



West Virginia Purchasing Division

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Header @ 1

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 895004

SO Doc Code: CEOI

Procurement Type: Central Contract - Fixed Amt

SO Dept: 0310

Vendor ID: 000000160928

SO Doc ID: DNR2100000002

Legal Name: CIVIL & ENVIRONMENTAL CONSULTANTS INC

Published Date: 6/14/21

Alias/DBA:

Close Date: 7/13/21

Total Bid: \$0.00

Close Time: 13:30

Response Date: 07/13/2021

Status: Closed

Response Time: 12:08

Solicitation Description: A/E Services-Stonewall Resort Supplemental WWTP System

Responded By User ID: kevinhanks

Total of Header Attachments: 1

First Name: Kevin

Total of All Attachments: 1

Last Name: Hanks

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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Civil engineering				

Comm Code	Manufacturer	Specification	Model #
81101500			

Commodity Line Comments: Response to Architectural/engineering services and contract administration for the Stonewall Resort Supplemental WWTP System.

Extended Description:

Architectural/engineering services and contract administration for the Stonewall Resort Supplemental WWTP System.



Civil & Environmental Consultants, Inc.



State of West Virginia

A/E SERVICES-STONEWALL RESORT SUPPLEMENTAL WASTEWATER TREATMENT PLANT SYSTEM

CEC | Bridgeport Office

Project 314-336

June 13, 2021



A/E SERVICES-STONEWALL RESORT SUPPLEMENTAL WASTEWATER TREATMENT PLANT SYSTEM

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1.0 Firm Overview

In 1989, four engineers and scientists came together with a singular vision: to be a people-first company, one that promotes a culture where clients and employees enjoy working together, and that is responsive to client needs with integrated services and high-quality work for projects both complex and routine.

More than 30 years later, Civil & Environmental Consultants, Inc. (CEC) has 1,000+ team members in offices nationwide. Headquartered in Pittsburgh, Pennsylvania, we are consistently ranked on Engineering News-Record's annual lists of the Top Design Firms and Top Environmental Firms in the nation.

A culture of accountability. We own it. At CEC, every member of our team has a personal stake in ensuring the success of our clients. Because their success is our success. As employee-owners of the firm, we are all personally accountable for building lasting relationships and delivering outstanding results. Because we don't just work at CEC. We own it.

Being easy to work with. We own it. At other firms, you may find one person you work well with. Here, our clients tell us they work well with all of us. It's because all of us are invested in your success. We're accessible, responsive, and operate with integrity.

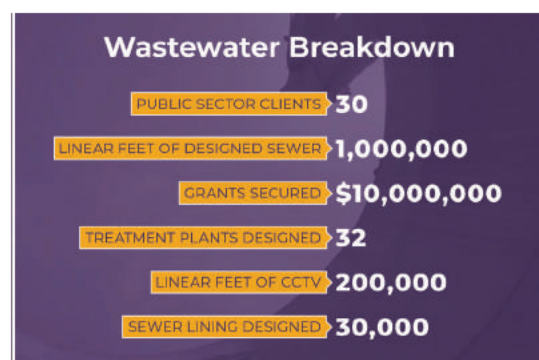
Putting people first. We own it. At CEC, people come first. Always. Whether that's our clients, our employees, or our community. It's why we listen more and work harder to understand the unique needs of our clients. And it's why we prioritize the career development of every individual on our team. People are why we do this, and why we love what we do.

Teamwork. We own it. We are at our best when we work together. That means bringing together a diverse team of talented, passionate, multidisciplinary experts to work closely alongside clients to craft comprehensive solutions to complex problems. We believe that by working together, no problem is insurmountable.

Safety excellence. We own it. We believe all accidents are preventable and are committed to creating an accident- and incident-free workplace for employees and subcontractors through training, safe workplace practices, and processes for assessing project hazards. CEC strives for safety excellence throughout our entire organization and holds all individuals accountable for the safe performance of their work.

CEC is an expanding, multi-disciplined company that is home to:

- Civil Engineers
- Geotechnical Engineers
- Transportation Engineers
- Structural Engineers
- Environmental Scientists
- Environmental Engineers
- Chemical Engineers
- Geologists
- Hydrogeologists
- Hydrologists
- Ecologists
- Biologists
- Wetland Scientists
- Threatened & Endangered Species Experts
- Agronomists/Soil Scientists
- Emissions Testing Professionals
- Meteorologists
- Chemists
- Archaeologists
- Construction Managers and Inspectors
- Environmental Technicians
- Treatment Plant Operators
- Land Surveyors
- Landscape Architects
- GIS Analysts and Programmers



WHERE WE ARE.



Athens, PA
877.389.1852

Austin, TX
512.439.0400

Boston, MA
866.312.2024

Bridgeport, WV
855.488.9539

Buffalo, NY
888.364.2324

Charlotte, NC
855.859.9932

Chicago, IL
877.963.6026

Cincinnati, OH
800.759.5614

Cleveland, OH
800.365.2324

Columbus, OH
888.598.6808

Fall River, MA
508.679.5646

Greenville, SC
855.574.4331

Houston, TX
800.365.2324

Indianapolis, IN
877.746.0749

Kansas City, KS
866.250.3679

Knoxville, TN
865.977.9997

Martinsburg, WV
800.365.2324

McAllen, TX
800.365.2324

Monroeville, PA
800.899.3610

Nashville, TN
800.763.2326

Oklahoma City, OK
405.246.9411

Philadelphia, PA
888.267.7891

Phoenix, AZ
877.231.2324

Pittsburgh, PA
800.365.2324

San Diego, CA
760.977.8106

Sevierville, TN
865.774.7771

St. Louis, MO
866.250.3679

Toledo, OH
855.274.2324

2.0 Qualifications

2.1 Similar Projects

1.5 MGD Hazelton Federal Prison Complex, Preston County, West Virginia

Contact: Ken Barnard/Chief Operator – (304) 698-3000 | Project Technical Lead: Travis Adams

The project consisted of the planning, design, permitting, bidding, and construction management of a new continuous flow Sequential Batch Reactor (SBR) Wastewater Treatment Plant and gravity sewer line extension to serve the new Hazelton Federal Bureau of Prisons Complex located in Preston County, West Virginia. This project was funded by the U.S. Department of Justice/Federal Bureau of Prisons and required the Preston County Public Service District (client) to meet an expedited schedule, which was accomplished.

Bruceton Mills Wastewater Treatment Plant & Sanitary Sewer Collection System Upgrades, Preston County, West Virginia

Contact: Steve Spiker/Chief Operator – (304) 288-6094 | Project Technical Lead: Travis Adams

The Project consisted of the planning, funding, design, and permitting of a new ICEAS (Intermittent Cycle Extended Aeration System) continuous flow Sequential Batch Reactor (SBR) Wastewater Treatment Plant including the construction of tertiary filtration and metals removal treatment technology. This project required a high degree of treatment capability in order to meet the stringent effluent limits imposed by the WVDEP due to the discharge to a high quality trout stream. This project also consisted of upgrades to the Town of Bruceton Mills' three (3) existing sewer pump stations as well as the construction of two (2) new sewer pump stations. Additional Collection System Upgrades included the design of a new sewer force main creek crossing utilizing the Horizontal Directional Drill (HDD) method of pipeline construction under Big Sandy Creek. Funding for this project was secured through the WVDEP State Revolving Fund (SRF) in the form of grants and low interest loans for the Town.

Town of Flemington Sewer Improvements Project | Town of Flemington – Taylor County, West Virginia

Contact: Town of Flemington – (304) 739-4402 | Project Technical Lead: Steve Cain

The project consisted of the preparation of the preliminary engineering report, funding applications, overall design, bidding documents with technical specifications, bidding procedures, construction engineering, and budget control for a sanitary sewer collection and treatment system. The project replaced nearly six (6) miles of gravity and pressure sewer collection lines. The project also included the design and construction of four (4) new sewage lift stations and a 50,000-GPD extended aeration wastewater treatment plant. Other responsibilities included the acquiring of a wasteload allocation permit, West Virginia Public Service Commission certificate, West Virginia Division of Environmental Protection National Pollutant Discharge Elimination System (NPDES) permit.

City of Shinnston Sanitary Sewer Improvements – Phase I | City of Shinnston – Harrison County, West Virginia

Contact: Debra Herndon – (304) 592-5631 | Project Technical Lead: Steve Cain

This project included the preliminary and final engineering design services for the sanitary sewer system improvements for the City of Shinnston Sanitary Board. The project consisted of the study of the city's entire sanitary sewer system and identifying areas where significant amounts of inflow and infiltration were entering the sanitary sewer system and proposing corrective action. Preliminary engineering services included extensive sanitary sewer evaluation surveys, which included detailed field inspections of existing facilities, smoke and dye testing, flow monitoring, sewer line video inspection, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design of accepted alternatives, bid package preparation, construction management and inspection services, and as-built drawing preparation were also part of this project.

2.2 Project Goals and Objectives

The goal of this project will be to provide the necessary engineering and related services required for the construction of a supplemental treatment technology to be integrated as part of the Stonewall Resort Wastewater Treatment Plant (WWTP). The new supplemental treatment process will be designed to specifically remove Copper and Zinc from the WWTP effluent prior to discharge. The supplemental treatment process shall be designed to reduce effluent Copper and Zinc concentrations to below that of the current effluent NPDES discharge permit limits. The proposed method of approach will include a pilot study utilizing the selected treatment process at the existing Stonewall Resort WWTP to ensure that the specified technology is capable of reducing effluent Copper and Zinc concentrations to below the required permit level based on the actual influent received at the Stone Wall Resort WWTP. Upon completion of a successful pilot study, construction plans and technical specifications, bid package, and any necessary permit applications will be prepared and submitted to the WV Department of Environmental Protection and the WV State Health Department.

STONEWALL RESORT WASTEWATER TREATMENT PLANT IMPROVEMENTS

OWNER/CLIENT

Stonewall Resort

LOCATION

Roanoke, WV

CEC SERVICES

Municipal Wastewater Treatment

As-built Surveys

Construction Surveys/Staking

Horizontal & Vertical Control Surveys

Topographic Surveys

Construction Management

Construction Services

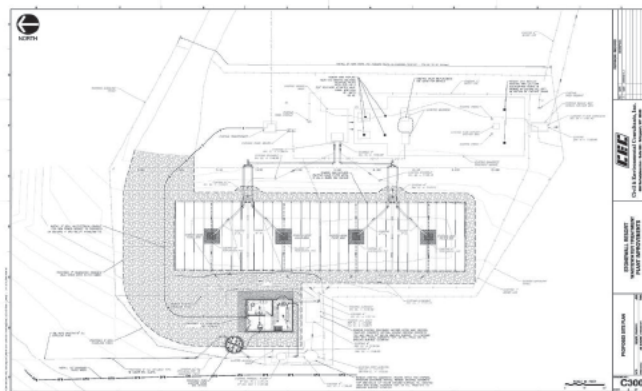
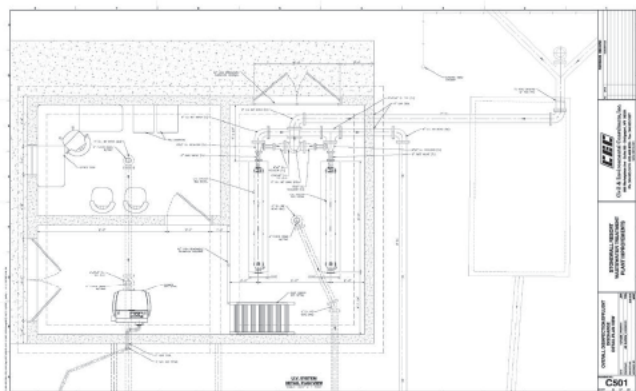
OWNER OBJECTIVE

Stonewall Resort is a large lakeside resort located within the 1,900-acre Stonewall Resort State Park in Lewis County, W.Va., consisting of a main lodge, camping sites, cottages, a marina, a golf course, and a golf course clubhouse. Sewage from each of these locations is treated at a 100,000-gallons-per-day packaged wastewater treatment plant (WWTP) owned by Stonewall Resort. Stonewall proposed improvements at their WWTP, which was constructed in the early 1990s, after it was issued violations by the West Virginia Department of Environmental Protection (WVDEP). Violations included ultraviolet disinfection unit maintenance, sludge management report, and general operation and maintenance of the plant. Adding to the complexity, the sewer plant must stay in service while improvements are being performed.

