



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Centralized Expression of Interest
 02 - Architect/Engr

Proc Folder: 397212

Doc Description: EOI: Capitol Complex Hardscape Restoration Project

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2017-11-21	2017-12-20 13:30:00	CEOI 0211 GSD1800000001	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

12/20/17 10:33:05
 WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Jessica S Chambers
 (304) 558-0246
 jessica.s.chambers@wv.gov

Signature X

FEIN # 55-0687626

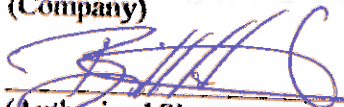
DATE 12/20/17

All offers subject to all terms and conditions contained in this solicitation

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

GREG FOX, VP LAND DEVELOPMENT
(Name, Title)
GREG FOX, VP LAND DEVELOPMENT
(Printed Name and Title)
409 JACOBSON DR, BOCA, WV, 25159
(Address)
304-755-8291 / 304-755-2636
(Phone Number) / (Fax Number)
greg.fox@terraddon.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

TERRADON CORPORATION
(Company)

(Authorized Signature) (Representative Name, Title)

BILL HUNT, PRESIDENT
(Printed Name and Title of Authorized Representative)

12/20/17
(Date)

304-755-8291 / 304-755-2636
(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL OTHER CONTRACTS: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. 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.

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.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"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.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: TERRADON CORPORATION

Authorized Signature: [Signature] Date: 12/20/17

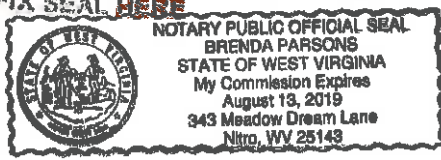
State of West Virginia

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 20th day of December, 2017.

My Commission expires August 13, 2019.

AFFIX SEAL HERE



NOTARY PUBLIC Brenda Parsons

December 19, 2017

Attn:

Jessica Chambers
Department of Administration
Purchasing Division
2019 Washington Street E
Charleston, WV 25305

Subject:

Capitol Complex Hardscape Restoration Project

To Whom It May Concern:

I am pleased to submit the enclosed package for the above referenced project.

TERRADON proposes the following qualifications to provide engineering consulting services for the above referenced. The included package details TERRADON's qualifications, expertise, management and staffing capabilities, prior experience related to the proposed project, and required documentation for consideration.

TERRADON Corporation is a full services engineering firm with locations in Poca, WV, Lewisburg, WV and Fayetteville, WV. TERRADON has an experienced team of professionals experienced in site design, civil engineering, and ancillary engineering and construction services to fully service this project.

TERRADON plans to lead this project under the management of Greg Fox, ASLA, LEED AP. Fox, and the proposed TERRADON team, have ample experience in hardscape restoration projects throughout the state of West Virginia including sidewalk and curbing restoration, and full plaza restoration projects.

Upon your review of the enclosed, please do not hesitate to contact me at 304-755-8291 with any questions or concerns. I look forward to hearing from you soon.

Sincerely,



Ryan Wheeler
Director of Business Development



SUBMITTED BY:
TERRADON Corporation
P.O. Box
Nitro, WV 25143
304-755-8291

PERSON OF CONTACT:
Ryan Wheeler
Director of Business
Development
ryan.wheeler@terradon.com
304-729-9176
www.terradon.com

STATEMENT OF QUALIFICATIONS

Capitol Campus Hardscape Restoration

Attn:
Jessica Chambers
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305

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FOUNDED: 1989

EMPLOYEES: 65

LOCATIONS:

Poca, WV
Lewisburg, WV
Fayetteville, WV

SERVICES:

Transportation Engineering
Structural Engineering
Testing & Inspection
Construction Monitoring &
Administration
Cultural Resources
Archaeological
Civil Engineering
Environmental
Geotechnical Engineering
Land Planning & Design
Survey & Mapping
Utility Engineering



TERRADON is the largest woman-owned engineering firm in West Virginia. TERRADON is a certified Women's Business Enterprise as defined by the Women's Business Enterprise National Council and the National Women Business Owners Corporation.

TERRADON Corporation offers a multi-faceted approach to design engineering and consulting services. For more than 25 years TERRADON staff has provided a wealth of engineering solutions 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.

The firm has been recognized through numerous awards from professional organizations and agencies including the American Society of Civil Engineers, State Highway Departments, the Department of Environmental Protection and the American Institute of Architects.

TERRADON's diverse team of professionals work together on projects to offer a wide range of services in house to keep project centrally focused. By providing this range of services, TERRADON is able to work completely as a team to offer clients the most rewarding design.

TERRADON has experience working on projects funded by various agencies. Because of the variety of funding options for projects, TERRADON maintains in-house grant writing staff and support to help make funding client projects easier.

TERRADON maintains professionally registered engineers, landscape architects, and surveyors as well as a competitive team of highly certified inspectors and environmental specialists.

TERRADON's corporate culture promotes innovation and progressive thinking. Project leaders strive to sustain customers through a wide-range of engineering offerings. TERRADON employees understand the purpose behind their services and work to cultivate lasting relationships with clients through honest, hard work.





TRANSPORTATION ENGINEERING

TERRADON's Roadway and Bridge Design group is one of the most respected in the region. The department is well-known for its structural design capabilities and expert knowledge in bridge erection planning. Whether the job requires project planning, preliminary engineering studies or detailed roadway design, TERRADON maintains the resources needed to successfully complete transportation projects. Success on each project is achieved by using advanced technology to produce innovative, pragmatic design. TERRADON engineers are among leading professionals experienced in an array of transportation and quality & assurance measuring services.

TERRADON's certified staff is trained to work under unique and changing task orders and to maintain quality work to clientele that creates a maintained respected relationship between TERRADON and it's client.

TERRADON provides a diverse staff of professionals capable of providing project planning and preliminary engineering services, as well as final roadway and bridge designs (plans, specifications, and estimates). The firm's transportation engineers and technicians apply the latest technology to innovative, award-winning projects. TERRADON's transportation staff has a wide range of experience that includes preparing maintenance of traffic plans, signing and pavement marking plans, utility coordination, drainage design, and right-of-way plans.

TERRADON is prequalified to provide engineering design services for the West Virginia Department of Transportation (WVDOT) through a Statewide Engineering Consulting Contract and for Design-Build services.

TERRADON's Transportation sector has enjoyed a long-standing relationship with several states' Departments of Transportation including the WVDOT. TERRADON has performed successful engineering design for the agency for more than 20 years. The group is led by an experienced transportation engineer and includes veteran staff with demonstrated experience.

TERRADON routinely works on transportation projects, including survey, right-of-way, utilities, and specification design and review with WVDOT personnel. Additionally, TERRADON has been recognized for outstanding engineering work on several occasions with engineering excellence nominations and awards.

SERVICES INCLUDE

- Structural Engineering
- Bridge Design
- Roadway Planning & Review
- Structural Planning & Review
- Roadway Design
- Maintenance of Traffic
- Traffic Analysis
- Right of Way Plans
- Grading Studies
- Survey
- Materials Testing
- Construction Inspection
- Materials Certification



TERRADON offers materials testing and construction monitoring services to document compliance with project design specifications and regulatory requirements. The firm provides construction monitoring for utility, highway, and commercial construction projects.

TERRADON also provides laboratory and field testing of construction materials. Engineers and technicians at TERRADON are West Virginia Department of Highways certified in Portland Cement Concrete, Hot-mixed Asphalt, Compaction and Aggregates.

