



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

Request for Quotation

RFQ NUMBER
 DEP15472

PAGE
 1

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

*709060049 304-755-8291
 TERRADON CORPORATION
 PO BOX 519
 NITRO WV 25143

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/26/2011				

BID OPENING DATE: 06/22/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		962-52	\$ 267,235	\$ 267,235
<p>MAPPING SERVICES FOR SOUTHERN COUNTIES OF WV</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S OFFICE OF ABANDONED MINE LANDS AND RECLAMATION, IS SOLICITING BIDS FROM INTERESTED VENDORS QUALIFIED TO PROVIDE MAPPING SERVICES IN THE SOUTHERN COUNTIES OF WEST VIRGINIA PER THE FOLLOWING SPECIFICATIONS, TERMS & CONDITIONS, BID REQUIREMENTS, SCOPE OF WORK, AND THE FOLLOWING BID SCHEDULE.</p> <p>THESE MAPPING SERVICES WILL RESULT IN THE DEVELOPMENT OF CONTRACT DOCUMENTS FOR DESIGN & CONSTRUCTION PROJECTS THROUGHOUT THE SOUTHERN COUNTIES OF WEST VIRGINIA AS INDICATED HEREIN. EXHIBIT 3</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE UPON AWARD AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p>						

RECEIVED

2011 JUN 22 AM 9:28

WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Thomas G. Kittredge</i>	TELEPHONE 304-755-8291	DATE 22 June 2011	
TITLE President	FEN 55-0687626	ADDRESS CHANGES TO BE NOTED ABOVE	

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

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
 2. The State may accept or reject in part, or in whole, any bid.
 3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
 5. Payment may only be made after the delivery and acceptance of goods or services.
 6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
 7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
 10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
 12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
 13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
 14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
 15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
 16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.
- I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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

VENDOR

*709060049 304-755-8291
TERRADON CORPORATION
PO BOX 519

NITRO WV 25143

SHIP TO

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

DATE PRINTED 05/26/2011	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
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BID OPENING DATE: **06/22/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UCP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICE SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)</p> <p>QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF THE CONTRACT, WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Thomas Y. Kittredge</i>	TELEPHONE 304-755-8291	DATE 22 June 2011
TITLE President	FEIN 55-0487626	ADDRESS CHANGES TO BE NOTED ABOVE

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



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<p>MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM.</p> <p>REV. 05/26/2009</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: CB-23</p> <p>RFQ. NO.: DEP15472</p> <p>BID OPENING DATE: 06/22/2011</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *Thomas Y. Kitzler* TELEPHONE **304-755-8291** DATE **22 June 2011**
 TITLE **President** FEIN **55-0687626** ADDRESS CHANGES TO BE NOTED ABOVE

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

PROPERTY

*709060049 304-755-8291
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 PO BOX 519
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PROPERTY

ENVIRONMENTAL PROTECTION
 DEPARTMENT OF
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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
BID OPENING TIME:				1:30 PM		
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
				304-755-2656		

CONTACT PERSON (PLEASE PRINT CLEARLY):						
				RYAN WHEELER		

***** THIS IS THE END OF RFQ DEP15472 ***** TOTAL:						\$267,235

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
<i>Thomas W. Kistner</i>	304-755-8291	22 June 2011
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
President	55-0687626	

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

**MAPPING SERVICES IN SOUTHERN COUNTIES OF WEST VIRGINIA
OPEN-END CONTRACT
DEP15472**

Section A – Scope of Services

Background

DEP is mandated by the Surface Mining Control and Reclamation Act of 1977, Public Law 95-87, to reclaim lands and water affected by coal mining that impose social and economic costs on residents, impair environmental quality, prevent or damage the beneficial use of land or water resources or endanger the health and safety of the public.

Scope of Work

The scope of work shall include the development of detailed topographical mapping from field survey data, as well as aerial photography, design data surveys, the development of field survey information suitable and adequate for the development of detailed plans and specifications.

I. Specifications for Surveying and Mapping

A. Topographical Survey

- 1) Location of the physical features of the terrain and the various objects and obstructions both natural and man-made on and in the vicinity of the project site as directed in the project Work Directive.
- 2) Benchmarks and horizontal control shall be established outside of the anticipated limits of construction. The minimum requirements for installation of control shall be specified in the project Work Directive.
- 3) Field Surveys for Topographic Mapping – Field surveys will be conducted as needed to establish horizontal and vertical control data for preparation of the topographic map(s). The following specifications and stipulations will apply to field survey.
 - a. Horizontal traverses shall be closed. All angles shall be doubled and checked by comparing computed bearings with observed bearings. The difference between the deflection and angle and half of the double deflection angle shall not exceed 20 seconds. Horizontal direction shall be established from magnetic north.

- u
- b. A baseline shall be established across or in close proximity to the site with permanent objects or hubs as directed in Item (e) below. Baselines may be established on pre-existing jeep trails, roads or utility rights of way on or in close proximity to the site. The maximum distance between baseline stations shall be located in such a way that at least two stations can be seen with an ordinary transit. This baseline can be worked in conjunction with the vertical and horizontal control.
 - c. All field survey work shall be conducted on the public right of way where possible, however, the DEP shall obtain right of way on private property where needed.
 - d. During the field survey, traverse stations shall be marked and referenced so that they can be readily re-established. A minimum of two reference points should be set and each horizontal change in the baseline. Traverse stations shall be marked by steel hubs flush with the ground surface and referenced by guard stakes or natural or identifiable permanent objects at the ground surface. The location and description of all traverse stations shall be accurately recorded in the notes. The markings on the guard stakes shall include the distance to the traverse stations, the line to the traverse station, and the station of the traverse station.
 - e. Bench level traverses shall be of such precision that the error of closure (in feet) shall not exceed plus or minus 0.05 times the square root of the length of the traverse (in miles). The locations, description, and elevation of benchmarks shall be accurately recorded in the notes. The datum plane shall be that of the U. S. Coast Geodetic Survey or Geological Survey or West Virginia Coordinates Plan.

B. Topographic Mapping Using Aerial Photography

- 1) Aerial Photography – The photographs shall be made with a calibrated precision-type aerial camera in a vertical position. The successful bidder or their sub-contractor shall supply a copy of a current calibration certificate, issued by the National Bureau of Standards (USGS) or other competent testing organization, which is dated within the past twenty-four (24) months upon demand by the DEP. Any commercial aerial film with a fine-grain emulsion may be used. Altitude shall be the height above average ground required to achieve the accuracy listed in these specifications, not to exceed 4,800 feet.

The time for taking the photographs shall be such that the sky is clear of clouds and haze, streams are within their normal banks, deciduous trees and other vegetation are without leaves, and the ground is free from snow cover. The time for taking of photographs shall be further confined to that portion of the day when the sun is at its highest angle.

Contact prints shall be clean and free from chemical or other stains, blemishes, uneven spots, fog, and finger marks and shall be thoroughly washed to remove any chemical materials which would impair their permanency.

The entire project area shall have stereoscopic coverage within the usable distortion-free portion of the field of the lens. The overlap in the line of flight shall be no less than 45 percent nor more than 65 percent. Side overlap shall be no less than 25 percent.

At the completion of the work, the following shall be provided the contracting officer:

- a. Two sets of black and white 9" x 9" aerial photographs properly identified by site name and photo index number.
 - b. Three sets of color 9" x 9" aerial photographs (contact prints) properly identified by site name and photo index number without any additional manual markings.
 - c. All negatives of the aerial photograph.
 - d. Copies of cross-sections taken every 300 feet along the baseline to be plotted on cross-section paper and overlaid on cross-sections plotted from the mapping to verify the mapping accuracy.
 - e. Two computer disks containing all survey mapping and data compatible with a computer aided design system in AutoCAD (Version Release 17 or Engineer approved alternate).
- 2) Field Surveys – Field surveys will be conducted as needed to establish horizontal and vertical control data for preparation of the topographic map.
- 3) Topographic Mapping – Topographic drawings shall be on 24" x 36" standard map sheets. Every fifth contour line shall be accentuated with elevations noted. The topographic contour map(s) shall be prepared using stereo methods. The basic map shall be stereo plotted and mechanically transcribed to a scale of 1" = 100' with a contour interval of 2 feet unless otherwise specified by the DEP based on particular needs established due to the site specific circumstances.

The topographic drawings shall have included on them (lower right part of map) the following:

- o The name of the project.
- o Inserts showing location of all reference points.
- o The location of the project (county map).

- Legend.
- Title block for approval signatures.
- Map Scale.

