ORIGINAL

Morris County Municipal Utilities Authority

MORRIS COUNTY mua MUNICIPAL UTILITIES AUTHORITY

Request for Proposal for Professional Services

Engineering Services – Water Division

Submitted by: CME Associates

January 28, 2025 –3:00 PM

ENGINEERS • SURVEYORS • PLANNERS • LANDSCAPE ARCHITECTS • ENVIRONMENTAL SCIENTISTS

CME ASSOCIATES

Consulting and Municipal Engineers, LLC

Barnegat | Berlin | Camden | Howell | Medford | Monmouth Junction | Parlin

Consulting & Municipal ENGINEERS
CME ASSOCIATES

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January 28, 2025

Larry Gindoff, Executive Director
Morris County Municipal Utilities Authority
370 Richard Mine Road
Wharton, NJ 07885

Re: ***Professional Engineering Services – Water Division***
CME File No. 115.25CME43.P00

Dear Mr. Gindoff:

In response to your request for proposals, we wish to thank you for considering CME Associates to provide Professional Engineering Services for the Morris County Municipal Utilities Authority in 2025. We look forward to building professional relationships with the Authority Commissioners and Staff. We believe that our Firm and Staff possess the resources, experience, and expertise necessary to successfully represent the Morris County Municipal Utilities Authority professionally, efficiently, and responsively.

Accordingly, please find enclosed one (1) original copy of our response to the Authority's Request For Proposals.

CME Associates takes great pride in our commitment to personal service and our ability to address our Clients' interests successfully. We are highly familiar with NJDEP requirements for regulating water management systems and with the duties and obligations to perform Professional Engineering Services, and we believe in our Firm's ability to address the concerns of the Authority's Commissioners.

CME Associates has significant experience representing Authorities and providing Professional Engineering Services associated with the design and construction of water system improvement Projects, site observation of water system improvement Projects, and residential and commercial land development Projects. We have completed many complex Projects, both large and small, on time and below budget.

We would welcome the opportunity to serve the Morris County Municipal Utilities Authority and its Professionals and Staff in 2025. We trust the information contained herein addresses your proposal requirements, as outlined in the Authority's evaluation factors.

Should you require additional information or have any questions about the above, we would be pleased to discuss them with you in more detail and provide clarification as necessary.

Very truly yours,

CME Associates

Keith Chiaravallo, P.E., C.M.E.
Senior Vice President
Water/Wastewater Services

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CONTENTS

SECTION 1: SUBMISSION REQUIREMENTS

Consulting & Municipal ENGINEERS

SECTION 1 – SUBMISSION REQUIREMENTS

1. ***Experience and reputation in the field;***

CME Associates has decades of experience providing expert engineering solutions for water infrastructure Projects across New Jersey. Our multidisciplinary approach encompasses planning, design, permitting, construction management, and long-term asset management. By leveraging innovative technologies, Project management, and sustainable practices, CME delivers high-quality outcomes that meet the diverse needs of municipalities, utilities, and communities.

Extensive Project Portfolio: CME's water engineering portfolio demonstrates our ability to manage complex Projects, including water treatment plants, storage facilities, distribution systems, and emergency infrastructure. Below are notable examples showcasing our expertise:

Water Storage and Rehabilitation Projects

- Perrine Road, Higgins Road, and Route 516 Tanks (Old Bridge MUA):
  - Comprehensive rehabilitation of 10MG, 3MG, and 2MG tanks using advanced coating systems and cathodic protection to maximize service life.
  - Complex operational planning maintained uninterrupted water supply during tank isolation.
- Appleby Avenue Tank Rehabilitation (South River):
  - Repairs, modifications, and interior/exterior recoating of a 500,000-gallon elevated potable water tank.
  - Integrated updates to the distribution system, including SCADA-based communication for level monitoring.
- Mill Creek Tank Repainting (Stafford Township):
  - Incorporated a cathodic protection system and internal tank mixer to improve water quality and extend tank lifespan.

Water Treatment Facilities

- Harbor Road Water Treatment Plant (Marlboro Township):
  - Designed a state-of-the-art 4.89 MGD facility with vertical pressure filters, SCADA integration, and a backwash recycling system.
  - Advanced chemical storage, sludge management, and emergency power systems provided long-term reliability.
- Rahway Membrane Treatment Facility:
  - Upgraded 100-year-old plant with a 7.7 MGD GE membrane filtration system, SCADA controls, and emergency generators.
  - Award-Winning Project
- Sayreville Water Treatment Plant Expansion:
  - Added a 7 MGD treatment train utilizing clarifiers, membrane filtration, and granular activated carbon filters.
  - Modernized chemical injection, SCADA controls, and energy-efficient designs reduced operational costs.

Water Main and Distribution System Upgrades

- Hoboken Meter Facility Replacement:
  - Emergency replacement of water metering equipment at a critical intersection, involving 24" water main installation, precast chambers, and flood-resilient infrastructure.
  - Around-the-clock summer construction minimized disruption in Hoboken, the fourth densest city in the U.S.
- Tonnelle Avenue Water Main Replacement (Jersey City MUA):
  - Replaced over 10,000 LF of aging water mains with 12" and 16" ductile iron mains, improving system reliability and reducing main breaks in a high-traffic corridor.
- Knollcroft Water Main Rehabilitation (Old Bridge MUA):
  - Cleaned, lined, and replaced 9,250 LF of deteriorated cast iron water mains to address low-pressure issues and frequent breaks.