MATERIALS TESTING & INSPECTION

- Slump of Portland Cement Concrete (AASHTO-T119)
- Air Content of Freshly Mixed Concrete (AASHTO-T196 and T152)
- Unit Weight and Yield (AASHTO-T121)
- Making and Curing of Concrete Test Specimens (AASHTO-T23)
- Compressive Strength of Concrete Specimens (AASHTO-T22)
- Fine and Course Aggregate Gradations (AASHTO-T11 and T27)
- Specific Gravity of Aggregates (AASHTO-T84 and T85)
- Atterberg Limits (ASSHTO-T89 and T90)
- Moisture Content of Soil (ASTM-D2216)
- Nuclear Compaction Testing of Soil, Stone, and Hot Mixed Asphalt
- Preparation of Certification Forms and Construction Reports
- Welder Certification

CONSTRUCTION MONITORING

- Document compliance with project design specifications
- Ensures compliance with regulatory requirements
- OSHA 10-Hour and 30-Hour Construction Safety & Health Certified

SPECIALTY TESTING & INSPECTION

- Floor Flatness Testing
- Fireproofing
- Masonry Testing
- Structural Steel Inspection Certified
- Welding Inspection
- Dye Penetrant Testing
- Bolt Testing
- Project Safety Monitoring
- FAA Eastern Regional Laboratories



WVDOT-DOH

TERRADON has enjoyed a long-standing relationship with several states' Departments of Transportation including the WVDOT. TERRADON is prequalified to provide engineering design services for the West Virginia Department of Transportation (WVDOT) through a Statewide Engineering Consulting Contract and for Design-Build services. TERRADON Corporation maintains a long-standing relationship with the WVDOT and has performed successful engineering design for the agency for more than 20 years. TERRADON has been the recipient of various Engineering Excellence Awards for past WVDOT projects.

SURVEY

TERRADON has a long history of providing design and construction survey services for numerous land design and development projects. Efficient and accurate results are ensured by prioritizing the use of modern technology, including state of the art GPS and robotic total stations, with the latest design software. TERRADON maintains full-time Professional Surveyors on staff. The firm services projects through the use of in-house field survey crews who are backed by corporate staff members, including an experienced team of CAD designers.

ENVIRONMENTAL

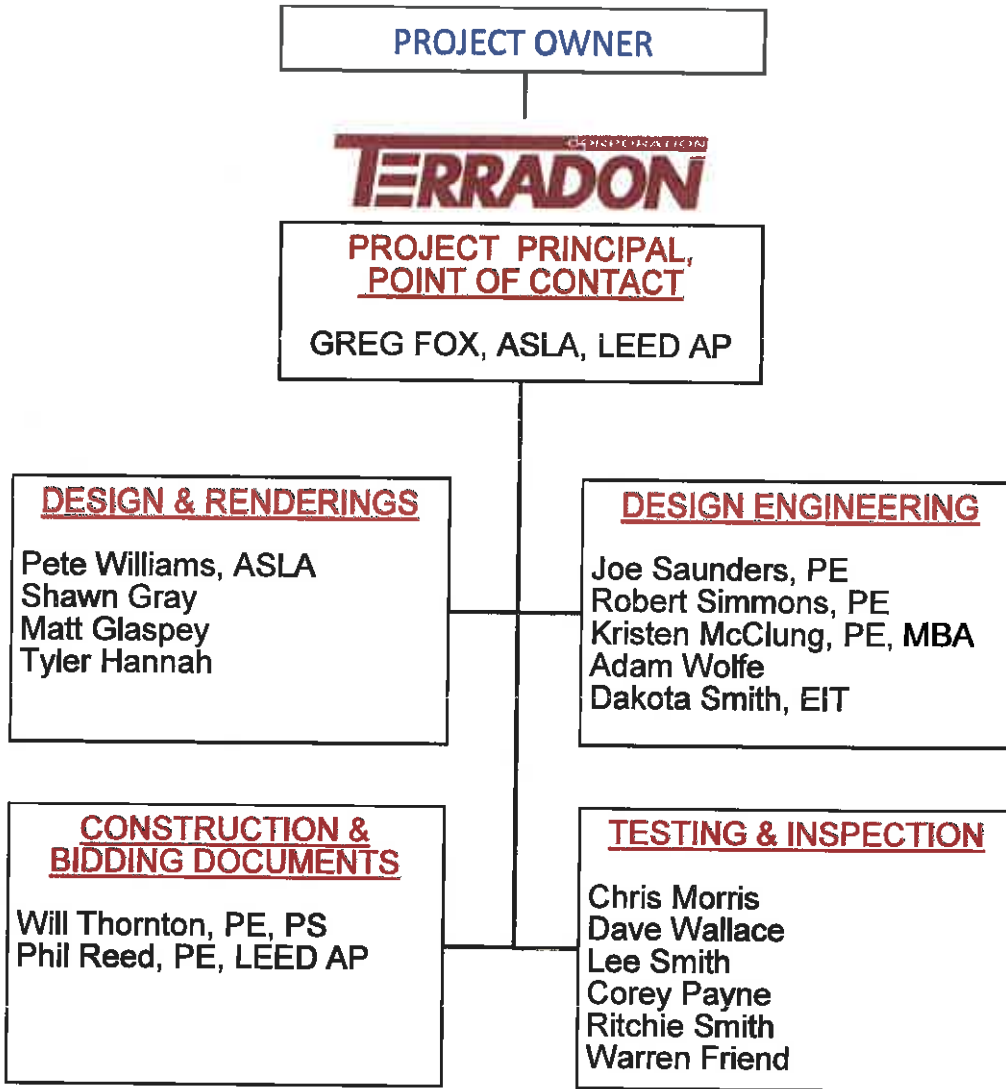
Constantly changing federal and state environmental requirements are difficult to track and can have a serious impact on projects. TERRADON offers an experienced environmental services team to manage issues in a complex environment. Staff is well-versed on environmental permitting processes and regulations as well as site assessment and reporting in order to avoid project delays.

GEOTECHNICAL

Additionally, TERRADON offers some of the most experienced staff in the region for local geotechnical expertise. This team of experts brings a distinctive, specialized understanding of the difficult soil and groundwater conditions found in the Ohio Valley and Appalachian Regions of the United States.

LAND DEVELOPMENT

TERRADON's Land Planning and Development department offers creative and innovative site design plans that have been brought to life throughout the region. Land Planning and Development engineers, landscape architects and CAD designers work closely with other TERRADON departments to deliver the most efficient design for each project. TERRADON's Land Development department works with public and private entities and has remained a strong presence in the commercial, educational and, parks and recreational development sectors.





**RAVENSWOOD DOWNTOWN REVITALIZATION
RAVENSWOOD, WV**

TERRADON Corporation completed construction administration and material testing services for the 2010 downtown revitalization project for the Ravenswood Development Authority. TERRADON was responsible for the project construction bidding documents and process, construction administration, inspection and materials testing for the sidewalk rebuilding, lighting, and ADA improvement project. The project design was completed by another consultant, and TERRADON took over the project to complete the services in a timely and on budget schedule. TERRADON helped secure additional funding from the WVDOT-DOH after project bids came in over estimate.

SERVICES PROVIDED

- Quality Assurance
- Management
- RFP Development
- Permitting Oversight
- QA/QC
- Materials Testing
- Construction Admin



SMITHERS SIDEWALKS IMPROVEMENT PROJECT SMITHERS, WV

The sidewalks along Michigan Avenue were deteriorating and becoming a hazard for the pedestrians in the area. This area is part of the central business district of Smithers. With the assistance of a Transportation Grant administered by the WV Division of Highways the City was able to remove and replace the deficient sidewalks. Street lighting was also added as a part of this project.

Approximately 1000 square yards of concrete sidewalk were removed and replaced as a part of this project. Pedestrian crossings at intersections were designed to be ADA compliant with truncated dome delineators. Services provided included condition surveys, design development, coordination with WVDOH staff during design phase, preparation of contract bid documents, participation in the bidding and award processes, construction phase services including oversight and administration of inspection, processing of WVDOH compliance/reporting documentation, and project closeout. The project design was approved by the WVDOH but construction has been postponed indefinitely due to budget constraints.

SERVICES PROVIDED

CONTACT

Tom Skaggs, Mayor
304-442-5282



MONTGOMERY SIDEWALKS IMPROVEMENT PROJECT MONTGOMERY, WV

This project consisted of the removal and replacement of deteriorated sidewalks and curbs throughout the City of Montgomery. Financed largely by a grant from the West Virginia Division of Highways, this project replaced approximately 2000 square yards of concrete sidewalk and upgraded to current ADA specifications.

Services provided included condition surveys and prioritization of sidewalks requiring replacement, design development, preparation of contract bid documents, participation in the bidding and award processes, construction phase services including oversight and administration of inspection, processing of WVDOH compliance/reporting documentation, and project closeout.