The various views required to be presented on the drawings shall be oriented in the following manner:

- a. If the mapping requires the use of two sheets or more, match lines will be used to relate the sheets together. If the use of more than two sheets is necessary, an additional sheet will be required with a reduced scale enabling the placement of the entire area on one sheet indicating how the sheets relate to each other.
- b. Each topographic sheet shall be oriented, whenever possible so the direction of stream flow is from the left to the right or from the top to the bottom of the sheet. Arrows indicating the direction of stream flow will be included. Spot elevations shall be shown to assist in determination of hilltops, saddles and road intersections. Each sheet shall contain a bar scale and a geodetic or polar north arrow.
- c. Physical Features – All physical features situated on the ground such as vegetation, rivers, ponds, lakes, small streams, rock outcrops, and other unusual features will be located and identified on the topographic map.
- d. Cultural Features – All cultural features such as houses, barns, buildings, commercial businesses, highways, railroads, bridges, pipelines, farm ponds, fences, electric power lines, telephone lines, utility lines, gas wells, and any other cultural features shall be located and identified on the topographic map. Specific features dealing with mining such as the limits of coal refuse, landslides if determinable, the location of strip mine highwalls and overburden, deep mine openings, both draining and dry and any other mining related feature must be located and identified on the topographic map. This requirement should be accomplished to the best degree possible without an actual detailed survey.
- e. All horizontal and vertical control points – to include permanent or temporary benchmarks, will be located and identified on the map. There shall be a minimum of four vertical points and three horizontal points.
- f. The precision of the topographic map for all areas within the actual project area shall not be less than the following:
 - Average error shall not exceed $0.025 \times$ the scale of the map expressed in feet per inch.
 - Percentage error in scaled areas shall not exceed $0.05 \times$ scale of the map expressed in feet per inch.

- Of points chosen at random, the percentage whose error in elevation exceeds one-half the specified contour interval shall not exceed 10 percent.
- All maps shall be drawn to the limits as shown on the mapping outline for the individual areas.

Note: Areas outside the actual project limits are to be as precise as conditions allow but will not be held to these limits.

- g. Symbols and abbreviations shall be in accordance with "Standard Map Symbols" published by the Soil Conservation Service, U. S. Department of Agriculture, January 1965.

Section B – Contractual Information & Requirements

I. Statement of Work

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services for all of the scope of work required in this contract.

II. Location of Work

The area of work shall include the entire State of West Virginia. The counties listed below are the coal producing counties and those in parentheses represent where most of the work required in the contract is located.

"Southern" counties

1. Cabell
2. Putnam
3. (Kanawha)
4. (Clay)
5. (Nicholas)
6. Greenbrier
7. (Fayette)
8. Summers
9. (Mercer)
10. (Raleigh)
11. (Wyoming)
12. (McDowell)
13. (Mingo)
14. (Logan)
15. (Boone)

16. (Lincoln)
17. Wayne
18. (Roane)
19. Jackson
20. (Mason)

III. Ordering Procedure

- A. This is an indefinite quantity contract for the services specified in the Statement of Work and for the period set forth herein. Delivery or performance shall be made in accordance with the provisions of this contract.
- B. Work will be ordered by the DEP (Project Manager) by issuance of a Work Directive, which shall specify the location of the project site, the specified problem, the work to be performed and the time frame during which the work must be completed. The Contractor will then be responsible for contacting DEP to arrange an on-site meeting. Upon completion of a field reconnaissance with a DEP representative, the Contractor will submit a cost proposal for the work requested, signed by a principal of the firm. The individual project cost proposal which contains the quantity estimates shall be in accordance with the unit prices provided in the response to this RFQ.

IV. Delivery

- A. The Offeror shall prepare, submit and deliver all original survey notes, mapping and additional drawings, etc. or calculations as may be requested by the specific Work Directive within the time frame established for the project. The submission of all preliminary documents or required revisions must also be accomplished within said time frame. Additional time will be given for completion of any revisions and to provide time for billings. Such time to be defined as the performance period. If these time frames are not met, the DEP may refrain from issuing further Work Directives and if a Contractor persists in being late with submittals, the DEP may refuse to renew the Contractor's contract.
- B. The DEP will be responsible for obtaining any necessary rights of entry for purposes of performing field surveys to provide ground control for topographic mapping from aerial photography. The majority of this work should be done in public access areas such as highway right of way, etc. Additionally, any ground surveys will require the Contractor to identify to the DEP any areas requiring access so that the DEP may obtain Right of Entry for those areas.

- C. The work and services to be performed under this contract shall be subject to continuous monitoring and inspection by the State's authorized representatives. Such inspection will, among other things, ensure compliance. Final inspection and acceptance will be made by the DEP (Project Manager) or authorized representative(s).
- D. In accomplishing services to fulfill the requirements of Work Directives, neither the Contractor nor his Subcontractor shall create any adverse environmental effects, and shall be responsible for compliance with all applicable local, state and federal environmental and occupational health and safety laws and regulations pertinent to the work.
- E. Any Contractor shall be ineligible to bid on any aspect of the construction phase of a project if it prepared any part or aided in the preparation of any part of the contract documents for construction.
- F. DEP may retain ten percent (10%) of the Offeror's invoices until such time as the Assistant Director is satisfied that all of the conditions of the contract have been met. The Offeror must be responsible for taking any and all such measures as are necessary to correct any defect(s) arising out of the contract which are proven to be as a result of error(s) in the mapping. Such corrective action(s) shall be performed to the satisfaction of the Assistant Director.

V. Cost and Payments

- A. Payment to the contractor will be made on the basis of the items and unit prices outlined in the Purchase Order.
- B. The Offeror shall invoice after the completion of work specified in the Work Directive and after submission of all required work when the performance period is less than thirty (30) days. Invoices may be submitted monthly when the performance period exceeds 30 days. The State may retain 10 percent of each invoice to guarantee that all of the conditions of the contract have been met. This retainage may be held for a period of six (6) months and shall run from the date that construction on a project commences. However, final payment (except for any retainage which may be held) will only be made after all work and reports specified in a Work Directive and this contract are delivered and accepted by the State. All invoices shall show labor, travel, other expenses incurred during the billing period and the work yet to be accomplished. Invoices showing costs not clearly identifiable will not be paid. No payment(s) will be authorized for any work incurred as a result of any error on the part of the Contractor.

Section C – Qualification Requirements & Evaluation Factors

I. Offeror Qualification Requirements

The Offeror shall demonstrate the capability of providing topographical, design data and construction surveys in accordance with U.S. National Map Standards. Minimum experience is two (2) years. To the extent possible the Offeror will utilize available aerial photography, aerial topographic maps or enlarged U.S.G.S. topographic maps and the information contained thereon, in lieu of developing maps from field surveys. All survey work described below shall be performed under the direction of a Licensed Land Surveyor, licensed or registered in the State of West Virginia, who will provide certified maps and/or drawings as directed in the specific project Work Directive.

During the performance of this contract, the Contractor agrees to follow and obey all Federal and State Laws and Regulations, etc.

The Offeror must meet the requirements listed below in order to be considered qualified to perform the work designated by this RFQ. Successful Offerors should have the following professional capabilities or staff available at the time of the bid:

- o Licensed Land Surveyor;
- o Competent Field Staff and Survey Crew;
- o Professional Drafting Capabilities;
- o Adequate Computer Aided Design Capabilities (AutoCAD Version Release 17 or Engineer approved alternate);
- o Capacity to process and complete multiple projects within the designated time frames

Vendors must submit the following at the time of bid:

1. Names of individuals performing work including registration/licensing numbers.
2. List of similar projects completed by your firm (included past five (5)).
3. List of similar projects currently working on.
4. Name of Project Manager anticipated for this project.
5. Number of years your company has performed this type of work.

II. The Contractor will be required to have knowledge or experience in the following areas:

- A. Development of Topographic Mapping from Field Survey as well as from Aerial Photographs; the use of Subcontractors will be permitted under this contract for aerial photography work.
- B. Boundary and Property Surveys;

III. All work prepared under this contract must be performed under the direction and reviewed by a Licensed Land Surveyor and his or her stamp and signature must be affixed to the cover sheet of all contract documents.

- IV. On certain projects the Contractor shall obtain additional umbrella insurance liability coverage for no less than \$ 1,000,000.00 for bodily injury and property damage for each occurrence, and not less than \$ 1,000,000.00 aggregate. This coverage will be over and above the standard insurance coverage required on all projects, which is \$ 1,000,000.00 for bodily injury and property damage for each occurrence and not less than \$ 1,000,000.00 aggregate. Successful bidders will be required to provide a Certificate of Insurance or some form of certified proof that this insurance can be obtained on demand prior to the issuance of this contract. All employees of the Contractor and of Subcontractors engaged in the work of this contract shall be covered by West Virginia Workers' Compensation Insurance. Certificates shall be provided to DEP by the Contractor and Subcontractors showing compliance with the Workers' Compensation Laws of West Virginia.