Emergency and Resiliency Improvements

- Generator and Electrical Upgrades (Brick Township MUA):
  - Replaced outdated generators with 1,250 kW units in sound-attenuated enclosures, providing uninterrupted operations during outages.
- Flood Mitigation for Joint Meeting of Essex & Union Counties:
  - Designed extensive flood defenses, including berms, walls, and stormwater pumping stations, to protect an 85 MGD wastewater facility from future natural disasters.
- Disinfection System Upgrades (Brick Township MUA):
  - Enhanced safety and operational efficiency at the William Miller Water Treatment Plant by replacing chlorination equipment and adding an emergency gas scrubber.

Technological Innovations

- SCADA System Upgrades (Old Bridge MUA):
  - Implemented advanced SCADA technologies for system-wide automation and monitoring, reducing operational downtime and improving data accuracy.
- GIS Asset Management (Old Bridge and North Brunswick):
  - Created comprehensive GIS models to streamline asset tracking, maintenance, and emergency response.

For additional and detailed information, please refer to *Section 3: Previous Experience*.

Commitment to Excellence

Regulatory Expertise: Proven success in navigating NJDEP, NJEIFP, and FEMA funding and compliance processes.

Client Satisfaction: Long-standing relationships with municipal Clients, including Brick Township MUA, Jersey City MUA, and Sayreville Borough, demonstrate trust in CME's ability to deliver impactful results.

Sustainability and Resilience: CME incorporates energy-efficient designs, flood-resistant infrastructure, and environmentally friendly solutions to enhance community well-being.

For further details, please refer to *Section 5: Government Clients/References* and *Section 6: Awards* for Commitment to Excellence.

CME Associates' reputation in water engineering is defined by innovation, reliability, and a steadfast commitment to enhancing critical infrastructure. Our extensive project portfolio and collaborative Client relationships affirm our capability to meet and exceed expectations.

2. *Knowledge of the MCMUA and the subject matter to be addressed under the contract;*

CME Associates possesses a deep understanding of the Morris County Municipal Utilities Authority (MCMUA) and the scope of services it oversees. With extensive experience in supporting municipal utilities authorities across New Jersey, we are well-versed in addressing the unique operational, regulatory, and environmental challenges faced by the MCMUA.

Understanding of the MCMUA

- Mission and Responsibilities:
  - The MCMUA is committed to providing efficient and sustainable water and solid waste services to the municipalities and residents of Morris County. These services include water supply management, recycling programs, household hazardous waste management, and environmental stewardship.
- Water Supply Operations:
  - The MCMUA provides reliable delivery of potable water to member municipalities. This involves maintaining infrastructure such as water storage tanks, pumping stations, and distribution mains while adhering to New Jersey Department of Environmental Protection (NJDEP) and other regulatory standards.
  - The MCMUA also addresses intermunicipal coordination, promoting equitable distribution and maintaining water quality for public and private customers.
- Solid Waste and Recycling Management:
  - MCMUA manages comprehensive recycling programs, oversees transfer station operations, and provides educational outreach to promote sustainable practices.

Subject Matter Expertise

CME Associates brings extensive knowledge of the core areas covered under the MCMUA's scope of work:

- Water Supply Infrastructure:
  - Storage Tank Rehabilitation and Maintenance:
    - Expertise in designing and overseeing the rehabilitation of elevated and ground-level water storage tanks, including coating applications, cathodic protection systems, and structural upgrades to extend service life.
    - Example: Rehabilitation of the Perrine Road 10MG Tank and other storage facilities for the Old Bridge MUA.
  - Pump Stations and Treatment Facilities:

  - Proven experience in modernizing pump stations and water treatment plants, incorporating SCADA systems for automation and control, while meeting NJDEP requirements.
  - Example: Design and construction management of the Harbor Road Water Treatment Plant (4.89 MGD) for Marlboro Township.

- Water Distribution System Improvements:
  - Proficiency in the design and construction of water main replacements, interconnections, and extensions to enhance system reliability, water quality, and pressure management.
  - Example: Replacement of aging water mains along Tonnelle Avenue in Jersey City to mitigate main breaks and improve service reliability.
- Environmental and Regulatory Compliance:
  - Extensive knowledge of NJDEP standards, including permitting processes, reporting, and aligning infrastructure improvements with current and anticipated regulations.
  - Successful navigation of funding opportunities such as NJ I-Bank, resulting in cost savings for Clients.
- Recycling and Solid Waste:
  - Support for municipal recycling and waste management programs, including facility upgrades, operational assessments, and strategic planning to align with sustainability goals.

Specific Approach for MCMUA Contract

- Custom Solutions: CME tailors engineering and management strategies to align with MCMUA's operational goals and regulatory requirements.
- Proactive Maintenance: We emphasize preventive maintenance programs to reduce costly repairs and extend the life of critical infrastructure.
- Technological Integration: Expertise in integrating SCADA and GIS for real-time monitoring, data collection, and streamlined asset management.
- Community Engagement: Support for MCMUA's outreach initiatives, aligning with public awareness campaigns and sustainability objectives.

