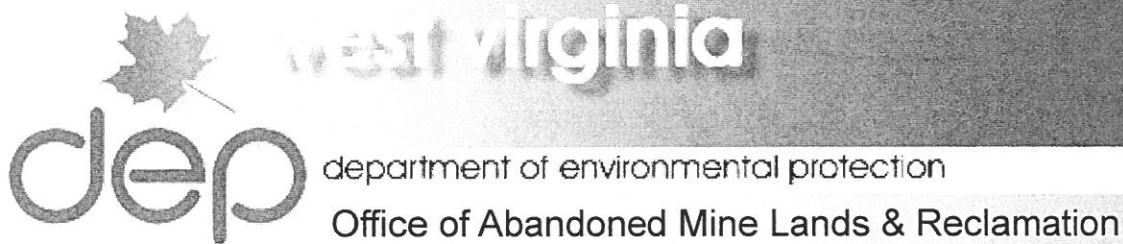


**EXPRESSION OF INTEREST**  
for  
**Engineering Services**

**LANDGRAFF REFUSE PILE**  
**RFQ NO. DEP16398**

January 7, 2014

PREPARED FOR



PREPARED BY

 **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  
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**ENGINEERING**  
*A PEOPLE SERVICE PROFESSION*

**STAFFORD**  
*A CLIENT SERVING COMPANY*

01/07/14 12:32:48PM  
West Virginia Purchasing Division



**STAFFORD  
CONSULTANTS  
INCORPORATED**

*Engineering, Design, and Consulting  
Planning and Environmental Services*

January 7, 2014

File: 9998

Mr. Frank Whittaker  
Department of Administration  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305-0130

Dear Mr. Whittaker:

RE: RFQ No. DEP16398  
Landgraff Refuse Pile  
Opening 1-7-14 at 1:30 p.m.

Stafford Consultants, Inc. is very pleased to have the opportunity to make this proposal in response to the RFQ for professional design services in connection with the Landgraff Refuse Pile in McDowell County.

Enclosed is one (1) original, one (1) convenience copy, and a CD as required by the RFQ.

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

This project is located in McDowell County, approximately 30 miles from our office in Princeton. We have visited the site and are attaching photographs taken from this visit. Our proximity to the site will allow for efficient use of resources in developing the site reclamation plans.

We look forward to an opportunity to interview for this project. Should you have any questions about this proposal or if you need additional information, please contact Mr. Mark Harry at 304-425-9555 or [mharry@staffordconsultantsinc.com](mailto:mharry@staffordconsultantsinc.com) or contact me.

Sincerely,

Edward L. Shutt, P.E.  
President

ELS/krc

Enclosures

## Table of Contents

|  |            |
|--|------------|
| Introduction.....  | 1          |
| People.....  | 2          |
| Abandon Mine Land Experience.....  | 3          |
| Qualifications of Project Team.....  | 6          |
| Past Performance.....  | 7          |
| Location.....  | 7          |
| Process.....   | 8          |
| Product.....   | 8          |
| Conclusion.....  | 9          |
| Worker’s Compensation Certificate and Liability Insurance Certificate..... | Appendix A |
| Request for Quotation Form and Purchasing Affidavit.....                   | Appendix B |
| AML Confidential Qualification Questionnaire.....                          | Appendix C |
| AML & Related Project Experience Matrix.....                               | Appendix D |
| Site Visit Photos to the Landgraff Refuse Site.....                        | Appendix E |
| Flow Diagram of all Processes.....   | Appendix F |
| Project Management Triangle.....   | Appendix G |
| Project Team Organizational Chart and Resumes.....                         | Appendix H |

## INTRODUCTION

Stafford Consultants Incorporated (Stafford) proposes to provide professional engineering services and construction monitoring services to the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WV-DEP). The Professional Services will consist of developing Construction Documents that will allow for reclamation of the Landgraff Refuse Pile in a manner that is acceptable to the WV-DEP-AML. The Scope of Work of the project will consist of the following tasks:

- Design of drainage conveyance
- Reclamation of abandoned refuse
- Reclamation of abandoned highwall
- Demolition/removal of abandoned structures
- Installation of streambank protection
- Re-vegetation of disturbed areas.

However; other tasks maybe identified during the preliminary engineering portion of the project that are not on the included in the above list of Scope of Work Tasks. Stafford will bring any concern or issue that may affect the Scope of Work or the budget of the project to the attention of the WVDEP-AML as it discovered.

Stafford Consultants conducted a visit to the Landgraff Refuse Site on January 4, 2013 in order to become familiar with the site and associated conditions. A number of gas wells were observed above and below the refuse pile along with a road that was used to access them. Any reclamation design for this site has to contain provisions that allow for access to the gas wells and protect any transmission lines. (See Photos in Appendix E).

Stafford is an engineering consulting firm that specializes in providing professional services to clients in the private and public sectors mostly in the State of West Virginia. The firm was founded in 1985; however, the company can trace its lineage to the Gate Engineering Company that was located in Beckley, West Virginia. Our firm has a proud track record of designing a whole range of projects from major University Football Stadiums to small water treatment plants/distribution systems in the Southern Coal Fields. It should be noted that Stafford Consultants has provided professional services for the WV-DEP off and on for the past 25 years.

Like most companies operating in today's economic environment, Stafford has to re-evaluate its way of doing business in order to stay competitive. The revaluation required Stafford to recognize that not only was it facing difficult economic challenges, however; the customers that had always supported the company where also facing them. In order to become more fiscally fit as a company, a corporate strategy has been developed, whereas; the qualities/practices that make Stafford a strong company are maintained while the weaknesses that cause inefficiencies in production or customer satisfaction are eliminated or improved upon.

Stafford's Client Investing Strategy has proven to be the key ingredient for all past and future project successes. The Client Investment Strategy is based on developing, maintaining, and expanding with the

client based upon a solid business and personal relationship. With any relationship, private or public, it takes an investment in time and emotional capital from both parties to develop trust and understanding. Trust is earned and built not in times of smooth sailing. However, it occurs when the client and consultant both face unexpected problems and looming deadlines. Stafford builds deep trust and understanding of our clients by committing ourselves to their causes/projects and seeing it through to the end. As a testament to the Client Investment Strategy, Stafford has kept and grown with some of the same customers throughout the firm's 28 year history.

Stafford has studied some of the business improvement practices and philosophies that have been utilized and implemented at some of the major international and domestic corporations also facing difficult economic challenges. Some of these business practices/philosophies requires management and employees to reinvent themselves into a different organization. Such transformations can take a lot of time and investment and are not always guaranteed to produce the desired results. However, a company can sometimes become more productive and increase customer satisfaction by adopting or getting back to a more simple business strategy based on common sense.

For this project, Stafford Consultants will be practicing and implementing a common sense business strategy based upon a concept known as the "Three Ps." The "Three Ps" business approach is based upon the following concept:

- The first P is people; the people involved on this project will include personnel from Stafford Consultants, the WV-DEP, Contractors, vendors, concerned citizens, and other stakeholders. Stafford takes a team work approach to completing the project with all the above mentioned personnel having a role.
- The second P is process; which is defined as a series of actions that produce something or lead to a particular result. Stafford Consultants is committed to using the proper people, equipment, and technology to deliver a solution or product to the WV-DEP in a timely or cost efficient manner.
- The third P is product; which is defined as an object or thing produced by or resulting from a process. In the case of this project, Stafford defines the product as the Landgraff Refuse Pile being reclaimed in a manner that is within scope, budget, and schedule.

The application of the "3 Ps" business strategy will be further explained in the later sections of this proposal.

## **PEOPLE**

Currently, Stafford Consultants employs a total full time staff of 18, including three registered professional engineers. Our high ratio of professional to total employees is indicative of the importance we place on providing professional service to our clients.

Mr. Kenneth R. Crowe, P.E. is Vice President and Chief Structural Engineer for Stafford Consultants, Inc. and has professional responsibility for all civil and mining related design work performed by the firm.

Mr. Crowe has over 37 years total engineering experience and has served as Chief Structural Engineer for Stafford continuously for over 25 years. He has been Stafford's engineer-in-charge for many projects for the West Virginia Department of Environmental Protection. Mr. Crowe has been a registered professional engineer since 1980.

Mr. Crowe either personally provides or oversees all project related calculations, design, drawing preparation, project management, meetings, and client reviews. He is located at Stafford Consultants' office in Princeton, West Virginia. He is readily accessible to the WVDEP, having routinely attended project meetings in Charleston.

The President of Stafford Consultants, Inc., Mr. Edward L. Shutt, P.E., will provide professional assistance to Mr. Crowe. As chief executive officer of the firm, he will be responsible for contractual matters and provide general project oversight. He will also provide quality assurance reviews, in addition to other independent reviews by Stafford personnel. Mr. Shutt has been a registered professional engineer since 1977.

Stafford Consultants, Inc. maintains Certificates of Authorization from both the Board of Registration for Professional Engineers and the West Virginia Board of Professional Surveyors. Each of our project managers is registered as a Professional Engineer and each has at least 15 years of professional 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 – Office of Abandoned Mine Lands and Reclamation. Each design was delivered on schedule and within budget (See Appendix D). 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 was 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 for the sealing of several portals due to tight site access and closeness to a creek.

- 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 drainage control features.
- 6) Canebrake Complex (McDowell County): This project included regrading and revegetation of 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 drilling 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 revegetation of the pile 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 over 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 consisted 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. Stabilization of a potentially unstable slope immediately behind a house using stabilization fabric anchored into the slope 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.

### **QUALIFICATIONS OF PROJECT TEAM**

We have established a project team for this AML project which reflects the required technical expertise and project management needed for completion of a successful project.

#### **Engineers**

Kenneth R. Crowe, P.E., will be the principal in charge of the project. Mr. Crowe has over 37 years of engineering experience, with the last two years being Stafford's vice president. Mr. Crowe will have overall responsibility for the project.

Edward L. Shutt, P.E., will oversee project quality control. Mr. Shutt has over 43 years of engineering experience and is well versed in risk management and quality control procedures.

James R. Bolton, P.E., will perform a quality assurance review of the plans and specifications prior to their final submittal. Mr. Bolton has over 38 years of engineering experience. While he retired from full time engineering work in 2008, Mr. Bolton works on a part-time basis to perform these reviews.

Christopher L. Perdue, E.I.T., will be the project manager. Mr. Perdue has over 10 years of engineering experience. As a Project Manager, he has managed over 10 reclamation, water, and waste water projects. Being the project manager, he will be the single point of contact for the AML staff and be responsible for all facets of the project.