**MAPPING SERVICES IN SOUTHERN COUNTIES OF WEST VIRGINIA
OPEN-END CONTRACT
DEP15472
BID SCHEDULE**

The DEP reserves the right to request additional and supporting documentation regarding unit prices when the unit price appears to be unreasonable.

Item No.	Quantity	Description	Unit Price	Amount
1.0	700	2 - Man Surveying Crew (per hour)	\$ 95	\$ 66500
2.0	225	3 - Man Surveying Crew (per hour)	\$ 105	\$ 23625
3.0	280	Aerial Photograph Production (per sheet)	\$ 75	\$ 21000
4.0		Topographic Mapping from Aerial Photography (per acre)		
		(List only one rate for each category)		
	500	0 - 50 Acres	\$ 30	\$ 15000
	280	51 - 100 Acres	\$ 27	\$ 7560
	202	101 and up Acres	\$ 25	\$ 5050
5.0		Professional Rates (Listed Disciplines Only) (per hour)		
	250	Licensed Land Surveyor	\$ 85	\$ 21250
	1100	CAD Operator	\$ 65	\$ 71500
	200	Draftsperson	\$ 65	\$ 13000
	125	Secretary	\$ 35	\$ 4375
	150	Word Processor	\$ 35	\$ 5250
6.0		Travel and Per Diem		
	125	Per Diem (Rate/Person/Day)	\$ 105	\$ 13125
		TOTAL		\$267,235

*These are estimated quantities for bidding purposes only.

Rev. 09/08

State of West Virginia
VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. **Application is made for 5% resident vendor preference for the reason checked:**
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: TERRADON Corporation Signed: Thomas G. Kistner
 Date: 22 June 2011 Title: President

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

RFQ No. _____

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 exceeds 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: Terradon Corporation

Authorized Signature: Thomas Y. Kittredge Date: 6/22/11

State of WV

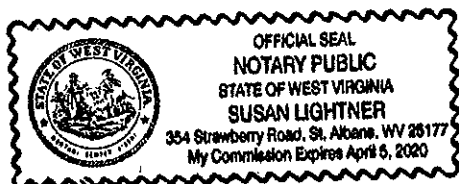
County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 22 day of June, 2011.

My Commission expires April 5, 2020.

AFFIX SEAL HERE

NOTARY PUBLIC Susan Lightner



Statement of Qualifications



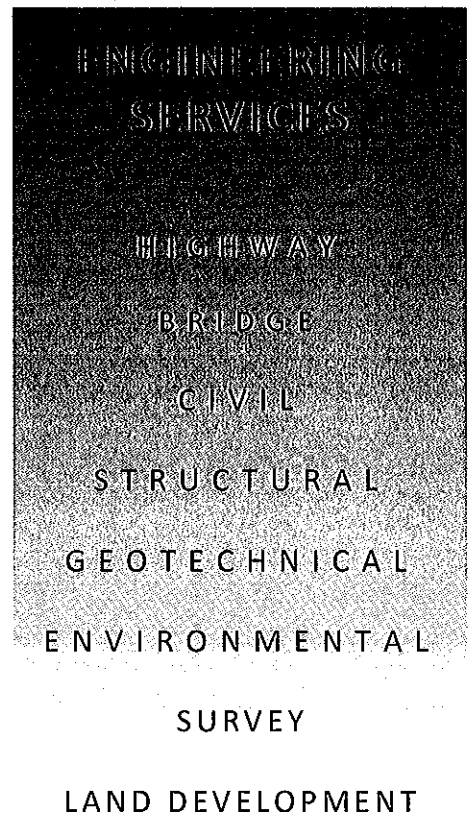
& MAPPING

A critical piece to the engineering and construction industry, TERRADON is regarded as a top-tier firm in the surveying and mapping trade. TERRADON focuses on construction stakeout, ALTA survey, topographic survey, and boundary survey services.

About TERRADON

For more than 20 years TERRADON Corporation has provided a wealth of engineering services, blanketing West Virginia and surrounding states with successful projects. The company built its reputation on expert personnel and quality, time-sensitive service. Those same founding principles hold true today. TERRADON maintains more than 50 leading-edge staff selected to service markets like education, commercial development, water, transportation and recreation. Its offices sustain customers through a wide-range of engineering offerings. TERRADON'S seven departments work cohesively to provide turn-key solutions that strive to exceed client expectations.

TERRADON's corporate culture promotes innovation and progressive thinking. Its employees understand the purpose behind their services and work to cultivate lasting relationships with clients through honest, hard work.



TERRADON

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Prospectus to Provide Professional Consulting Services

This unpriced prospectus is provided in response to the West Virginia Department of Transportation, Division of Highways solicitation for:

Mapping Services in Southern Counties of West Virginia

1. Professional Qualifications

TERRADON personnel have a wealth of experience providing consulting services to the WVDOH. The following personnel are located in TERRADON's Poca, West Virginia headquarters. Each is licensed in West Virginia and available on an as-need basis. Resumes for the individuals below are included in this proposal.

» **Robert Thaw, P.S.**

As TERRADON's Survey Department Head, Thaw has more than 24 years of survey industry experience.

» **Dave Brown, P.S.**

TERRADON's Right-of-Way Surveyor has more than 14 years of experience.

» **Robert Tuck, PE, RLS, CP (Subconsultant)**

Tuck is the owner and principal in charge of Tuck Mapping, who will provide subconsultant services to TERRADON for Aerial Photography and Photogrammetric Services

» **Brian Bakanas, P.S.**

Mr. Bakanas is a land surveying party chief responsible for electronic data collection in the field and subsequently analyzing and plotting the field data in the office.

» **Randy Melton, P.S.**

Melton serves as a Senior Project Manager for TERRADON Corporation. Melton is responsible for all TERRADON survey equipment and practice management.

CLIENT-DRIVEN

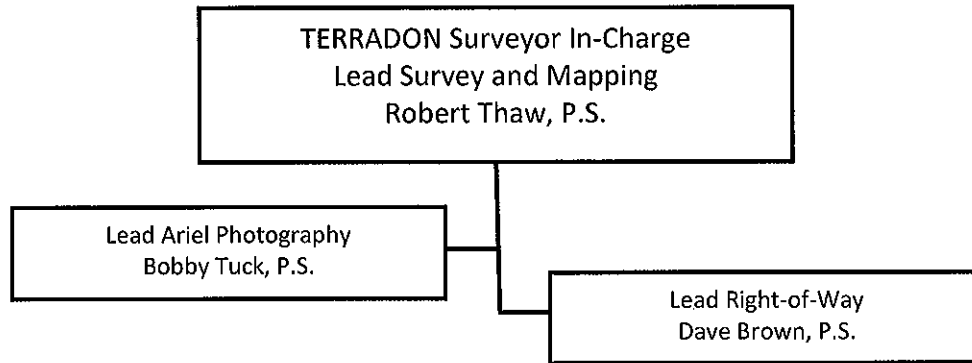
"Working with the TERRADON staff is an exceptional experience. They always respond to our needs with urgency and professionalism. Not only do they provide outstanding design engineering services, they continue to support us through construction right up to placing the infrastructure in service. The answer to every question posed to their engineers is "yes sir, we can do that...how soon do you need it?"

*Jimmy Wriston, P.E.
Regional Design Engineer
WVDOH, Engineering Division*



Professional Qualifications

TERRADON Survey and Mapping Team



The Lead Surveyor, Mr. Robert Thaw, P.S. is a licensed Professional Surveyor in West Virginia and TERRADON's principal surveyor located at the headquarters office in Poca, West Virginia. He will be responsible for the oversight and review of all survey reports and plans. He will sign and seal all documentation and plans.

Mr. Thaw possesses more than 24 years of survey industry experience. His experience varies in projects that have ranged from boundary surveys to detailed design surveys. Thaw's projects have ranged from site selection projects to roadway and bridge projects. Thaw has been involved on numerous WVDOH projects from a survey perspective most recently Sleeths Run Bridge, US 35

Value Engineering, Corridor G Widening and the Fairmont Connector.

The Lead Right-of-Way Surveyor, Mr. Dave Brown, P.S. is a licensed Professional Surveyor in West Virginia and TERRADON's Senior Right-of-Way Surveyor located at the headquarters office in Poca, West Virginia. He will be responsible for oversight and review of all Right-of-Way reports and plans. He will sign and seal all documentation.

Mr. Brown has more than 14 years of survey and Right-of-Way experience. Mr. Brown recently oversaw the completion of survey and mapping work for The Summit;



Professional Qualifications

Bechtel National Scouting Reserve in Fayette County, WV. Brown was heavily involved in TERRADON's contract to provide survey and mapping for nearly 11,000 acres which is being developed for use as the future home of the Boy Scouts of America's jamboree site.