CEC APPROACH

CEC was tasked with the design of a new ultraviolet disinfection unit, new post aeration basin, sand bed filter media replacement and refurbishment, new office building, new ductile iron gravity sewer piping from the plant to sand beds, and miscellaneous valve replacements. The sewer plant must also stay in service while improvements are being performed.

CEC provided detailed plans and specifications, project permitting, bidding, and construction support. The project began in February 2021, with a scheduled completion time of summer 2021.



ALPINE LAKE SEWER PROJECT

OWNER/CLIENT

Alpine Lake Public Utilities Company, Inc.

LOCATION

Terra Alta, WV

CEC SERVICES

Site Infrastructure Maintenance/
Rehabilitation

Utility Design

Construction Services

OWNER OBJECTIVE

Alpine Lake Public Utilities Company (ALPUC) is a private water and sanitary sewer company serving approximately 500 customers in the Alpine Lake Resort community.

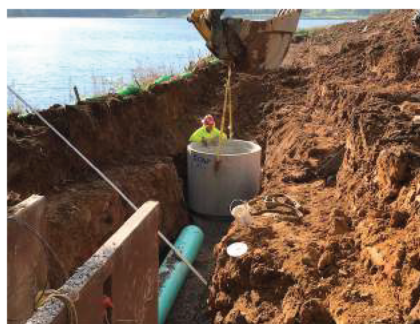
ALPUC's sewer treatment facility treats more inflow than necessary due to inflow and infiltration (I&I) issues. The additional volume is taxing on the sewer treatment facility and precludes ALPUC from meeting percent removal requirement set by the regulatory agency.

The approximately 40-year-old gravity system consists of truss pipe and concrete manholes. Many of the main collector lines are lower than the lake elevation due to a lake expansion.

CEC APPROACH

CEC evaluated the I&I issues by completing flow metering and CCTV video line inspection on various sections of the system to inform rehabilitation recommendations for a section of the system. CEC assisted ALPUC in obtaining pricing for various options, including fiberglass-infused tube with epoxy liner, a reduced diameter cured-in-place pipe, replacement of the section, and a grout alternative. After evaluating the options, ALPUC chose to replace the section.

ALPUC chose to remove and relocate the existing line and reuse all the existing manholes. CEC prepared construction plans, assisted ALPUC in soliciting estimates to complete the replacement, and provided inspection services during construction. The project was completed in the fall of 2018.





INFLOW & INFILTRATION INSPECTION

OWNER/CLIENT

White Hall PSD

LOCATION

White Hall, WV

CEC SERVICES

Engineering Planning

Flow Monitoring

Sanitary Sewer Investigative Services

OWNER OBJECTIVE

The White Hall Public Service District (PSD) currently owns and operates a sanitary sewer collection system that provides sanitary sewer service to White Hall, West Virginia. White hall is currently experiencing large amounts Inflow and Infiltration (I&I) during storm events leading to larger than expected sanitary sewer bills from the city of Fairmont. White hall based on the findings from the sanitary sewer investigation will be proposing sanitary sewer system replacement and repairs to their existing system.

CEC APPROACH

CEC was tasked with developing and implementing a sanitary sewer inspection plan that would allow for white hall to determine where the suspected I&I is originating within White Halls System. The plan that was chosen and accepted by White hall PSD included Dye Testing, smoke testing and flow monitoring in the affected areas. The Smoke and Dye testing had taken place in a zoned approach to allow for cutomers of the PSD time to prepare for the test and to ensure little disturbance to the public. Flow monitoring occurred on an as needed basis with the quantity and location of the flow monitors installed were dependent on smoke testing and dye testing result and input from the PSD.

The Total Project Cost is approximately \$22,000.00 for Labor, Equipment and Reporting and it is fully funded through White Hall PSD. All work is to be completed under one contract and is set to expire in 2021 but can be extended and or amended at the request for additional services by the owner.



MORGANTOWN UTILITY BOARD - FLOW MONITORING

OWNER/CLIENT

Morgantown Utility Board

LOCATION

Morgantown, WV

CEC SERVICES

Engineering Planning

Flow Monitoring

Sanitary Sewer Investigative Services

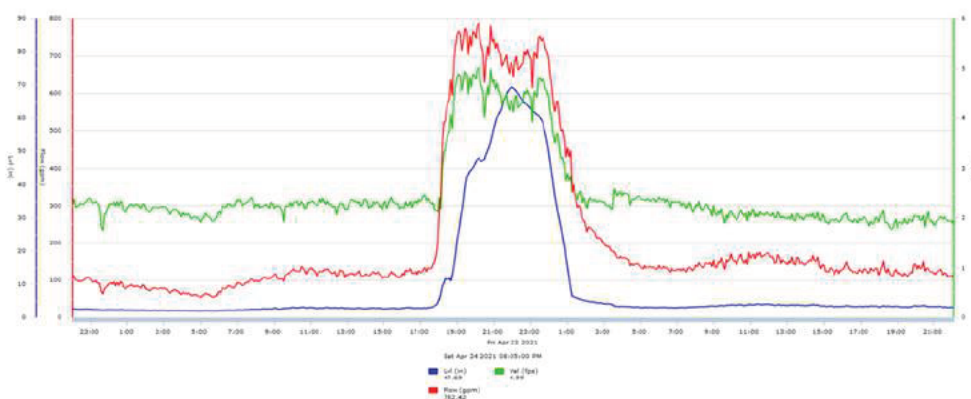
OWNER OBJECTIVE

The Morgantown Utility board (MUB) currently owns and operates a sanitary sewer collection system that provides sanitary sewer service for the Greater Morgantown town area including Star City and Grafton. MUB is currently experiencing high flow or surcharging events in their system believed to be caused by Inflow & Infiltration (I&I). Along with the surcharging event MUB's sanitary sewer is also collecting large amounts of sediment or debris that is also suspected to be contributing to the surcharging events. MUB based on the findings from the Sanitary Sewer investigation would be proposing Sanitary Sewer System Replacements to correct these high flow or surcharging events.

CEC APPROACH

CEC was tasked with developing and implementing a sanitary sewer flow monitor and reporting plan that would allow MUB to determine the portions of their system that were the most problematic as well as understand the amount of I&I that was being experienced from those parts of the system. The plan chosen and accepted by the client includes a six (6) month long Flow monitoring time frame that includes fifty-five (55) Hach single and dual band flow meters and three (3) Hach rain meters. The meters will collect data over the six month time frame as well as update CEC and MUB through Real Time so that they can tract the surges in flow along with the current rain events. Once the six month time frame is over CEC will turn over some flow meters to MUB for constant monitoring of the biggest problem areas till they are able to be repaired.

The total Project cost is approximately \$550,000 for labor and equipment and it is fully funded through the Morgantown Utility Board. All work is to be completed under one contract and is set to expire in 2021 but can be extended dependent on results and upon request by MUB.



TOWN OF HARMAN SEWER SYSTEM IMPROVEMENTS

OWNER/CLIENT

Town of Harman

LOCATION

Randolph County, WV

CEC SERVICES

Engineering Planning

Engineering Design

Permitting

Construction Support

OWNER OBJECTIVE

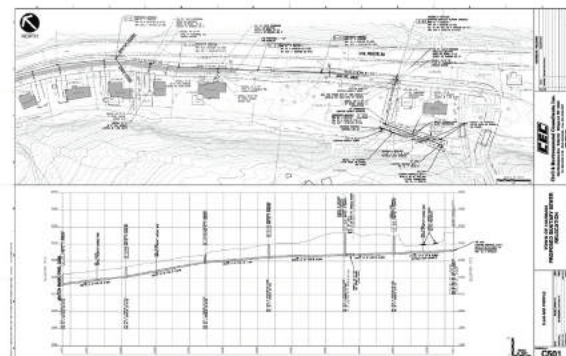
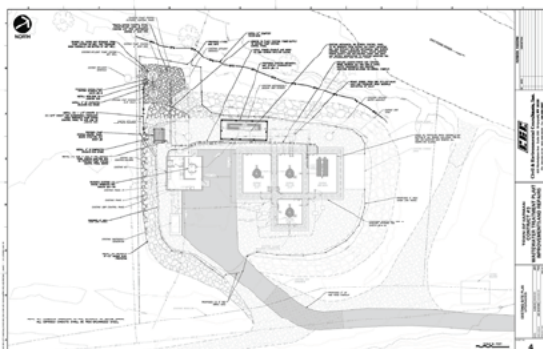
The Town of Harman's existing sanitary sewer collection and treatment system located in Randolph County, West Virginia was damaged by a flash flooding event in June 2019. The damage consisted of gravity sanitary sewer lines washing out, sanitary manholes displaced, sewer lateral lines damaged, and equipment damaged at the sewer plant. Equipment damaged at the sewer plant consisted of the influent pump station, mechanical bar screen, UV disinfection system, and other miscellaneous electrical equipment. The Town needed their sewer system to be repaired in order to collect and treat sanitary sewer flows. For these reasons, the Town of Harman is proposing to install gravity sanitary sewer lines and make improvements at the sewer plant.

CEC APPROACH

CEC was tasked with the design of new gravity sanitary sewer lines and manholes to replace lines which washed out as a result of the 2019 flood. Collection system improvements consisted of installing 2,500 LF of various size PVC and Ductile Iron gravity sewer pipe, eight (8) sanitary manholes, seven (7) customer reconnections, and bypass pumping. Improvements to the existing 50,000 GPD Aqua-Aerobics CAM-D SBR Wastewater Treatment Plant (WWTP) consisted of the following: repairs to the influent pump station, mechanical bar screen, UV disinfection system, Aqua-Aerobics CAM-D unit, SBR Control Panel package, removal and replacement of basin pumps, valves, actuators, and electrical components. CEC provided detailed plans and specifications, project permitting, bidding, and construction support.



The project was accomplished in two (2) Contracts. Contract #1 was for the collection system improvements and Contract #3 was for the WWTP improvements. Contract #2 was improvements made to the water system for the Town of Harman. The project was funded with a grant from the Federal Emergency Management Agency (FEMA). Contract #1 was completed in July 2020. Contract #3 construction is scheduled to start in August 2020 with a completion date of February 2021.





TYGART LAKE WASTEWATER SYSTEM IMPROVEMENTS

OWNER/CLIENT

West Virginia Department of Natural Resources

LOCATION

Tygart Lake State Park
Taylor County, West Virginia

CEC SERVICES

- Engineering Planning
- Engineering Design
- Permitting
- Construction Support



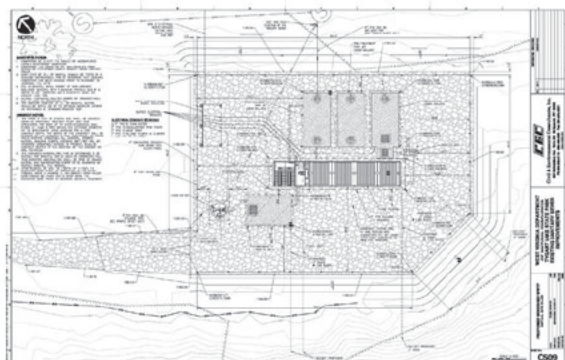
OWNER OBJECTIVE

The West Virginia Department of Natural Resources was informed that their existing Wastewater Treatment Plants (WWTP's) and Sanitary Sewer Collection System for Tygart Lake State Park was in need of improvements and repair. The sewer system has been in service for several years and has reached the end of its useful life. The packaged aeration wastewater treatment plants consist of steel basins that have deteriorated and need removed. The WVDNR wanted one (1) new WWTP to treat all sewer flows from Tygart Lake State Park. Also, the existing Marina sewage pump station is deteriorated and needs replaced. For these reasons, the WVDNR is proposing improvements to the Tygart Lake State Park Wastewater Collection and Treatment System.