Stacy A. Fowler, P.E., will assist with drainage and hydrology as needed. Mr. Fowler has over 18 years of engineering experience and a master's degree with specialization in water resources. His experience includes permit preparation, hydrologic and hydraulic studies, and waterline design.

Mark Harry, E.I.T., will assist with any geotechnical engineering necessary and be the liaison with our geotechnical/drilling sub-consultant should one be necessary. Mr. Harry has a master's degree in engineering with specialization in geotechnical. His experience includes reclamation, permit preparation, cost estimating, and construction oversight.

#### **CAD Technicians/Designers**

Kevin G. Smith is our AutoCAD Civil 3D specialist and will perform all modeling and 3D development of plans to enable profile and cross section plotting from the model. He will perform all earthwork quantity calculations. Mr. Smith has over 33 years of CAD experience and has worked on our last four AML reclamation projects.

Resumes' of the above listed personnel are included in Appendix H.

While the above individuals comprise the main AML project team, other engineers, draftsmen, and technicians are available to assist as needed to maintain project schedule.

## **PAST PERFORMANCE**

We have previously listed projects completed for the Department of Environmental Protection, AML over the past 28 years. All of the projects were completed under the direction of Kenneth R. Crowe, P.E. Stafford Consultants' historically low employee turnover rate has allowed continuity in the working relationship between the Division of AML and Stafford. We believe we have consistently worked with AML personnel to meet the division's needs regarding project schedules.

The quality of Stafford's work for the Department of Environmental Protection is reflected in the successful construction of the projects. In the instances where modifications are needed during the construction phase, Stafford personnel have worked quickly with AML personnel to resolve any potential problems to avoid construction delays.

Supplementals to our agreements with the DEP have only been requested due to a change in scope or a project modification at the request of the Division of AML.

In addition to Stafford's experience with the Department of Environmental Protection (Abandoned Mine Lands program), we have worked extensively with the Division of Highways and numerous municipalities, counties, and public service districts. We work closely with our clients to control costs, often allowing the client to construct additional work within available funding. Prime examples of this are our work on the Mercer/Summers Regional Water Project, the Northern Fayette County Regional Water Project, the Welch Wastewater System Improvements, and numerous projects for the City of Princeton. We encourage you to contact any of these clients regarding Stafford's cost control, quality of work, and adherence to schedules. Contact names, addresses, and phone numbers follow.

Mr. Kenny Hayes, Chairman  
New Haven Public Service District  
P.O. Box 178  
Oak Hill, WV 25901  
Phone: (304) 658-4385

Ms. Elke Doom  
Princeton City Manager  
100 Courthouse Road  
Princeton, WV 24740  
Phone: (304) 487-5023

Mr. Michael Vinciguerra, Pres.  
Mercer Co. Commission  
1501 West Main Street  
Princeton, WV 24740  
Phone: (304) 487-8306

Mr. Carlyle Huntington  
Former General Manager  
Oakvale Road Public Service District  
P.O. Box 50  
Princeton, WV 24740  
Phone: (304) 320-9703

The Honorable Reba Honaker  
Mayor of the City of Welch  
88 Howard Street  
Welch, WV 25801  
Phone: (304) 436-3114

## **LOCATION**

Stafford Consultants, Inc. is located in Princeton, West Virginia, where our office has been located since the firm was established in 1985. The firm is locally owned and operated, and all work will be performed out of our office in Princeton.

## PROCESS

Stafford Consultants strongly believes it is a must to understand the processes that are involved in completing a project in a timely or cost efficient manner. Stafford has taken the opportunity to identify and map the following processes:

- **Engineering Design Process:** This process involves the Design Professional (Stafford Consultants) developing Contract Documents (Plans and Specifications) that will result in the reclamation of the Langraff Refuse Pile.
- **Contract Award Process:** This process involves awarding the contract to a Qualified Contractor by advertising the project to prospective bidders, receiving the bids, analyzing the bids and determining if they are acceptable, and awarding the bid to a qualified Contractor
- **Contract Management Process:** This process involves working with the Contractor and Owner to ensure the project is constructed in a manner that is reflective in the Contract Documents

Flow diagrams for each of the processes in provided in Appendix F.

Referring to the Flow Diagrams, Stafford Consultants have made a special effort to call out where and when all parties should be communicating between each other. Communication is the key to making all the process work as they are designed. Stafford Consultants has a special policy of returning all phone calls and emails within 24 hours if circumstances allow. This is an effort to resolve problems upfront and get clarification as soon as possible from all stakeholders in order to avoid issues that may delay the project.

It should be noted that Stafford uses the Engineer Joint Contract Documents as the basis for developing the plan and specifications for the project along with the specialized contract documents specified by the WVDEP-AML program.

## PRODUCT

From Stafford's point of view, the Contract Documents and associated construction monitoring services that are developed for this project do not constitute the whole product. However, the final product should be the resultant of all the defined processes that allowed the Landgraft Refuse Project to be completed in a manner that meets all the objectives in the Scope of Work while being on schedule and within budget. Stafford Consultants applies effective project management techniques through all process based on the concept of the Project Management Triangle (See Appendix G) The Project Management Triangle shows the following information:

- **Time Constraint:** This shows the time that is available to complete a project
- **Cost Constraint:** This shows the budget amount required to complete a project.
- **Scope Constraint:** This shows what must be done to produce the results required in the Scope of Work.

The above mentioned constraints are often competing constraints: increased scope typically means increased time and increased cost, a tight time constraint could mean increased costs and reduced scope, and a tight budget could mean increased time and reduced scope.

Stafford Consultants takes a proactive approach in keeping these constraints in balance during all of the processes required to complete this project by employing a Project Management Professional (Mr. Christopher Perdue) to provide oversight.

### **CONCLUSION**

Stafford Consultants takes pride in serving our clients and looks forward to providing Professional Services to the WVDEP, AML on the Landgraff Refuse Pile. Our commitment to this project is to produce a product that meets or exceeds the expectations of the WV-DEP at a price that is fair to all parties.

**Appendix A**

Worker's Compensation Certification

&

Liability Insurance Certificate



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
1/6/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).


|  |   |                                    |
|--|---|------------------------------------|
| <b>PRODUCER</b><br>The James B. Oswald Company<br>1100 Superior Avenue, Suite 1500<br>Cleveland OH 44114 | <b>CONTACT NAME:</b> Patricia A. Cholewa<br><b>PHONE (A/C No. Ext):</b> 216-839-2800<br><b>E-MAIL ADDRESS:</b> PCholewa@oswaldcompanies.com | <b>FAX (A/C No.):</b> 216-839-2815 |
|  | <b>INSURER(S) AFFORDING COVERAGE</b>  |                                    |
| <b>INSURED</b><br>Stafford Consultants, Inc.<br>1105 Mercer St., POB 5849<br>Princeton WV 24740-5849     | <b>INSURER A:</b> Phoenix Insurance Company <b>NAIC #</b> 25623   |                                    |
|  | <b>INSURER B:</b> Travelers Indemnity Co of Amer      25666   |                                    |
|  | <b>INSURER C:</b> Travelers Indemnity Company      25658  |                                    |
|  | <b>INSURER D:</b> Hartford Fire Insurance Co.      19682  |                                    |
|  | <b>INSURER E:</b> Hudson Specialty Insurance Co.      25054   |                                    |
|  | <b>INSURER F:</b>   |                                    |

**COVERAGES**      **CERTIFICATE NUMBER:** 270177152      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE  | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS  |             |           |           |   |
|----------|--|-----------|----------|---------------|-------------------------|-------------------------|---|-------------|-----------|-----------|---|
| A        | <b>GENERAL LIABILITY</b><br><input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR<br><input checked="" type="checkbox"/> All Primary &<br><input checked="" type="checkbox"/> Non-Contributory<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br><input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC | Y         | Y        | 8808C116376   | 5/1/2013                | 5/1/2014                | EACH OCCURRENCE \$1,000,000<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000<br>MED EXP (Any one person) \$10,000<br>PERSONAL & ADV INJURY \$1,000,000<br>GENERAL AGGREGATE \$2,000,000<br>PRODUCTS - COMP/OP AGG \$2,000,000<br>\$ |             |           |           |   |
| B        | <b>AUTOMOBILE LIABILITY</b><br><input type="checkbox"/> ANY AUTO ALL OWNED AUTOS<br><input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS<br><input checked="" type="checkbox"/> All Primary   | Y         | Y        | BA1D890082    | 5/1/2013                | 5/1/2014                | COMBINED SINGLE LIMIT (Ea accident) \$1,000,000<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$<br>\$  |             |           |           |   |
| C        | <input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR<br><input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE<br><input checked="" type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000   | Y         | Y        | CUP008C116597 | 5/1/2013                | 5/1/2014                | EACH OCCURRENCE \$4,000,000<br>AGGREGATE \$4,000,000<br>\$  |             |           |           |   |
| D        | <b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b><br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below <table style="float: right;"> <tr> <td>Y / N</td> <td></td> </tr> <tr> <td>N</td> <td>N/A</td> </tr> </table>  | Y / N     |          | N             | N/A                     |                         |   | 14WECBS1444 | 11/9/2013 | 11/9/2014 | <input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER<br>E.L. EACH ACCIDENT \$1,000,000<br>E.L. DISEASE - EA EMPLOYEE \$1,000,000<br>E.L. DISEASE - POLICY LIMIT \$1,000,000 |
| Y / N    |  |           |          |               |                         |                         |   |             |           |           |   |
| N        | N/A  |           |          |               |                         |                         |   |             |           |           |   |
| E        | Professional Liability Claims Made<br>Retro Date: 9/3/1985   | N         | Y        | AEE7261002    | 5/1/2013                | 5/1/2014                | Each Claim \$1,000,000<br>Aggregate \$1,000,000   |             |           |           |   |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
Additional Insured and Waiver of Subrogation as designated above is provided when required of the Named Insured by written contract or agreement.

|  |  |
|--|--|
| <b>CERTIFICATE HOLDER</b><br><br>Specimen<br>For Purposes of Evidencing<br>Coverage Only WV 24740-5849 | <b>CANCELLATION</b><br><br>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.<br><br>AUTHORIZED REPRESENTATIVE<br> |
|--|--|