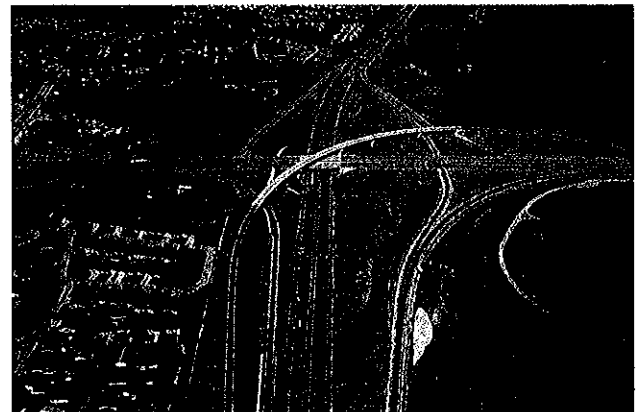
The Lead Aerial Photographer, Mr. Robert Tuck, P.E., RLS, CP, has over 35 years of experience in the engineering and construction fields. His experience includes highway design, coal mining layout and design, water and sewer design, ground control surveying, helicopter LiDAR mapping, and aerial mapping. His major emphasis in the past twenty-two years has been aerial mapping in which he has managed over 15,000 projects over the southeastern United States. His firm has been producing digital aerial maps since 1987 and has acquired extensive experience in the utilization of aerial mapping in the digital design of many engineering projects.

Additional Staff

Brian Bakanas, Professional Surveyor—Mr. Bakanas is a land surveying party chief responsible for electronic data collection in the field and subsequently analyzing and plotting the field data in the office. He has fifteen years experience, including boundary surveys, construction stakeouts (highway, building, sewer lines, etc.), right of way (highway and utilities), topographical surveys, utility location, well locations and pay quantities.

Mr. Bakanas has an Associates in Science Degree in Land Surveying from Glenville State College.

TERRADON's dedication to our clients is reflected in our personnel with experience and expertise in roadway and bridge design on numerous WVDOH projects. As a true full service firm TERRADON can provide all necessary personnel to complete projects in its Pocca, West Virginia office.



TERRADON provided survey and mapping services on the Route 35/I-64 Interchange as part of a Value Engineering solution through Kanawha Stone Company for the WVDOH. The photo above shows the finished interchange.



TERRADON

Specialized Experience

2. Specialized Experience

TERRADON staff's individual specialized experience is listed on the personnel resumes included in Section 1, Professional Qualifications, as well as detailed resumes in Appendix A.

AERIAL PHOTOGRAPHY SERVICES

TERRADON will be utilizing the services of Tuck Mapping for the Aerial Mapping requirements of this contract. The Tuck team has expertise and experience in digital and conventional aerial photography (color, black and white, B&W IR and color IR), LiDAR, digital mapping, stockpile volumetric calculation, digital orthophotography, surveying, aerial triangulation, and cross sections. Employees are well-trained for their assignments and maintain current knowledge of new developments. All projects are completed under the supervision of registered professional engineers, licensed land surveyors or certified photogrammetrists.

EQUIPMENT & SOFTWARE

The latest equipment and software will be utilized to obtain and deliver accurate data and imagery. Survey crews have the latest GPS equipment, electronic total stations, automatic levels and theodolites. The processing staff uses the most current versions of Microstation, AutoCAD and other digital design software. The two fixed-wing aircraft are equipped with Leica RC-30 aerial film cameras or the DSS 322 Digital Color Camera with

azimuth mount. Each of the three helicopters have the Applanix DSS 322 digital camera and Riegl Q560, 680i, or Q480 Full Waveform laser scanners. Our Bell 407 has a gyro-stabilized color Multi Vision FLIR camera system that is geo-referenced into ESRI products for viewing within the GIS system.

AIRCRAFT

The aerial mapping camera systems are mounted on two aircraft: a Piper Navajo (N190TA) and a Cessna 206 Stationair II (N193TA). Both aircraft are equipped with the GPS Flight Management systems for navigational and camera control to perform aerial photography projects in precise compliance with flight plans.

Three Bell helicopters: a JetRanger BIII (N192TA), a LongRanger III (N194TA), and a 407 (N196TA) are equipped with Tuck's proprietary **eagleeye**® mapping system that was developed in 2005 in cooperation with Applanix. This is the industry's first matched and integrated LiDAR scanner and digital camera. The **eagleeye** system was designed for low-altitude mapping where "engineering grade" accuracy is required. The system obtains vertical accuracies of two inches (2") and is ideal for mapping projects such as transmission lines, highway corridors development sites and other engineering projects.

RIGHT-OF-WAY SERVICES

TERRADON's survey department provides a full range of right-of-way related services including



TERRADON

Specialized Experience

courthouse research, obtaining property-owner questionnaires and preparation of right-of-way plans in accordance with WVDOH standards. The firm has prepared WVDOH right-of-way plans for the Corridor G Widening project in Kanawha County, Route 9 in Berkeley and Jefferson Counties, Corridor L Widening in Summersville, Grade Road in Berkeley County and Route 35 in Mason County. We have also provided right-of-way plans for our two most recent completed bridges, Sedalia Arch and Sleeths Run.

SURVEYING

TERRADON Professional surveyors have completed surveys for many WVDOH projects. Besides all TERRADON DOH design projects, our surveyors are sometimes involved in construction stake-out for Kanawha Stone Company, a heavy highway contractor. The staff also provided survey and right-of-way services to Qk4/Presnell for Route 9 in Jefferson and Berkeley Counties; and survey services for Route 35 in Mason County. TERRADON has provided horizontal and vertical surveys of the Ohio River cable stay bridge in Huntington, West Virginia.

3. Capacity

TERRADON Corporation and Tuck Mapping Solutions maintains more than 85 full-time staff in order to complete projects in a quality, efficient and timely manner.

Both companies maintain staffing protocols in order to supplement staff should project demands increase.

4. Past Performance

The TERRADON team has provided engineering services to government and private industry for more than 20 years. During this time, the company has implemented policies and standards to provide solid cost control, quality of work and compliance with performance schedules. The firm has a strong track record of meeting WVDOH performance schedules and consistently scoring above average on consultant evaluations.

TERRADON has many satisfied Government Agency, repeat customers including WVDEP Office of Abandoned Mine Lands and Reclamation, WVDNR Parks & Recreation Section, City of Fairmont, WV, City of Montgomery, WV, Kanawha County Commission, Tennessee Valley Authority, National Oceanic and Atmospheric Administration, Army Corps of Engineers, USGS, US Air Force, FEMA, & US Marine Corps.

The following pages provide project profile synopsis provide an overview of several successful projects TERRADON has completed that are similar in size and scope to the projects that will be part of this contract.



TERRADON: Related Firm Experience

Project: Volcano Island Waterpark/
Fairmont Coke Works
Location: Fairmont, WV
Project Cost: \$535,000.00
Project Date: 2008
Client Name: City of Fairmont
Address: 200 Jackson Street
Fairmont, WV 26554
Phone: 304.366.6211
Contact: Jay Rodgers
City Manager

Project: West Virginia State Government
Office Building
Location: Fairmont, WV
Project Cost: 310,000.00
Project Date: 2010
Client Name: The Omni Associated Architects
Address: 1543 Fairmont Avenue
Suite 200
Fairmont, WV 26554
Phone: 304.367.1417
Contact: Dick Forren
Project Architect

Project Description:

TERRADON Corporation performed utility investigation at Fairmont Coke Works and the surrounding areas, totaling approximately 350 acres of utility location and mapping work. The site was mapped utilizing aerial photography. TERRADON field edited aerial mapping and identified and surveyed all underground utilities.

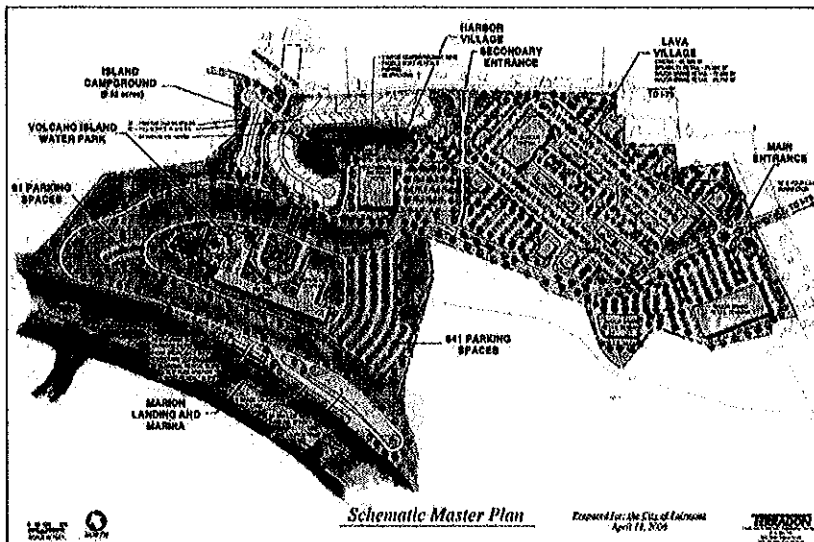
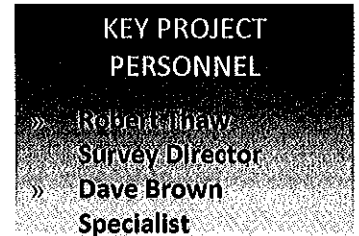
The utility information was presented in tabular format on AutoCAD drawings.