Proven Track Record

CME's success with similar organizations, such as the Brick Township MUA, Old Bridge MUA, and Jersey City MUA, showcases our capability to address MCMUA's needs efficiently and effectively. Our work reflects a commitment to innovation, sustainability, and collaboration, all of which align with MCMUA's mission and responsibilities.

In summary, CME Associates offers the knowledge, experience, and resources to successfully support MCMUA's objectives, delivering operational excellence and long-term value.

3. ***Availability to accommodate any required meetings of the agency;***

CME Associates is fully committed to providing consistent and responsive support to the MCMUA, including attending all required meetings. Our Team is readily available to participate in on-site, virtual, or hybrid meetings, depending on the MCMUA's preferences and the nature of the discussion.

Our Professionals are prepared to attend meetings during standard business hours and, when necessary, outside of typical hours to address urgent or time-sensitive matters. We can accommodate recurring meetings, Project milestones, and progress updates to maintain continuous communication with the MCMUA.

With multiple New Jersey office locations, including Howell, Parlin, and Monmouth Junction, our Staff can quickly travel to MCMUA facilities or meeting sites, minimizing response times for in-person engagements. A designated Project Manager and key Team members will serve as primary contacts who are ready to coordinate and attend meetings with MCMUA stakeholders. This approach fosters consistent communication and efficient handling of Project tasks.

During meetings, our Team of licensed engineers, planners, and specialists provides technical insight and solutions, effectively addressing MCMUA's objectives and challenges. CME Associates also utilizes secure video conferencing platforms, cloud-based file-sharing tools, and other collaborative technologies to participate in virtual meetings and share relevant documentation in real-time.

To maintain alignment with MCMUA's goals and expectations, we prioritize clear communication, proactive engagement, and timely follow-up on meeting action items. CME Associates is well-prepared to adapt to MCMUA's scheduling needs and actively support all required meetings and collaborative initiatives.

4. ***Designated professional and support staff***

CME Associates offers a dedicated Team of experienced Professionals and support Staff tailored to meet the needs of the MCMUA. Our Team includes licensed professional engineers, certified planners, and technical specialists who bring a wealth of knowledge in engineering, environmental science, and municipal services. Each member of our Team is selected based on their expertise and ability to address the specific requirements of this contract.

Keith Chiaravallo, PE, CME, Senior Vice President of the Water and Wastewater Department, with over 30 years of experience, will be the primary point of contact, coordinating all aspects of the work and facilitating seamless communication between the MCMUA and our Team. Mr. Chiaravallo is supported by senior engineers and technical Staff with extensive experience in water infrastructure, regulatory compliance, and Project Management. This allows all aspects of the contract to be handled efficiently and effectively.

Our support Staff includes CAD technicians, GIS specialists, and administrative personnel who contribute to preparing technical drawings, reports, and other Project deliverables. They work closely with the professional Team to maintain the highest standards of quality and efficiency.

With multiple office locations in New Jersey, CME Associates has the resources and personnel to address MCMUA's needs promptly and thoroughly. Our Team is committed to providing the expertise, dedication, and collaborative spirit required to fulfill the requirements of this contract successfully.

Please refer to *Section 4: Resumes of Key Staff* for detailed qualifications of each Key Staff.

5. *Location of firm's offices*

CME Associates is headquartered in Parlin, New Jersey, with additional strategically located offices throughout the state, including Howell, Monmouth Junction, Medford, Berlin, Camden, and Barnegat.

Our network of offices is equipped with advanced technology and staffed by experienced professionals, enabling us to deliver comprehensive support for all aspects of the contract. Our offices' proximity to the MCMUA allows for efficient communication, collaboration, and resource deployment to meet the Authority's specific requirements.

For more information, please refer to Section 2: General Information and Experience of the Firm.

SECTION 2:
GENERAL INFORMATION & EXPERIENCE OF THE FIRM

History

40+
YEARS IN BUSINESS

400+
EMPLOYEES

Founded in 1983, CME Associates is one of New Jersey's leading professional services firms.

Our integrated services combine planning, advanced civil, geotechnical & structural engineering, surveying, permitting, and landscape architecture, into one unique practice. From an initial concept through development and construction, CME delivers public projects solutions to a broad range of government clients.

Professional excellence is the cornerstone of our success. We recognize the importance of technical expertise and focus on innovative ways to deliver cost-effective and technically-sound services in a timely manner. Our team of over 400 professionals and staff are committed to exceeding expectations.

Throughout our history, we have established relationships and lines of communication with municipal, state and federal regulators that enable us to become a value-added partner to our clients.

Leadership

President/Chief Executive Officer
Anand (Andy) Paluri, PE, PTOE

Executive Advisor
David J. Samuel, PE, PP, CME

Executive Vice Presidents
Robert L. Churchill, PE, PP, CME
Jay B. Cornell, PE, PP, CME
Michael J. McClelland, PE, PP, CME
John J. Stefani, PE, PLS, PP, CME
Gregory R. Valesi, PE, PP, CME, CFM, CPWM

Senior Vice Presidents
Keith Chiaravallo, PE, CME
James J. Mellett, PE, CFM
Robert Russo, PE, PP, CME
Trevor J. Taylor, PE, PP, CME, CFM
Behram Turan, PE, LSRP