CEC APPROACH

CEC was tasked with developing a Preliminary Engineering Report which detailed alternatives for upgrading the sanitary sewer system. The alternative selected consisted of abandoning both WWTP's and constructing one (1) new WWTP to serve the entire park. The collection system improvements consist of constructing two (2) new submersible pump stations, abandonment and removal of one (1) pump station, 3,400 LF of 2" HDPE force Main Pipe, 850 LF of 6" HDPE Horizontal Directional Drill HDD Force Main Pipe, and 260 LF of 8" and 6" Gravity Sewer Pipe. The treatment system improvements consist of the abandonment and removal of the Lodge WWTP, abandonment and removal of the Woodshed WWTP, and constructing a new 20,000 GPD BIO-DISK Treatment System, also referred to as the Rotating Biological Contactors (RBC) System. CEC prepared plans and specifications and received a WV Health Department Permit in August 2020. Additionally, CEC will be providing bidding and construction support for this project.

The project is estimated to cost \$1,350,000 and is funded by the West Virginia Department of Natural Resources (WVDNR). All work will be accomplished under one (1) Contract and is expected to be bid later this year.





BLACKWATER FALLS WASTEWATER SYSTEM IMPROVEMENTS

OWNER/CLIENT

West Virginia Department of Natural Resources

LOCATION

Blackwater Falls State Park
Tucker County, West Virginia

CEC SERVICES

- Engineering Planning
- Engineering Design
- Permitting
- Construction Support

OWNER OBJECTIVE

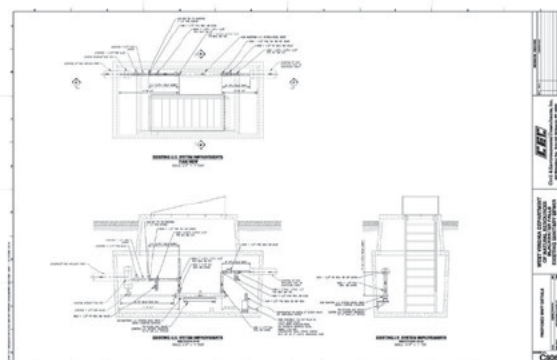
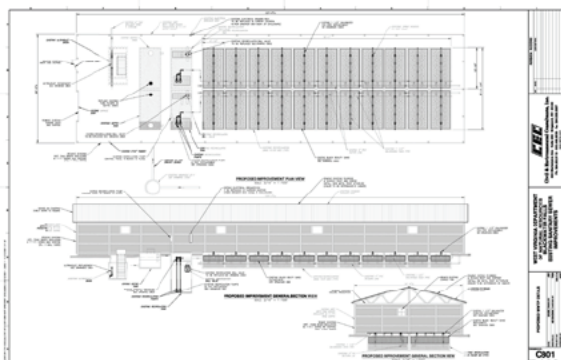
The West Virginia Department of Natural Resources currently operates four (4) separate wastewater collection and treatment systems for the Blackwater Falls State Park. The first system is for the main lodge and restaurant, the second system is for the old cabin area, and the third system is for the new cabin area. Of the four (4) systems, only the old cabin area collection and treatment system is in need of repair and improvements. The old cabin area sewer system was constructed during the 1950's and experiences inflow and infiltration (I&I). The treatment plant is also old and requires numerous upgrades. For these reasons, the WVDNR is proposing improvements to the Blackwater Falls State Park old cabin area sewer system.

CEC APPROACH

CEC was tasked with developing a Preliminary Engineering Report which detailed four (4) alternatives for the collection system improvements and two (2) alternatives for the treatment system improvements. The alternative selected for the collection system improvements consisted of installing 2,400 LF of 8" Gravity Sewer Pipe, 1,800 LF of 2" HDPE Force Main Pipe, 6 EA New Concrete Sanitary Manholes, and 5 EA Remove and Replace Existing Concrete Sanitary Manholes. The alternative selected for the treatment system improvements consisted of removing and replacing sand filter media "black Beauty", installation of a new metal roof for the WWTP building, new walls and insulation for the WWTP building, removal and replacement of water piping with new PVC and stainless steel piping, new control panels and upgrades to WWTP electrical, and the installation of a new "Saniton" Ultraviolet Disinfection System. CEC prepared plans and specifications and received a WV Health Department Permit in March 2020. Additionally, CEC will be providing bidding and construction support for this project.



The total project cost is approximately \$1,000,000 and it is funded by the West Virginia Department of Natural Resources (WVDNR). All work will be accomplished under one (1) Contract. Construction is expected to be completed in early 2021.





WASTEWATER TREATMENT PLANT ANAEROBIC DIGESTER IMPROVEMENTS

OWNER/CLIENT

City of Mount Vernon Wastewater
Treatment Plant

LOCATION

Mount Vernon, OH

CEC SERVICES

Preliminary Design and Field Investigations
Engineering Final Design
Bidding Services

OWNER OBJECTIVE

The City of Mount Vernon provides wastewater collection and treatment for the City of Mount Vernon and surrounding areas located in Knox County, Ohio, serving approximately 7,400 customers with an estimated population of more than 20,000 people. The Mount Vernon Wastewater Treatment Plant was constructed in 1952 and is designed to treat 5 million gallons per day (MGD).

The Mount Vernon WWTP is equipped with two (2) anaerobic digesters used for the digestion of primary sludge. The existing digesters are currently equipped with an older Perth® gas mixing system that is currently in-operable. Anaerobic Digestion is highly dependent upon effective sludge mixing in order to achieve volatile solids reduction as well as efficient production of useable biogas. In addition to the mixing problem, the digesters are experiencing trash accumulation consisting mainly of rags and sediment. This issue is further compounded due to damage of the internal supernatant screen located in Digester #2.

The City of Mount Vernon has engaged CEC to provide Engineering Design Services based on CEC's local presence, performance on previous projects, and expertise related to modern wastewater treatment technologies.

CEC APPROACH

Initially, CEC completed an evaluation of five (5) different mixing technologies to determine which digester mixing system will work best for the City of Mount Vernon. The evaluation consisted of mixing performance, capital cost, operation and maintenance cost, life-cycle analysis, and ease of operation and maintenance. After the evaluation was performed and the data was reviewed by the Owner, CEC coordinated site visits to area wastewater treatment plants where the City of Mount Vernon wastewater staff was able to see the various mixing systems as well as sludge screening equipment in operation and had the opportunity to discuss the equipment being considered with operators currently using the equipment. This provided the Mount Vernon wastewater staff with valuable information on the equipment technologies currently being evaluated for the Mount Vernon Wastewater Treatment Plant Anaerobic Digester Upgrades.

Currently, The City of Mount Vernon has provided direction to CEC on the selected equipment and CEC is currently in the process of preparing construction plans and technical specifications for the proposed Anaerobic Digester Improvements. The scope of the project will consist of upgrades to two (2) anaerobic digesters including new mixing systems, floating roof/cover systems with gas storage, and a new mechanical strain press to screen debris from the digester influent stream.





2.3 References

Mr. Jim Rossi, Mayor

Town of Coalton
(304) 546-6477

Ms. Kim Mayne

Alpine Lake Public Utilities Company
General Manager
(304) 789-6996

Mr. Ken Barnard

Preston County Sewer PSD
Hazelton Wastewater Treatment Plant
Chief Operator
(304) 698-3000



Mr. Jerry Teter

Town of Harman
Mayor
(304) 642-4611

Mr. John Lappie

Stonewall Resort
Director of Property Operations
(304) 269-8811

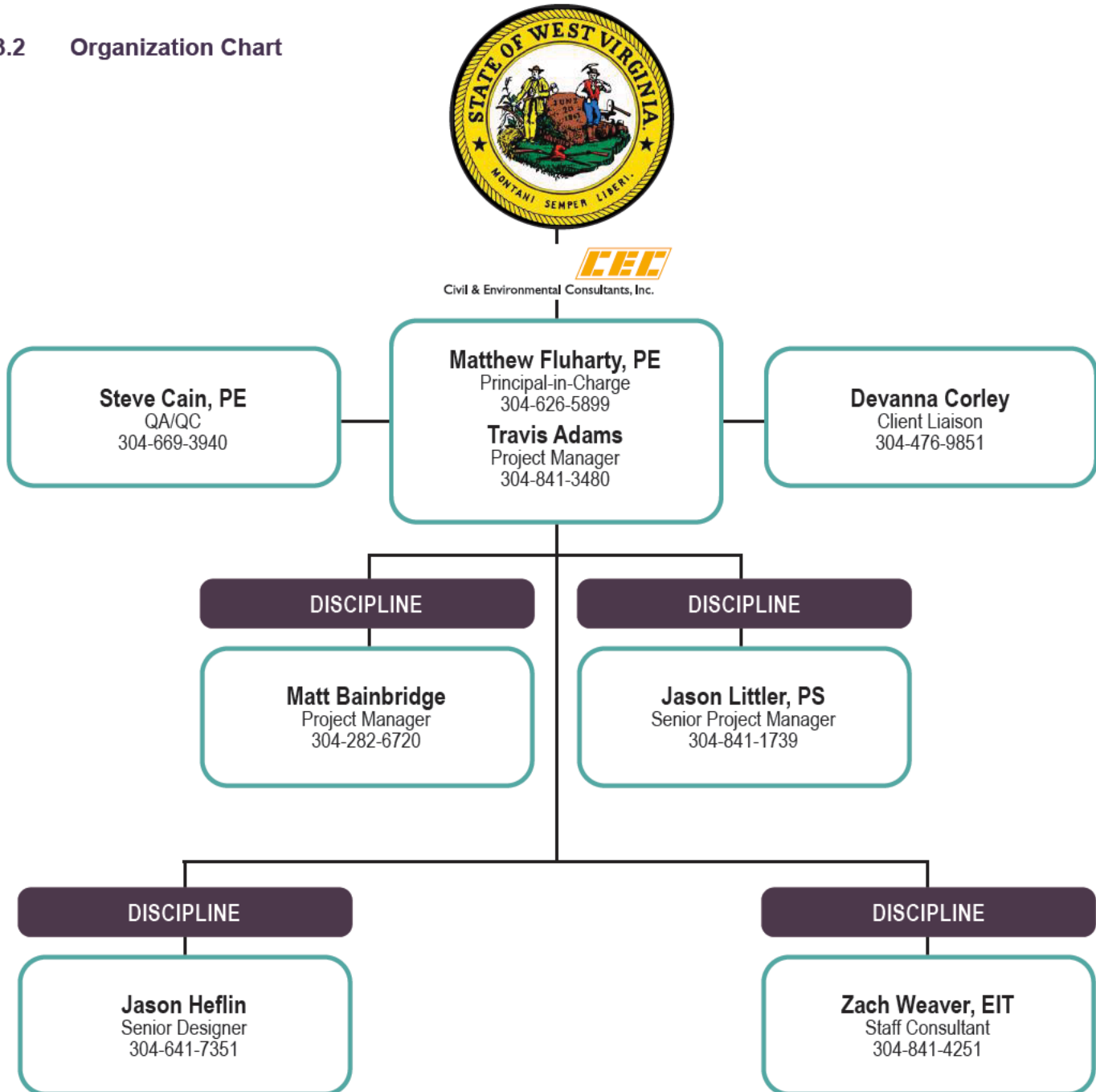


3.0 Staff Experience

3.1 Staff Certifications | Degrees

CEC's staff certifications and degrees can be found in section 3.3.

3.2 Organization Chart



3.3 Key Personnel Resumes

Abbreviated resumes for the key personnel identified in the organizational chart above have been included on the following pages additional information can be made available upon request.