Project Description:

TERRADON provided a design survey for a state government office building located in Fairmont, WV. The survey included boundary survey and utility survey, including the identification of above and below-ground utilities encompassing an entire city block.

All underground utilities were located utilizing conventional survey methods, and presented on detailed mapping generated in AutoCAD complete with Geo referencing.



The Master Plan at left was developed by TERRADON Corporation as part of the Volcano Island Waterpark/Fairmont Coke Works project in Fairmont, West Virginia. TERRADON's Survey Department performed the utility location and mapping work for the 350-acre site.

TERRADON: Related Firm Experience

Project: The Bechtel Summit (Boy Scouts of America National Scouting Reserve)
Location: Fayette County, WV
Project Cost: \$1.9 Million
Project Date: Ongoing
Client Name: Trinity Works
Address: 411 Main Street
Mount Hope, WV 25880
Phone: 304.646.2312
Contact: Rob Ridgeway
Project Director

Project Description:

TERRADON Corporation provided a number of services to the Boy Scouts of America's consultant, Trinity Works, on this nearly 11,000 acre site; including survey and location services.

Working under extremely demanding time restrictions, TERRADON has delivered quality results in a timely and efficient manner for what is arguably the premiere project in West Virginia's right now.

TERRADON's survey department has managed work on this site since 2008. TERRADON surveyors have

provided boundary and location surveys throughout the project, and are expected to provide all utility survey once engineers complete the utility design.

The Bechtel Summit is one of the largest infrastructure projects in the State. To accommodate nearly 1.5 million visitors annually, spiking upward of 100,000 per day during world jamboree years, TERRADON is providing design for all water and wastewater utilities.

This project design remains on the leading edge of utility design as TERRADON works with project owners to develop as many 'green' design features as feasible. TERRADON engineers considered 'green' solutions from around the world for this project.

KEY PROJECT PERSONNEL

- » Rob Ridgeway
Survey Director
- » Randy Melton
Technical Manager
- » Dave Brown
Specialist
- » Bud McCallister
Senior Engineer



TERRADON Corporation provided location surveys and utility design for the nearly 11,000-acre site in Fayette County, WV, helping to put in place one of the largest infrastructures in the State.

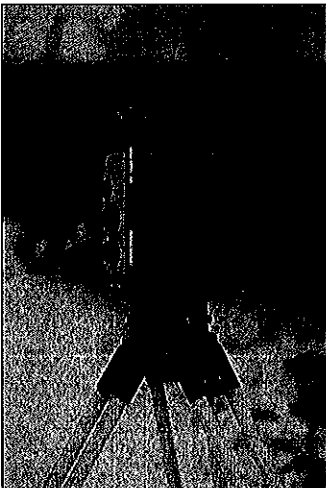
TERRADON: Related Firm Experience

Project: DOW Tech Park: Kanawha Valley CTC, Building 2000
Location: South Charleston, WV
Project Cost: \$60,000
Project Date: Ongoing
Client Name: The Omni Associated Architects
Address: 1543 Fairmont Avenue Suite 200 Fairmont, WV 26554
Phone: 304.367.1417
Contact: Dick Forren Project Architect

Project: Charleston Relocation Housing
Location: Charleston, WV
Project Cost: \$776,000
Project Date: Ongoing
Client Name: Alan Ives Construction Company
Address: 10 South La Salle Street Suite 3440 Chicago, IL 60603
Phone: 312.580.0085
Contact: Paul Gotta Project Director

Project Description:

TERRADON performed a survey on the proposed Kanawha Valley CTC site located at the DOW Tech Park. The survey included two parcels totaling approximately 20 acres. An underground utility investigation was performed utilizing existing mapping and utility sketches for the Tech Park. Part of the storm water investigations was to reconcile the fresh water storm system that discharged into the Kanawha River and the storm water system that discharged into the South Charleston PSD treatment facility. Detailed mapping was prepared for the sites showing all underground utility locations and geo referenced.

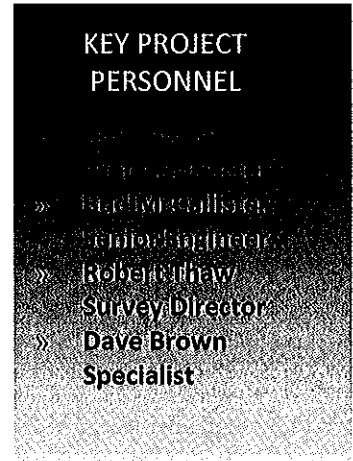


Project Description:

TERRADON has performed detailed underground surveys for nine (9) Charleston Relocation Housing projects, including:

- » Orchard Manor
- » Washington Manor
- » Little Page Terrace
- » KVSS

The surveys included all aboveground features and all underground utilities. The City of Charleston historical records were utilized extensively to reconcile the underground utilities. While the project was under construction, TERRADON survey crews were available to locate any underground utility that the excavation by construction crews discovered.



Detailed mapping was geo referenced in AutoCAD format.

Capacity

FLOWING SPRINGS ROAD JEFFERSON COUNTY, WV

Project: Flowing Springs Road, Jefferson County, WV

Owner: WVDOH

Project Manager: John Morrison

Contact Phone: 304.558.9740

Project Description: TERRADON Corporation provided services on the Flowing Springs Road project in Jefferson County, WV. The project involved the design and preparation of construction contract plans and related documents for a segment of Jefferson County Route 17 (Flowing Springs Road).

The project consisted of re-alignment and reconstruction of the existing two-lane roadway. TERRADON provided Aerial Photography, Panel Layout and Control Survey, and Digital Contour Mapping.

SLEETHS RUN BRIDGE LEWIS COUNTY, WV

Sleeths Run Bridge, Lewis County, West Virginia

Owner: WVDOH

Project Manager: Mr. Bill Murray, P.E.

Contact Phone: 304.558.9741

Project Description: Structural Engineering for the replacement of a truss bridge with a 200'-0" bridge and roadway design for the approaches. Project included roadway design, drainage, maintenance of traffic and right-of-way plans.

SEDALIA ARCH BRIDGE DODDRIDGE COUNTY, WV

Sedalia Arch Bridge, Doddridge County, West Virginia.
Owner: WVDOH

Project Manager: Mr. Bill Murray, P.E..

Contact Phone: 304.558.9741.

Project Description: Replacement of an existing single span concrete arch bridge with a 72'-0" single span bridge. Bridge consisted of adjacent concrete prestressed box beams with a cast-in-place concrete deck. Roadway design consisted of new bridge approaches and a designed detour, along with drainage, maintenance of traffic and right-of-way plans.

GRADE ROAD BERKELEY COUNTY, WV

Project: Grade Road, Berkeley County, West Virginia

Owner: WVDOH

Project Manager: John Morrison

Contact Phone: 304.558.9740

Project Description: TERRADON provided services to study, design and prepare construction contract plans for Grade Road. The project consisted of the new construction of two lanes adjacent to an existing two-lane roadway in order to provide a four-lane facility. TERRADON provided Contour Mapping, field surveys, Right-of-Way plans and Questionnaires.



TERRADON

Past Experience

181 PULASKI/MONTGOMERY PULASKI, VA

Project: 181 Pulaski/Montgomery

Owner: Virginia Department of Transportation

Tuck Mapping worked for Rice & Associates to acquire helicopter LiDAR data and color imagery to cover a corridor approximately two miles long and two thousand feet wide for the bridges and approaches to New River at Radford. The project consisted of widening a four lane corridor to six lanes, along with two frontage roads. Contour Mapping, Survey, Geometric design, drainage, maintenance of traffic, and signing and marking plans are all a part of this project. Project also included the widening of one existing bridge and the design of a bridge on the frontage road. Project was placed on hold in 2005.

Helicopter LiDAR data was used to develop the digital terrain model data. Breaklines developed from conventional photogrammetry were sampled using the helicopter LiDAR data.

