair, roof construction and repair and water and wastewater treatment plants. Also assists in layout surveys, studies and flow testing. Involved in over 75 projects for Stafford in 11 counties and two states for public service districts, towns, cities, schools, airports, private sector and local government agencies. Some specific projects include:

- Marshall University Football Stadium, Football Stadium Addition, Facilities Building, Parking Areas and Tennis Courts.
- Mercer County Industrial Development Authority, Cumberland Road Industrial Park Multi-Use Building.
- Mercer County Board of Education roofing project.
- Mercer Mall re-roofing project
- Bluewell Public Service District - Water Extension.
- Bramwell Public Service District - Sewage Collection System.
- Welch Sanitary Board - Wastewater Treatment Plant and Collection System.

- Logan County PSD - Dingess Run Water Extension, Man Water Extension, Whitman Creek Water Extension, Elk Creek Water Extension, Regional Jail Water Extension, Crawley Creek Water Extension, Huff Creek Water Extension; Logan and Mud Fork Sewage Collection System, North Fork / Big Ugly Water Extension, and Garrett Fork Water Extension.

- Sam's Club Parking Lot - Stoning and Paving, Bluefield, Virginia.

1985 - 1990 Pendleton Construction Corp, Field and Office Engineer, Superintendent

- Estimated quantities and assisted in bidding projects. Completed and filed permit applications for upcoming and on-going projects.

- Supervised construction activities, layout of bridge and building projects, grading and quarry cuts, worked with bituminous concrete plant personnel and tested quarry and plant mixes.

1981 - 1985 Kencoal Mining Corp., Mining Engineer, Safety Director, Purchasing

- Company training officer, EMT, MSHA tester and supply purchaser.

- Prepared mine layout and obtained mining permits. Assisted in mine refuse pile reclamation and recycling.

1979 - 1981 Williams Crane and Rigging Inc., Sales Engineer

- Sales and service for specialty rigging, heavy lifting and hauling for mining companies and industrial plants throughout the east central U.S.

- Safety director for all projects handled out of SW Virginia office.

1977 - 1979 Hawley Fuel Corporation, Project Engineer

- Managing construction of new facilities including preparation plant, roads, and mine sites for a cost plus, turn key operation for Peter White Coal.

1976 - 1977 Solid Waste Management Systems, S.W.R. Health Council, Inc, District Supervisor

- Worked with a small team to clean up southern WV by building landfills and garbage collection systems. Studied treating leachate from existing dumps using federal and state grants.

1971 - 1976 Bowling Brothers, Inc., Laborer, Equipment Operator and Foreman

- Performed general construction and heavy hauling. Constructed water and wastewater lines.

1968 - 1971 United States Army

- Served in Vietnam as a combat engineer 12A10 finishing service as a SP/5 63C20.