The typical section extended from the face of existing buildings or property lines to the curb. The sidewalk design incorporated a "false" curb section. Pedestrian crossings at intersections were designed to be ADA compliant with truncated dome delineators. Details were provided for curb cuts, protection of existing parking meters and sign posts, street tree planters, and storm drain inlet repairs. The project was constructed during the summer of 2005.

SERVICES PROVIDED

CONTACT

Greg Ingram, Mayor
304-442-5181



**FAIRMONT STATE UNIVERSITY
INNER CAMPUS MASTER PLAN
FAIRMONT, WV**

TERRADON Corporation, as a subconsultant, provided site master planning and site civil engineering services for the Fairmont State University Campus Core Master Plan and Inner Campus Design.

The project included the creation of an enhanced inner campus feel, providing student gathering areas and the promotion of a more intimate collegiate setting. TERRADON's design incorporated a state-of-the-art campus fountain that provides a gentle waterfall behind a seating bench while in use. The fountain is low maintenance, allowing the University to simply turn it off during cold weather. The fountain design provides a nice visual each while in use and turned off as the water feature is hidden behind the seating wall.

For the project, TERRADON provided all hardscape and landscape planning, as well as performed all survey using in-house personnel and tools.

Additionally, TERRADON has provided land development services for FSU Campus Signage and the Engineering Technology Building

- SERVICES PROVIDED**
- Survey & Mapping
 - Land Planning
 - Utility Design
 - Grading & Drainage
 - Access Road Design
 - Construction Drawings





**WEST VIRGINIA WESLEYAN PLAZA
BUCKHANNON, WV**

Wesley Chapel has long been introduced to visitors by a 900 foot-long parking loop and limited greenspace. The College commissioned TERRADON Corporation to provide site civil engineering design and landscape architecture services to the student quad in 2010. TERRADON turned what was previously a loop roadway that circled a large grass lawn into a pedestrian corridor around the open greenspace. TERRADON staff designed a new paver trimmed concrete pedestrian walkway, renovated greenspace, a visitor drop loop and a plaza/water feature to enhance campus quality. The design immediately impacted the central quad, providing an inviting space for students and visitors to utilize the park-like setting.

Trimmed with mature trees, the existing parking loop was left in place while a 20 foot-wide paver-lined concrete pedestrian walkway was constructed to bring the area up to level grade. This design feature saved on demolition costs and provided a solid base for construction. TERRADON designers anchored the west end of the quad with a plaza/water feature. The low-maintenance design provides a visually pleasing highlight opposite Wesley Chapel.

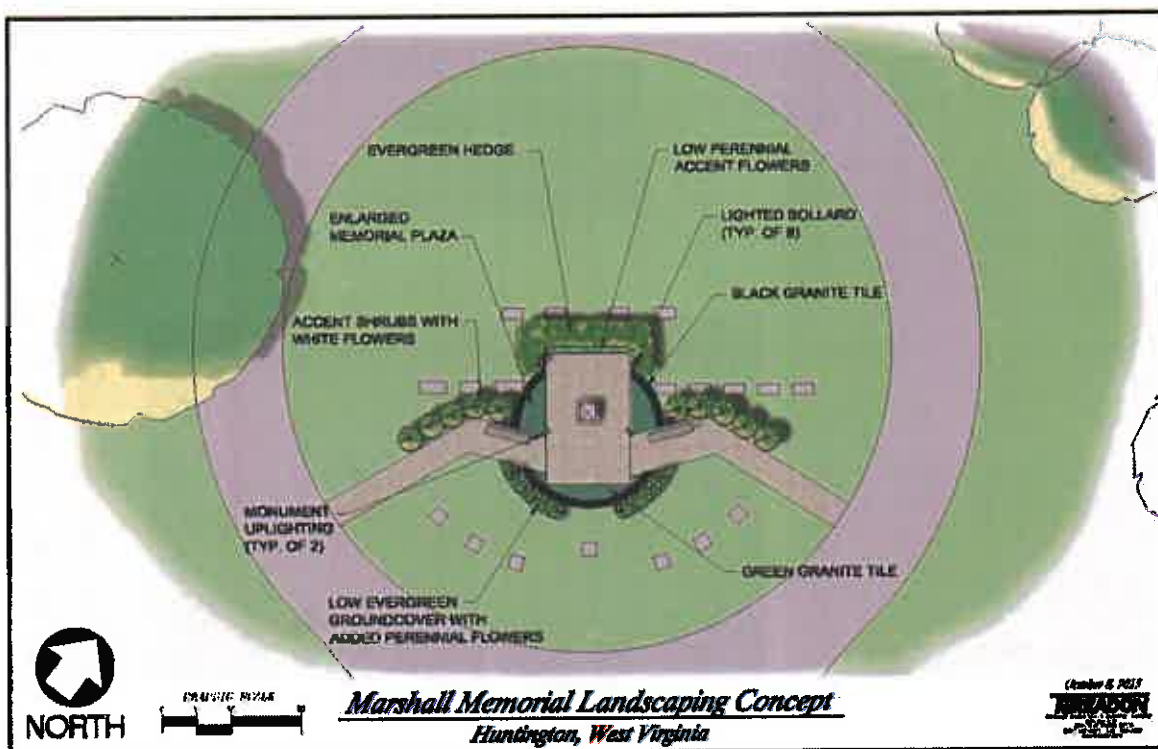
At the head of this pedestrian loop and green quad, TERRADON designed a pedestrian plaza. The plaza is a mixture of concrete and brick substance. TERRADON designed a series of flush fountain nozzles into the ground, in the center of the plaza, so that in the warm weather, the center plaza acts as a water fountain. This amenity gives the plaza dual usage and is a focal point for the plaza and the green lawn surrounding it.

SERVICES PROVIDED

- Conceptual Design
- Design Planning
- Design Survey
- Cost Estimating
- Site Civil Engineering
- Construction Drawings
- Bid Documents
- Project Engineer Support

PROJECT CONTACT





**MARSHALL UNIVERSITY PLANE CRASH MEMORIAL
HUNTINGTON, WV**

TERRADON performed conceptual and design build drawings for the enhancement project for the existing Marshall University Football Team Memorial at the Spring Hill Cemetery in Huntington, WV.

Utilizing the existing hardscape at the memorial plaza, the proposed design expanded the plaza with green colored granite tile, along with an outline of black granite to add a dramatic thematic design matching to schools colors. The expansion of the plaza was created in a circular shape to allow for easy gatherings and viewings for large parties.

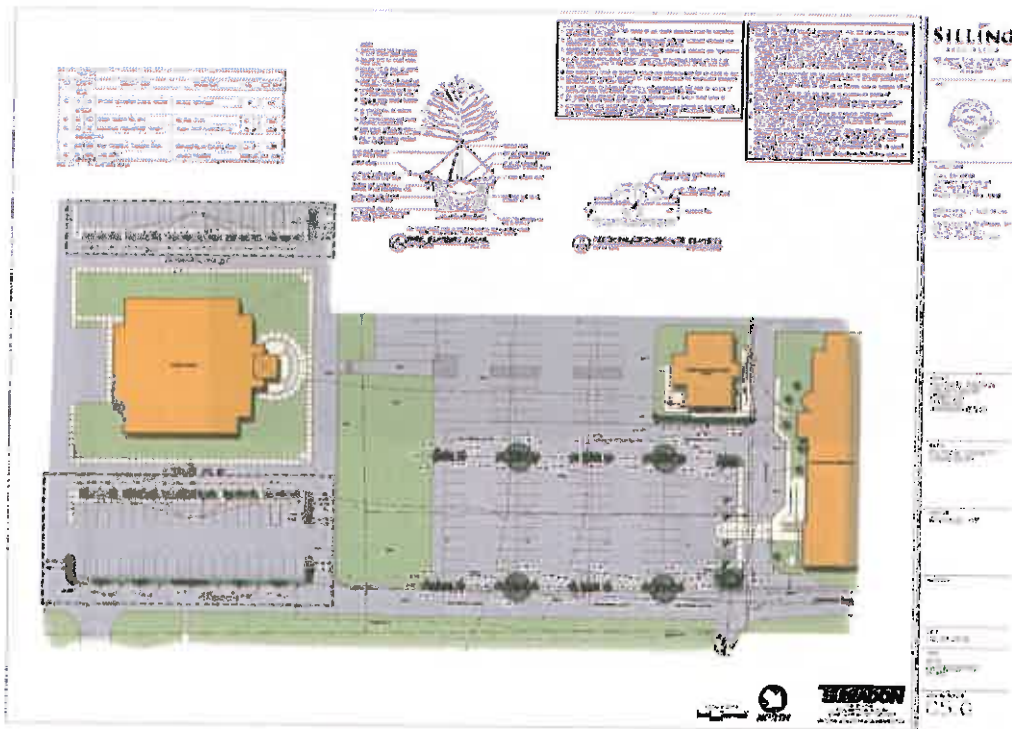
The existing overgrown landscaping was proposed to be removed and replaced with fresh vibrant plantings for year-round interest. Accent lighting was to be added for viewing at night.