MARTINSBURG DRAINAGE STUDY MARTINSBURG, WV

Project: Martinsburg Drainage Study, Martinsburg, WV

Owner: WVDOH

Project Manager: John Morrison

Contact Phone: 304.558.9740

Project Description: TERRADON Corporation was contracted to perform a drainage study for the City of Martinsburg, WV. The project involved the development of

a comprehensive drainage study comparing pre and post development conditions. TERRADON performed aerial photography, mapping, right-of-way and survey services as part of this contract.

CORRIDOR L NICHOLAS COUNTY, WV

Project: US 19 Widening, Nicholas County, WV

Owner: WVDOH

Project Manager: Mr. John Morrison

Contact Phone: 304.558.9740

Project Description: Terradon performed a GPS static network and placed aerial mapping target control for aerial mapping for the project. Additionally, we performed boundary ties, hydraulic cross sections, mapped existing underground and above ground utilities, and established reference points for the project.

PINE CREEK / OMAR LCAP LOGAN COUNTY, WV

Project: Pine Creek / Omar LCAP (150 acre site)

Owner: WVDEP

Project Manager: Daniel L. Fowler

Contact Phone: 304.926.0455

Project Description: Terradon performed a GPS static network and placed aerial mapping target control for aerial mapping for the project. Additionally, we mapped utilities for the design of the closing of an approximate 12 acre abandoned Municipal Solid Waste Landfill.



Past Experience

THE SUMMIT: BECHTEL NATIONAL SCOUTING RESERVE FAYETTE COUNTY, WV

Project: The Summit: Bechtel National Scouting Reserve, Fayette County, WV

Owner: Boy Scouts of America

Project Manager: Mr. Rob Ridgeway

Contact Phone: 304.646.2312

Project Description: The Summit: Bechtel National Scouting Reserve is an 11,000-acre site in Fayette County, WV where the Boy Scouts of America will be moving its national scouting reserve headquarters. TERRADON has been involved since the inception of this project, aiding in the site selection process, providing aerial photography, survey, and mapping services. Additionally, TERRADON has provided Geotechnical, Environmental and Civil engineering services for the site.

STONE MOUNTAIN STONE MOUNTAIN, TN

Project: Stone Mountain, Stone Mountain, TN

Owner: Ted Thieman

Project Manager: Mr. Ted Thieman

Contact Phone: 239.634.4234

Project Description: Terradon performed a GPS static network and placed aerial mapping target control for aerial mapping for the 6,250 acre residential development project.

BLACK DIAMOND RANCH CRAIG COUNTY, VA

Project: Black Diamond Ranch

Owner: Hunter Company of WV

Project Manager: Brad Hoffmaster II

Contact Phone: 304.262.2770

Project Description: Terradon performed a GPS static network and placed aerial mapping target control for aerial mapping for the 1700 acre residential subdivision project, which included roadway and utility design and construction layout.



I-66 FAIRFAX
FAIRFAX, VA

Project: I-66 Fairfax

Owner: Virginia Department of Transportation

Tuck Mapping completed this project for the Virginia Department of Transportation. The project was eight miles in length and extended from the Route 50 interchange to I-495. DTM data was required to be accurate to +/- 0.05' on the pavement. Due to airspace restrictions, TMSI used the eagleeye system in the Bell Long Ranger helicopter to acquire digital imagery and LiDAR data. Ground control was placed by Rice Associates at predetermined locations. Horizontal control was established using static & RTK GPS while digital leveling was used to establish elevations. TMSI personnel occupied ground base stations during the helicopter flight. Detailed mapping of all pavement including all joints was acquired from the digital imagery. The LiDAR produce data meeting the required accuracy and all breaklines were sampled to accurate them. All LiDAR data was removed from the pavements after sampling. Separate datasets were provided for bare earth, sound walls, utility structures and overhead signs. The project was subdivided and staged delivery allowed delivery of mapping, DTM, and orthophotos in a logical manner.

ROUTE 860
FLOYD COUNTY, VA

Project: Route 860

Owner: Virginia Department of Transportation

Tuck Mapping completed this project for the Virginia Department of Transportation. The project required 1"=25' mapping and 1' contours with 0.25' pixel color orthophotography on a two mile corridor 650' left and right of the centerline of the existing road. Ground control and field surveyed edge of pavements were provided by Thompson & Litton. TMSI acquired 1"3000 color imagery of the project with a twin engine aircraft and Leica RC30 aerial camera. Film was scanned and aerotriangulation performed at the Big Stone Gap office. Compilation of the project was completed and data provided to Thompson & Litton for annotation and field updates. TMSI flew the corridor using helicopter LiDAR to produce the data necessary to support a 1' contour interval. The mapping covered 450' left and right of the centerline while the DTM, contours and color orthophotos extended to 650'. Mapped breaklines were sampled to LidAR data; field located pavements were added; and final tin, DTM and contours were produced. Thompson and Litton added field data to the mapping and utility files.

5. Location Relative to the Project Site

TERRADON Corporation maintains a West Virginia headquarters office in Poca, WV where all work for this contract will be coordinated. The Poca, WV headquarters serves clients throughout the State of West Virginia on a daily basis and routinely provides services in surrounding states. TERRADON's headquarters is supported by a second location in Lewisburg, WV.

Additional Information

CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

TERRADON has a current CCQQ dated January 1, 2010 on file with the Division.

LOCATION WHERE THE WORK WILL BE PERFORMED

TERRADON will perform the work at its Headquarters in Poca, West Virginia. Supporting the Poca headquarters will be TERRADON's Lewisburg, WV office.

WORK TO BE PERFORMED BY SUBCONSULTANT

TERRADON will utilize the services of Tuck Mapping for Digital and Conventional Aerial Photography and Digital Mapping.

COST ACCOUNTING SYSTEM STATEMENT

TERRADON employs full-time accounting staff that maintains an extensive cost accounting system. The firm utilizes Deltek accounting software which is capable of segregating and identifying accumulated costs for each job that is performed under cost-type contracts. Time charged to the project is tracked by both phase and task, and is used as a management tool for tracking and maintaining schedule control.

TERRADON provided survey services as part of a value engineering solution for the Fairmont Connector in Marion County, WV. The photo above shows the project during construction.

SHORTLIST SELECTION CRITERIA TECHNICAL EVALUATION

TERRADON Corporation maintains a valid 'Certificate of Authorization' from the West Virginia Board of Professional Engineers to offer engineering services within the State. As requested, one loose leaf copy of the form has been provided as an accompaniment to this statement of qualifications.

CERTIFICATES OF AUTHORIZATION

Copies of TERRADON's certificates are included in the appendices of this proposal.



TERRADON

Appendix A—Resumes of Key Employees

Robert Thaw, P.S.

Survey Department Head

Mr. Thaw is Manager of Surveying Services for TERRADON. He organizes and supervises survey crews; designs commercial sites for drainage, building site locations, parking and utility easements; reviews project plans; and creates base mapping. Mr. Thaw has more than 24 years of experience in a wide range of land surveying applications. He is experienced with the day-to-day operation of the business and management of personnel.

Education

- » B.A., Survey Technology, 1981, West Virginia Institute of Technology
- » B.S., Surveying, 1985, West Virginia Institute of Technology

Work Experience

- » Terradon Corporation
1994-Present
- » Bowman Land Surveying
1992-1994
- » Dunn Engineers
1990-1992
- » Kelley, Gidley, Blair, and Wolf
1988-1990
- » Pearson & Whittemore Architects and Engineers
1984-1986

Registration

- » Professional Surveyor, West Virginia

Recent Project Experience Highlights

- » Control Surveys - Conventional and G.P.S.
- » Topographic Surveys
 - » Commercial Sites under ALTA Standards
 - » Abandoned Mine Lands
- » Waste Management Facilities
- » Boundary Surveys
- » Right of Way Plans (Highways and Utilities)
- » Site Design (Commercial and Urban Developments)
- » Gas Well Locations and Permitting
- » Construction Stakeout
 - » Commercial Buildings
 - » Sanitary Sewer
 - » State and Federal Highways



Appendix A—Resumes of Key Employees

Randy A. Melton, PS

Project Manager

Melton serves as a Senior Project Manager for TERRADON Corporation. Melton is responsible for all TERRADON survey equipment and practice management. Additionally, Melton directs field crews and field operations as well as provides strategic leadership and training within the survey group.