Travis Adams Senior Project Manager



23 YEARS OF EXPERIENCE

EDUCATION

B.S., Environmental Science (Emphasis on Water Quality), West Virginia University, 1998

Mr. Adams has 23 years of experience in the consulting engineering industry servicing municipal, private, commercial, industrial, Oil and Gas, and government sector clients. His project practice focus includes the detailed engineering design of water and wastewater treatment plants, water distribution systems, and wastewater collection systems. Mr. Adams's engineering experience includes: Detailed engineering design of water distribution pipelines, booster pump stations, water storage tanks, sanitary sewer collection pipelines, force mains, existing water and sewer system rehabilitation, development of CSO LTCP, and sanitary sewer pump station design. He has served as the overall project manager for numerous large municipal water and wastewater treatment plant projects as well as numerous water distribution and wastewater collection system projects, leading a team of professionals to evaluate, design, permit, bid, and construct projects with challenging construction obstacles and complex technical and regulatory requirements. Mr. Adams serves as the primary point of contact with the client and ownership team, regulatory personnel, and external team members throughout the life of the project.

PROJECT EXPERIENCE

Water Resources/Public Utilities

City of Mount Vernon, Ohio Anaerobic Digester Improvements for 5 MGD WWTP, City of Mount Vernon, OH, Knox County, Ohio

Role: Senior Project manager

Project Scope consisted of upgrading and modernizing the two (2) existing anaerobic digesters by removing the existing old Perth® gas mixing systems and installing new Linear Motion (LM) mixers in order to improve mixing and achieve improved volatile solids reduction as well as efficient production of useable biogas. New floating roof/cover systems equipped with biogas storage is proposed to be installed on the existing digesters as well. The project scope also includes the installation of a Huber® Strain press to screen primary sludge prior to entering the digesters in order to reduce trash accumulation consisting mainly of rags and sediment.

Solvay Chemicals, Inc. Willow Island Wastewater Treatment Plant - Ozone Treatment System, Solvay Chemicals, Inc., Willow Island Facility, Belmont, West Virginia

Role: Senior Project manager

Project Scope consisted of the design, bidding, and project management for the addition of an Ozone Treatment process to the existing Willow Island Wastewater Treatment Facility in order to address regulatory issues associated with the facilities NPDES discharge permit to the Ohio River. Solvay was experiencing issues related to toxicity with respect to their treated wastewater discharge to the Ohio River.

EXPERTISE

Design of Municipal Water and Wastewater Treatment Plants

CERTIFICATIONS

Adult and Pediatric First Aid/CPR/AED, Red Cross

Certified Compaction Technician, West Virginia Department of Transportation

Certified Concrete Field Testing Technician, West Virginia Department of Transportation

Aggregate Certified Technician, West Virginia Department of Transportation

SafeLand USA - Basic Orientation, PEC Safety





Travis Adams
Senior Project Manager

Improvements to the treatment process consisted of the design and construction of a new Ozone treatment system to address the toxicity problem as well as allow for reduction in the amount of biomass (sludge) produced as a result of the current treatment process. CEC's scope of services included site survey, civil engineering, geotechnical engineering, structural engineering, and construction management services.

Stonewall Resort Extended Aeration with Tertiary Filtration WWTP Upgrades, Stonewall Resort, Lewis County, West Virginia

Role: Senior Project manager

Project Scope consisted of the planning, design, permitting, bidding, and construction management for improvements to an existing extended aeration WWTP including tertiary filtration that provides year-around wastewater treatment to a major resort facility. Upgrades consisted of the rehabilitation of four (4) existing tertiary sand filters, new aeration piping and diffusers to the extended aeration process, construction of a new post-aeration basin to ensure required dissolved oxygen levels are met, and the construction of a new building for the proposed UV disinfection system, blower and controls room, as well office and lab space for the plant operator.

Town of Harman SBR Wastewater Treatment Plant Improvements & Repairs, Town of Harman, Randolph County, West Virginia

Role: Senior Project manager

Project Scope consisted of the planning, design, permitting, bidding, and construction management for improvements and repairs to an existing SBR WWTP that received damage due to a local flash flood event. Improvements and repairs consisted of upgrades to the existing SBR basin, SBR control system, replacement of the existing headworks mechanical bar screen, upgrades to the existing influent lift station, replacement of various pumps and liquid level controls in the Pre and Post Equalization basins, and installation of a new ultra-violet (UV) disinfection system.

1.5 MGD Wastewater Treatment Plant & Sanitary Sewer Line Extension to the Hazelton Federal Prison Complex, Preston County Sewer Public Service District, Preston County, WV*

Role: Served as Senior Project Engineer

Project Scope consisted of the planning, design, permitting, bidding, and construction management of a new continuous flow Sequential Batch Reactor (SBR) Wastewater Treatment Plant and gravity sewer line extension to serve the new Hazelton Federal Bureau of Prisons Complex located in Preston County, West Virginia. This project was funded by the U.S. Department of Justice/Federal Bureau of Prisons and required the Preston County Public Service District (client) to meet an expedited schedule which was accomplished.

City of Kingwood Sanitary Sewer Line Extensions and Upgrade to Existing Wastewater Treatment Plant, City of Kingwood, Preston County, WV*

Role: Served as Senior Project Engineer

The project scope consisted of the planning, design, permitting, bidding, and construction management of gravity sewer lines, forcemains, and sewer pump stations to serve approximately 200 new residential and commercial sewer customers in Preston County, West Virginia. The project also consisted of major upgrades to the City's Wastewater Treatment Plant in order to comply with the WV Department of Environmental Protection approved Long Term Control Plan to address Combined Sewer Overflows (CSO's) located in the City's existing sewer collection system.

Century Volga PSD On-site Alternative "Green Technology" Wastewater Treatment Plant, Century Volga Public Service District, Barbour County, WV*

Role: Served as Senior Project Engineer

The scope of this unique project was to develop and design a "NO DISCHARGE TO SURFACE WATERS" alternative "green" technology Wastewater Treatment Plant (WWTP) for a small residential community consisting of about fifty (50) residential homes. The importance of utilizing and designing an "alternative green treatment technology" was the fact that the community could receive all grant funding from the WVDEP State Revolving Fund (SRF) if this type of treatment technology was utilized for the design and construction of the proposed wastewater treatment facility. This would allow the monthly customer sewer rates to remain low and the project more affordable to the local residents. This project provided a solution to the communities issues of no close or feasible connection to public sewer, failing septic systems creating a public health concern, and the inability of local surface waters (streams/rivers) to accept additional discharges.

Travis Adams

Senior Project Manager

Greater Harrison County PSD Wastewater Treatment Plant, Greater Harrison Public Service District, Harrison County, WV*

Role: Served as Senior Project Engineer

The scope of this project consisted of the planning, design, permitting, and bidding of a new complete Wastewater Treatment Plant to serve residential and commercial customers in Harrison County, WV. An additional focus of the project was to eliminate nine (9) existing individual sewer package treatment plants located throughout the District's service area. Many of the existing package plants were in poor working condition and not being properly operated and maintained by private owners which contributed to public health concerns as well as permit violations.

Town of Bruceton Mills New 100,000 GPD Wastewater Treatment Plant & Sanitary Sewer Collection System Upgrades, Preston County Sewer Public Service District, Preston County, WV*

Role: Served as Senior Project Engineer

Project Scope consisted of the planning, funding, design, and permitting of a new ICEAS (Intermittent Cycle Extended Aeration System) continuous flow Sequential Batch Reactor (SBR) Wastewater Treatment Plant including the construction of tertiary filtration and metals removal treatment technology. This project required a high degree of treatment capability in order to meet the stringent effluent limits imposed by the WVDEP due to the discharge to a high quality trout stream. This project also consisted of upgrades to the Town of Bruceton Mills' three (3) existing sewer pump stations as well as the construction of two (2) new sewer pump stations. Additional Collection System Upgrades included the design of a new sewer force main creek crossing utilizing the Horizontal Directional Drill (HDD) method of pipeline construction under Big Sandy Creek. Funding for this project was secured through the WVDEP State Revolving Fund (SRF) in the form of grants and low interest loans for the Town.

Town of Terra Alta Water Treatment Plant Upgrade & Water Line Extension to Corinth, Town of Terra Alta, Preston County, WV*

Role: Served as Senior Project Engineer

The project scope consisted of the planning, funding, design, bidding, and construction management of upgrades to the Town's existing Water Treatment Plant and the extension of the Town's potable water distribution system to provide potable water service to approximately 200 new residential customers in Corinth. The WTP upgrades consisted of the design and construction of a new pre-treatment sedimentation basin constructed in a new engineered metal building complete with rapid mixers, chemical feed equipment, pumps, and controls. The waterline extension consisted of the extension of 8", 6", 4", and 2" main waterline, a new 100,000 gallon water storage standpipe, 200 new customer meter settings, and miscellaneous fire hydrants, valves, and trench repair items. The residents of Corinth had approached the Town about providing public water service because the area was previously mined and the majority of the residential water wells in the Corinth area had become polluted with large amounts of iron, sulfur, and manganese making the majority of the ground water in the area un-usable. Due to the presence of previous mining activity impacting the ground water supply, the Engineer was able to secure grant funds from the WVDEP Abandoned Mine Lands (AML) Program which resulted in low water customer user rates making the project very affordable.

New 700 GPM Potable Water Treatment Plant & Water Distribution System Extension to the Hazelton Federal Prison Complex, Preston County, WV, Preston County PSD #4, Preston County, WV*

Role: Served as Project Engineer and Construction Manager

The project scope consisted of the design, permitting, bidding, and construction management of a new 700 GPM Water Treatment Plant and Water Distribution System Extension to serve the Hazelton Federal Prison Complex. Major items included the design and development of source water wells to provide raw water to the new WTP, New 700 GPM Water Filtration Plant, Two (2) new 700 GPM Booster Pump Stations, Three (3) new Water Storage Tanks including a 1 Million Gallon Elevated Water Storage Tank located near the prison complex, and the installation of a new 16" Ductile Iron Waterline installed across country from the new WTP to the Federal Prison Complex.

Newell Water Company 1,400 GPM Potable Water Treatment Plant, Newell Water Company, Hancock County, WV*

Role: Served as Senior Project Engineer

Project scope consisted of the design, permitting, bidding, and construction management of a new 1,400 GPM Water Treatment Plant to serve residential, commercial, and one (1) large industrial customer near the city of Newell in Hancock County, WV. This project was funded privately by the Homer Laughlin Fiesta Ware China Company who required a constant supply of high quality potable water for their Fiesta Ware china manufacturing facility. The water treatment process consisted of pressure filtration vessels designed to remove iron and manganese from the incoming raw water supply wells.

Travis Adams

Senior Project Manager

City of Kingwood CSO Long-Term Control Plan, City of Kingwood, Preston County, West Virginia*

Role: Project Engineer

Project scope consisted of the development of a Long-Term Control Plan to address the city's three (3) existing Combined Sewer Overflows (CSO). The project included technical field services including flow monitoring and inspection of the existing sanitary sewer collection system in order to develop a phased plan for the elimination of the (3) CSO's. The Long-term Control plan was drafted and included a series of system upgrade projects including estimated cost and proposed project schedules. The Long-Term Control Plan was submitted to the WVDEP for approval and the City is proceeding with the implementation of the plan.

Greater Paw Paw PSD CSO Long-Term Control Plan, Greater Paw Paw Public Service District, Marion County, West Virginia*

Role: Project Engineer

Project scope consisted of the development of a Long-Term Control Plan (LTCP) for the elimination/reduction of the districts nine (9) existing Combined Sewer Overflows (CSO). Services provided included evaluation of the district's existing collection system and drafting of the LTCP including collection system improvement projects, cost estimates, and schedule for compliance.

** Work performed prior to joining CEC*

PRESENTATIONS

Travis W. Adams. "No Surface Discharge Allowed". WVAWWA/WEA 2018 Joint Conference, Canaan Valley Resort, Davis, WV, May 21, 2018

Steve A. Cain, P.E.

Vice President



27 YEARS OF EXPERIENCE

EDUCATION

B.S., Engineering Technology - (Civil Emphasis),
Fairmont State University, 1992

REGISTRATIONS

Professional Engineer

- WV
- PA
- MD

Mr. Cain, a professional engineer with CEC, has 27 years of experience in civil engineering design and project management.

Steve's experience in civil engineering design encompasses many aspects of civil engineering design including land surveying, mapping, site development, sanitary sewer system design, storm sewer system design, potable water distribution system design and hydraulic modeling. Additionally, Steve also has experience in water treatment system design and rehabilitation as well as wastewater treatment design.