**Appendix B**

Request for Quotation Form

&

Purchasing Affidavit



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

Solicitation

|          |
|----------|
| NUMBER   |
| DEP16398 |

|      |
|------|
| PAGE |
| 1    |

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

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

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

|              |
|--------------|
| DATE PRINTED |
| 12/04/2013   |

BID OPENING DATE: 01/07/2014

BID OPENING TIME 1:30PM

| LINE | QUANTITY | UOP | CAT NO | ITEM NUMBER  | UNIT PRICE | AMOUNT |
|------|----------|-----|--------|--|------------|--------|
| 0001 | 1        | JB  |        | 906-29   |            |        |
|      |          |     |        | LANDGRAFF REFUSE PILE 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 LANDGRAFF REFUSE PILE PROJECT IN MCDOWELL COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS. |            |        |
|      |          |     |        | ***** THIS IS THE END OF RFQ DEP16398 ***** TOTAL:   |            |        |

|                                      |                           |                                   |
|--------------------------------------|---------------------------|-----------------------------------|
| SIGNATURE<br><i>Kenneth R. Senow</i> | TELEPHONE<br>304-425-9555 | DATE<br>1-7-14                    |
| TITLE<br>Vice President              | FEIN<br>55-0656181        | ADDRESS CHANGES TO BE NOTED ABOVE |

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



## Appendix C

### AML Confidential Qualification Questionnaire

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE**

|  |   |                        |
|--|---|------------------------|
| PROJECT NAME<br>Land Graff Refuse Pile<br>RFQ NO. DEP16398 | DATE (DAY, MONTH, YEAR)<br><br>7, January, 2014 | FEIN<br><br>55-0656181 |
|--|---|------------------------|

|  |   |  |
|--|---|--|
| 1. FIRM NAME<br><br>STAFFORD CONSULTANTS, INC. | 2. HOME OFFICE BUSINESS ADDRESS<br>P.O. Box 5849<br>Princeton, WV 24740 | 3. FORMER FIRM NAME<br><br>Successors of Gates Engineering |
|--|---|--|

|  |                                   |  |   |
|--|-----------------------------------|--|---|
| 4. HOME OFFICE TELEPHONE<br><br>(304) 425-9555 | 5. ESTABLISHED (YEAR)<br><br>1985 | 6. TYPE OWNERSHIP<br>Individual                      X Corporation<br>Partnership                      Joint-Venture | 6a. WV REGISTERED DBE<br>(Disadvantaged Business Enterprise)<br>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 / Kenneth R. Crowe, P.E., Vice President / 22

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

9. PERSONNEL BY DISCIPLINE

|                                  |                               |                                |                           |
|----------------------------------|-------------------------------|--------------------------------|---------------------------|
| <u>3</u> ADMINISTRATIVE          | ___ ECOLOGISTS                | ___ LANDSCAPE ARCHITECTS       | * STRUCTURAL ENGINEERS    |
| ___ ARCHITECTS                   | ___ ECONOMISTS                | ___ MECHANICAL ENGINEERS       | * SURVEYORS               |
| ___ BIOLOGISTS                   | <u>1</u> ELECTRICAL ENGINEERS | <u>1</u> MINING ENGINEERS      | ___ TRAFFIC ENGINEERS     |
| <u>2</u> CADD OPERATORS          | ___ ENVIRONMENTALISTS         | ___ PHOTOGRAMMETRISTS          | ___ OTHER                 |
| ___ CHEMICAL ENGINEERS           | ** ESTIMATORS                 | ___ PLANNERS: URBAN / REGIONAL |                           |
| <u>4</u> CIVIL ENGINEERS         | ___ GEOLOGISTS                | <u>1</u> SANITARY ENGINEERS    |                           |
| <u>8</u> CONSTRUCTION INSPECTORS | ___ HISTORIANS                | ___ SOILS ENGINEERS            |                           |
| ___ DESIGNERS                    | * HYDROLOGISTS                | ** SPECIFICATION WRITERS       | <u>23</u> TOTAL PERSONNEL |
| <u>3</u> DRAFTSMEN               |                               |                                |                           |

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

\* Structural Engineer and Hydrologist are also listed as a Civil Engineer. 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 | 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.

C. Is your firm experienced in hydrology and hydraulics?

YES Bridge and dam hydraulics evaluation as related to design and permitting using HEC-RAS, HEC-1 and HEC-2. Storm runoff, drainage and  
pond design and routing using HydroCAD.

NO

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

YES \_\_\_\_\_

NO Contour mapping will be developed in-house or 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.<br>President   | 25                              | 45  | 45   |
| Brief Explanation of Responsibilities   |                                 |   |  |
| <p>Mr. Shutt is the Chief Environmental Engineer and is responsible for all water and wastewater projects and quality assurance. As a principal of the firm, he is the Chief Operations Officer. Some of Mr. Shutt's projects include design and construction administration of wastewater treatment plants, lift stations and sewage collection systems, design of water treatment plants, distribution systems and storage tanks. 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.</p> |                                 |   |  |
| 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: |
| Crowe, Kenneth R.<br>Vice President   | 28                              | 37  | 0  |
| Brief Explanation of Responsibilities   |                                 |   |  |
| <p>Mr. Crowe is responsible for all structural and roadway design required for bridge and highway projects. He has been project manager and chief designer for all 20 AML projects Stafford Consultants has completed. In addition, he performed all structural design for the \$6 million Merriman Athletic Facility at Virginia Tech, structural design for the private box additions to WVU football stadium and structural design of the Chuck Mathena Center for the Performing Arts in Princeton.</p>   |                                 |   |  |
| EDUCATION (Degree, Year, Specialization)  |                                 |   |  |
| BS / 1976 / Civil Engineering / West Virginia Institute of Technology   |                                 |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  |                                 | REGISTRATION (Type, Year, State)          |  |
| Tau Beta Pi   |                                 | Civil/1980/WV Civil/1981/VA Civil/1982/KY |  |

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: |
| Harry, Robert M.<br>Project Engineer    | 10                              | 10                                      | 1  |

Brief Explanation of Responsibilities

Mr. Harry has 10 years in the mining industry as an engineering professional performing such tasks as reserve analysis, slope stability, grading plans, geological cross-sections, earthwork calculations, and environmental permitting. In addition, he has worked on Small Operator's Assistance Program for the West Virginia Department of Environmental Protection along with reclamation projects for the Virginia Dept of Mines, Minerals, and Energy.

EDUCATION (Degree, Year, Specialization)

BS / 1992 / Civil Engineering Technology / Bluefield State College , MS / 1996 / Geological Engineering / WVU , MBA / 2011 / Virginia Tech

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)  
E.I.T. , 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: |
| Fowler, Stacy A.<br>Project Engineer    | 4                               | 18                                      | 17   |

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  
National Society of Professional Engineers

REGISTRATION (Type, Year, State)  
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: |
| Kemp, Reggie K.<br>CADD Operator        | 0                               | 19                                      | 17   |

Brief Explanation of Responsibilities

Mr. Kemp primarily performs CADD work on water and wastewater projects.

EDUCATION (Degree, Year, Specialization)

AAS/1987/Wytheville Community College/Mechanical and Machine Drafting

|  |                                  |
|--|----------------------------------|
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS | REGISTRATION (Type, Year, State) |
|--|----------------------------------|

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.<br>Resident Project Representative | 0                               | 33                                      | 37   |

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) |
|--|----------------------------------|

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<br>Designer/Contract Administrator | 15                              | 31                                      | 31   |

**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) |
|--|----------------------------------|

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: |
| Burns, Sidney P.<br>Sr. Resident Project Representative | 28                              | 55                                      | 34   |

**Brief Explanation of Responsibilities**

Mr. Burns presently serves as a senior resident project representative overseeing water projects including line installation, tank installation and treatment plant construction. These include current AML funded water facilities in Nicholas County. As an inspection supervisor with the WVDoh he worked on several sections of I-64, I-77 and Corridor L.

**EDUCATION (Degree, Year, Specialization)**

1958/Diploma/Greenbrier High School

|  |                                  |
|--|----------------------------------|
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS | REGISTRATION (Type, Year, State) |
|--|----------------------------------|



|  |  |  |  |
|--|--|--|--|
| 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.)<br><br>Maynor, Andrew S.<br>Engineering Technician   | YEARS OF EXPERIENCE                      |  |  |
|  | YEARS OF AML DESIGN EXPERIENCE:<br><br>0 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br><br>0     | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 0 |
| Brief Explanation of Responsibilities<br><br>Mr. Maynor is responsible for performing a variety of tasks that meet the needs of the project managers such as data collection, quantity takeoffs, data entry, and design/drafting work. Predominantly responsible for drafting work related to water/sewer line extension projects. |  |  |  |
| EDUCATION (Degree, Year, Specialization)<br><br>BS / 2013 / Architectural Engineering Technology / Bluefield State College   |  |  |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS<br>American Society of Civil Engineers (ASCE)   |  | REGISTRATION (Type, Year, State)<br>Member, 2013, 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.)<br><br>Wood, Johnathan D.<br>Engineering Technician  | YEARS OF EXPERIENCE                      |  |  |
|  | YEARS OF AML DESIGN EXPERIENCE:<br><br>0 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br><br>0     | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 1 |
| Brief Explanation of Responsibilities<br><br>Mr. Wood is responsible for supporting the design engineer through research, data collection, and compilation of information and calculations. In addition he has conducted quantity and cost estimates for projects for Welch, Gary, and Hinton, WV.                                 |  |  |  |
| EDUCATION (Degree, Year, Specialization)<br><br>BS / 2011 / Civil Engineering Technology / Bluefield State College   |  |  |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS<br>International Code Council (ICC)   |  | REGISTRATION (Type, Year, State)                     |  |

|  |                                 |  |  |
|--|---------------------------------|--|--|
| 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.<br>Project Manager  | 9                               | 6  | 6+   |
| Brief Explanation of Responsibilities  |                                 |  |  |
| <p>Mr. Perdue has over nine years of experience within the civil engineering industry. His design experience ranges from land development projects in downtown D.C. to environmental engineering throughout the rural areas of southern West Virginia. Strict regulations required Mr. Perdue to become proficient at preparing engineering plans for residential, commercial and industrial developments. Mr. Perdue shifted his engineering focus is on land development to environmental engineering and has how designed numerous water distribution and sewage collection systems as well as several water/wastewater treatment facilities. Mr. Perdue has also assisted with design work on two AML Projects previously completed by Stafford.</p> |                                 |  |  |
| EDUCATION (Degree, Year, Specialization)   |                                 |  |  |
| BS / 2003 / Civil Engineering Technology / Bluefield State College   |                                 |  |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State)           |  |
| Project Management Institute   |                                 | E.I.T. , VA WV 2013<br>P.M.P. , Nationwide |  |
| 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: |
|  |                                 |  |  |
| Brief Explanation of Responsibilities  |                                 |  |  |
| EDUCATION (Degree, Year, Specialization)   |                                 |  |  |
|  |                                 |  |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                 | REGISTRATION (Type, Year, State)           |  |
|  |                                 |  |  |