Office Locations

7

OFFICES ACROSS NEW JERSEY

Headquarters

3141 Bordentown Ave.
Parlin, NJ 08859
P: 732.727.8000

Professional Services

- Municipal Services
- County Consulting Services
- Alternative Energy
- Construction Phase Services
- Environmental
- Geographic Information System Services
- Geotechnical
- Stormwater Management
- Landscape Architecture and Forestry Services
- Land Surveying
- MEP Services
- Parks and Recreation
- Planning/Affordable Housing Administrative Services / Land Use Permitting
- Redevelopment Services
- Site Development/Civil Engineering
- Structural
- Transportation/Traffic
- Wastewater
- Water Resources

MUNICIPAL SERVICES

From initial concept through final construction, CME Associates provides analysis, plans, surveys, design, permitting, and construction phase services for Municipalities for a wide range of professional services related to the following types of projects:

Environmental
Transportation
Potable Water
Wastewater
Hydraulic & Storm Drainage
Parks & Recreation
Redevelopment
Alternative Energy
Geotechnical Engineering
Planning & Site Development
Geographic Information Systems
Structural Engineering
Construction Phase Services
Land Surveying and Tax Map Maintenance
Landscaping & Forestry Services
Planning & Zoning Board Project Review
Development Project Site Observation

COUNTY CONSULTING SERVICES

CME Associates has extensive experience in the feasibility, design, and construction of a wide array of various projects for County government including, but not limited to, the following types of projects:

Parks and Recreation Facilities Design
Synthetic Turf Fields
Recreation Facilities and Inclusive Playgrounds
Solid Waste Management
Recycling
Energy Management Including Solar Facilities
Open Space Planning & Evaluation for Acquisition
Golf Course Management
Environmental Studies
Hydrologic & Hydraulic Stream Studies
Storm Sewer System Design
Hydraulic Bridge & Culvert Design
Federal, State, & Local Permitting
Capital Projects Construction Management
Transportation Projects

ALTERNATIVE ENERGY

CME Associates has been involved with a variety of Alternative Energy projects including: ground and roof-mounted solar photovoltaic installations; onshore wind turbine installations; and utilization of landfill or sludge digestion gas-to-energy projects. Our multi-disciplinary team approach to alternative energy projects includes project management, environmental and civil engineering, geotechnical engineering, structural engineering, electrical and mechanical engineering, and surveying services.

Permits

Wetlands Delineation & Permits (Army Corps of Engineers and State)
Land Use Permits
Compliance with Local Ordinances
Site Remediation Permits
Landfill Disruption Permits
Air Permits

Grants Preperation and Writing Assitance

Project-specific Evaluation of Federal, State, & Local Grant Eligibility
Application Preparations
Post-grant Administrative Assistance
Consulting Services
Evaluation & Design of Landfill & Sludge Digestion Gas- to- Energy Projects
Design & Bid Preparation
Implementation of Energy Projects
Energy Audits

Geotechnical Engineering

Design, Installation & Testing of Deep Foundations for Land-based Wind Turbines
Research on Alternate Foundation Types
Design of Helical Pull-down Micropiles
Geotechnical Analysis
Installation Monitoring of Pile Foundation Systems

CONSTRUCTION PHASE SERVICES

CME Associates has extensive experience in providing construction related services for a wide array of capital projects for Municipalities, Authorities, Counties, and the State of New Jersey. The Construction Phase Services Department of CME Associates provides contract coordination, field observation and quality control testing during the construction phase of our projects. The following highlights the services provided:

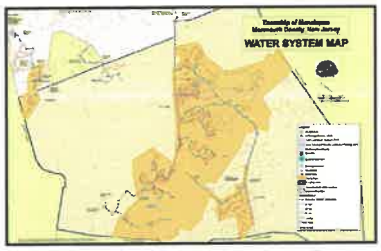
Earthwork
Grading
Storm Sewers
Sanitary Sewers
Force Mains
Jack & Bore Operations
Sanitary Sewer Cleaning & Lining
I & I Studies
Pumping Stations
Wastewater Treatment Facilities
Water Distribution Systems
Water Main Cleaning & Lining
Water Treatment Facilities
Water Storage Tanks
Roadway Resurfacing
Roadway Reconstruction
Soil Analysis
Retaining Walls
Concrete Reinforcement
Traffic Signalization
Parks & Recreational Facilities
Landscaping
Roadway Evaluations
Construction Estimating
Plan Preparation
Construction Surveying
Pedestrian Bridges
Bridge Inspections
Overhead Sign Support Inspection
Directional Drill Pipe Installations

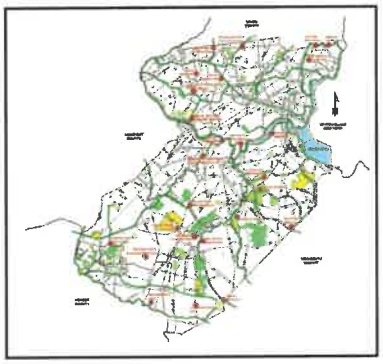
ENVIRONMENTAL

CME Associates provides a complete range of Environmental Engineering services and has represented both the public and private sectors on a wide range of projects. Environmental consulting services provided include:
Phase I preliminary assessments; site investigations; remedial Investigations; remedial actions; brownfield redevelopment; soil and groundwater investigation; regulatory compliance and environmental permit procurement; on-site monitoring of remediation activities; compliance with the Underground Storage Tank regulations; surface and groundwater management; and solid and hazardous waste management including landfill closure and redevelopment projects.