SERVICES PROVIDED

- Conceptual Design
- Design Build Drawings
- Landscape Plans
- Hardscape Planning

PROJECT CONTACT

Ron Area
Chief Executive Officer
Marshall University
Foundation
304-696-6264



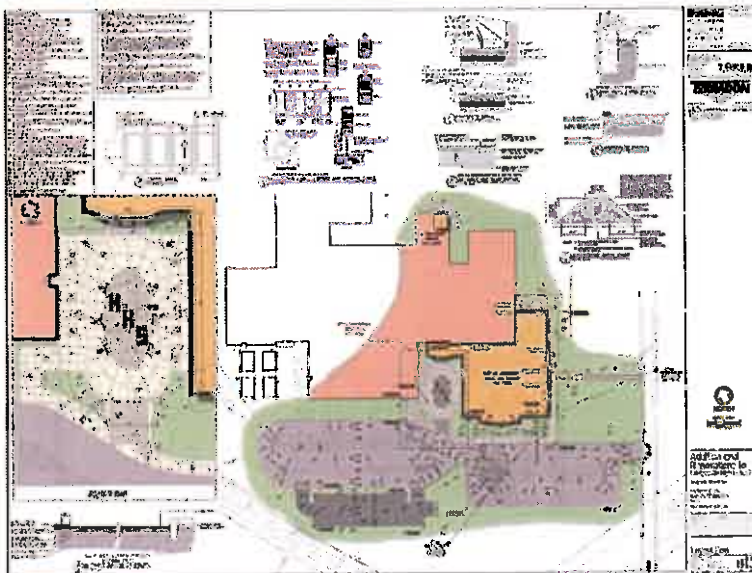
**PUTNAM COUNTY PLAZA
PUTNAM COUNTY, WV**

TERRADON's objective for this project was to rejuvenate an old dilapidated parking lot and create a more pedestrian friendly space.

Parking lot repairs included drainage improvements, pot-hole repairs, and paving overlay to create a crisp, new parking lot. TERRADON designed pedestrian enhancements that include new landscaped curbed islands with shady trees. The design also includes a new pedestrian colored concrete crosswalk with connecting concrete sidewalks that allow for safe and user friendly access into the existing courthouse building.

SERVICES PROVIDED
Conceptual Design
Construction Bid Documents

PROJECT CONTACT
Brian Donat
County Administrator,
Putnam County



**HEDGESVILLE HIGH SCHOOL PLAZA
HEDGESVILLE, WEST VIRGINIA**

TERRADON provided site design and construction drawings for the incorporation of a new gymnasium addition to the existing high school building. Additionally, TERRADON created a three sided plaza for a new entry into the school.

The new entry plaza is centrally located to the school and uses varying hardscape materials consisting of broom finished concrete, flat finished concrete banding, and brick pavers.

The plaza prominently displays the high schools letters and includes pedestrian seating along colorful landscaped borders.

SERVICES PROVIDED
Construction Drawings
& Specifications
Site Development Plans

PROJECT CONTACT
Manny Arvon
Superintendent,
Berkley County Schools
mparvon@k12.wv.us

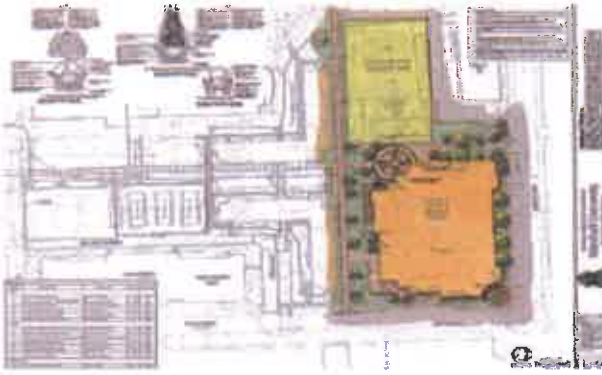


**CAPITOL MARKET EXPANSION
KANAWHA COUNTY, WV**

TERRADON Corporation provided site civil engineering services for the Charleston Urban Renewal Authority for an expansion to the popular Capitol Market facility. Services for the indoor/outdoor facility included land planning and design engineering, utility location and mapping services. The master planning project provided vision for indoor and outdoor retail space for fresh produce, gourmet food products, artisan boutiques, upscale restaurants, craft and culinary demonstrations, access roads and parking.

- SERVICES PROVIDED**
- Survey & Mapping
 - Land Planning
 - Utility Design
 - Grading & Drainage
 - Access Road Design
 - Construction Drawings





MARSHALL UNIVERSITY WELLNESS CENTER HUNTINGTON, WV

TERRADON Corporation provided land development services for the Marshall University Wellness Center project located at 5th Avenue and 20th Street on the Huntington, WV campus. The facilities and grounds of this area have become a focal point for the University based on their location of the high traffic intersection, as well as their proximity to the University Football Stadium.

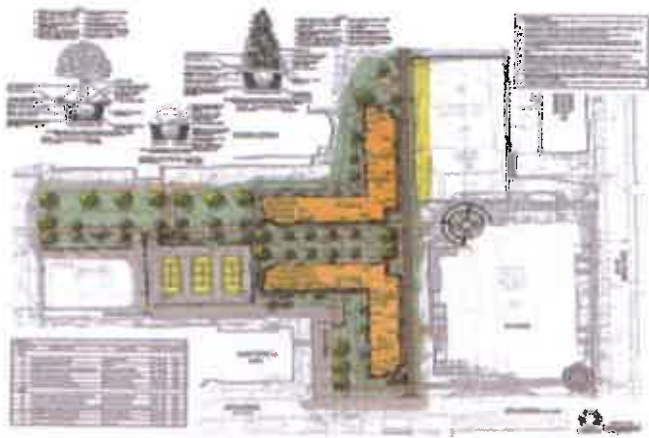
For the wellness center project, TERRADON provided site survey, hardscaping, layout and design, landscape planning and design, site visits during construction and field reporting. Additionally, TERRADON provided land development services on the Parking Garage and Community and Technical College for Marshall, as well as additional ADA compliancy designs on other campus facilities.

SERVICES PROVIDED

- Survey & Mapping
- Land Planning
- Utility Design
- Grading & Drainage
- Access Road Design
- Construction Drawings

RELATED PRIOR EXPERIENCE

TERRADON
CORPORATION



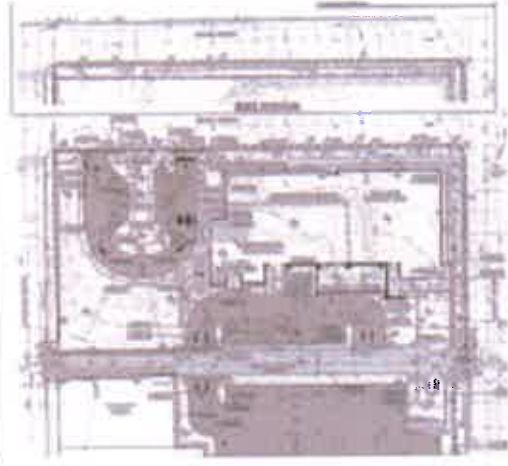
**MARSHALL UNIVERSITY
RESIDENCE HALLS & CORRIDORS
HUNTINGTON, WV**

TERRADON Corporation provided land development services for the newest Marshall University Housing project located along 5th Avenue on the Huntington, WV campus. The facilities and grounds of this area have become a focal point for the University based on their location of the high-traffic intersection of 5th Avenue and 20th Street, as well as their proximity to the University Football Stadium.