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    |
|--|---|---|-----------------------------|---------------------|
| Oakvale Road Public Service District<br>South Water Study – Phase IVA<br>Mercer County, WV         | Oakvale Road PSD<br>P.O. Box 1061<br>Princeton, WV 24740  | Report -<br>Preliminary Engineering Report  | \$5,500,000                 | Construction – 86%  |
| City of Summersville<br>Glade Ck - Phase IIA Waterline<br>Nicholas County, WV                      | City of Summersville<br>P.O. Box 525<br>Summersville, WV 26651  | Report, Design,<br>Construction Administration &<br>Resident Project Representation   | \$5,000,000                 | Construction – 99%  |
| New Haven PSD<br>Contracts 15/16 Water<br>Fayette County, WV                                       | New Haven PSD<br>Route 1, Box 123C<br>Fayetteville, WV 25840  | Report, Design,<br>Construction Administration &<br>Resident Project Representation   | \$3,200,000                 | Construction – 100% |
| City of Welch<br>Indian Ridge/Industrial Park<br>McDowell County, WV                               | City of Welch<br>88 Howard Street<br>Welch, WV 24901  | Report, Design,<br>Construction Administration &<br>Resident Project Representation   | \$6,800,000                 | Construction – 100% |
| Town of Alderson<br>Water System<br>Greenbrier County, WV  | Town of Alderson<br>P.O. Box 179<br>Alderson, WV 24910  | Report, Design,<br>Construction Administration &<br>Resident Project Representation   | \$1,000,000                 | Design – 10%        |
| Logan County PSD<br>Phase IIA Sewer<br>Logan County, WV  | Logan County PSD<br>P.O. Box 506<br>Logan, WV 25601   | Report, Design,<br>Construction Administration &<br>Resident Project Representation   | \$6,000,000                 | 100%                |
| McDowell County PSD<br>Coalwood Wastewater Treatment &<br>Collection System<br>McDowell County, WV | McDowell County PSD<br>HC 31 Box 436 J<br>Welch, WV 24801   | Report, Design,<br>Construction Administration &<br>Resident Project Representation   | \$3,825,000                 | Design – 30%        |
| Big Bend PSD<br>Ballangee, Barger Springs & Forest<br>Hill Water System<br>Summers County, WV      | Big Bend PSD<br>P.O. Box 114<br>Talcott, WV 24981   | Report and Study  | \$4,300,000                 | Design – 100%       |
| Town of Renick / Falling Springs<br>Renick Water System<br>Greenbrier County, WV                   | Falling Springs Corporation<br>P.O. Box 116<br>Renick, WV 24966                                       | Design and preparation of<br>contract documents for 5.25<br>miles of four-lane highway<br>including two bridges and two<br>access roads.        | \$2,390,000                 | Construction – 100% |
| City of Welch<br>Sewer Improvements – Contract 7-C<br>McDowell County                              | City of Welch<br>88 Howard Street<br>Welch, WV 24801  | Design and preparation of<br>contract documents needed to<br>expand existing aeration<br>capacity and construct additional<br>aerobic digester. | \$1,000,000                 | 100%                |
| Coalfields Expressway<br>Highway & Bridge Design<br>McDowell County, WV                            | WV Division of Highways<br>Building 5, Room A317<br>1900 Kanawha Boulevard E.<br>Charleston, WV 25305 | Design and preparation of<br>Contract Documents for<br>waterline construction.  | \$150,000,000               | Design – 80%        |

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    |
|---|--|---|-----------------------------|---------------------|
| City of Princeton Wastewater Treatment Plant Expansion<br>Princeton, WV | Princeton Sanitary Board<br>227 South Wickham Avenue<br>Princeton, WV 24740      | Plan, Design and Construction phase engineering for waterline extension.      | \$8,000,000                 | Construction – 88%  |
| Glade Springs Utilities, East 2010<br>Beckley, WV                       | Cooper Land Development<br>903 North 47 <sup>th</sup> Street<br>Rogers, AR 72756 | Design and preparation of Contract Documents for waterline construction.      | \$2,100,000                 | Construction – 100% |
| Big Bend PSD<br>Armory/Wiggins Water<br>Summers County, WV              | Big Bend PSD<br>P.O. Box 114<br>Talcott, WV 24981                                |   | \$1,000,000                 | Design – 95%        |
| Town of Pineville<br>Water Extension<br>Pineville, WV                   | Town of Pineville<br>P.O. Box 220<br>Pineville, WV 24874                         | Report, Design, Construction Administration & Resident Project Representation | N/A                         | Report Study        |
| Logan County PSD<br>Anchor Road Water<br>Logan/Boone Counties, WV       | Logan County PSD<br>P.O. Box 506<br>Logan, WV 25601                              | Report, Design, Construction Administration & Resident Project Representation | \$2,000,000                 | Design – 100%       |
| Meadow Bridge<br>Wastewater Improvements<br>Meadow Bridge, WV           | Town of Meadow Bridge<br>P.O. Box 8<br>Meadow Bridge, WV 25976                   |   | \$1,000,000                 | Design – 100%       |
| Town of Rainelle<br>Water System Improvements<br>Rainelle, WV           | Town of Rainelle<br>P.O. Box 648<br>Rainelle, WV 25962                           | Report, Design, Construction Administration & Resident Project Representation | \$6,000,000                 | Design – 80%        |
| City of Hinton<br>Brooks/Barksdale<br>Hinton, WV                        | City of Hinton<br>322 Summers Street<br>Hinton, WV 25951                         | Report, Design, Construction Administration & Resident Project Representation | \$4,000,000                 | Construction – 82%  |
| City of Hinton<br>Gold Coast Sewer<br>Hinton, WV                        | City of Hinton<br>322 Summers Street<br>Hinton, WV 25951                         | Report, Design, Construction Administration & Resident Project Representation | \$1,400,000                 | Design – 10%        |
|   |  |   |                             |                     |
|   |  |   |                             |                     |
| TOTAL NUMBER OF PROJECTS: 20  |  | TOTAL ESTIMATED CONSTRUCTION COSTS: \$214,515,000                             |                             |                     |



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) |
|---|---|-----------------------------|-----------|-------------------------|
| City of Princeton<br>Various Sidewalk Projects<br>Mercer County, WV           | City of Princeton<br>100 Courthouse Road<br>Princeton, WV 24740                                       | \$350,000                   | 2008-2012 | On going                |
| Town of Alderson<br>SRTS Sidewalk Projects<br>Greenbrier County, WV           | Town of Alderson<br>Joe Veazey, Mayor<br>P.O. Box 179<br>Alderson, WV 24910                           | \$308,000                   | 2008-2012 | Yes                     |
| McDowell County PSD<br>Jaeger Water System Replacement<br>McDowell County, WV | McDowell County PSD<br>HC 31 Box 436 J<br>Welch, WV 24801   | \$2,800,000                 | 2008      | Yes                     |
| Rolfe Arch Bridge<br>Bridge Replacement Project<br>Rolfe, McDowell County, WV | WV Division of Highways<br>Building 5, Room A317<br>1900 Kanawha Boulevard E.<br>Charleston, WV 25305 | \$900,000                   | 2008      | Yes                     |
| Glade Springs Utilities<br>Beckley, WV  | Cooper Land Development, Inc.<br>903 North 47 <sup>th</sup> Street<br>Rogers, AR 72756                | \$8,000,000                 | 2009      | Yes                     |
| Logan County Public Service District<br>North Fork Water<br>Logan County, WV  | Logan County PSD<br>P.O. Box 506<br>Logan, WV 25601   | \$2,000,000                 | 2009      | Yes                     |
| McDowell County PSD<br>Jaeger Water System<br>McDowell County, WV             | McDowell County PSD<br>HC 31 Box 436J<br>Welch, WV 24801  | \$2,800,000                 | 2009      | Yes                     |
| Crescent Hospitality<br>Microtel Site Work<br>Mercer County, WV               | Mr. Khalid Durrani<br>216 Third Street<br>St. Marys, WV 26170   | \$50,000                    | 2009      | Yes                     |
| P & G Hospitality<br>Country Inn Suites Site Work<br>Mercer County, WV        | P&G Hospitality – Mahesh Gadhia<br>P.O. Box 1715<br>Princeton, WV 24740                               | \$100,000                   | 2009      | Yes                     |
| Cass Arch Bridge<br>Bridge Replacement Project<br>Pocahontas County           | WV Division of Highways<br>Building 5, Room A317<br>1900 Kanawha Boulevard E.<br>Charleston, WV 25305 | \$1,000,000                 | 2009      | Yes                     |
| Cameron High School<br>Site Development<br>Marshall County, WV                | Marshall County Schools<br>214 Middle Grave Creek Road<br>Moundsville, WV 26041                       | \$23,000,000                | 2009      | Yes                     |
| Oak Glen High School<br>Multi Use Stadium Project<br>Hancock County, WV       | Hancock County Schools<br>2900 Orchard Street<br>Weirton, WV 26062                                    | \$6,500,000                 | 2010      | Yes                     |

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD

| PROJECT NAME, TYPE<br>AND LOCATION   | NAME AND ADDRESS<br>OF OWNER   | ESTIMATED CONSTRUCTION COST | YEAR | CONSTRUCTED<br>(YES OR NO) |
|--|--|-----------------------------|------|----------------------------|
| Weir High School<br>Multi-Use Stadium Project<br>Hancock County, WV            | Hancock County Schools<br>2900 Orchard Street<br>Weirton, WV 26062       | \$5,000,000                 | 2010 | Yes                        |
| New Weirton Elementary School<br>Site Development<br>Hancock County, WV        | Hancock County Schools<br>2900 Orchard Street<br>Weirton, WV 26062       | \$20,360,000                | 2012 | On-going                   |
| Mercer County Health Center<br>Site and Structural Design<br>Mercer County, WV | Mercer County Commission<br>1501 West Main Street<br>Princeton, WV 24740 | \$3,500,000                 | 2012 | No                         |



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 |
|---|--|--|------|-------------------------|----------------------|
| Hilltop Elementary School<br>Sherrard, WV                       | Marshall County Schools<br>Moundsville, WV | \$1,500,000  | 2009 | Yes                     | McKinley & Assoc.    |
| Wheeling Park High School<br>Road Relocation<br>Wheeling, WV    | Ohio County Schools<br>Wheeling            | \$1,000,000  | 2009 | Yes                     | McKinley & Assoc.    |
| Field of Dreams – Oak Glen<br>High School<br>New Manchester, WV | Hancock County Schools<br>Weirton, WV      | \$800,000  | 2008 | Yes                     | McKinley & Assoc.    |
| Williamstown High School<br>Site Civil Work<br>Williamstown, WV | Wood County Schools<br>Parkersburg, WV     | \$600,000  | 2007 | Yes                     | McKinley & Assoc.    |
|   |  |  |      |                         |                      |

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.