Steve has also spent a large part of his career in managing projects from conception to completion. As a project manager Steve has assisted clients in identifying potential project needs, assisting the client in securing project funds, performed and directed detail design, and participated in and managed construction activities.

PROJECT EXPERIENCE

Wastewater

Town Of Flemington Sewer System, Town of Flemington, Taylor County, WV*

Steve was responsible for the preparation of the preliminary engineering report, funding applications, overall design, bidding documents with technical specifications, bidding procedures, construction engineering, and budget control for a sanitary sewer collection and treatment system. The project consisted of nearly six miles of gravity and pressure collections lines. The project also included the design and construction of four sewage lift stations and a 50,000-GPD extended aeration wastewater treatment plant. Other responsibilities included the acquiring of a wasteload allocation, West Virginia Public Service Commission certificate, West Virginia Division of Environmental Protection National Pollutant Discharge Elimination System permit, West Virginia Division of Highways permit and all other permits necessary for construction.

Barry Street Sanitary Sewer Evaluation Survey (SSES), City of Fairmont, Fairmont, WV*

Steve was the Project Manager for providing SSES to determine the cause of basement flooding of 10 residents from the sanitary sewer system along Barry Street in the City of Fairmont. The work included smoke testing the Barry Street drainage shed that provides sanitary and storm sewer service to approximately 200 City of Fairmont customers to determine illegal connections to the sanitary sewer system. Steve performed dye testing and coordinated Close Circuit TV inspection services to determine the cross connections of the storm sewer to the sanitary sewer. A written report was provided summarizing the deficiencies found and provided a written recommendation for corrections that included a preliminary cost estimate for construction.

Sanitary Sewer Improvements Phase II, City of Shinnston, Shinnston, WV*

Steve was the Project Manager for the preliminary and final engineering design services for the sanitary sewer system extensions for the Shinnston Sanitary Board. The project consists of the extension of gravity sewer collection and transmission system into areas outside of the City of Shinnston corporate limits to provide public wastewater treatment to approximately 170 new customers. The project area encompasses areas know as Drain Hill, WV20 (Haywood Road), Gypsy Hill, and Gypsy Hill Road. The new system will include six new duplex pump stations and will transport customer wastewater to the City of Shinnston existing wastewater treatment plant.



Civil & Environmental Consultants, Inc.



Steve A. Cain, P.E.
Vice President

Civil & Environmental Consultants, Inc.

Sanitary Sewer Improvement Project, City of Grafton, Grafton, WV*

Steve was the Project Engineer for investigating and recommending sanitary sewer improvements that were necessary for compliance with the City of Grafton's Long Term Control Plan (LTCP). The planned improvements included the installation of a new sanitary collection system in the older downtown area of the city that currently has a combined storm/sanitary system. The project will include approximately 10,000 LF of line installation, along with 54 manholes.

Wastewater System Improvements, Town of Franklin, Franklin, WV*

Steve prepared for submission to the West Virginia Infrastructure Jobs and Development Council for a preliminary engineering report detailing the proposed upgrades and improvements to the Town of Franklin's existing 200,000 GPD lagoon system wastewater treatment plant. The project also included collection system improvements by means of internal pipe lining systems and the installation of the new manholes within the Town's older downtown collection system. Steve also provided final design of the proposed improvements.

Kingmill Valley PSD Sewer Upgrades Phase II, KMVPSD, Marion County, WV*

Steve prepared the preliminary engineering report for the submission to the West Virginia Infrastructure Jobs and Development Council for the design and construction of a new wastewater collection system for the Millersville area of Pleasant Valley, West Virginia. The project also included the design of upgrades to nine existing wastewater pumping stations. Preliminary engineering report included preliminary engineering design, cost estimates, and proposed funding scenarios.

Sanitary Sewer Improvements Phase I, City of Shinnston, Shinnston, WV*

Steve was the Project Manager for the preliminary and final engineering design services for the sanitary sewer system improvements for the Shinnston Sanitary Board. The project consisted of the study of the city's entire sanitary sewer system and identifying areas where significant amounts of inflow and infiltration are entering the sanitary sewer system and proposing corrective action. Preliminary engineering services included extensive sanitary sewer evaluation surveys, which included detailed field inspections of existing facilities, smoke and dye testing, flow monitoring, line videos, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design of accepted alternatives, bid package preparation, construction management and inspection services, and as-built drawing preparation were also part of this project.

Sanitary Sewer Improvements, City of Fairmont, Fairmont, WV*

Steve was the Project Engineer for the preliminary and final engineering design services for the sanitary sewer system improvements for the Fairmont Sanitary Board. The project consisted of the study of the city's entire sanitary sewer system and identifying areas where significant amounts of inflow and infiltration are entering the sanitary sewer system and proposing corrective action. Preliminary engineering services included extensive sanitary sewer evaluation surveys, which included detailed field inspection of existing facilities, smoke and dye testing, flow monitoring, line videos, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design of accepted alternatives, bid package preparation, construction management and inspection services, and as-built drawing preparation were also part of this project.

Town of Farmington Wastewater Improvements, Town of Farmington, Farmington, WV*

Steve performed inflow and infiltration investigation by means of visual inspection, smoke testing, dye testing, and television video. Steve was also responsible for overall design of improvements, bidding documents with technical specifications, bidding procedures, construction engineering, and budget control. Steve provided construction management duties during the construction phase of improvements that included the construction of a 125,000-GPD oxidation ditch wastewater treatment plant.

** Work performed prior to joining CEC*

PROFESSIONAL AFFILIATIONS

Fairmont State University Technology Advisory Board

West Virginia Rural Water Association

American Society of Highway Engineers

Matthew Fluharty, P.E.

Principal



21 YEARS OF EXPERIENCE

EDUCATION

B.S., Civil Engineering, West Virginia University, 2000

Mr. Fluharty has 21 years of experience in the engineering and consulting industry servicing private commercial and industrial, Oil and Gas, and government sectors. His project practice focus includes design and engineering of fluid hydraulics, hydraulic modeling and treatment systems. Mr. Fluharty's engineering experience includes: detailed engineering including water pipelines and pumping stations, water storage tanks, plant layouts, equipment sizing and selection, hydraulics analysis; plans and specifications for bidding and construction; engineering cost estimating including project control-level budgeting and life-cycle costs; bidding and procurement; project planning and permitting. He has worked with a variety of projects including: wastewater, raw water, produced water, and brine water.

PROJECT EXPERIENCE

Public Utilities - Water and Wastewater

1.2M Gallon Water Storage Tank Replacement, Kingwood Water Works, Kingwood, WV*

Role: Project Manager

Project involves the replacement of an existing water storage tank with a new 1,200,000 gallon water storage tank and valve vault, and a new 100 GPM constant pressure booster station.

Wastewater System Improvements, Town of Paw Paw, Paw Paw, West Virginia*

Role: Project Manager

Wastewater System Improvements

Wastewater Collection and Treatment Plant Repairs, Town of Harman, Harman, West Virginia

Role: Principal

Served as the project Principal Engineer and oversaw the detailed design plans and specifications, project permitting, bidding, and construction support. This project involved the improvements and repairs to the existing wastewater system collection system and treatment plant due to flooding in June of 2019. The collection system improvements involved the replacement of 2,500 LF of 8" gravity sewer with new PVC and Ductile Iron sewer pipe, new manholes, customer reconnections, and by-pass pumping. Improvements to the existing 50,000 GPD Aqua-Aerobics CAM-D SBR Wastewater Treatment Plant consisted of the following: repairs to the influent pump station, mechanical bar screen, UV disinfection system, Aqua-Aerobics CAM-D unit, SBR Control Panel package, removal and replacement of basin pumps, valves, actuators, and electrical components.

Booster Pump Station, Melanson Bros. Inc, Lancaster, MA

Role: Design Engineer

Designed a 44 GPM constant pressure water booster pump that included a 750 GPM fire pump to provide water service and fire protection to a new residential development located near Lancaster, MA. Design included building a hydraulic model of the

EXPERTISE

- Water Hydraulics
- Pumps
- Hydraulic Modeling
- Wastewater and Water Treatment

REGISTRATIONS

- Professional Engineer
 - WV
 - PA
 - MD
 - OH

CERTIFICATIONS

- 10-hour Construction Safety, Occupational Safety & Health Administration
- Aggregate Certified Technician, West Virginia Department of Transportation
- Certified Compaction Technician, West Virginia Department of Transportation
- Certified Concrete Field Testing Technician, West Virginia Department of Transportation
- SafeLand USA - Basic Orientation, PEC Safety



Civil & Environmental Consultants, Inc.



Matthew Fluharty, P.E.

Principal

Civil & Environmental Consultants, Inc.

proposed water system using KY Pipe 2018. With the completed model I was able to ensure adequate pressures and flow rates for various operational conditions as well as ensure adequate flows for fire protection.

Charles Point Water System, Bridgeport Utility Board, Bridgeport Harrison, WV*

Role: Project Engineer

Water system extension for proposed new development of Charles Pointe and the new United Hospital Center. Project involved the construction of 16" and 12" water line distribution system, two 500,000 gallon water storage tanks, 700 GPM booster pump station, and telemetering system.

Emergency Water System Extension, Town of Tunnelton, Tunnelton, WV*

Role: Project Manager

Served as Project Manager and Design Engineer for the emergency water line extension project to supply water to the Town of Tunnelton when their existing water wells went dry. Project included approximately 8 miles of water line, (2) 150 GPM booster pump stations, 100,000 gallon water storage tanks, solenoid controlled pressure reducing valve station, and telemetering system.

Water Distribution and Water Treatment Support, Clarksburg Water Board, Clarksburg Harrison, WV*

Role: Project Manger

Severed as General Engineer for the Clarksburg Water Board on various projects and tasks. Related projects, Perry Hollow water line extension, Cedar Heights water system improvements, water storage tank rehabilitation, Chestnut Street water line replacement, Farland Avenue River Crossing, VA Park river crossing, Upgrades to electrical generator for 20 MGD water treatment plant, replacement of 8,000 water meters with automatic read.

Freemansburg Water Line Extension Project, Lewis County Commission and Lewis County EDA, Lewis County, WV*

Role: Project Manger

Project involved a new 100,000 gallon welded steel water tank and a 100 GPM package water booster pump station, with telemetering.

Hodgesville Water Line Extension Project, Hodgesville Public Service District, Upshur County, WV*

Role: Project Engineer

Water distribution extension involving approximately 30 miles of water line to serve 250 new customers. Project involved a new 240,000 gallon welded steel water tank and a 250 GPM package water booster pump station and telemetering system.

Masontown 0.5 MGD SBR Wastewater Treatment Plant, Town of Masontown, Masontown Preston, WV*

Role: Project Manager

Responsible for the project funding, design, permitting, and construction for a 0.5 MGD SBR Wastewater Treatment Plant to replace an existing outdated 0.2 MGD BioLac treatment plant.

Southern Lewis County Water Line Extension Project, Lewis County Commission and Lewis County EDA, Lewis County, WV*

Role: Project Manager

Water line extension project involving approximately 42 miles of water line to serve 400 new customers. Project involved two (2) new 100,000 gallon glass-lined bolted steel water tanks and a 200 GPM booster pump station. Project provided water service along Georgetown Road to US RT 119 and served the communities of Walkersville, Ireland, Duffy, and Vandalia.

State Route 5 Water Line Extension Project, Gilmer County Public Service District, Glenville Gilmer, WV*

Water line extension project to extend water service throughout Gilmer County. Project involved the construction of 19 miles of water line to serve 115 new customers.

Matthew Fluharty, P.E.

Principal

Wastewater Collection System Improvement, Extension, and WWTP Improvements, City of Kingwood, Kingwood Preston, WV*

Role: Project Manager

Served as Project Manager for a \$16 million dollar project that included 1.3 MGD wastewater treatment plant upgrades, wastewater collection system replacement and extensions, and new wastewater pumping stations. Was responsible for the project funding, design, permitting, and construction.