TERRADON's designs incorporated ADA compliant walk ways through campus corridors connecting housing, the wellness center, and recreation field to the rest of existing campus. For the residence hall project, TERRADON provided site survey, hardscaping, layout and design, landscape planning and design, site visits during construction and field reporting. Additionally, TERRADON provided land development services on the Parking Garage and Community and Technical College for Marshall, as well as additional ADA compliancy designs on other campus facilities.

SERVICES PROVIDED

Survey & Mapping
Land Planning
Utility Design
Grading & Drainage
Access Road Design
Construction Drawings



**WV DEPARTMENT OF ADMINISTRATION
STATE OFFICE BUILDING
FAIRMONT, WV**

TERRADON Corporation, as a subconsultant, is the Site/Civil consultant to the architect and also provided Environmental, Geotechnical and Survey services to West Virginia Department of Administration for the State Office Building located in Fairmont, West Virginia.

TERRADON's Environmental team provided phase 1 and phase 2 Environmental site assessments (ESA) for the site. Phase 2 ESA consisted of soil and ground water sampling and pesticide wipe sampling. The team also conducted asbestos survey and lead-paint survey. For the project, TERRADON prepared quantities for bid documents and provided over sight for demolition and abandonment.

TERRADON's Geotechnical experts conducted investigation of existing filled basements and foundation investigation and design of the Fairmont building site.

Additionally, TERRADON performed all services for hardscaped areas of this project including parking lots and walkways for the site.

SERVICES PROVIDED

Survey & Mapping
Land Planning
Utility Design
Grading & Drainage
Access Road Design
Construction Drawings

RELATED PRIOR EXPERIENCE





ADVANCED TECHNOLOGY CENTERS KANAWHA COUNTY & FAIRMONT, WV

TERRADON issued site evaluation studies and site engineering phases of two Advanced Technology Center projects in the Cabell, Putnam, and Kanawha County region and in the Harrison, Marion and Mon County region. The intent of the site selection process was to identify multiple suitable site candidates where the Advanced Technology Centers could be located.

The Advanced Technology Centers were considered the main component of these projects. However, the sites were also evaluated on the opportunity they could provide for the possible future expansion of a Community and Technical College. The most suitable sites were selected out of the expansive pool of possible sites within the area. The candidate sites that were chosen were studied in detail and an intensive inventory and analysis phase was conducted to determine the most appropriate site location for the projects.

The inventory process consisted of gathering necessary information needed to evaluate each site based on a list of established criteria developed for this site selection process including visibility, site readiness, site size, and more. The list of possible sites was narrowed down to the ten best sites with the most potential for development. TERRADON used prior knowledge of similar site selections to determine the criteria to develop for these site selections. The criteria database was compiled for each site by using various resources and implementing individual site visits with intensive data gathering.

Additionally, TERRADON performed all services for hardscaped areas of this project including parking lots and walkways for the site.

SERVICES PROVIDED

- Site Selection & Analysis
- Site Prioritization
- Site Planning
- Site Development Plans
- Survey
- Quality Assurance
- Management
- Environmental Site
- Assessments
- Soils Testing
- Survey
- Site Inventory
- Site Renderings

PROJECT CONTACT

Rich Donovan, Senior
Director of Facilities,
WVHEPC
304-558-0281

CONSTRUCTION INSPECTION EXPERIENCE

TERRADON routinely provides construction inspection services for projects varying in size and scope. TERRADON inspectors are certified for all DOH inspection criteria ranging from Level I to Level V inspectors. Key staff are experienced in matters of typical transportation and alternative transportation construction monitoring and inspection. These projects include highway and bridge inspection, and transportation enhancement projects such as trails, sidewalks, pedestrian bridges and the like. TERRADON maintains eleven construction inspectors certified by the WV DOT that are immediately available for assignment.



Project: 3 Bridges WV SR 35

Contractor: Accad Corp.
Project Number: BR0025 (197) TC2848G
TERRADON Project Task: Concrete and Compaction Testing

Project: Road Slip Repair WV SR 5 Griffithville, WV

Contractor: Alan Stone Co.
Project Number: S322-5-2.55
TERRADON Project Task: Compaction and Gradation Testing

Project: New Road Construction, Mineral Wells, WV

Contractor: Alan Stone Co.
Project Number: X354-14.47-0.02
TERRADON Project Task: Soil/Stone Compaction and Gradation

Project: Road Slip Repair, Wirt Co., WV

Contractor: Alan Stone
Project Number: TC2907G
TERRADON Project Task: Compaction & Gradation Testing

Project: Sidewalks/Signals Replacements, Chapmanville, WV

Contractor: Davis Elliot
Project Number: S323-10-33.68
TERRADON Project Task: Concrete Testing

Project: Sidewalk/Signal Replacement, Spring Hill, WV

Contractor: Davis Elliot
Project Number: HSIO-0012 (OSO) G
TERRADON Project Task: Concrete Testing

Project: Roller Compacted Concrete, WV SR 119

Contractor: Triton Construction
TERRADON Project Task: Roller Compacted Concrete Testing

Project: Weigh Station Replacement, I-64 Hurricane, WV

Contractor: Triton Construction
Project Number: NH0119-36S D
TERRADON Project Task: Compaction and Concrete Testing

Project: State Fair Pedestrian Underpass

Project Number: S313-219-0.73 00
TERRADON Project Task: Concrete and compaction testing and construction layout



Project: Hawks Nest Dam Stabilization Project

Contractor: Brookefield
TERRADON Project Tasks: Site Management during the installation of 50 post tensioned anchors

Project: New River Gorge National River

Contractor: National Park Service
TERRADON Project Tasks: Construction Management during 3 construction contracts for the Rehabilitation of Historic Nuttallburg

Project: Snow Making Pond, Blackwater Falls, WV

Contractor: Cherry River Construction
Project Number: DNRB13202
TERRADON Project Task: Soils Compaction, Gradations, Proctor, Proof-Roll

Project: Road Resurfacing 8, US Route 60, Barboursville, WV

Contractor: WV Paving
Project Number: S306-60-13.88
TERRADON Project Task: Asphalt Compaction

Project: Road Resurfacing

Contractor: WV Paving
Project Number: PO 02150040 NHPP 0273 (936); PM2246R
TERRADON Task: Concrete Testing

Project: Bridge Construction near Wayne, WV

Contractor: Bush & Burchette
Project Number: BR0152(039)B
TERRADON Project Task: Soils Compaction, Concrete Testing, Stone Gradations

Project: Bridge Construction near Huntington, WV

Contractor: Bush & Burchette
Project Number: BR0002(339)D
TERRADON Project Tasks: Soils

Compaction, Concrete Testing, Stone Gradation

Project: Signal Light Upgrade

Contractor: Davis Elliot
Project Number: CMAQ0068(131)D
TERRADON Project Tasks: Concrete Testing

Project: Wood County Runway Lighting Replacement

Contractor: Rifenburg Construction
TERRADON Project Task: Concrete Testing

Project: Tri-State Airport Runway Extension

Contractor: Mountaineer Construction
TERRADON Project Tasks: Stone Compaction

Project: Bridge Construction Nitro & St. Albans

Contractor: Kokosing Br.
TERRADON Project Tasks: Concrete and Compaction

Project: Office of Surface Mining Inspection and Testing

Project Description: Prime Consultant for seven sites throughout southern West Virginia.
QA/QC Responsibilities: TERRADON provided Quality Control and Quality Assurance oversight for the compaction testing of seven mine sites throughout West Virginia. TERRADON performed services directly for the Office of Surface mining as a Quality Control test for independent mine operators. TERRADON was responsible for checking soil compaction and moisture content versus specifications, materials sampling and analysis. Final QA/QC Report was provided by TERRADON to the United States Office of Surface Mining.