Stafford Consultants has extensive experience in performing site regrading and reclamation of refuse disposal areas, having successfully completed ten such projects for the DEP, Office of AML. All of these projects also included drainage improvements and/or control and several also included demolition of ancillary structures. Our staff is experienced in AML design and plan preparation and look forward to continuing performing this valuable service for the Office of AML.

20. The foregoing is a statement of facts.

Signature:  Title: Vice President

Date: January 7, 2014

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

## Appendix D

### AML and Related Project Experience Matrix

## AML and RELATED PROJECT EXPERIENCE MATRIX

| PROJECT                             | Exp. Basis<br>C=Corp<br>P=Personal<br>* | Additional Info<br>Provided in<br>Section(s)<br>** | PROJECT EXPERIENCE REQUIREMENTS       |                                    |                      |   |                     |                               |   |                          |                        |   |  |                 |                                | PRIMARY STAFF PARTICIPATION/CAPACITY<br>*** M=Management P=Professional |                        |                            |                       |                        |
|-------------------------------------|---|--|---------------------------------------|------------------------------------|----------------------|---|---------------------|-------------------------------|---|--------------------------|------------------------|---|--|-----------------|--------------------------------|---|------------------------|----------------------------|-----------------------|------------------------|
|                                     |   |  | Abandoned Surface Mine<br>Reclamation | Abandoned Deep Mine<br>Reclamation | Portal/Shaft Closure | Hydrologic/Hydraulic<br>Design/Evaluation | Remining Evaluation | Mine/Refuse Fire<br>Abatement | Subsidence Investigation/<br>Mitigation | Hazardous Waste Disposal | Project Specifications | Water Quality Evaluation/<br>Mitigation/Replacement | Construction Inspection/<br>Management | Water Treatment | Equipment/Structure<br>Removal | Stream Restoration  | Geotechnical/Stability | Christopher L. Perdue, EIT | Edward L. Shuft, P.E. | Kenneth R. Crowe, P.E. |
| 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   |                        | P                          | P                     |                        |
| Millersville Road Refuse            | C                                       | 19   | X                                     | X                                  | X                    |   |                     |                               |   | X                        |                        |   |  |                 |                                |   |                        | P                          | P                     |                        |
| Milburn Red Dog                     | C                                       | 19   |                                       |                                    |                      |   |                     |                               | 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   |                                       |                                    |                      |   |                     |                               |   |                          |                        |   |  |                 |                                |   |                        |                            | 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                    |
| Logan County PSD                    | C                                       | 19   |                                       |                                    |                      |   |                     |                               |   |                          |                        |   | X                                      | X               |                                |   |                        |                            |                       | M                      |
| McComas Refuse                      | C                                       | 19   |                                       |                                    | X                    |   |                     |                               |   | X                        |                        |   |  |                 |                                | X   | P                      | M                          | P                     |                        |
| McDowell County Feasibility Studies | C                                       | 19   |                                       |                                    |                      |   |                     |                               |   |                          | X                      |   |  |                 |                                |   |                        | M/P                        | P                     |                        |
| Thompson, Young, & Crespo Drainage  | C                                       | 19   |                                       |                                    | X                    |   |                     |                               |   | X                        |                        |   |  |                 |                                | X   | P                      | M                          | P                     |                        |

\* 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.

## Appendix E

### Site Visit Photos to the Landgraff Refuse Site

## Observation

A View from Top of the Refuse Pile looking Toward Gas Well

A portion of the Refuse Pile appears to have Broken away and slid Down the Hill



## Observation

A View from Top of the Refuse Pile looking Toward A Section of Undisturbed Channel

The Downstream Creek Channel through the Refuse Area should Mimic this Section



## Observation

A View from Bottom of the Refuse Pile looking Toward The Top

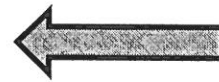
It appears that Uncontrolled Drainage has caused Major Erosion



## Observation

A View from Top of the Bottom Gas Well Bench looking toward the Middle of Refuse Pile.

It appears that Uncontrolled Drainage has eroded Channels in the Refuse Pile



## Observation

A View of the Gas Well  
Located near the Bottom of  
the Refuse Pile

Great Care will be required  
to locate and protect the  
Gas Well Infrastructure  
during Design and  
Construction



## Observation

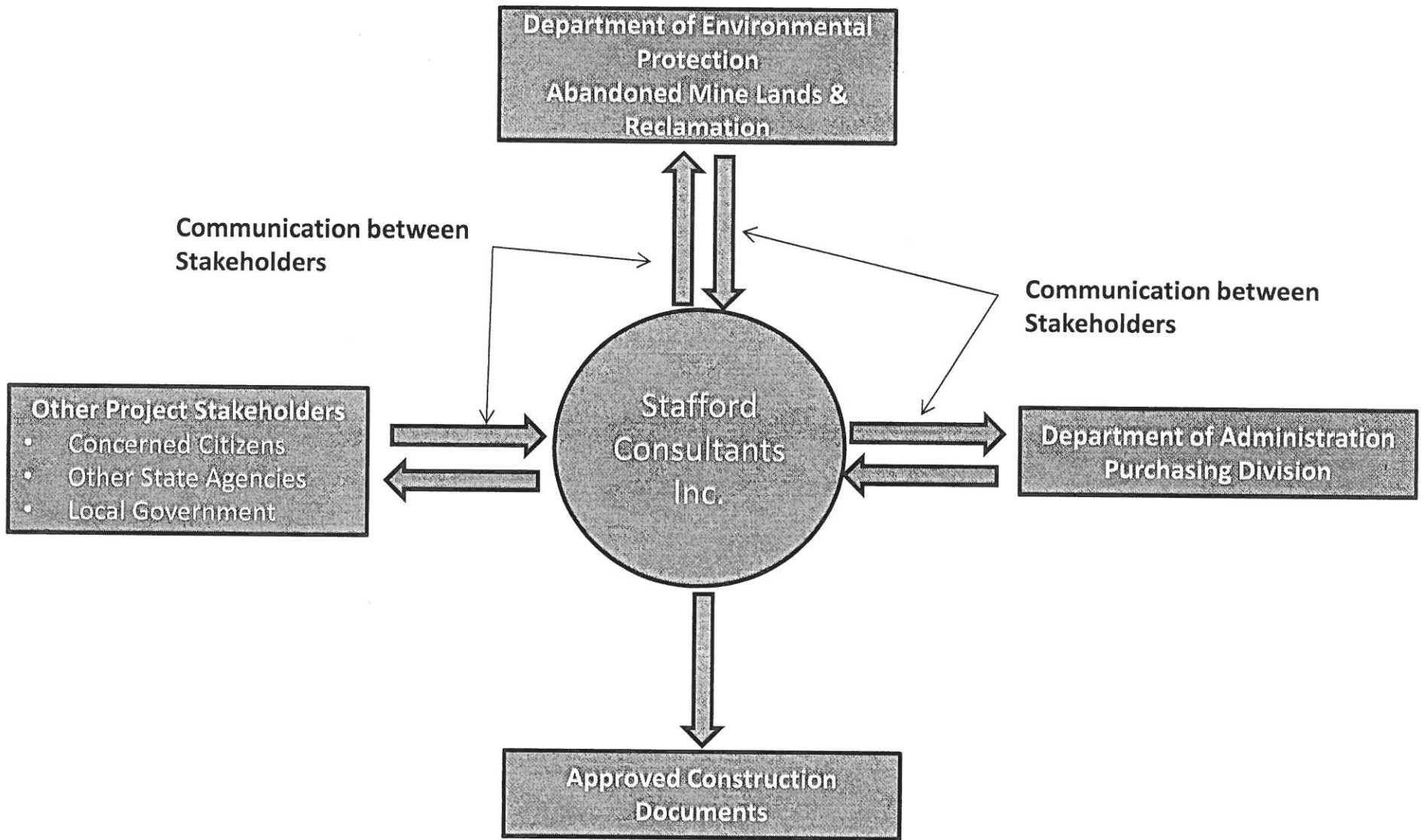
A View of the Access Road  
near the Top of the Refuse  
Pile which is still used by  
Gas Companies

The Reclamation Plan is  
going to have to include a  
Component that allows  
Continued Use of the Road