Wastewater System Upgrade Project, West Virginia DNR - Blackwater Falls State Park, Blackwater Falls State Park

Role: Project Manager

Served as Project Manager for this project. Project consisted of replacement of approximately 2,000 LF of an existing a sanitary sewer gravity pipe, a new grinder pump station and forcemain, and making improvements to the existing wastewater treatment plant to extend the useful life of the treatment plant. Prepared plans and detailed specifications, assisted with bidding and construction support.

Wastewater Treatment Plant Upgrade Project, West Virginia DNR - Tygart Lake State Park, Tygart Lake State Park

Role: Project Manager

Served as Project Manager for this wastewater treatment plant upgrade project. This project involved the replacement of (2) existing package treatment plants, an 8,000 GPD and 20,000 GPD with new package treatment plants with the latest treatment technologies. In addition, this project involved the replacement of (2) existing grinder pump stations with new modern grinder pumps and with new controls. Provided detailed plans and specifications assistance with bidding, and construction support.

Water Line Extension Project, Masontown Water Works, Masontown WV*

Role: Project Manager

Water line extension project involving 15 miles of water line to extend to 90 new customers. Project also involved adding additional 250,000 gallon water storage tank, 200 GPM booster pump station, solenoid operated pressure reducing valve station, and telemetering system.

Water Line Replacement Project, City of Bridgeport, Bridgeport WV

Role: Design Engineer

Served as the design engineer for the water line replacement project. Project involved the replacement of approximately 6,000 linear feet of water line, installation of new main line valves, fire hydrants, meter setting, and service tubing. Additionally, this project involved the necessary permits, detailed specifications and contract documents, bidding, and construction support.

Water Treatment Plant Upgrades, City of Parsons, Parsons, WV*

Role: Project Engineer

This project involved the replacement of the existing clearwell with a new 500,000 gallon glass lined water storage tank, new backwash pump station, new filter to waste piping, and new plant water pump supply system.

** Work performed prior to joining CEC*

PROFESSIONAL AFFILIATIONS

American Water Works Association

American Society of Civil Engineers

PRESENTATIONS

Water Resources - Technical Processes Required for Compliance, Marcellus and Manufacturing Development Conference, Morgantown, West Virginia, December 2013

Jason B. Heflin

Assistant Project Manager



27 YEARS OF EXPERIENCE

EDUCATION

A.S., Applied Science, West Virginia University of Parkersburg, 1993

EXPERTISE

Sanitary Wastewater Treatment Plants
Sanitary Sewer Systems and Pump Stations
Raw Water Intake Structures
Domestic and Raw Water Distribution Lines

Mr. Heflin has over 27 years of experience working under multiple engineers as a senior designer. His design experience includes sanitary sewer collection systems and wastewater treatment plants, sewer line replacement and rehabilitation including lining and pipe bursting, potable water lines and plants, raw water intakes and distribution lines for the oil and gas industry, storm systems and pump station, earth slip and slide repairs and general aerial base mapping generation.

PROJECT EXPERIENCE

SANITARY SEWER SYSTEMS AND PUMP STATIONS

Sanitary pump station Improvements, Charleston Sanitary Board, Charleston, WV*

Role: Designer and plan preparation

Served as Senior Designer for existing Emerald Road pump station upgrade, project consisted of new pumps, concrete tops with new access hatches, new control panel board structure complete with panels, emergency wet well pumping, fencing and site stone

Sanitary sewer extension and upgrades, Brooke County PSD, Follansbee, WV*

Role: Designer and plan preparation

Served as Senior Designer for this project. Phase I consisted of sewer lines to more than 1,000 customers on Eldersville Road, Mahan Lane, Bruin Drive and adjacent lanes, and extension sewer lines to about 86 homes in the Eldersville Road and Cross Creek areas. Phase II consisted of extension of sewer lines to about 120 homes in the areas of Madonna, Utz, Patterson, Glenn, Bilby, Stephen and Peacock lanes; Loretta Avenue and Rainy Road.

Proposed sanitary sewer extensions & pump stations, Enlarged Hepzibah PSD, Hepzibah, WV*

Role: Designer and plan preparation

Served as Senior Designer for a \$3.5 million dollar project that consisted of extending sanitary sewer service to 160 new customers in the Gypsy and Hughes areas of Harrison County, West Virginia. Project consisted of installing 15,000 LF of 6" and 8" gravity sewer pipe, 125 sanitary manholes, 7,000 LF of 2", 4", and 6" force main pipe; three (3) sewage pumping stations (30 GPM, 100 GPM, and 170 GPM), and telemetering system.

Existing sanitary sewer improvements, City of Clarksburg, Clarksburg, WV*

Role: Designer and plan preparation

Served as Senior Designer on City of Clarksburg interceptor sewer which included cleaning and televising existing gravity line from 8" to 36" in size, locating over 250 existing manholes and combined sewer overflows and determining what manhole rehab needed complete along with the elimination process of existing overflows or updating with Tideflex overflows

Sanitary sewer pump station upgrades, Preston County PSD, Bruceton Mills, WV*

Role: Designer and plan preparation

Served as Senior Designer for this project, this project consisted of upgrades to the three (3) existing sewer pump stations as well as the construction of two (2) new sewer pump stations.



Civil & Environmental Consultants, Inc.

Jason B. Heflin

Assistant Project Manager

Existing sanitary sewer upgrades, Pea Ridge PSD, Cabell County, WV*

Role: Designer and plan preparation

Served as Senior Designer for three (3) contracts of sanitary sewer collection system, rehabilitation and pump stations for Rt. 2/Hillview, Tallwood Baker, Norway Avenue, Cedar Crest, East Cabell Heights and Darnell Road areas

Sanitary sewer extension and existing sanitary sewer upgrades, Malden PSD, Malden, WV*

Role: Designer and plan preparation

Served as Senior Designer for this project. project consisted of existing sanitary sewer system upgrades on lines and pump stations, new wastewater treatment plant effluent pipe

Existing sanitary sewer upgrades, Hepzibah PSD, Farnum, WV*

Role: Designer and plan preparation

Served as Senior Designer for proposed gravity and forcemain sanitary sewer for 55 customers

Sanitary sewer extension and existing sanitary sewer upgrades, Town of West Union, West Union, WV*

Role: Designer and plan preparation

Served as Senior Designer for this project. project consisted of existing sanitary sewer line and pump station upgrades.

Proposed sanitary sewer, City of Thomas, Thomas, WV*

Role: Designer and plan preparation

Served as Senior Designer of proposed gravity and forcemain sanitary sewer collection system

Sanitary sewer extension and existing sanitary sewer upgrades, Town of Junior, Junior, WV*

Role: Designer and plan preparation

Served as Senior Designer for a \$3.5 million dollar project that consisted of extending sanitary sewer service to a Regional Jail Facility in Randolph County, West Virginia. Project consisted of installing 15,000 LF of 6" force main pipe, 2,500 LF of 8" gravity sewer pipe, twenty (20) sanitary manholes, one (1) 190 GPM sewage pump station, and the upgrade of an existing sewage pumping station from 250 GPM to 400 GPM.

Proposed sanitary sewer, West Virginia DNR, Lost River State Park, WV*

Role: Designer and plan preparation

Served as Senior Designer on design of gravity collection system for state park facilities

Sanitary sewer extension, and existing gravity line improvements, City of Weston, Weston, WV*

Role: Designer and plan preparation

Served as Senior Designer for proposed sanitary sewer extension to Butchersville and Turnertown which contained gravity lines and pump stations, existing Stonecoal Creek gravity sanitary sewer line improvements.

Proposed sanitary sewer, Preston County PSD, Hazelton, WV*

Role: Designer and plan preparation

Served as Senior Designer of proposed gravity sewer system to serve industrial park and Hazelton Federal Correctional Prison

Sanitary sewer extension and existing sanitary sewer upgrades, City of Clarksburg, Clarksburg Harrison, WV

Role: Designer and plan preparation

Served as Senior Designer for main gravity sewer interceptor improvements and multiple existing sanitary sewer upgrades, improvements and separation projects

Proposed sanitary sewer & pump stations, Warm Springs PSD, Great Cacapon, WV

Role: Designer and plan preparation

Served as Senior Designer of proposed gravity and forcemain sanitary sewer collection system

Sanitary sewer extensions, Greater Harrison County PSD, West Milford, WV*

Role: Designer and plan preparation



Jason B. Heflin
Assistant Project Manager

Served as Senior Designer for multiple sanitary sewer line extensions and pump stations.

Existing sanitary sewer upgrades, Town of Belmont, Belmont, WV*

Role: Designer and plan preparation

Served as Senior Designer for this project. project consisted of existing sanitary sewer line and pump station upgrades.

Proposed sanitary sewer & pump stations, Hundred Littleton PSD, Town of Hundred*

Role: Designer and plan preparation

Served as Senior Designer on proposed gravity and forcemain system and pump stations

Sanitary sewer extension and existing sanitary sewer upgrades, City of Bridgeport, Bridgeport, WV*

Role: Designer and plan preparation

Served as Senior Designer for multiple sanitary sewer improvements and pump station upgrades

Existing sanitary sewer upgrades, Town of Harman, Harman, WV

Role: Designer and plan preparation

served as Senior Designer for a project involved the improvements and repairs to the existing wastewater system collection system and treatment plant due to flooding in June of 2019. The collection system improvements involved the replacement of 2,500 LF of 8" gravity sewer with new PVC and Ductile Iron sewer pipe, new manholes, customer reconnections, and by-pass pumping.

SANITARY WASTEWATER TREATMENT PLANTS

Wastewater treatment plant, Preston County PSD, Bruceton Mills, WV*

Role: Designer and plan preparation

Served as Senior Designer that consisted of the design of a new 100,000 GPD ICEAS (Intermittent Cycle Extended Aeration System) continuous flow Sequential Batch Reactor (SBR) Wastewater Treatment Plant including the construction of tertiary filtration and metals removal treatment technology.

Wastewater treatment plant, West Virginia DNR, Tygart Lake State Park Grafton, WV

Role: Designer and plan preparation

Served as Senior Designer for this wastewater treatment plant upgrade project. This project involved the replacement of (2) existing package treatment plants, an 8,000 GPD and 20,000 GPD with new package treatment plants with the latest treatment technologies.

Wastewater treatment plant, Warm Springs PSD, Great Cacapon, WV*

Role: Designer and plan preparation

Served as Senior Designer for a 60,000 GPD Mack Industries package wastewater treatment plant

Wastewater treatment plant upgrade project, Town of Harman, Harman, WV

Role: Designer and plan preparation

Served as Senior Designer for improvements to the existing 50,000 GPD Aqua-Aerobics CAM-D SBR Wastewater Treatment Plant consisted of the following: repairs to the influent pump station, mechanical bar screen, UV disinfection system, Aqua-Aerobics CAM-D unit, SBR Control Panel package, removal and replacement of basin pumps, valves, actuators, and electrical components.

Wastewater treatment plant upgrade project, Town of Farmington, Farmington, WV

Role: Designer and plan preparation

Served as Senior Designer of improvements to an existing wastewater Treatment plant that included the design of a new 125,000 GPD oxidation ditch wastewater treatment plant.

Wastewater treatment plant, Town of Belmont, Belmont, WV*

Role: Designer and plan preparation

Served as Senior Designer that consisted of the design and upgrade to an 168,000 GPD WWTP, design included new headworks structure, existing oxidation ditch wall height extension with new rotors, covers and access bridge, new clarifiers, sludge press building with conveyor system for truck loading, ultraviolet system and effluent pump station

Jason B. Heflin

Assistant Project Manager

Wastewater treatment plant, Hundred Littleton PSD, Town of Hundred*

Role: Designer and plan preparation

Served as Senior Designer of 50,000 GPD Mack Industries package wastewater treatment plant with alternating sand filter beds

Wastewater treatment plant, City of Weston, Weston, WV*

Role: Designer and plan preparation

Served as Senior Designer on a 2.5 Million GPD wastewater treatment plant

Wastewater treatment plant, Preston County PSD, Masontown, WV*

Role: Designer and plan preparation

Served as Senior Designer that consisted of the design of a new 0.5 MGD SBR wastewater treatment plant to replace an existing outdated 0.2 MGD BioLac treatment plant.