**Appendix A:
Resumes**



MATT GLASPEY, ASLA

SITE DESIGNER

Serving as a GIS Technician and CADD Designer, Matt Glaspey is an integral part of the TERRADON design team. He offers nearly a decade of project design experience. He is responsible for developing site plans, grading plans, landscape plans, utility plans, site detailing and specifications. Prior to joining TERRADON, Glaspey was part of a design team that completed more than 40 educational site design projects in Pennsylvania, Maryland and Virginia. Glaspey is a member of the American Society of Landscape Architects.

EDUCATION

B.S. Landscape
Architecture
West Virginia
University

WORK EXPERIENCE

2011—Present
TERRADON
Corporation

2003-2011
Hayes Large
Architects

PROJECT EXPERIENCE

Advanced Technology Centers

Provided site selection, site design, and CAD drawings for two West Virginia Higher Education Policy Commission Advanced Technology Centers located in Fairmont, WV and South Charleston, WV respectively. Projects included CAD drawings, site layout and design, utility design, permitting, hardscapes and landscape architecture.

Boy Scout Service Center

Provided site selection, construction documentation and project coordination for the design/build project. Responsibilities included CAD drawings, site layout and design, permitting, utility design, hardscapes and landscape architecture.

New Glenville Elementary School Elementary School

Provided construction documentation for a new Elementary School for the Gilmer County Board of Education. Glaspey's role in the project included CAD drawings, site layout and design, utility design, hardscapes, and landscape architecture. TERRADON provided: Survey and Mapping, Site Planning, Grading and Layout, Utility Design, Construction Drawings and Landscape Architecture. This project is LEED Silver Targeted and was funded in part by the West Virginia School Building Authority.

Dickenson County Judicial Building, VA

Provided construction documentation and project coordination for the design/build project. Responsibilities included CAD drawings, site layout and design, permitting, utility design, hardscapes and landscape architecture.

Ronald McDonald House

Provided construction documentation and project coordination for the design/build project. Responsibilities included CAD drawings, site layout and design, permitting, utility design, hardscapes and landscape architecture.

Hampton Inn - Kinetic Park

Provided construction documentation and specifications for a new hotel at the Kinetic Park commercial development in Huntington, WV. The project included site layout and design, utility design, permitting, hardscapes and planting design.

Courtyard by Marriott - Charleston

Provided construction documentation and specifications for a new hotel in downtown Charleston, WV. The project included permitting, site layout and design, utility design, hardscapes and planting design.

Berkeley County Board of Education

Provided layout, site design, and CAD drawings for various K-12 improvements. Projects consisted of site layout, grading, utility layout, profiles, hardscapes, and landscape architecture.

Jefferson County Board of Education

Provided construction documentation for a proposed Jefferson County Bus Garage near Kearneysville, WV. Project consisted of permitting, CAD drawings, site layout, site grading, and utility layout.

Marshall University Applied Science Building

Provided construction documentation and specifications for the project in Huntington, WV. Responsibilities included site layout and design, utility design, grading, hardscapes, permitting and landscape architecture.



GREG FOX, ASLA, LEED AP

VP LAND DEVELOPMENT

Greg Fox oversees TERRADON's Land Development Sector. Fox has been responsible for hundreds of notable commercial, educational and recreational site development projects during his 28 year career. During his time as Land Development Department Head, TERRADON has earned Engineering Excellence Awards from the West Virginia Association of Consulting Engineers, numerous Merit Awards from the American Society of Landscape Architects, and the Gold Award from the American Council of Engineering Companies. Fox has performed a number of site selection and analysis services on projects over the last 28 years. Fox is responsible

EDUCATION

B.A. Landscape
Architecture
West Virginia University

B.A. Geography &
Planning
West Virginia University

WORK EXPERIENCE

TERRADON
Corporation
2000-Present

Martin Boal Anthony &
Johnson Architects
1996-2000

Site Design
1993-1996

EG&G Inc.
1989-1993

PSC Engineers
1988-1989

REGISTRATIONS & CERTIFICATIONS

Registered
Professional
Landscape Architect:
WV

LEED Accredited
Professional

RELEVANT PROJECT EXPERIENCE

The Bechtel Summit National Scouting Reserve

Provide Site Selection and Design for the 10,600+ acre site in Fayette County, WV. Responsible for site prioritization and selection criteria, feasibility studies, cost analysis, site grading, construction drawings, NPDES design and coordination for all project sub-consultants for NPDES permitting with WVDEP.

Advanced Technology Centers

Provided site design services for two West Virginia Higher Education Policy commission Advanced Technology Centers located in Fairmont, WV and South Charleston, WV. Responsibilities included site identification, prioritization, evaluation, ranking matrix's, site record data, feasibility studies, and final site suggestions. Additionally provided grading, erosion and sediment control and utility design.

Steel Dynamics

TERRADON was approached by the West Virginia Development office to provide site selection and evaluation services of a large industrial site for a prospective large scale industrial tenant in Cabell and Mason counties. To select and prioritize possible site options, TERRADON worked with WVDO, Mason County Development Authority, and AEP to visit and review potential sites across the two counties. TERRADON evaluated multiple sites before ultimately suggesting a selected 550 acre site that had an additional 800 acre adjacent lot available for additional development. TERRADON services expanded from site selection and prioritization to survey, site planning, and design work for the prospective site tenant.

K-12 Educational Facilities

Responsible for Master Planning, Site Layout and Design, Schematic Renderings, Parcel Identification, Feasibility and Cost Analysis, and construction drawings for hundreds of k-12 educational facilities throughout West Virginia. Additionally, Fox has provided site selection services on new school projects or relocation of school facilities throughout West Virginia. Projects include new construction as well as renovations and additions.

Fairmont State University

Responsible for Master Planning and Design of inner campus, including design of seating fountain, drainage features and landscaping.

Marshall University

Responsible for Site Design, Utility Design, Grading and Drainage for Applied Sciences Building, Student Housing, Wellness Center and Parking Garage. Provided ADA compliancy on campus buildings and site design for existing soccer field.

Greenbrier Valley Medical Center

Responsible for master planning through site/civil construction documents for the Greenbrier Valley Medical Center in Lewisburg, WV.

Tazewell Community Hospital

Responsible for master planning through site/civil construction documents for the East Addition of the Tazewell Community Hospital in Tazewell, Virginia.

Greater Greenbrier Sports Complex

Provided Master Planning and Grading Design Services for the Greater Greenbrier Sports Complex located north of Lewisburg, WV. Five phases include: Master Planning, Grading Study, Full Construction Documents, Utility Layout, Road Design, Erosion and Sediment Control.

TERRADON



SHAWN GRAY, ASLA

SITE DESIGNER & LAND PLANNER

Shawn Gray is an experienced Site Designer and Land Planner who serves as an integral part of the TERRADON design team. He offers experience on many of TERRADON's highest profile projects, focusing on large scale site development and parks and recreation projects. Gray also provides site design and landscape architecture services for K-12 and Higher Education projects. He is responsible for developing site, grading, landscape and utility plans, site detailing and erosion sediment control plans and permitting.

RELEVANT PROJECT EXPERIENCE

Bible Center Church Master Plan – Charleston, WV

Project consisted of the layout of a soccer field, youth soccer fields, track, softball field, cross country/walking trail, a new sanctuary, chapel, pre k-8 school/gym, ministry village, new parking, independent living facilities, and assisted living facilities. Project also consisted of site grading and utility study and a budget estimate.

Ohio Valley University – Vienna, WV

Project consisted of designing a sports complex for the university. New amenities included a track and field events, soccer field, baseball field, new softball field, tennis courts, parking, basketball arena with amenities, and an outdoor sports hall of fame. Project also consisted of site grading and a budget estimate.

Cabin Creek Health Systems – Sissonville, WV

New medical/dental office building. Services included site layout, grading, drainage, utility, erosion and sediment control, details, and landscape. Site also included retaining wall layout and design, underground stormwater design, creek bank stabilization.