Environmental Site Assessment
Site Characterization & Remediation
ISRA Compliance
Underground Storage Tank (UST) Program
NJDEP Cleanup Star Program
Brownfields Redevelopment Program
Solid Waste Management
Land Use Management & Regulatory Compliance
Licensed Site Remediation Professionals

GEOGRAPHIC INFORMATION SYSTEMS





Professional Planning services at CME are complimented with expert knowledge and utilization of Geographic Information Systems (GIS) as an integrated component of the planning process. Our Planning Division is responsible for all GIS data creation, analysis, and incorporation into a wide array of reports, plans, maps, and database systems. GIS services provided include:

Parcel Map Preparation
Environmental Constraints Analysis
Aerial Photography
Land Use Mapping
Utility Mapping
Open Space & Farmland Preservation Maps
Municipal Tax Maps & Parcel Based Maps
Zoning Maps
Geographic Positioning System (GPS)
Data Acquisition and Analysis
Drug-Free Zone Mapping
Circulation & Transportation Planning
Street Maps
Full Color Master Plans
GIS Training for Municipal Clients

GEOTECHNICAL

The Geotechnical Services Division at CME Associates is primarily involved in foundation engineering, subsurface explorations, geotechnical evaluations, soil/rock mechanics, and the preparation of reports providing recommendations for foundation design and guidelines for earthwork. Our geotechnical capabilities include:

Geotechnical Engineering Consultation

Environmental and Hydrogeologic Consultation
Environmental Site Assessments & Audits
Ground Water Contamination Studies
Hydrogeologic Studies
Environmental Cleanup Projects
Computer Groundwater Modeling
On-site Wastewater Treatment & Disposal Systems

Underground Storage Tank Management
Closure Plan Development
Management of Existing & New Tank Installations
Soil & Ground Water Investigations & Remediation
Discharge Investigation Corrective Action Report (DICAR)

Subsurface Explorations
Geophysical Instruments
Ground Water Wells & Piezometer Installations

Field and Laboratory Testing
Geotechnical Field Testing
Geotechnical Laboratory Testing
Soil and Groundwater Sampling
Soil and Groundwater Testing

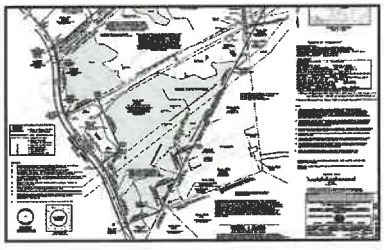
Field Monitoring Services
Health and Safety Program

HYDRAULICS AND STORM DRAINAGE

At CME Associates we recognize the need for stormwater management that is attentive to the aesthetics of the community and that addresses both the preservation of public space and of private property. Our designs range from local drainage improvements to large-scale flood control projects, including:

Highway, Roadway, Park & Site Drainage and Stormwater Management Design
Hydraulic Bridge & Culvert Design
Storm Sewer System Design
Detention & Infiltration Basin Design
Water Quality Systems Design
Flood Control Design
Flood Control Grant Applications & Administration
Hydrologic & Hydraulic Stream Studies
Hydrologic & Hydraulic Dam Studies & Design
Athletic Field Underdrain Systems Design
Pedestrian & Bikeway Bridge Design
Stream Cleaning & Restoration Design
Shoreline Protection Design
Lake & Pond Design, Dredging and Restoration
Municipal Stormwater Regulations Program Compliance
Municipal Planning & Zoning Board Project Reviews

LAND SURVEYING



The Land Surveying Department at CME Associates provides surveying support to the various other departments within CME and to our public/ private clients. CME provides a wide array of surveying services to State, County and local Municipal clients, as well as clients within the Environmental and Construction industries. CME Associates applies modern technology and instrumentation to meet the scheduling, budgeting, and accuracy needs of our clients. Land Surveying services include:

Topographic Mapping
Establishing Horizontal & Vertical Controls
Utility Surveys
As-Built Surveys
Construction Stake Out
Boundary Surveys
Title Surveys
Engineering Surveys
Green Acres Surveys
Farmland Preservation Surveys
Hydrographic Surveying
Riparian Surveys
ROW Surveys
Route Surveys
Monitoring Well Surveys
Surveys of Contaminated Waste Sites
OSHA Certified – Hazwoper
GPS Surveys
GPS/GIS Data Collection
Tax Map Maintenance
Tax Map Creation
Descriptions of Real Property, Voting Districts, Easements, Fee Acquisitions
Geodetic Surveying
Hazardous Waste Surveys
Control Surveys

LANDSCAPE ARCHITECTURE AND FORESTRY

The Landscape Architecture and Forestry Department at CME Associates provides environmental design, site plan development and municipal forestry consulting services for various land development and municipal clients. Wetland mitigation, existing tree preservation, planting design, and park / recreational development projects all benefit from the expertise of Licensed Landscape Architect and Certified Tree Experts. Additional services provided include:

LANDSCAPE ARCHITECTURE

Conceptual Layout & Design of:
Commercial, Residential and Industrial Site Plans
Subdivisions
Recreation & Park Facilities
Overall Landscape Designs
Storm Water Management Planting Design
Wetland Mitigation / Remediation
Detailed Planting Plans
Area & Accent Lighting
Presentation Plans / Color Rendering