Education

- » A.S. Land Surveying
Glennville State College

Work Experience

- » 2009-2010 Trimble Machine Control System Sales and Support Technician, Precision Laser & Instrument Inc.
- » 1995-2009 President, GPS Innovations Inc, a Trimble Machine Control Dealer, Trimble Marine Dealer, Trimble Robotic Total Station & Trimble GPS Systems Sales, All Trimble Product Technical Support, System Integration, and Training, Crosslanes, WV
- » 1994-1995 Project Manager, Terradon Corporation, Rock Branch, WV
- » 1991-1994 President, Bowman Land Surveying Company, Inc., Crosslanes, WV
- » 1990-1991 Field Engineer, PCL Civil, Southport Bulkhead Facility, Ft. Lauderdale, FL
- » 1987-1990 Chief of Surveys, Westbrooks, Pck. DEF & V Highway Interchanges, Ft. Lauderdale, FL
- » 1986-1987 Certified Concrete Quality Control Technician, Westbrooks Construction, Glade Creek Bridge, Beckley, WV
- » 1985-1986 Professional Surveyor, Regis Engineering, Alum Creek, WV
- » 1983-1985 Office Engineer, Green Construction, Green Sulphur Springs, WV
- » 1982-1989 Manager, Field Surveying Operations, Sharp Hardware, Green Sulphur Springs, WV
- » 1980-1982 Surveyor, Woodhill and Son, Charleston, WV
- » 1979-1980 Technician, Williams-Carter Engineering, Boone, WV
- » 1978-1979 Surveyor, West Virginia

Recent Project Experience

- » The Natchez Trace Parkway Bridge, PCL Civil Construction, Franklin, TN. Subcontractor responsible for QA / QC of the contract documents, original control surveys, sections, and crane access road design.
- » A \$28 million dollar commercial seawall facility including 900,000 yards dredging, 4,600 LF of bulkhead, 500 foot long pier, and 2,740 LF of crane runway space. Southport Bulkhead Facility, Field Engineer, PCL Civil, Port Everglades, FL.
- » A 121 million dollar contract, Pck. DEF and V Highway Interchange, Harbert/Westbrook, Ft. Lauderdale, FL. Managed survey department responsible for stakeout of 22 bridges under simultaneous construction.
- » A 22 million dollar bridge contract, Glade Creek Bridge, Westbrook Construction, Beckley, WV. Responsible for all survey layout computations, concrete quality control testing, quantity reports, and safety. Quality Control & Field Engineering.
- » I-64 Highway Projects 343, 345, & 355. Responsibilities included the daily supervision of subcontracted survey crews, preparation of detailed structure drawings, supervision of end dam installation, final deck grade calculations, revision of earthwork quantity summaries, and subgrade calculations. Additionally assigned the task of initiating a computerized system for the preparation of quarterly cost projections and daily cost analysis reports. Green Construction, Office Engineer, Green Sulphur Springs, WV.



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Appendix A—Resumes of Key Employees

Dave Brown, P.S.

Right-of-Way/Survey Project Manager

Since joining TERRADON in 1999, Dave Brown has been involved in highway design/right of way projects and many surveying projects in West Virginia and surrounding states. Mr. Brown is responsible for conducting and or supervising ALTA/ACSM surveys, boundary surveys, gps surveys, control surveys, topographical surveys, highway right of way projects, and detailed site/utility surveys, for various geotechnical, environmental and civil projects.

Education

B. S Engineering Technology/Surveying
West Virginia Institute of Technology

Work Experience

1999 to Present

TERRADON Corporation (Professional
Surveyor)

1997 - 1999

Trans-Ash (Project Engineer)

1997 - 1997

Summit Engineering (Draftsman/
Design)

1996 - 1997

USGS (Hydrologic Technician)

Certifications

Professional Surveyor, West Virginia

Professional Surveyor, Tennessee

Recent Project Experience Highlights

Mr. Brown's responsibilities include survey project management, GPS networks, control surveys, development of highway right of way plans, boundary solutions, reports, courthouse research, drafting, construction staking, survey data reduction, and preparation of surveying cost estimates and proposals.

- » Black Diamond Subdivision(1656 Acres),
Craig County, VA
- » John Amos Plant Industrial Landfill
Bill's Creek, Putnam County, WV
- » Beech Ridge Wind Tower Project
Greenbrier County, WV
- » WVDOH Corridor L Right of Way Project
Summersville, WV
- » Allegheny Energy Pleasants County Power Station ALTA
Survey
St. Mary's , WV
- » The Woodlands Subdivision
Summersville, WV
- » Liberty Square Boundary/Topographic/Utility Survey
Winfield, WV



TERRADON

Appendix A—Resumes of Key Employees

Brian P. Bakanas, P.S.

Survey Technician

Mr. Bakanas is a land surveying party chief responsible for electronic data collection in the field and subsequently analyzing and plotting the field data in the office. He has fifteen years experience, including boundary surveys, construction stakeouts (highway, building, sewer lines, etc.), right of way (highway and utilities), topographical surveys, utility location, well locations and pay quantities.

Education

- » A.A.S. Land Surveying
Glenville State College

Work Experience

- » 1995-Present
TERRADON Corporation
- » 1991-1994
Dunn Engineers, Inc.
- » 1988-1991
Czop/Spector, Inc.
- » 1986-1988
V&J Associates

Registration

- » Professional Surveyor: West Virginia
- » Professional Surveyor: Pennsylvania

Recent Project Experience

- » Construction - Ford Electronics Facility, Dublin Twp, Pennsylvania. Stakeout for site grades, roads, storm and sanitary sewers, and detention basins.
- » Rorer Pharmaceutical Plant, Collegetown, Pennsylvania. Stakeout horizontal, vertical control, and column lines.
- » Chief Logan State Park Dam Project, Logan, West Virginia. Stakeout dam, riser, road and parking lots, and clearing limits. Electronic data collection of road, dam, and borrow area sections. Analysis and plotting of field data.
- » Surface Mines - AML Reclamation, Hansford, West Virginia. Electronic data collection of sections on slide and reclamation of slide.
- » Appalachian Mining Permits, Smithers, West Virginia. Topographic and G.P.S. survey of roads, ponds, and gas well locations.
- » Site Assessment - Monsanto Armour Creek Site, Nitro, West Virginia. Horizontal/Vertical S/O and location of monitoring wells at landfill. Topographic survey for drainage assessment.
- » Construction Staking - Marshall University John Deaver Drinko Library, Huntington, WV and University High School, Morgantown, WV.
- » Boundary Survey - 1100 Acre Power Plant located in



TERRADON

Appendix A—Resumes of Key Employees

Paul Cox

Surveyor / Engineering Assistant

Soil and water sampling, monitoring well development, and surveying.

Extensive accounting skills with IBM Computer accounting system, data entry and word processor.

Experienced and proficient with ten-key calculator, typewriter (30 wpm) and other office machines.

Education

- » B.A. in Finance
Marshall University - May 1984
- » IBM Computer Accounting Course
Braley & Thompson, Inc.
Certification September 1989

Work Experience

- » 1993-Present
TERRADON Corporation
- » 1991-1993
Self Employment - Construction
- » 1990-1991
U.S. Army National Guard
- » 1989-1990
Phillips U. College - Instructor
- » 1988-1989
Pennsylvania Life Insurance
- » 1984-1988
Self Employment - Real Estate
- » 1982-1983
Pheliser Scientific

Certifications

- » Construction Certificate
- » Architects Building // Inspection Certificate
- » Electrical

Professional

- » Member of the American Water Works Association
- » Member of the American Society of Civil Engineers
- » Active member of the West Virginia Surveyors Association

Recent Project Experience

- » Grade Road
Surveying, Design, Horizontal/Vertical Alignment
- » Flowing Springs Road
Surveying, Design, Horizontal/Vertical Alignment
- » Corridor G
- » Corridor L (Summersville)
Aerial, surveying horizontal alignment, control access for town of Summersville
- » Sedalia Arch Bridge
Horizontal/Vertical alignment, property work
- » Martinsburg Drainage Study
Drainage and Aerial
- » Pine Creek / Omar
- » Morgan Run (Preston County)
- » Bechtel Summit
Aerial, bore holes
- » Route 9 (Martinsburg)
Vertical/Horizontal, Aerial
- » Robinson Run
- » Surveying including cross-sections, profiles, construction layout, and as-built surveys
- » Applied skills including appraisal of material and labor estimates for securing bided and hourly contracts
- » U.S. Route 9 upgrade- Right of Way monumentation, courthouse research, R/W Questionaire.
- » U.S. Route 19 upgrade, Corridor "G", West Virginia State Project No. U234-19-15.14, Preliminary



TERRADON

Appendix A—Resumes of Key Employees

Brian Dense

Crew Chief

Brian Dense serves as a Survey Crew Chief for TERRADON Corporation. Dense oversees crews on TERRADON projects throughout the State of West Virginia and routinely interacts with clients on specific projects. Dense manages crew activities throughout the course of a project.