Greater Greenbrier Sports Complex Master Plan Currently providing 5-Phased, Master Planning and Grading Design Services for the Greater Greenbrier Sports Complex located north of Lewisburg, WV.

Valley Park Master Planning & Expansion Served as a Site Designer for the expanding Valley Park in Hurricane, WV. The project included planning for athletic fields, multiple parking lots, access roads and greenspace, but also incorporated a walking trail that ties into existing park trails. The plan was produced in coordination with the WVDOT to determine roadway/walkway ingress/egress and designed in accordance with local, state and federal regulations.

Volcano Island Master Planning Provided land planning and design engineering, utility location and mapping services for the properties. The master planning provided vision for Volcano Island Water Park, allowing the City of Fairmont efficient and value-based use of the former environmentally concerned site.

Sheetz, WV- Provided site design services for Sheetz Service Centers at Scott Depot, Cross Lanes and Green Acres, WV. The projects consisted of site layout and design, utility design, hardscapes and landscape architecture.

Pioneer Federal Credit Union Provided site design services for Pioneer Federal Credit Union in Hurricane, WV.

The Bechtel Summit National Scouting Reserve Provided Initial Site Selection/ Conceptual modeling designs, site planning/grading and Erosion and Sediment Control services for the 12,000+ acre site in Fayette County, WV.

Palatine Park Master Planning Provided master Planning Services for the City of Fairmont for the redevelopment of Palatine Park on the east side of the Monongahela River adjacent to downtown Fairmont, WV. The Master Plan featured new parking areas, walking trails, a vista overlook, a picnic gazebo and retail space.

Westmoreland Trail System Master Planning Provided site design services for a trail connector designed on the top of an earthen flood levy to move through urban areas.

Harveytown Park & Connector Master Planning Provided 3-Phase Master Planning for a heavily used section of trail.

Southridge Center Master Site Planning Provided master planning and site civil engineering for several areas of Southridge Center in South Charleston, WV.

EDUCATION

B.A. Landscape
Architecture
West Virginia
University

WORK EXPERIENCE

TERRADON
Corporation
2005-Present



PETER J. WILLIAMS, ASLA

LANDSCAPE ARCHITECT

"Pete" Williams is a graduate of West Virginia University with a Bachelor of Science in Landscape Architecture. His responsibilities include landscape architectural design, grading and storm water drainage design, the design of pedestrian circulation systems and related amenities, roadway design, site planning, and quality control. Mr. Williams is registered as a professional Landscape Architect in West Virginia with more than 16 years of experience at TERRADON and more than 27 years of overall experience.

EDUCATION

B.S. Landscape
Architecture
West Virginia
University

WORK EXPERIENCE

TERRADON
Corporation
2000-Present

Chapman Technical
Group
1992-2000

AFFILIATIONS

American Society of
Landscape
Architects

West Virginia
Chapter of American
Society of Landscape
Architects

RELEVANT PROJECT EXPERIENCE

Fire Stations, Medical, First Responder, Public Facilities--Master Planning & Site Design Services

Yeager Airport Fire/Crash/Rescue Station, Fairmont Public Safety Building & Fire Safety Station, South Charleston Fire Station, Greenbrier Valley Medical Center, A New Marshall County Public Safety Annex, Putnam County Courthouse, A new West Virginia State Police Facility at Sharon Steel, A new Stonerise Care Facility at Thomas Hospital

Higher Education— Master Planning & Site Design Services

Marshall University Student Recreation Center
Marshall University Student Housing
Fairmont State Inner Campus Design

Grand Vue Park

Created a Master Plan for the expansion of the Marshall County, WV park. The Master Plan was followed by a Phase I design and construction drawing package that included four "tree house"-style cabins and a high adventure park to complement the park's existing zip lines. High adventure features include a 30' high aerial obstacle course, a 28' high rock climbing wall, a 60' gravity swing, a rappelling wall, a 43 ft mega jump and a giant trampoline.

YMCA of Kanawha Valley

Provided master planning services and prepared construction documents for the development of a baseball field and large multi-purpose field along with a walking trail system for the existing YMCA facility.

Trace Fork Soccer Complex & Ice Arena

Provided master planning and site design services as well as prepared construction documents for the development of six carrying sized soccer fields, an indoor ice arena, and associated roadway and parking to serve the large facility.

Harveytown Park

Provided master planning and site design services and provided construction documents for the development of a new neighborhood park with walking trails, children's play areas, basketball courts, picnic shelters, a restroom facility and parking.

K-12 Schools, Athletic Fields and Other Facilities—Master Planning & Site Design Services

New Marsh Fork Elementary School
New Shady Spring Middle School
Hurricane High School Sports Fields, Additions & Renovations
Lakeside Elementary School Additions & Renovations
Eastwood Elementary School Additions & Renovations
Flinn Elementary School Additions & Renovations
Musselman High School Additions & Renovations
Martinsburg North Middle School Additions & Renovations
New Gerrardstown Middle School
Jefferson Elementary School Additions & Renovations
New Blue Ridge Primary School Winfield Elementary School Additions & Renovations
New Buffalo High School
New Confidence Elementary School
Greenbrier West High School Additions & Renovations
New Lewisburg Elementary School
New Rainelle Elementary School
Eastern Greenbrier Junior High School Additions & Renovations



Thornton is an experienced project manager and design engineer for civil engineering design projects. Thornton has more than 15 years of experience with consulting engineering in West Virginia, and three years with a construction firm performing major concrete paving projects in West Virginia, Pennsylvania and Ohio. Thornton also provided consultant review for the WVDOT, Division of Highways.

The major design projects with which he has been involved included roadway design, drainage design, site design, mine land reclamation, permitting, property surveys, airport design, Right-of-Way Services, maintenance of traffic and construction administration and oversight. He provides analysis and design on the construction and rehabilitation of a variety of infrastructure utilities (water, wastewater and storm water), including streets, drainage, sidewalks, buildings, and traffic and other safety improvements.

EDUCATION

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

WORK EXPERIENCE

TERRADON Corporation
2014-Present

Balance Consulting
2009-2014

WV DOH
2009-2014

Stantec
2007-2009

DLZ
2004-2007

EL Robinson
1999-2004

REGISTRATION

Professional Engineer:
WV, OH, VA

Professional Surveyor: WV

CERTIFICATIONS

WVDOH Portland Cement Concrete Technician
WVDOT Asphalt Pavement Techni-

PROJECT EXPERIENCE

Ravenswood Downtown Revitalization 2010, Ravenswood Development Authority, Ravenswood, WV.

Management of the bidding, construction administration, inspection and material testing for the sidewalk rebuilding, lighting and ADA improvement project. Took over project after design was completed by another consultant. When the project bids came in over original estimate, we helped secure additional funding from WVDOH.

WVDOH Master (On-Call) Engineering Services.

Managed various highway, bridge, and related engineering services at locations throughout the state including: Lavalette to Huntington Road Widening, Spencer Center Turn Lane, Church Street in Ripley Center Turn Lane, WV 14, WV 15 Intersection Upgrade.

I-79 Morgantown Interchange, 2013.

Design study for a new Interchange on I-79 in Morgantown. This fast track project included the preparation of an Environmental Assessment as well as developing alignments for a new interchange on I-79.

US 220 Passing Lane, 2012.

Construction plans for the addition of a passing lane on US 220. Typical services included project scheduling and tracking, plan review for adherence to AASHTO and DOH standards and ensuring the project stays with in scope.

Bartley Branch Bridge, 2012.

Construction plans for the extension of new roadway alignment to allow the removal of a structure.

Hartland Bridge, 2012.

Construction plans for the replacement of existing bridge over the Elk River and approach roadway.

Fourth Street Bridge, 2013.

Design Study and Construction plans to replace the existing Fourth Street bridge with a new structure and roadway at Third Street in Fairmont. This project included coordination with City of Fairmont officials as well as the local public.

WVA Manufacturing Raw Material Retaining Wall

Management during the design of a new retaining wall at the Raw Material Railroad loadout at the WVA Manufacturing Alloy, WV site. The proposed wall will be approximately 450 linear feet and range from 3 to 10 feet tall.