FORESTRY

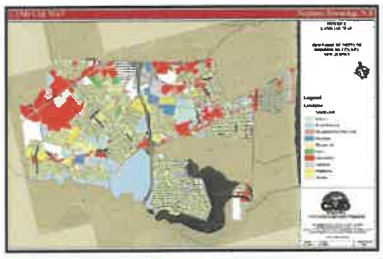
Land Use Board Responsibilities
Tree Removal Review and Permitting
Community Forestry Management Plans
Hazard Tree Surveys and Tree Inventories
Municipal Shade Tree Commission Consulting
Landscape Inspections for Tree Preservation
Landscape Inspections for Bond Release
Grants and Tree City USA
Municipal Arbor Day Activities
Ordinance Preparation for Tree Protection and Removal

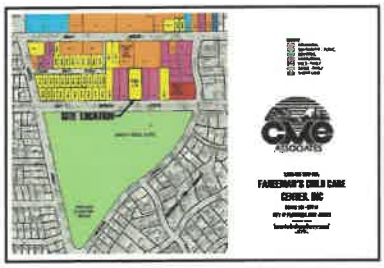
PARKS AND RECREATION

CME Associates has significant experience in the design and construction of a wide array of parks and recreational facilities, and has received numerous awards in recognition thereof. The Parks and Recreation Group performs feasibility studies, conceptual planning, and preliminary and final designs; prepares drawings, bid documents, and permit applications; and also performs construction administration and field observation services. The following list highlights the types of projects carried out by the Parks and Recreation Group:

Park and Recreation Facilities Design
Recreation Master Plans
Athletic Field Rehabilitation
Synthetic Turf Fields
Recreation Facilities and Inclusive Playgrounds
Pedestrian Walkways / Bikepaths
Athletic Field Lighting
Track & Field Facilities Design
Recreation Feasibility Studies
ADA Facilities Design
Waterfront Park Design
Skating Rinks
Municipal Park Rehabilitation
Site Planning
Irrigation Systems
Skate Parks
Trails

PLANNING/AFFORDABLE HOUSING ADMINISTRATIVE SERVICES/LAND USE PERMITTING





Professional Planning services provided by CME Associates range from redevelopment planning, affordable housing consulting, and master planning to Planning and Zoning Board consultation. These efforts include comprehensive report writing and high-level Geographic Information Systems (GIS) services. CME's personal service sets us apart from our competition. Our professionals specialize in the following planning services:

Comprehensive Planning
Master Plans and Master Plan Re-Examinations
Land Use Plan
Housing Element and Fair Share Plan
Open Space and Recreation Plan
Circulation Plan and Parking Studies
Utility Service Plan
Community Facilities Plan
Conservation Plan
Economic Plan
Historic Preservation Plan
Farmland Preservation Plan
Green Buildings and Sustainability Plan
Public Access Plan
Transit Village Plan
Climate Vulnerability Assessment
Build-Out/Capacity Analysis

Zoning
Land Use Rezoning Studies
Zoning Ordinance and Amendments
Site Plan and Design Standards
Planning and Zoning Board Representation

Redevelopment
Area in Need of Redevelopment and Rehabilitation Studies
Redevelopment Plans and Rehabilitation Plans
Site Design and Concept Plans
Main Street and Central Business District Plan
Streetscape Design Plan

Housing
Fair Share Plans
Affordable Housing Administration
Rehabilitation Programs

Grant Writing
Green Acres Grant Submission
USDOT Grant Submission

REDEVELOPMENT

CME Associates has significant redevelopment planning experience and the processes associated therewith. Our professionals are experts in preparing legally defensible studies to determine the needs for redevelopment, and have written numerous redevelopment plans. Our experience and expertise in the redevelopment process includes:

Site Identification & Development
Investigation
Site Remediation Studies / Oversight
NJDEP Brownfields Applications & Grant Applications
Grayfield Redevelopment (Blighted Commercial Areas)
Infill Redevelopment Planning
Multi-Modal Transportation & Transit Planning and Engineering

<u>Requests for Qualifications</u>
Preparation
Evaluation
Negotiations
Redevelopment Agreements
Funding – Public/Private

<u>Ordinance Development</u>
Inclusionary Area Determinations
Engineering Design Constraints
Environmental Considerations
Infrastructure Studies
Off-Tract Improvements
Permit Requirements

<u>Site/Subdivision Review for Compliance</u>
Site Parameters
Utilities
Environmental Considerations
Infrastructure
Solid Waste / Recycling

SITE DEVELOPMENT/ CIVIL ENGINEERING

CME Associates and its staff have over fifty (50) years of experience in providing Site Development Services to private developers / redevelopers, non-profit agencies, and government entities. The firm has represented both the public and private sectors on a wide range of projects from inception to completion of construction. Some of the Professional Site Development Services provided by CME Associates include the following:

Presentation to, or Representation of Planning Boards & Boards of Adjustment
Technical Reports & Plans
Litigation Support
Lot Yield Analysis
Minor / Major Subdivisions
Preliminary & Final Major Site Plans
County & Municipal Road Widening Plans
Water Distribution Systems
Potable Water Master Plans
Wastewater Master Plans
Sanitary Sewer Collection Systems
Sanitary Sewer Pumping Stations
Individual Subsurface Sewage Disposal Systems
Soil Erosion & Sediment Control Plans
Stormwater Management Plans
NJDEP Permitting
Environmental Impact Statements
Permit Application Packages