Wastewater treatment plant, West Virginia DNR, Lost River State Park, WV*

Role: Designer and plan preparation

Served as Senior Designer on design of 10,000 GPD Mack Industries package wastewater treatment plant

Wastewater treatment plant, Stonewall Resort, Roanoke, WV

Role: Designer

Served as Senior Designer for this project. Project consisted of sand filter bed upgrades, new ultraviolet disinfection system/office building, dissolved oxygen basin, piping and electrical improvements

Wastewater treatment plant upgrade project, West Virginia DNR, Blackwater Falls State Park - Davis, WV

Role: Designer

Served as Senior Designer for this project. Project consisted of replacement of approximately 2,000 LF of an existing a sanitary sewer gravity pipe, a new grinder pump station and forcemain, and making improvements to the existing wastewater treatment plant to extend the useful life of the treatment plant. Prepared plans and details.

Wastewater treatment plant, Preston County Economic Development Authority, Hazelton, WV*

Role: Designer and plan preparation

Served as Senior Designer on 50,000 GPD Mack Industries package wastewater treatment plant with alternating sand filter beds

Wastewater treatment plant upgrade project, City of Mount Vernon, Mount Vernon, OH

Role: Designer and plan preparation

Served as Senior Designer of installation of new sludge pumps, sludge press screen, new anaerobic digester internals and cover, and heat exchanger

Wastewater treatment plant upgrade project, City of Clarksburg, Clarksburg, WV*

Role: Designer and plan preparation

Served as Senior Designer, partnered with another engineering firm on existing wastewater treatment upgrades, my job included expansion of clarification system by designing new clarifier, retaining wall and access road

Wastewater treatment plant upgrade project, Town of Terra Alta, Terra Alta, WV*

Role: Designer and plan preparation

Served as Senior Designer of 250,000 GPD SBR wastewater treatment plant

Wastewater treatment plant upgrade project, Town of West Union, West Union, WV*

Role: Designer and plan preparation

Served as Senior Designer of a 200,000 GPD wastewater treatment plant expansion and abandonment of existing wastewater treatment plant

** Work performed prior to joining CEC*

Harry Z. Weaver, E.I.

Project Consultant



4 YEARS OF EXPERIENCE

EDUCATION

B.S., Chemical Engineering, West Virginia University, 2018

Certificate, Biomedical Engineering, West Virginia University, 2018

Certificate, Business Administration, West Virginia University, 2018

REGISTRATIONS

Engineer Intern

- WV [REDACTED]

CERTIFICATIONS

10-Hour OSHA Construction Safety (Occupational Safety & Health Administration), OSHA

MSHA Surface Miner, Mine Safety And Health Administration

SafeLand USA - Basic Orientation, PEC Safety

Engineer Intern, NCEES

Confined Space Entry, OSHA

Butt Fusion Techniques (Pipe Infusion), Lee Supply Co. INC.

Coating Inspector Level 1, NACE/AMPP

Experience in start up and operation of Water Treatment systems including: Rake Clarifiers Reverse Osmosis, Multimedia Filters, Ultra-Filtration Units, Fractional De-ionization / Ion Exchange Trains, Degassers, and Zero Liquid Discharge Systems (ZLD).

Through working has experience in Water Treatment Plant Operator Training, as well as, PLC (RSLogicx) Programming, HMI Editing, and MCC/Control Panel Wiring, Electrical Troubleshooting, Hydraulic Modeling of Water systems (KYPipe), Process Equipment Sizing (Pumps, Heat Exchangers), Chemical Process Modeling (Aspen & Chem CAD).

PROJECT EXPERIENCE

Public Sector – Water & Wastewater

Town of Harman - Water and Wastewater Systems, Town of Harman, Harman, WV

Role: Staff Engineer

The scope for this project included technical design, Technical Specification, Budgeting, Funding and FEMA Compliance for a three contract project. Contract one included the design, permitting and construction management of a emergency waterline replacement. Contract two included the design, permitting, bidding and construction management of sanitary sewer gravity line replacements.

Coalton Water System Improvements, Town of Coalton, Coalton, WV

Role: Staff Engineer/ Project Engineer

The scope of this project includes the budgeting, funding (USDA), Preliminary Design, hydraulic modeling and project management of proposed replacements of the existing 100 GPM Water Treatment plan, Water storage tank, water distribution lines and well development location in Coalton, West Virginia. Once funded project will include Final Design, layout and bidding and construction management of proposed water system improvements.

Summit Park - Wastewater Collection System Evaluation, Summit Park PSD, Summit Park, WV

Role: Staff Engineer

The scope for this project included the Evaluation and Reporting of the existing Wastewater Collection System located within the Summit Park PSD. Work completed for this project includes Flow Monitoring, Smoke Testing, Pump Station Evaluation and Budgeting for recommended repairs.

Blackwater Falls State Park, WV DNR, Davis, WV

Role: Staff Engineer

The scope of this project included the Planning, Designing, Budgeting and bidding & Construction Management of Gravity Sewer, Sanitary Sewer pump station with on site storage and improvements to the pre-existing multimedia wastewater treatment plant serving the Black Water Fall state Park in Davis, West Virginia.



Harry Z. Weaver, E.I.

Project Consultant

Tygart Lake State Park, WV DNR, Grafton, WV

Role: Staff Engineer / Project Engineer

The Project scope for this project includes the preliminary evaluation and budgeting, design, permitting, vendor management, bidding and construction management of gravity sewer lines, forcemains, sanitary sewer pump station and new 20,000 GPD Rotating Bio Disk (RBC) to serve the Tygart Lake State Park in West Virginia.

Charles pointe Site Development, Genisis Partners, Bridgeport, WV

Role: Staff Engineer

The scope for this project included hydraulic modeling, WVDHHR permitting and design modifications of planned extensions of both sanitary sewer gravity lines, utility water supply lines extensions to supply sanitary sewer service, water Service and fire protection to a proposed retail site development located in Bridgeport, West Virginia

Industrial - WTS

Reverse Osmosis Trailer #2 - 110 GPM Portable Water Treatment System, Ford , Louisville, Kentucky*

Role: Field Service Engineer (Start-Up/Commissioning)

In office project scope included the creation, review & revisions of process documentation (PI&D, PLC logic, Control Narrative, HMI design & Editing), Factory Acceptance Test (FAT) & Customer Acceptance Test (CAT) & End User Support/Management. In field project scope included the commissioning and start up activities associated with the installation & autonomous operation of Reverse Osmosis and pre filtering water treatment systems. Start-up and Commissioning activities included but were not limited to: process & vendor documentation red line & revisions, electrical wiring modifications, PLC/Communications modifications & troubleshooting, Remote operation (via off site computer/remote HMI) & equipment operator training (Morning, Afternoon & Night Shifts).

Reverse Osmosis Trailer #1 - 110 GPM Portable Water Treatment System, Ford, Kansas City, Missouri*

Role: Field Service Engineer (Start-Up/Commissioning)

In office project scope included the creation, review & revisions of process documentation (PI&D, PLC logic, Control Narrative), Factory Acceptance Test (FAT) & Customer Acceptance Test (CAT) & End User Support/Management. In field project scope included the commissioning and start up activities associated with the installation & autonomous operation of Reverse Osmosis and pre filtering water treatment systems. Start-up and Commissioning activities included but were not limited to: process & vendor documentation red line & revisions, electrical wiring modifications, PLC/Communications modifications & troubleshooting, Remote operation (via off site computer/remote HMI) & equipment operator training (Morning, Afternoon & Night Shifts).

Inspection

Mountaineer Transfer Station - Storm and Wastewater System Inspection, Republic Waste, Morgantown, WV

Role: Staff Engineer

Project scope included daily field reporting, red line modifications and overseeing the installation of an updated Sanitary Sewer and Storm Run off being installed iwithin the Mountaineer Transfer Station in Morgantown WV. Work oversaw includes: HDPE pipe Fusion, Sanitary Sewer Manholes, Junction Boxes and Storm Inlets and Piping.

TRAINING

Safeland (Oct. 2019)

SouthWestern Energy TAP Training (Oct.2019)

CNX Resources Hazard Training (Oct.2019)

Markwest Energy Hazard Training (Oct.2019)

OSHA 10 HR (Oct. 2017)

MSHA 24 HR (Oct.2017) (EXP. Oct. 2018)

Permit & Non-permit Confided Spapce Entry (OSHA Training) (Feb. 2020)

HDPE Pipe Fusion (Jan.2020)

Matthew K. Bainbridge, E.I.T.

Project Manager III



17 YEARS OF EXPERIENCE

EDUCATION

B.S., Mathematics, Fairmont State University, 2007

B.S., Civil Engineering Technology, Fairmont State University, 2012

EXPERTISE

Advanced Geospatial Processing
LiDAR Classification and Mapping
Reality Capture Data Processing and 3D Visualization
Kinematic GNSS/IMU Post-Processing

REGISTRATIONS

Engineer in Training

- WV [REDACTED]

Surveyor Intern

- WV [REDACTED]

Mr. Bainbridge possesses a diverse background in both Civil Engineering and Geomatics. With experience ranging from site design to advanced geospatial data processing, Mr. Bainbridge's capabilities enable him to provide a wide variety of services throughout the AEC industry. Geomatics expertise from acquisition through Topographic and/or BIM deliverables using Mobile Laser Scanning (MLS), Terrestrial Laser Scanning (TLS), and sUAS LiDAR and Photogrammetry.

PROJECT EXPERIENCE

Aerial LiDAR and Mapping

UAV LiDAR Well Pad As-Built, EQT, Wetzel County, WV

Role: Project Manager

UAV-based acquisition of LiDAR and Photography of existing well pads and production of As-Built drawing sets.

Rum Creek Connector UAV LiDAR As-Built, WVDOH, Logan, WV

Role: Project Manager

UAV-based acquisition of LiDAR and georeferenced Photography for As-Built of the 8 mile highway project prior to the grand opening in Logan, WV. Involved the collection of 2.5 billion LiDAR data points along an 8 mile highway corridor including hill cuts upwards of 700-feet in elevation relief.

Coal Fields Expressway, WVDOH, WV

Role: Project Manager

UAV-based acquisition of LiDAR and georeferenced Photography for detailed mapping of highway project under construction in Southern West Virginia for the purpose of stockpile volume calculations and pavement design. Collection of data included over 10 miles of roadway to produce detailed existing conditions mapping.

Mobile LiDAR Survey

Route 622 Widening Survey, WVDOH, Kanawha County, WV

Role: Project Manager

Mobile LiDAR and Conventional Survey for Route 622 widening project in WVDOH including boundary evidence location and topographic map preparation through the use of a vehicle-mounted LiDAR sensor and georeferenced 360-degree imagery.

US 441 & Casino Trail MLS, Johnson Architecture, Inc., Cherokee, NC

Role: Topographic Mapping

Mobile LiDAR acquisition and topographic map preparation of approximately 3 miles of roadway in Cherokee, NC for the purpose of streetscape and lighting upgrades.

Pittsburgh District Energy System Route Survey, NRG Energy Center Pittsburgh, Pittsburgh, PA

Role: LiDAR Manager

Mobile Laser Scan and Topographic Map Production for over 30 city blocks in Downtown Pittsburgh.



Civil & Environmental Consultants, Inc.

Matthew K. Bainbridge, E.I.T.

Project Manager III

Survey and Land Subdivision

Potomac Valley Overlook Subdivision, North American Land, Milam Pendleton County, WV*

Survey and Subdivision of 2000+ Acres of Potomac Valley Overlook in Grant and Pendleton Counties, WV. E&S Design, Permit Drawings and NPDES Permit Applications for 9 individual phases of construction.

Terrestrial LiDAR Survey, West Virginia University

Role: Project Manager

Terrestrial Lidar scan of WV Towers for a renovation project that was built for the entire existing facility. Created a map of the entire facility using UAV LiDAR.

NASA IV&V LiDAR, Fairmont West Virginia

Role: Project Manager

Terrestrial LiDAR scan of the entire existing facility. As well as created a recap and a view of the deliver abilities.