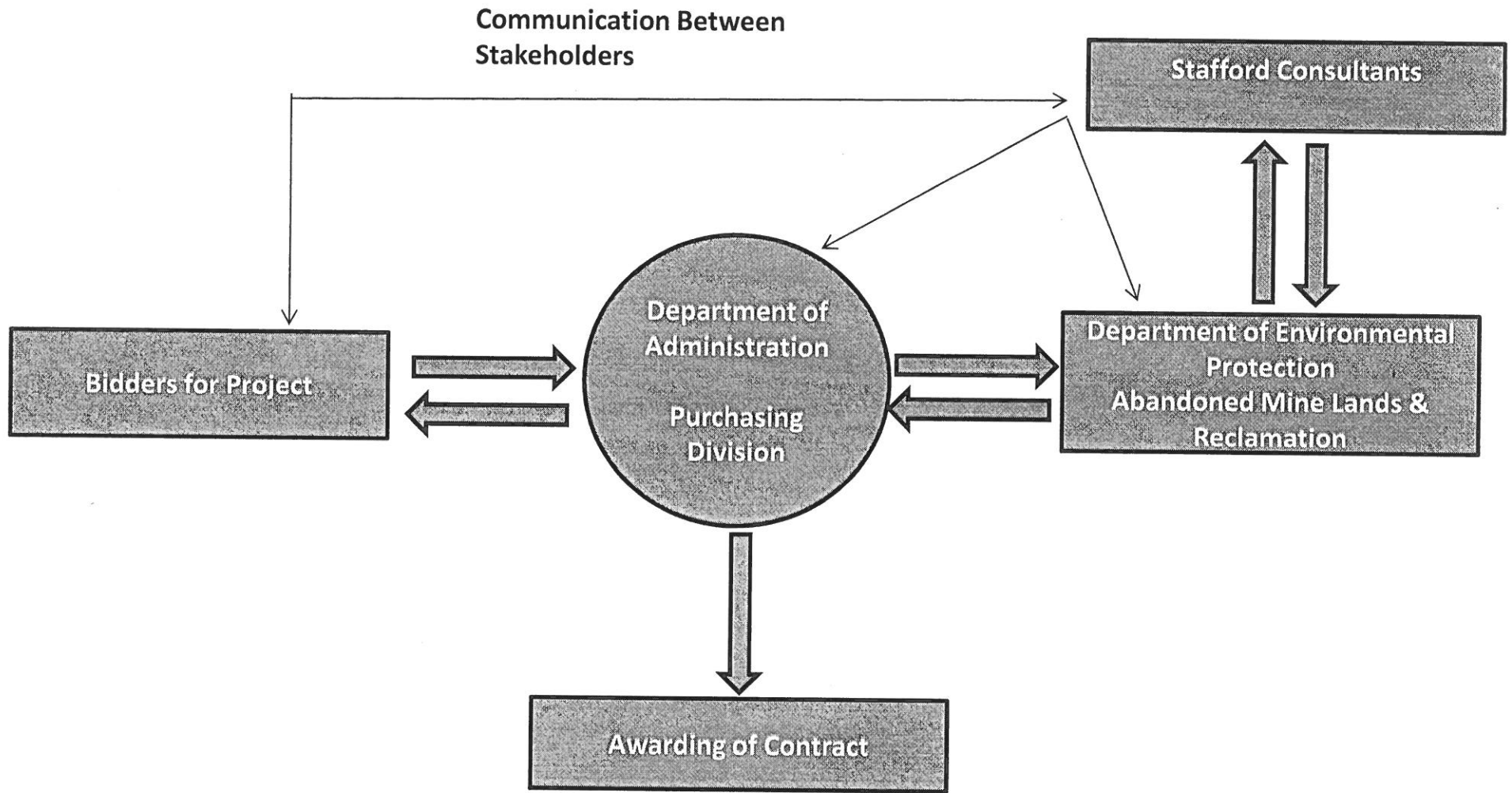
## Appendix F

Flow Diagram of all Processes





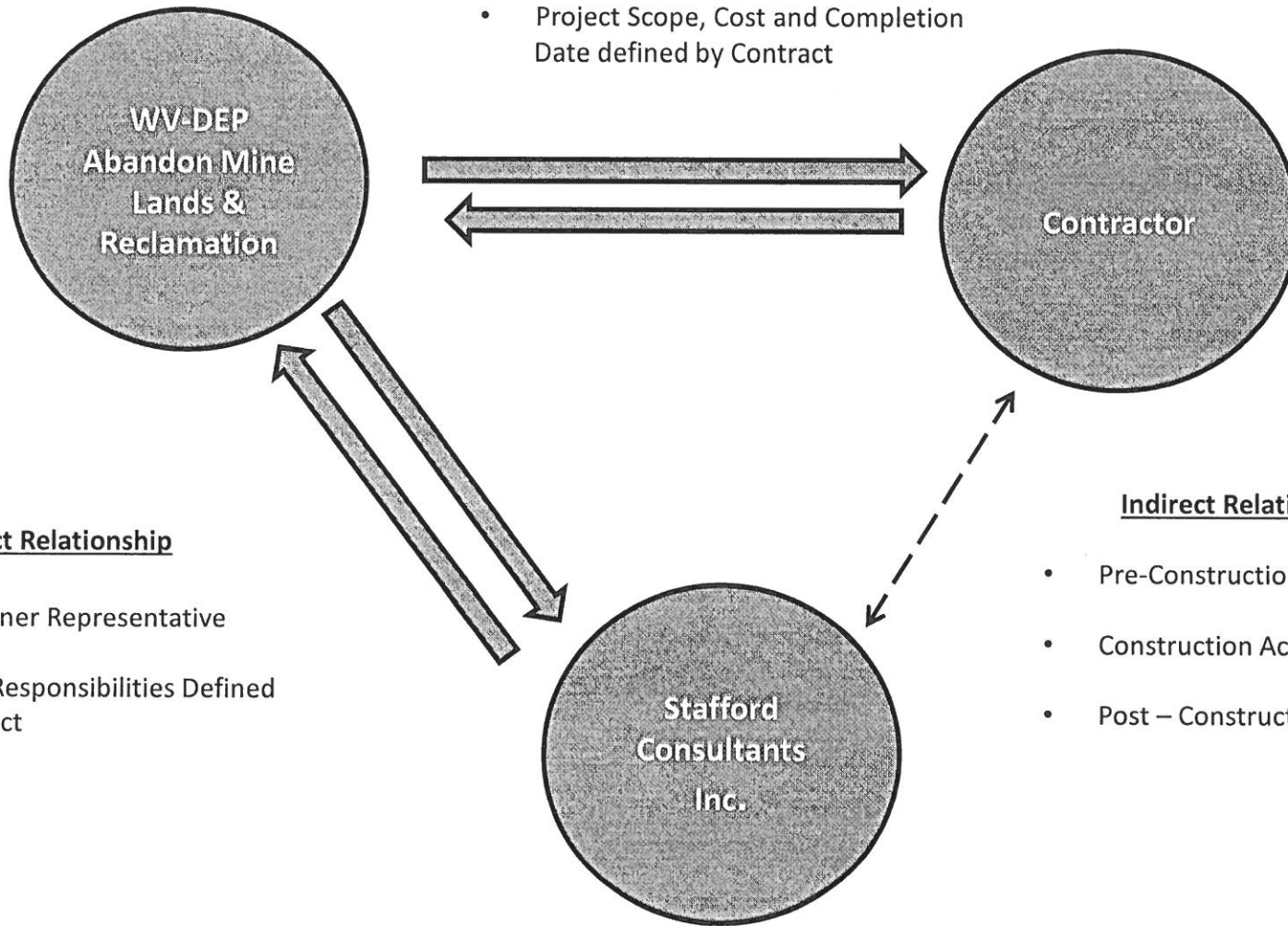
## Engineering Design Process



**Contract Award Process**

Direct Relationship

- Project Scope, Cost and Completion Date defined by Contract



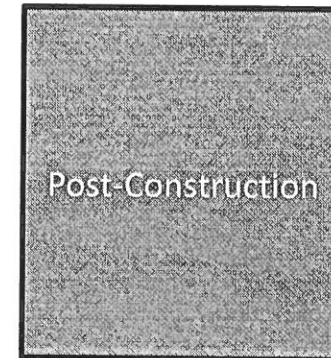
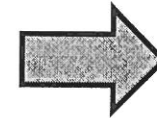
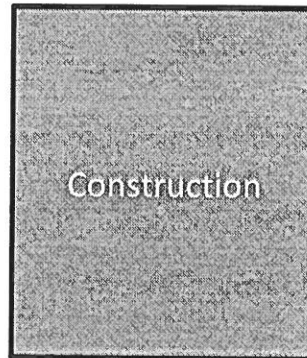
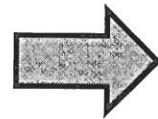
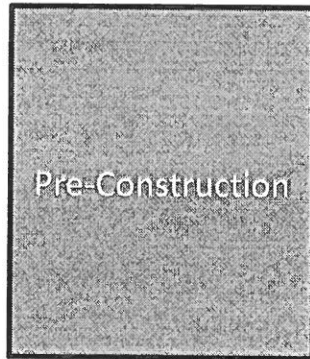
Direct Relationship

- Act as Owner Representative
- Duties & Responsibilities Defined by Contract

Indirect Relationship

- Pre-Construction Activities
- Construction Activities
- Post – Construction Activities

# Contract Management Process- Relationships



### Primary Tasks

- Have Pre-Construction Conference with Contractor to go over Plans and Specifications
- Construction Manager will Review & Approve Contractor's Quality Assurance Plan
- Engineer will review & Approve or Disapprove Materials or Methods Submitted by Contractor
- Construction Manager will Explain Pay Item and Request for Information (RFI) Procedures

### Primary Tasks

- Resident Project Representative (RPR) will be on site to Monitor & Observe Contractor Activities and Verify Pay Items
- Construction Manager Take Pro-Active Approach to Eliminate or Reduce the Risk of Claims arising from unforeseen or Circumstances
- Engineer will take Immediate Action to Response to RFIs and Resolve Design or Other Issues

### Primary Tasks

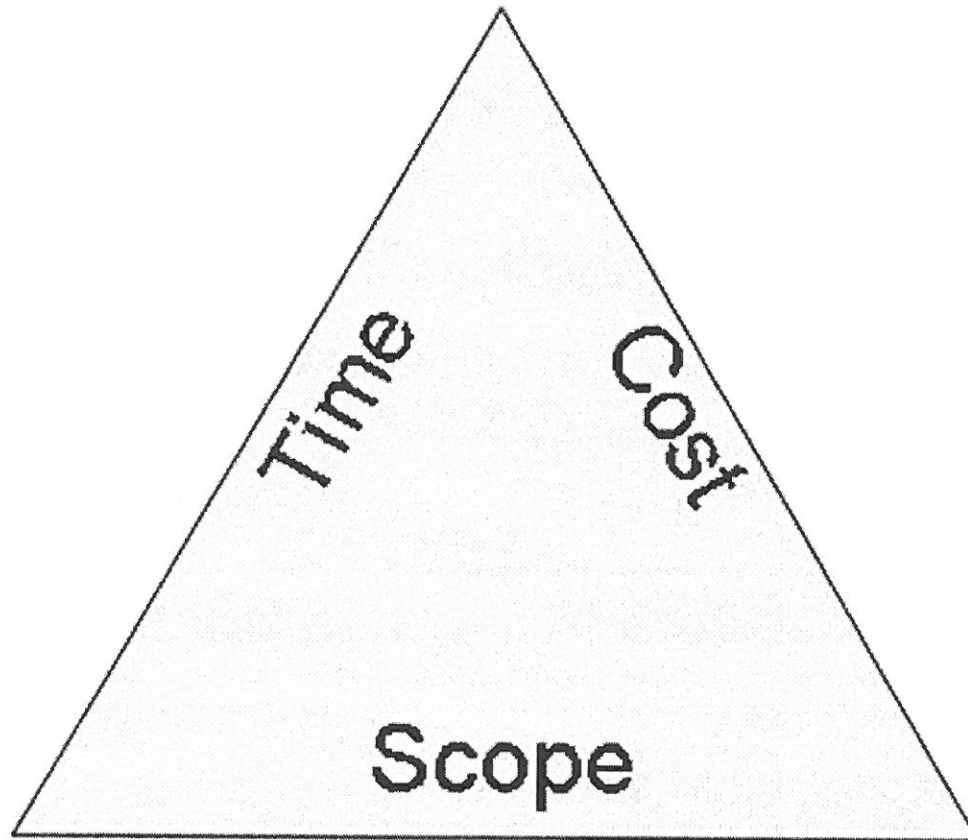
- The RPR will Develop Punch lists and Verify all Work has been Completed as Defined by the Scope of Work in Accordance with the Plans and Specifications
- Project Engineer & Construction Manager will Verify the Accuracy of the Record Drawings & Coordinate all Training Related to Site Operations & Maintenance.
- Project Engineer will provide Certificate of Completion and Closeout all Outstanding Issues related to Payments, Warranties on Work/ Materials, and other Items