STRUCTURAL

The Structural Department of CME Associates provides: structural engineering reviews of site development submittals for the Municipal Engineering Department; provides structural engineering consultation and sub-consulting services on commercial and joint venture projects; and performs bridge, sign support, and masthead lighting design and inspection services. The following list highlights a portion of the services provided:

Water & Wastewater Treatment Plant Structure Designs
Foundation Design for Elevated Water Tank Structures
Feasibility Evaluations
Building Design
Building Condition Surveys
Design of Structural Repair and Rehabilitation Work
Bridge & Culvert Design
Design of Waterfront Structures
Inspection of Bridges, Sign Supports Section &
High Mast Lighting Foundations
Retaining Wall & Earthen Embankment Designs
Structure Condition Surveys
Slope Stability Design
Structural Evaluation & Design
Design of Building Structures & Site Structures
Evaluation & Design of Dam Structures

TRANSPORTATION/TRAFFIC

CME Associates has considerable experience with Transportation Planning and Traffic studies. The following list highlights the services provided by CME Associates' Transportation / Traffic Engineering Group:

Roadway / Highway Design
Roadway / Highway Reconstruction/Rehabilitation
Roadway / Highway Mill & Overlay
Micro-Paving
Streetscapes
Pedestrian Crosswalks
Feasibility Studies
Bridge Inspection
Overhead Sign Support Inspection
Roadway Lighting
Traffic Impact Study Reviews
Traffic Volume Data Collection
Signalized and Unsignalized Intersection Capacity Studies
Conceptual Intersection Design
Signalized & Unsignalized Intersection
New Construction Designs
Pedestrian Advance Warning Signal Design
Parking Studies & Analysis
Sight Triangle Analysis
Traffic Impact Study Preparation
Speed Studies
Bridge Design

WASTEWATER

The Wastewater Department at CME Associates provides design and support for a wide array of projects. The group performs preliminary and final process designs; prepares construction drawings, bid documents, and permit applications; and participates in construction administration and field observation. The following list highlights the types of projects carried out by the department:

Co-generation Facilities
Wastewater Management Plans
Federal, State, & Local Permitting
Hydraulic Capacity Studies
Development Reviews
Wastewater Pump Stations
Sewage Force Mains
Interceptors & Trunk Sewers
Wastewater Treatment Facilities
Sludge Handling Facilities
Sludge Management Plans
Capital Projects Facilities Evaluations
Small Community Systems
Subsurface Disposal of Effluent
Infiltration & Inflow Remediation
Beneficial Reuse of Wastewater & Residuals
Public Involvement
Rate Studies
Vulnerability Assessments

WATER RESOURCES

CME Associates has extensive experience in water resource management and the planning, design, and construction administration of potable water facilities. We provide feasibility studies and system planning, including master plans performed by advanced computer modeling techniques.

Water Storage Tanks
Transmission / Distribution Systems
Surface Water Intakes
SCADA & Control Systems
Water Treatment Plants
Booster Pump Stations
Production Wells
Facility Evaluations
Vulnerability Assessments
Emergency Response Plans
Irrigation Studies
Water Master Plans & Modeling
Water Reclamation for Beneficial Reuse
Source Water Studies
Hydro-Geological Studies
GIS Utility Mapping
Rate Studies

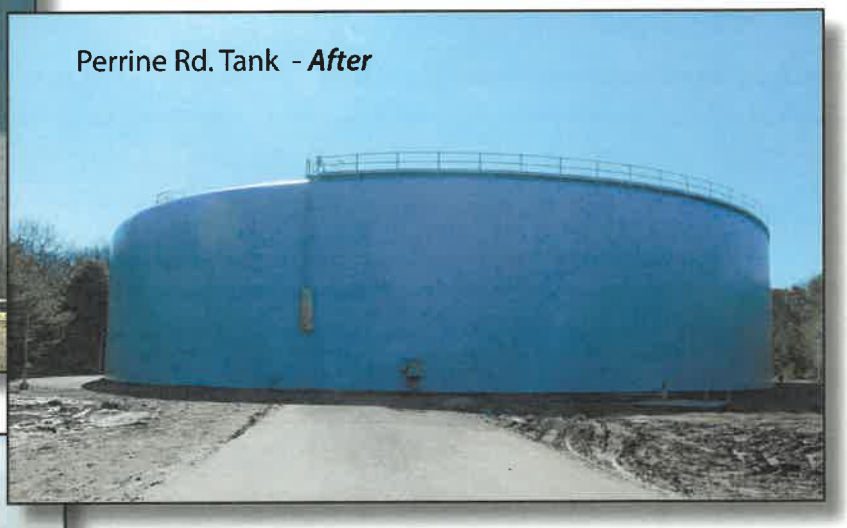
SECTION 3:
PREVIOUS EXPERIENCE

CVE ASSOCIATES

Water Tank Rehabilitation

Old Bridge Municipal Utilities Authority


Perrine Rd. Tank - ***Before***


Perrine Rd. Tank - ***After***


Higgins Rd. Tank - ***Before***


Higgins Rd. Tank - ***After***


Rt. 516 Tank - ***Before***


Rt. 516 Tank
Under Construction

CME ASSOCIATES

WATER TANK REHABILITATION

Old Bridge Municipal Utilities Authority

Construction cost:

Rt. 516 & Higgins Rd. - $1,518,00.00

Perrine Rd. - $1,788,000.00

Completion Date: Spring 2016

The Old Bridge Municipal Utilities Authority utilizes a number of tanks throughout its distribution system for storage, diurnal demands, pressure maintenance, flow equalization and fire flow. These tanks, which were constructed between the 1950's and 2007, include ground level storage tanks, standpipes, Waterspheroid and Hydropillar style elevated tanks. Among the largest tanks in the OBMUA system are the 2 million gallon Route 516 Tank, the 3 million gallon Higgins Road Tank and the 10 million gallon Perrine Road Tank.