Education

- » Art Institute of Atlanta
- » Pellissippi State

Work Experience

- » TERRADON Corporation
Environmental Project Manager

Certifications

- » Certification of Surveying
Pellissippi State

Project Experience

- » Bechtel Summit
Boundary, GPS Control, Clearing Limits, Portal Locations, Volume Mapping
- » Beech Ridge Wind Farm
GPS & Conventional
Placement of roads, turbines and control in field
- » Highway and Road Surveying for construction in Tennessee
- » 13+ years surveying as crew chief
Conventional, robotic, and GPS Techniques in field



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Appendix A—Resumes of Key Employees

Michael Huffman

Surveying Coordinator

Huffman have more than 25 years of experience in the engineering industry specializing primarily in survey and mapping projects. Huffman oversees survey parties on TERRADON projects and provides schedule and technical assistance. Additionally, Huffman interacts with TERRADON survey and mapping clients to achieve project goals.

Education

- » B.S. Civil Engineering Technology
Bluefield State College

Work Experience

- » TERRADON Corporation
Surveying Coordinator
2006—Present
- » Self Employed, Survey Company
1995-2006
- » Engineering Concepts
1993-1995
- » Lumsden Associates
1989—1991
- » CleanWater Engineering
1990-1992

Certifications

- » Professional Surveyor, West Virginia
- » Professional Surveyor, Virginia

Recent Project Experience

- » Bechtel Summit
Coordinating survey crews for various projects
- » Dawson Lake Project —Subdivision 759 Acres
Coordinate setting control for aerial photogrammetry
- » Whiterock Properties Subdivision 800 Acres
Coordinate and set control for aerial photogrammetry
- » Cleve Benedict Subdivision
Coordinate and set control for aerial photogrammetry, GPS
control data



Appendix A—Resumes of Key Employees

Andy Nutter, EI

Engineer Technician

Nutter serves as an Engineer Technician at TERRADON Corporation. Nutter works under TERRADON project managers to achieve project goals and deadlines. Nutter's experience includes survey and mapping, quality control/quality assurance and CAD operations.

Education

- » B.S. Engineering and Design Technology, Civil Emphasis
- » A.S. Drafting and Design Engineering Technology

Work Experience

- » TERRADON Corporation
Engineer Technician
2006—Present
- » Engineering and Testing 200
Engineer Technician
2005-2006
- » WV Department of Highways, Summer
Co-op
Inspector
2004-2005

Certifications

- » WV State Board of Registration of Professional Engineers, Registered Professional Engineer
- » American Design Drafting Association (ADDA) Certified Draftsman
- » WVDOH Certified Construction Inspector
- » WVDOH Certified Remedial Construction Inspector

Project Experience

Pine Creek / Omar
QA/QC Inspection

Bechtel Summit

Preliminary Site Investigation, Manage Mine Portal Investigation, Site Grading (CAD), CAD Drawings, Surveying

Stone Mountain, Mountain City, TN

GPS survey Control Layout, Site Investigation

Roadway Design, Subdivision Design, Waterline/Sewer line design

- » Beech Ridge Wind Energy Center
- » Dawson Lake Subdivision
- » The Retreat Subdivision

Manage Geotechnical Investigations Project Inspector, Manage QA/QC operations

- » Ham Sanitary Landfill
- » Greenbrier County Schools
- » Dawson Lake Subdivision



TERRADON

Appendix A—Resumes of Key Employees

Philip Reed, PE

Lewisburg Office Manager

Project Engineer for a variety of civil engineering projects. He is responsible for engineering analysis and modeling, design, regulatory compliance and permitting.
20 Years in Engineering/Surveying/Construction field

Education

- » B.S. Civil Engineering
Virginia Tech

Work Experience

- » 2005 – present
TERRADON Corporation (Lewisburg, WV)
- » 1999 – 2005
Engineering & Testing 2000, Inc.
- » 1991 – 1997
Brackenrich & Associates, Inc.
- » 1990 – 1991
Cornerstone Land Surveying
- » 1988 – 1990
Norfolk Southern Railway

Certifications

- » WVDOT Certified Portland Cement Concrete Technician
- » WVDOT Certified Compaction Technician

Affiliations

- » Professional Engineer, West Virginia
- » Professional Engineer, Virginia

Project Experience

Mr. Reed has 17 years of experience in many types of civil engineering projects. His emphasis has been on water, wastewater, landfill, land development, geotechnical engineering, and construction management.

Mr. Reed was responsible for the design, permitting, and construction management for several landfill projects. He has also been extensively involved in environmental permitting of coal and quarry facilities and has performed hydrologic evaluations for many land development projects.

Ham Sanitary Landfill, Peterstown, WV
Lead on permitting and construction oversight

The Retreat, Lewisburg, WV
Water and utility design for 180 unit mountain top development

Bechtel Summit
Drainage design, construction quality control /assurance project manager



TERRADON
CORPORATION

Appendix A—Resumes of Key Employees

Timothy T. White, P.E.

Highway & Bridge Department Head

Mr. White has more than eighteen years experience in both roadway design and construction. He has a strong background in geometric design, drainage, and all other facets to complete a set of plans for construction. Over eight years, he has progressed from a design engineer as an employee of the West Virginia Department of Transportation, Roadway Design Division, to a Project Manager for various consulting firms. Currently, he is the Principal Engineer and Highway Group Manager for TERRADON, as well as working as a roadway design engineer. Mr. White also has over five years working in the construction industry, as his projects varied from site development and landfills, to a major highway project.

Education

- » B.S. Civil Engineering, 1992
West Virginia University

Work Experience

- » 2003-Present
TERRADON Corporation
- » 2000-2003
The Louis Berger Group
- » 1998-2000
Wilbur Smith Associates
- » 1993-1997
Battle Ridge Companies/Ryder &
Company
- » 1992-1993
West Virginia Department of
Transportation

Registration

- » Professional Engineer in West Vir-
ginia, Ohio, Kentucky, Arkansas,
Texas, Maryland, Pennsylvania,
Virginia, and Tennessee.

Recent Project Experience Highlights

Sedalia Arch Bridge, Doddridge County, West Virginia

- » Mr. White was the Roadway Design Engineer for the ap-
proaches and detour for the replacement of a 72'-0" bridge.
- » Project included roadway design, drainage, and maintenance
of traffic and right of way plans.

US 19 Widening, Summersville, Nicholas County, West Virginia

- » Project consists of widening a four-lane corridor to six lanes,
along with two frontage roads.
- » Geometric design, drainage, maintenance of traffic, and sign-
ing and marking plans are all a part of this project.

St. Mary's Bypass, Pleasants County, West Virginia

- » Mr. White did a roadway design study for the WVDOT that
consisted of evaluating alternates for the bypass and connec-
tion of WV 16 to the Ohio River bridge crossing.
- » Project consisted of plans and a design study report that was
delivered to the WVDOT.

WV 73 Turning Lanes, Logan County, West Virginia

- » Mr. White produced a set of plans for the turning lanes for the
Fountain Place Development near Logan.
- » Plans consisted of typicals, plans, cross-sections and mainte-
nance of traffic.

Monongahela River Bridge and Approaches, Marion County, WV.

- » Senior Roadway Design Engineer responsible for all roadway
design for a 1500' bridge and approaches near Rivesville, WV.
All drainage, maintenance of traffic, signing, pavement mark-
ings and geometric layout was done by Mr. White.
- » Project also consisted of a design study where three alternate
alignments were studied and a design study report was com-
pleted for the WVDOT.



Appendix B—Certificates of Authorization

CERTIFICATE OF

Authorization

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers
having verified the person in responsible charge is registered in
West Virginia as a professional engineer for the noted firm, hereby certifies:*

TERRADON CORPORATION

C00901-00

Engineer in Responsible Charge: TIMOTHY WHITE - WV PE 014275

*has complied with section §20-13-17 of the West Virginia Code governing
the issuance of a Certificate of Authorization. The Board hereby notifies you of its
certification with issuance of this Certificate of Authorization for the period of:*

July 1, 2010 – June 30, 2011

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.



IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA
UNDER ITS SEAL AND SIGNED BY THE PRESIDENT OF SAID BOARD.

BOARD PRESIDENT



TERRADON

Certificate of Authorization

The West Virginia Board of Professional Surveyors
having verified the person in responsible charge is a licensed
professional surveyor for the noted firm, hereby certifies that

TERRADON CORPORATION (POCA, WV OFFICE)

has complied with the provisions of West Virginia Code
§ 30-13A-20, governing the issuance of a Certificate of
Authorization. The Board hereby notifies you of its certification
with issuance of this Certificate of Authorization for the period
January 1, 2010 through December 31, 2010
for providing professional surveying and mapping services
in the State of West Virginia.

Certificate No. 10-5430



In witness whereof I have put my hand,
this 1st day of December, 2009.

Gregory A. Smith
Chairman
A. M. L.
Secretary



TERRADON