## **Contract Management Process - Actionable Items**

## Appendix G

### Project Management Triangle

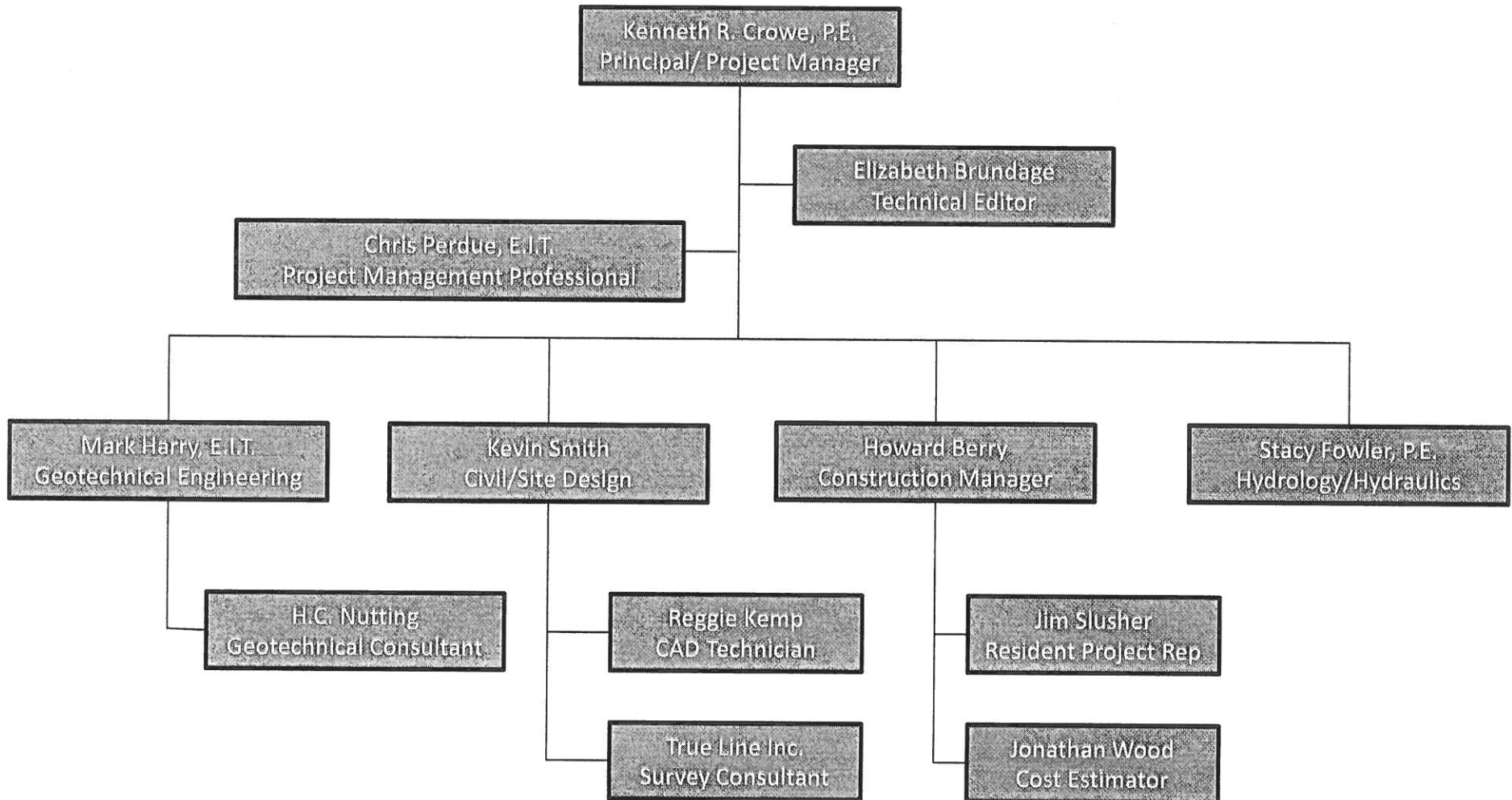
# Project Management Triangle



## Appendix H

### Project Team Organization Chart

# Stafford Consultants Project Team







*Engineering, Design and Consulting  
Planning and Environmental Services*

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

|  |   |
|--|---|
| <b>Education:</b> West Virginia Institute of Technology<br>Bachelor of Science in Civil Engineering, 1976  | <b>Professional Registration Engineer</b> West Virginia<br>Virginia<br>Kentucky |
| <b>Business and Civic Activities:</b> Church Treasurer, Board of Trustees Member, and member of New Hope United Methodist Church; Member-City of Princeton's General Board of Appeals; Member-Mercer County Schools Career Connections Steering Committee; Member-Glenwood Park Board of Trustees.   |   |
| <b>Experience:</b> <b>1985 - Present Stafford Consultants Incorporated, Chief Structural Engineer (also Vice President since September 2011)</b><br><br>Design Engineer and Project Manager for the following projects: <ul style="list-style-type: none"> <li>- West Virginia Department of Environmental Protection - Abandoned Mine Lands reclamation projects including Williamson Nursing Home Slide, Weyanoke Portals, Mason County Bond Forfeitures, Heizer Creek, Sarah Ann Drainage, Canebrake Complex, Milburn Red Dog Pile, Charleston Portals, Millersville Road Refuse Piles, Cabin Branch Refuse Pile, Mill Branch Refuse Piles, Ameagle Complex, Shoemaker Landslide, Kermit Drainage, Birds Creek Refuse and Blue Pennant Complex.</li> <li>- Bridge design, roadway design and WVDoH coordination for Patterson Creek Bridge, Devils Backbone Bridge, Cassity Bridge, Reeses Mill Bridge, Tabbs Station Bridge, Bowles Bridge, Gardner Truss Bridge, Jaeger/Bradshaw Bridge, Mineral Wells Interchange Overpass Bridge, Camden Avenue I-77 Bridge, Mullens Overhead Bridge, Cass Arch Bridge, Gould Bridge, Wiggins Bridge, Hutchinson Branch Bridge, Grapevine Creek Bridge, Rolfe Arch Bridge, Craigsville Intersection Improvements, Webster Road Intersection Improvements, Hinton Road Intersection Improvements, Bellepoint Road Widening, North Lewisburg Road Widening and 5.25 miles of the four lane Coalfields Expressway in McDowell County.</li> <li>- Roadway design and WVDoH coordination for Poca Bridge, Pax Bridge, Rock Truss Bridge, Welch Post Office Bridge, Buckhannon Truss Bridge and Buffalo Creek Bridge.</li> <li>- WV Dept of Environmental Protection , Abandoned Mine Lands. Phase I Water Feasibility Studies for Route 41 (Maplewood), Fayette Co.; Mod and Mahan Road, Marion County; and Route 39, Summersville in Nicholas County.</li> <li>- Structural design for Mathena Cultural Arts Center in Princeton.</li> <li>- Structural design for Athletic Facilities Building at Virginia Tech.</li> <li>- Structural design for skybox addition at West Virginia University.</li> <li>- Structural design for Princeton Community Hospital's Behavioral Medicine Center.</li> <li>- Structural design for clarifier at Welch Wastewater Treatment Plant.</li> <li>- Structural design for sequencing batch reactor at Athens Wastewater Treatment Plant.</li> <li>- Structural design for flocculator tank at Summersville Regional Water Treatment Plant.</li> <li>- Preparation of contract plans and bidding documents for pedestrian underpass, Shott Building Elevator and Conley Hall Renovations at Bluefield State College.</li> <li>- Preparation of contract plans and bidding documents for sidewalk replacement and drainage improvements for the Town of Oakvale.</li> <li>- Preparation of contract plans and bidding documents for renovations to Married Student Housing Building at Marshall University.</li> </ul> |   |



- Preparation of contract plans and bidding documents for street paving and sidewalk construction for the Town of Peterstown.
- Preparation of contract plans and bidding documents for sidewalk construction along Stafford Drive and Ingleside Road for the City of Princeton.
- Building, structure, pile foundation design and truss analysis for Celanese Celco Plant, Narrows, Virginia.
- Preparation of contract plans and bidding documents for parapet repair, roofing replacement and canopy construction projects for Princeton Community Hospital.
- Preparation of contract plans and bidding documents for roofing replacement project for Princeton Public Library.

**1981 - 1985      Gates Engineering Company, Principal Consulting Mining Engineer and Civil Engineer II**

- Responsible for all mine permitting, including DR-4 Surface Mine Applications, DR-14 Underground Opening Applications, DR-3 Prospecting Applications, NPDES Permit Applications and Department of Mines Opening Approval Applications. Performed all permit related design; haulroads, diversion ditches, sediment ponds, drainage control structures, valley fills and refuse disposal areas.
- Assisted in mine design and refuse disposal area design. Performed property evaluations including coal reserves and reclamation needs. Operated department microcomputer; wrote programs; and provided computer analysis for STRESS and COGO. Assisted on bridge and structural design projects.

**1980 - 1981      Westmoreland Coal Company Central Engineering Department, Chief Environmental Engineer**

- Responsible for all civil engineering design and mine permitting in Westmoreland's West Virginia Divisions. Supervised three engineers and two draftsmen. Prepared OSM Permit Applications, West Virginia Department of Natural Resources DR-4, DR-14 and DR-23 Surface and Deep Mine Applications, State Water Pollution Control Permit Applications and NPDES Permit Applications. Designed sediment ponds, drainage control structures, concrete footings and walls and steel columns and beams. Prepared run-off hydrographs for drainage design, performed flood routing and performed fill slope design.

**1979 - 1980      Westmoreland Coal Company Central Engineering Department, Environmental Engineer**

- Prepared OSM Permit Applications, West Virginia Department of Natural Resources DR-4, DR-14 and DR-23 Surface and Deep Mine Applications, State Water Pollution Control Permit Applications and NPDES Permit Applications. Designed sediment ponds, drainage control structures, concrete footings and walls, and steel columns and beams. Prepared run-off hydrographs for drainage design, performed flood routing and performed slope design.