Terrestrial LiDAR Survey and 3D Modeling

Owens Corning LiDAR and Modeling, Varo Engineers, Newark Licking County, OH

Terrestrial LiDAR acquisition of 14,000 SQ FT Furnace at the Owens Corning Fiberglass plant. LOD300 3D Model created in AutoCAD from Point Cloud, and adjusted to plant control.

Two Lick Dam Removal, Canaan Valley Institute, Inc., Harrison County, WV

Role: LiDAR Manager

Terrestrial LiDAR Acquisition and existing conditions mapping of pedestrian bridge near the Two Lick Dam site for monitoring before and after removal.

Steelhead LiDAR, Equitrans Midstream, Waynesburg, PA

Role: Project Manager

LiDAR of exposed underground assets during construction and final as-built scan of facility. Adjustment of Plant 3D model BIM 360 to reflect as-built conditions

Houston Railyard As-Built Model, Markwest, Houston, PA

Role: Project Manager

Terrestrial Laser Scan and Subsurface Utility Locations of rail loading facility at the Houston facility. Production of As-built Plant 3D model and delivery of Leica Truview and Navisworks to client.

Marble Cliff - LiDAR Subsidence Analysis, Marble Cliff Apartments, Columbus Columbus County, OH

Terrestrial LiDAR scan of Interior and Exterior of multiple apartment buildings that were experiencing significant subsidence. Floor elevation maps created showing the specific areas and extent of subsidence.

New Castle Power Plant - LiDAR As-Built, Mitsubishi Hitachi Power Systems, New Castle, PA

Establishment of Plant Control and LiDAR As-Built scan and 3D model for Natural Gas Conversion of the power plant. Pipes and Structural Steel objects were created and delivered in Microstation DGN format at the client's request.

Joliet Dolomite Mine - LiDAR As-Built, Q4 Impact Group, LLC, Joliet, IL

LiDAR Scan of entire Dolomite Mine 500 foot below ground in complete darkness. Produced as-built model of conditions of 100-foot tall pillars. Cross sections of pillars delivered to client for structural analysis.

Nestle Purina LiDAR As-Built and 3D Modeling, Varo Engineers, Zanesville, OH

LiDAR As-Built of 4 story Nestle Purina facility and 3D model produced of the structure and all equipment inside for the client to use for design.

LiDAR As-Built of Stream Restoration, Ecosystem Investment Partners, LLC, Logan Logan County, WV

As-Built Survey of over 20 miles of constructed natural stream channel using Terrestrial LiDAR and production of As-Built surfaces and breaklines. Truview Global creation and linking via QR code to As-Built sheet sets.

** Work performed prior to joining CEC*

Jason H. Littler, P.S. Senior Project Manager



25 YEARS OF EXPERIENCE

EDUCATION

A.S., Civil Engineering Technology, West Virginia Institute of Technology, 1995

B.S., Engineering Technology - (Survey Emphasis), West Virginia Institute of Technology, 1996

REGISTRATIONS

Professional Surveyor

- WV [REDACTED]

Mr. Littler has over 25 years of experience with proven leadership skills, including managing, supervising, and motivating staff to achieve company objectives. Responsibilities have included positions as Roadway Designer and Survey Project Manager. He has performed roadway design, site civil design, drainage computations, construction layout, earthwork volumes, topographical surveys, aerial mapping control surveys, boundary surveys, WVDOH right of way plan development, courthouse research, deed work maps, survey plats, survey descriptions, earthwork volume computations, hydrology computations, WVDOH waste permits, plan preparation, subdivision plats, cell tower surveys, oil and gas landowner exhibits, pipeline as-builts, pipeline alignment sheets, pipeline routing, fine grade computations, and survey field crew management and oversight. He has been in direct charge with as many as 12 survey crews, which all reported to him and were supervised by him for direction and client satisfaction. He has been in professional charge of several boundary surveys ranging in size from small lot and partition surveys to large multi-tract 1000 acre surveys. He has performed numerous ALTA/ASCM land title surveys all throughout West Virginia for various banks, title insurance companies and development companies.

PROJECT EXPERIENCE

Surveys / Geomatics

Tygart Valley Dam, Grafton, WV*

Served as survey crew chief producing as-built surveying diagrams of piping within the dam. Surveying was conducted inside the dam for all as-built locations. Information was to be used for realignment of new pipes being replaced. Also performed original ground topography surveying for an access road leading to the base of the dam for access of equipment.

Pine Bluff Tipple Complex, Pine Bluff, WV*

This project is a Bond Forfeiture site located in Pine Bluff, WV. Mr. Littler produced all original ground sections and monthly pay volumes for submittal to the State of West Virginia. He also constructed an as-built map of the completed site.

Dolphin Communications, Bridgeport, WV*

Mr. Littler performed a complete boundary survey of this tract and produced original ground mapping for the proposed road location to the new KISS FM radio station. Mr. Littler acquired all necessary permits and contracted all state agencies necessary for the construction of this road. He also performed runoff calculations and sized all culverts along the road.

Taylor Creek Impoundment, Widen, WV*

Mr. Littler was involved in this Abandoned Mine Land (AML) project. The project consisted of two (2) sites of which all original ground sections were produced and monthly pay volumes were submitted for approval.

WVDOH-Red Jacket Postal Facility ALTA Survey, Mingo County, WV*

Performed an ALTA/ASCM land title survey for this project. Mr. Littler served as Survey Project Manager coordinating all survey crews and managing the daily field collection of data in accordance to ALTA survey procedures along with utility coordination, record research and computations.



Civil & Environmental Consultants, Inc.

Jason H. Littler, P.S.

Senior Project Manager

Robinson Run Overland Conveyor Project, Harrison County, WV

Mr. Littler served as Survey Project Manager in charge of surveying on this 4.1 mile, overland conveyor belt line being constructed for Consol Energy. This project consisted of the survey layout, volume computations, and as-built mapping of the 4.1 mile overland conveyor along with over 4 miles of access roads and over 500,000 cubic yards of excavation. Mr. Littler was responsible for the crew scheduling, reviewing of all data, final cross section data, checking of all computations.

Robinson Run Preparation Plant, Harrison County, WV*

Mr. Littler served as Survey Project Manager in charge of surveying on this 2200 TPH coal preparation plant being constructed for Consol Energy. This plant was built to replace the existing plant which had served its time. This project was unique in that the new prep plant was positioned directly behind the existing plant and the existing conveyor feed line to the plant was to only be extended from the old plant into the new plant. The tolerances on alignment tie in was minimal and final tie-in between the old conveyor feed line and the new conveyor feed line was accomplished in a couple of days with no misalignment problems.

WVDEP Office of Abandoned Mine Lands and Reclamation Northern Mapping Services, northern counties of West Virginia*

Mr. Littler served as Survey Project Manager in charge of surveying and mapping on these individual Projects with the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands. This contract consisted of a 3 year assignment with the WVDEP and involved surveying and mapping services to be used for the design and construction of Abandoned mine lands projects located throughout the northern counties of West Virginia. Currently in the Northern contract, Mr. Littler has been in charge of the successful completion of the mapping for 40 individual projects with a total mapped acreage of 5,800 acres. Mr. Littler was responsible for the client maintenance, field visits, billing, invoicing and oversight for this three year assignment.

WVDEP Office of Abandoned Mine Lands and Reclamation Southern Mapping Services, southern counties of West Virginia*

Mr. Littler served as Survey Project Manager in charge of surveying and mapping on these individual Projects with the West Virginia Department of Environmental Protection, Division of Land Restoration, Office of Abandoned Mine Lands. This contract consisted of a 3 year assignment with the WVDEP and involved surveying and mapping services to be used for the design and construction of Abandoned mine lands projects located throughout the southern counties of West Virginia. Currently in the southern contract, Mr. Littler has been in charge of the successful completion of the mapping for 53 individual projects with a total mapped acreage of 5,000 acres. Mr. Littler was responsible for the client maintenance, field visits, billing, invoicing and oversight for this three year assignment.

** Work performed prior to joining CEC*

PROFESSIONAL AFFILIATIONS

West Virginia Society of Professional Surveyors

Ohio Oil & Gas Association

4.0 Past Project Performance

4.1 Past Project Matrix

Goals and Objectives

Town of Harman | Randolph County, WV | Wastewater Treatment Plant Improvements and Repairs

Project Manager: Travis Adams

Contact: 120 Genesis Boulevard | Bridgeport, WV 26330 | (304) 848-7163 | twadams@cecinc.com

Project Goals & Objective: The goal of this project was to construct necessary upgrades to the existing 200,000 GPD SBR Treatment Plant. Improvements consisted of the construction of a new mechanical Bar Screen in order to more effectively remove solids from the influent waste stream, installation of a new Ultraviolet (UV) disinfection system to eliminate fecal coliforms from the effluent discharge, installation of a new modernized SBR control control system to replace the outdated system, installation of new basin aeration equipment to improve the overall biological treatment process, complete upgrade to the existing WWTP influent Pump Station including new pumps and controls, and installation of a new WWTP SCADA system.

Stonewall Jackson Resort | Lewis County, WV | Wastewater Treatment Plant Upgrades

Project Manager: Travis Adams

Contact: 120 Genesis Boulevard | Bridgeport, WV | (304) 848-7163 | twadams@cecinc.com

Project Goals & Objective: The primary objective of this project was to construct the necessary upgrades to the existing Wastewater Treatment Plant (WWTP) in order to achieve compliance with the WV Department of Environmental Protection (DEP) NPDES effluent discharge permit. In order to achieve this upgrades to the existing WWTP extended aeration process was constructed, a new UV disinfection unit was installed, a new Post Aeration basin was constructed, and the WWTP's (4) existing alternating surface sand filters were completely rehabilitated including new filter media, and piping.



5.0 Required Forms

	Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	State of West Virginia Centralized Expression of Interest Architect/Engr
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Proc Folder: 895004	Reason for Modification:		
Doc Description: A/E Services-Stonewall Resort Supplemental WWTP System			
Proc Type: Central Contract - Fixed Amt			
Date Issued	Solicitation Closes	Solicitation No	Version
2021-06-14	2021-07-13 13:30	CEOI 0310 DNR210000002	1

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

VENDOR		
Vendor Customer Code:		
Vendor Name :		
Address :		
Street :		
City :		
State :	Country :	Zip :
Principal Contact :		
Vendor Contact Phone:	Extension:	

FOR INFORMATION CONTACT THE BUYER Joseph E Hager III (304) 558-2306 joseph.e.hageriii@wv.gov
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Vendor Signature X		FEIN# 25-1599565	DATE 7/9/21
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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.

Matthew W. Kelly, Principal
(Name, Title)
Matthew Fluharty, Principal
(Printed Name and Title)
120 Genesis Boulevard, Bridgeport, WV 26330
(Address)
304-933-3119 / 304-933-3327
(Phone Number) / (Fax Number)
m.fluharty@cecinc.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through WV OASIS, 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

Civil & Environmental Consultants, Inc
(Company)
Matthew W. Kelly Matthew Fluharty, Principal
(Authorized Signature) (Representative Name, Title)
Matthew Fluharty, Principal
(Printed Name and Title of Authorized Representative)
7/9/21
(Date)
304-933-3119 / 304-933-3327
(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:


(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Civil + Environmental Consultants, INC

Company



Authorized Signature

7/9/21

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

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 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: Civil & Environmental Consultants, INC

Authorized Signature: [Signature] Date: 7/9/21

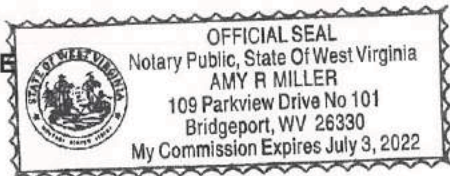
State of West Virginia

County of Harrison, to-wit:

Taken, subscribed, and sworn to before me this 9 day of July, 2021.

My Commission expires July 3, 2022.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]



Civil & Environmental
Consultants, Inc.

120 Genesis Boulevard | Bridgeport, WV 26330 | www.cecinc.com