EDUCATION

B.S. Civil
Engineering,
Virginia Polytech-
nic Institute and
State University

**WORK
EXPERIENCE**

TERRADON
Corporation
2005-Present

Engineering &
Testing, 2000, Inc.
1999-2005

Cornerstone Land
Surveying
1990-1991

Norfolk Southern
Railway
1988-1990

REGISTRATION

Professional
Engineer:
WV, VA

CERTIFICATIONS

WVDOH Certified
Portland Cement
Concrete
Technician
WVDOH Certified
Compaction
Technician

Philip Reed serves as TERRADON'S Lewisburg, WV Office Director and provides services to clients for Quality Control, Materials Testing and Engineering Design. Reed provides technical direction on a variety of civil engineering markets including commercial and industrial developments, housing, energy and infrastructure. Reed is responsible for engineering analysis and modeling, design, regulatory compliance and permitting, in addition to quality control and assurance. He has created numerous residential subdivision designs with roadways and drainage.

PROJECT EXPERIENCE**Sporting Club, Creekside Apartments**

Responsible for surface drainage remediation and rehab for the Sporting Club, Creekside Apartments, White Sulphur Springs, WV.

West Virginia School of Osteopathic Medicine

Evaluated the storm water system and designed a sink hole underground injection system for the WVSOM in Lewisburg, WV.

Greenbrier Valley Medical Center

Evaluated the storm water system and designed a sink hole underground injection system for the medical center in Ronceverte, WV.

City of Alderson

Evaluated drainage issues and made remediation recommendations for the City of Alderson, WV.

Summit Bechtel Reserve

Reed Provided Project Engineering Support for the 10,600-acre+ site development in Fayette County, WV. Oversaw site layout, grading, and survey support for one of the largest infrastructure projects in West Virginia. Oversaw all QC services and provided project direction of 20 inspectors and technicians during installation of more than 100 miles of utilities and nearly 50 miles of roadway construction. Additional inspection and monitoring activities included vertical construction of three buildings and an iconic wingtip pedestrian bridge. Additional responsibilities of Reed's during this project include construction oversight and review, project observation and documentation of multiple services throughout the total project, and attended planning meetings throughout the project to ensure fluid communication between all project engineers.

Gordy Oil

Provided survey and design for 5 natural gas pads and support for freshwater impoundments.

HAM Landfill, Peterstown, WV.

Reed serves as a Project Engineer for HAM Landfill in Peterstown, WV. Reed designs and oversees construction of municipal waste disposal cells, as well as performs environmental permitting for landfill construction. Reed is responsible for the Geotechnical investigation and study for the landfill expansion. He provides construction certification and inspection for clay-lined asbestos cells and composite lined municipal solid waste cells. Additional responsibilities during this project include acting as a project contact to ensure organized communication between the engineering staff and the project owner, project construction review, and overall project observation and documentation.

Triana Energy Fresh Water Impoundment, Buchanan, WV.

Reed served as the Project Engineer for the 15 acre-feet Triana Energy Fresh Water Impoundment, where he was responsible for site design, construction certification, and bi-weekly inspections. Reed was responsible for the oversight of construction monitoring inspectors, documentation and reporting, and permits compliance.

**EDUCATION**

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

**WORK
EXPERIENCE**

TERRADON
Corporation
2011-Present

Chapman
Technical Group
2009-2011

HC Nutting
2007-2009

REGISTRATION

Professional
Engineer: WV

Robert Simmons serves as a Project Engineer at TERRADON Corporation. He offers a background in structural, highway, geotechnical, and hydraulic design, as well as material testing and inspection. He has provided services on a number of projects throughout West Virginia, Virginia, Kentucky, and Ohio.

PROJECT EXPERIENCE**Bluestone Dam Phase IV, Summers County, WV.**

Simmons was a Senior Design Engineer for the Bluestone Dam Phase IV Construction team. Designs have included structural cantilevered steel framing anchored to the sloped downstream face of the dam that is able to support not only the drilling operations for anchor installation, but also a 150 ton crane. The cantilevered platform extends 32' from the face of the dam, with support spacing in excess of 15'. The design required not only that each main support member was able to accommodate the full weight of the 150 ton crane and supply vehicles, but also required a detailed examination of fatigue prone members for the design service life of the project. An additional design concern was that all members below high water level had to be designed to support full loadings, along with force effects from water and debris collisions.

Catfish Man of the Woods Bridge, Cabell County, WV.

Simmons was a Senior Design Engineer for the design of the replacement of the Catfish-Man-of-the-Woods-Bridge. Tasks included assisting with the layout of the new bridge and roadway alignment, design of cantilever wing walls with up to 18 foot heights, drilled shaft foundations, semi-integral abutments, reinforced elastomeric bearings, spread pre-stressed box beams, and reinforced concrete deck. He also provided technical assistance to junior staff.

Portsmouth Bypass Design/Build, Scioto County, OH.

Simmons was a Senior Design Engineer for the design of two bridge for the proposed Portsmouth Bypass Design Build project. Tasks included assisting with the layout of new bridges, driven pile foundations, integral abutments, reinforced and un-reinforced elastomeric bearings, pre-stressed bulb "T" beams, and a 35' tall cap and column pier. He also provided technical assistance to junior staff.

Noise Wall Design, Montgomery County, OH.

Simmons was a Design Engineer assisting in the design of the drilled shaft foundations, FAA aeronautical clearance requirements, and plan review of the free standing noise wall located adjacent to I-75 near Dayton, OH.

Value Engineering for Sections 3 and 5 of Corridor "H", Tucker County, WV.

Simmons aided in the design of roadway drainage, super elevations, and vertical geometry. He also provided assistance with plan and cross section review and quantities.

WORK EXPERIENCE

TERRADON Corporation
2017-Present

2013-2017
Martin Engineering

2010-2013
Business Owner,
Fayetteville, WV
and Member of
Fayette County
Commission

2006-2010 H.C.
Nutting / Terracon

CERTIFICATIONS

ACI Concrete Field
Testing Technician
- Grade 1

WV Division Of
Highways
Certification-
Portland Cement
Concrete Inspector

WV Division Of
Highways
Certification -
Compaction
Inspector

WV Division Of
Highways
Certification -
Aggregate
Sampling
Inspector

OSHA - 10 Hour
Outreach Class

First Aid and CPR

Nuclear Radiation
Safety

Smith joined TERRADON in 2017 as a Senior Inspector. Smith has performed a wide variety of construction materials testing and inspection, as well as all related analysis and reporting, for private, State and Federal clients. He previously provided these services as a member of another engineering firm in West Virginia. Smith has been responsible for staffing, paperwork related to materials testing, laboratory testing and reporting, staff training and policy and procedure development. He also educated field supervisors on new procedures and coordinated all required testing and inspection needs.

PROJECT EXPERIENCE

Charleston Civic Center Renovation - Currently providing inspection services to the City of Charleston for the renovation of the Charleston Civic Center in Charleston, WV. Services include testing and inspection of concrete, soils testing, fireproofing and steel and welding inspections.

Grayson Compressor Station Served as Senior Inspector and Construction Monitor for construction of a natural gas compressor station in Grayson, KY. Included reporting, testing and inspection, concrete, and compaction testing.

Chief Logan State Park Entrance Road Served as Senior Inspector and Construction Monitor for approximately 2 mile road construction connecting Chief Logan State Park and Chief Logan State Park Lodge. Included reporting, testing and inspection, concrete, pavement and density.

More than 5 years experience in the area of construction material testing performing the following duties:

- Quality Control testing of Hot-mix Asphalt on private projects including diamond bit coring for density determination
- Testing freshly mixed concrete for Slump, Unit Weight/Yield, and Air Entrainment, as well as the fabrication of test cylinders. Extensive experience with concrete placement, testing of concrete and various construction techniques
- Routine inspections of reinforcing steel for square and continuous footings, and large mat foundations
- Has Managed on site concrete laboratory including, but not limited to, maintaining all materials testing data, materials testing and ensuring laboratory conditions for climate and storage meet or exceed all applicable and governing rules and regulations
- Quality control testing of soil compaction on projects of various size
- Trained and experienced in of the in-place density of material utilizing Troxler and Humbolt nuclear density/moisture gauges