**1976 - 1979      Westmoreland Coal Company Imperial Smokeless Division, Mining Engineer**

- Performed all steel and concrete design for the division - beams, footings, columns and walls. Performed surveying outside and underground. Prepared NPDES, State Water Pollution Control, and deep and surface mining permits.



Engineering, Design and Consulting  
Planning and Environmental Services

**Robert Mark Harry, E.I.T.**  
**Project Manager**

|  |   |
|--|---|
| <b>Education:</b> Bluefield State College<br>Bachelor of Science in Civil Engineering Technology, 1992<br>West Virginia University<br>Master of Science in Engineering (Geological), 1996<br>Virginia Polytechnic Institute and State University<br>Master of Business Administration (2011) | <b>Professional Registration</b> West Virginia<br><b>E.I.T.</b> |
|--|---|

**Business and Civic Activities:** Iraq War Veteran - Engineer Officer, West Virginia Army National Guard

**Experience:** 2013 - Present **Stafford Consultants Incorporated, Project Manager**

Design Engineer and Project Manager for the following projects:

- West Virginia Department of Environmental Protection - Abandoned Mine Lands, Windmill Gap Waterline Extension Project.
- City of Richwood Water Department—Feasibility Study.
- Porter Farms Water System Upgrade.
- Mercer County Economic Development Authority—Multi-use Event Center Location Study.

**2009 - 2012 Radford Army Ammunition Plant  
Project Engineer (GS-12)**

- Responsible for conducting Feasibility Studies, Operation Analyses for manufacturing process improvement, and supporting the contracting officer by performing cost estimates
- Provided oversight to modernization projects in the plant.

**2006 - 2009 Capital Engineering  
Mining Engineer**

- Conducted geotechnical and geological studies to determine the suitability of building structures on Abandoned Mine Lands to include cross-sections, drilling program, material testing, and grading plans.
- Served as a Project Manager overseeing construction of military facilities for the West Virginia National Guard.

**2003 - 2006 U.S. Army Corps of Engineers  
Engineering Officer (Cpt.), Iraq and Afghanistan**

- Served as an army officer / civilian supporting Operations Iraqi Freedom and Enduring Freedom.
- Conducted surveys to determine power and water needs for the Iraqi people.
- Developed scopes of work in developing contracts for nation building projects.
- Provided oversight of major construction projects.



**1997 - 2003      Marshall Miller & Associates**  
**Mining Engineer**

- Assisted in mine planning and design for coal and aggregate surface mines to include environmental permitting.
- Performed financial studies to determine economic feasibility of investing in projects.



*Engineering, Design and Consulting  
Planning and Environmental Services*

**Christopher L. Perdue, E.I.T.  
Assistant Project Manager**

|   |   |
|---|---|
| <b>Education:</b> Bluefield State College<br>Bachelor of Science in Civil Engineering Technology<br>May, 2003 | <b>Professional<br/>Registration<br/>R.L.D.</b> EIT (WV 2013)<br>Virginia<br>#26145 (Exp. 10-30-09) |
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| <b>Professional<br/>Memberships:</b> | American Society of Civil Engineers (Since 2001), Engineers and Surveyors Institute (ESI)<br>Designated Plans Examiner (Fairfax and Loudoun Counties, and City of Alexandria, VA) |
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**Experience: January, 2008 - Present Stafford Consultants Incorporated, Assistant Project Manager**

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

Assignments include the following projects:

- **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 Townhomes, 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.



Engineering, Design and Consulting  
Planning and Environmental Services

**Kevin G. Smith**  
**Designer/CAD Technician**

**Education:** Raleigh County Vocational Education Center, 1979  
Lay Minister Certificate, School of Christian Studies of the  
West Virginia Baptist Convention

**Licensed:** Civil I and Civil II  
Certificates

**Experience: 1998 - Present Stafford Consultants Incorporated, Designer/CAD Technician**

- Design, site layout, and drafting for site development for Chapmanville Regional High School, Parkersburg South High School renovations, Parkersburg High School renovations, Williamstown High School renovations, Oak Glen Middle School "Field of Dreams", Bayer Federal Credit Union, Hilltop Elementary School, Cameron High School, Weir High School Stadium, Oak Glen High School Stadium, Weirton Elementary School, Oakvale Elementary School, and Mercer County Health Center. Structural drafting for Advanced Tech. Center.
- Design and drafting on bridge and highway road projects throughout the State of West Virginia including Grapevine Creek Bridge, Hutchinson Branch Bridge, Cass Arch Bridge, Mullens Bridge, Coalfields Expressway US 121, Wiggins Bridge, Mineral Wells Interchange Overpass Bridge, US Route 219 Lewisburg Widening, Bellepoint Road Widening, Route 41 and West Webster Road Intersection Improvement, Route 20 and 55 Intersection Improvement, and Gould Bridge.
- Design and drafting for water and wastewater projects including, Summers County Sewer Study for Summers County Commission, Summersville Water Treatment Plant, John Nash Boulevard Sewer for Bluefield Sanitary Board, Brooks Barksdale Water Extension for Mercer/Summers County Commissions.
- Design and drafting on Gardner Industrial Park for Mercer County Commission.

**1998 Computects and DBD Professional Group, Inc. – Beckley, WV**

- Performed civil site design and civil layout of architectural projects including Oak Hill Days Inn, Gary Library and Medical Center, Ronceverte Volunteer Fire Department, Ronceverte City Hall, and Sun Mountain.
- Design and drafting on engineering projects including Glade Springs Sanitary Sewer Relocation.
- Site development for A&E Construction at the NW intersection of US 19 and WV16 north of Beckley.

**1992-1997 G. A. Tice Incorporated – Beckley, WV**

- Design and drafting on various civil engineering projects including subdivision layouts and Pinecrest Industrial Park at Beckley.
- Highway and roadway storm drainage systems.
- Sanitary sewer collection and extensions systems including Shady Spring PSD, Town of Mount Hope, and North Beckley PSD.
- Water distribution systems including Town of Pax and Crow area water extension project.
- Calculations for many residential, commercial and government survey projects including Canaan Valley State Park for USFW Service and the New River National Park Service.
- Civil site design for commercial and government projects including Beckley Holiday Inn Addition, Haz Mat Facilities Admin. Building, Pinecrest Industrial Park and Cool Ridge P.O.



**1986-1992      ESP Associates - Charlotte, NC**

- Development of custom CAD packages for in-house use, including Storm Water, Sanitary Sewer, Subdivision Layout and Staking, and Roadway Design.
- Drafting and design for layout of subdivisions with the responsibility of the layout of lots, roads, sanitary sewer, storm drainage and final plats for recording.
- Calculations for up to four field crews for field layout for Outer Beltway Interstate 485, Sanitary Extension along I-77 North of Charlotte, Widening of Park Road, Relocation of 36" and 42" Gas Transmission at High Point, NC, Rock Hill, SC subdivision development, Widening of US Route 17 in NC, Cabarrus Industrial Complex including I-85 interchange and Airport, Riverrun Subdivision including golf course, Cameron Woods Subdivision Phases III-VII, many other smaller industrial, commercial and residential projects in the Charlotte area.

**1981-1986      G. O. Bledsoe, Incorporated – Beckley, WV**

- Supervised drawing of plats and maps by other employees. Design and drafting for engineering and surveying projects using CAD. Survey calculations and reductions for many residential, commercial and industrial projects. Advanced from rodman to crew chief to supervisory position.

**1980-1981      HKS - Beckley, WV**

- Advanced from rodman to instrument man including note keeping and field note reductions for various commercial and industrial projects.



Engineering, Design and Consulting  
 Planning and Environmental Services

**Howard "Sonny" Berry**  
**Construction Administrator**  
**Designer/Draftsman/Resident**  
**Project Representative**

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| <p><b>Education:</b> West Virginia Institute of Technology<br/>         Bachelor of Arts, 1993</p> <p>Beckley College<br/>         Associate of Science in Mining Technology, 1980</p> <p>Fayette Plateau Vocational Technical Center - Drafting, 1974<br/>         WVU - Course work in Landscape Architecture, 1974</p> | <p><b>Licensed:</b> West Virginia DoH<br/>         Compaction Technician</p> <p>Troxler Certified Nuclear<br/>         Density Gauge Operator</p> |
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**Experience: 1985 - Present Stafford Consultants Incorporated; Construction Administrator, Designer/Draftsman, Resident Project Representative**

- Construction administration for various civil engineering projects. Work includes responsibility for writing change orders, reviewing pay estimates, maintaining construction project files, and serving as field person liaison. Prepares project cost estimates, permit applications, and performs shop drawing review and approval. Specific projects include New Haven PSD Regional Water Project, City of Welch Wastewater Collection System, Town of Alderson Wastewater Treatment Plant, City of Summersville Water Project and Oakvale Road PSD Mercer/Summers Water Project.
- 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.
- Resident project observation for various project, including Wilderness PSD Waterline Extension Project, Town of Lester Water System Improvements, Raleigh County Airport Taxiway and Markings, Princeton Community Hospital Rehabilitation Center, Marshall University Fairfield Stadium Artificial Turf Replacement and City of Oak Hill Street Paving.

**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 Constructioin, 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.





Engineering, Design and Consulting  
Planning and Environmental Services

**Stacy A. Fowler, P.E.**  
**Project Manager**

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| <b>Education:</b> Bluefield State College<br>Bachelor of Science in Civil Engineering Technology, 1995<br>University of Central Florida<br>MSCE Degree in Civil Engineering (Water Resources), 2007 | <b>Professional Registration Engineer</b> West Virginia<br>Georgia<br>Florida |
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**Professional Memberships:** National Society of Professional Engineers;  
Florida Engineering Society

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**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.

**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  $\pm$  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.

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: *Kenneth C. Lavoie* Date: January 7, 2014

State of West Virginia

County of Mercer, to-wit:

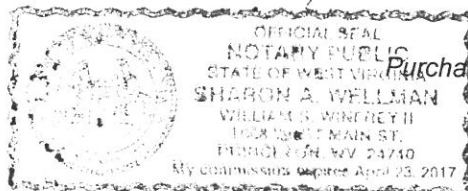
Taken, subscribed, and sworn to before me this 7<sup>th</sup> day of January, 20 14

My Commission expires April 23, 2017.

**AFFIX SEAL HERE**

**NOTARY PUBLIC**

*Sharon A. Wellman*



*Purchasing Affidavit (Revised 12/15/09)*