The Perrine Road Tank is a 10 million gallon ground level storage tank, 212 feet in diameter and 40 feet tall. The tank is utilized to store a minimum of 2 million gallons per day of potable water provided by an outside purveyor, provided at a continuous flow rate. A connected pump station draws from the tank to supply the surrounding distribution system to meet variable demands. The tank was constructed around 1990 and, after 25 years of continuous service, was in need of preparation and painting in response to the initial stages of the failure of the original coatings. Due to the cost of preparing and painting a 10 million gallon tank as well as the operational adjustments required in the distribution system to remove this tank from service, the OBMUA required the project to provide a coating system with a life-cycle similar to the original coatings. A three coat system, utilizing zinc-based primers on the interior and exterior of the tank, followed by high-solids epoxy coatings on the interior and epoxy and fluoropolymer coatings on the exterior was applied to maximize the time before recoating. The original cathodic protection system was also replaced to complement the extended-life paint system. The tank was removed from service in the early Fall and, through the outstanding efforts of the painter through the simultaneous employment of multiple crews on the interior and exterior of the tank along with favorable weather through the winter, the preparation and painting work was completed in time to return the tank to service prior to the Spring.

Interior and exterior inspections were performed on the 78 foot diameter by 56 foot tall Route 516 Tank and 146 foot diameter by 24 foot tall Higgins Road Tank to evaluate their condition and it was determined that recoating of the tanks would be required prior to failure of the existing coatings and deterioration of the steel structure. Removing these tanks from service would be difficult as the Route 516 Tank is the main supply of water to one pressure zone in the distribution system and the Higgins Road Tank is utilized to maintain pressure in another. Through the construction of an interconnection between the two tanks under another project, which allows each tank to individually perform both functions, the OBMUA was able to isolate each tank from the system for rehabilitation. To maximize the life-span of the coating system, the same coating system applied to the Perrine Road Tank was utilized along with the installation of cathodic protection on both tanks. The contractor was able to perform the rehabilitation of each tank without negative impacts to the distribution system.

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Water Main Interconnection

Old Bridge Municipal Utilities Authority

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WATER MAIN INTERCONNECTION

Old Bridge Municipal Utilities Authority

Construction cost: $2.6M

Anticipated completion date: Spring 2015

The residents of the Township of Old Bridge, located in Middlesex County, are serviced by a single water purveyor: the Old Bridge Municipal Utilities Authority (OBMUA). The OBMUA is responsible for the procurement, treatment, and distribution of potable water to over 27,000 equivalent dwelling units throughout the Township, and also has agreements in place to sell water to neighboring municipalities. Due to these high levels of demand, and in effort to maintain a system with sustainable water pressure during peak usage, the OBMUA contracted CME Associates to design and administer the construction of a 16" diameter PVC transmission water main to connect two OBMUA water tanks located on Higgins Road and on County Route 516, as well as to install over 2,100 linear feet of 16" PVC water main to replace a deficient 12" cast iron water main located within County Route 516 which was prone to breaks and corresponding shutdowns for repair. The use of PVC water main with stainless steel hardware was chosen due to the highly corrosive soils in the area which have severely reduced the service life of conventional ductile iron water mains used elsewhere in the system. Water main installation on County Route 516, a 26-foot wide two-lane road with no shoulder on either side presented particular challenges during construction due to heavy traffic volumes, the need to repair roadway trenches with soil cement backfill and 9" of Hot Mix Asphalt at the end of each work day, and the Township's requirement to maintain traffic through the site at all times. To accommodate this, the work was required to be performed at night when traffic volumes diminish, with one lane of active traffic at all times alternating around the work zone.

To connect the water tanks, over 2,000 linear feet of 16" PVC transmission water main was installed, with self-regulating altitude valves installed at each tank to control tank water levels as the interconnection main allowed drawdown of water during periods of high demand. Due to heavily forested terrain between the two water tanks which presented extreme intermittent changes in elevation, over 1,200 linear feet of 16" HDPE water main was installed with use of directional drill equipment, with depths of cover exceeding 70 feet in some locations. Particular challenges encountered during installation of the directional drill operation included staging and setup of directional drill rig and associated drilling/pipe installation equipment utilizing limited easement area, as well as the fusing, staging and installation of the HDPE pipe segments along steep embankment slopes.

Additional project work included installation of precast valve chambers, sheet pile retaining wall with steel cap, and regrading steep driveway access to the Ruote 516 water tank.

On behalf of the Authority, CME Associates coordinated with the NJDEP for funding through the New Jersey Environmental Infrastructure Trust Fund.

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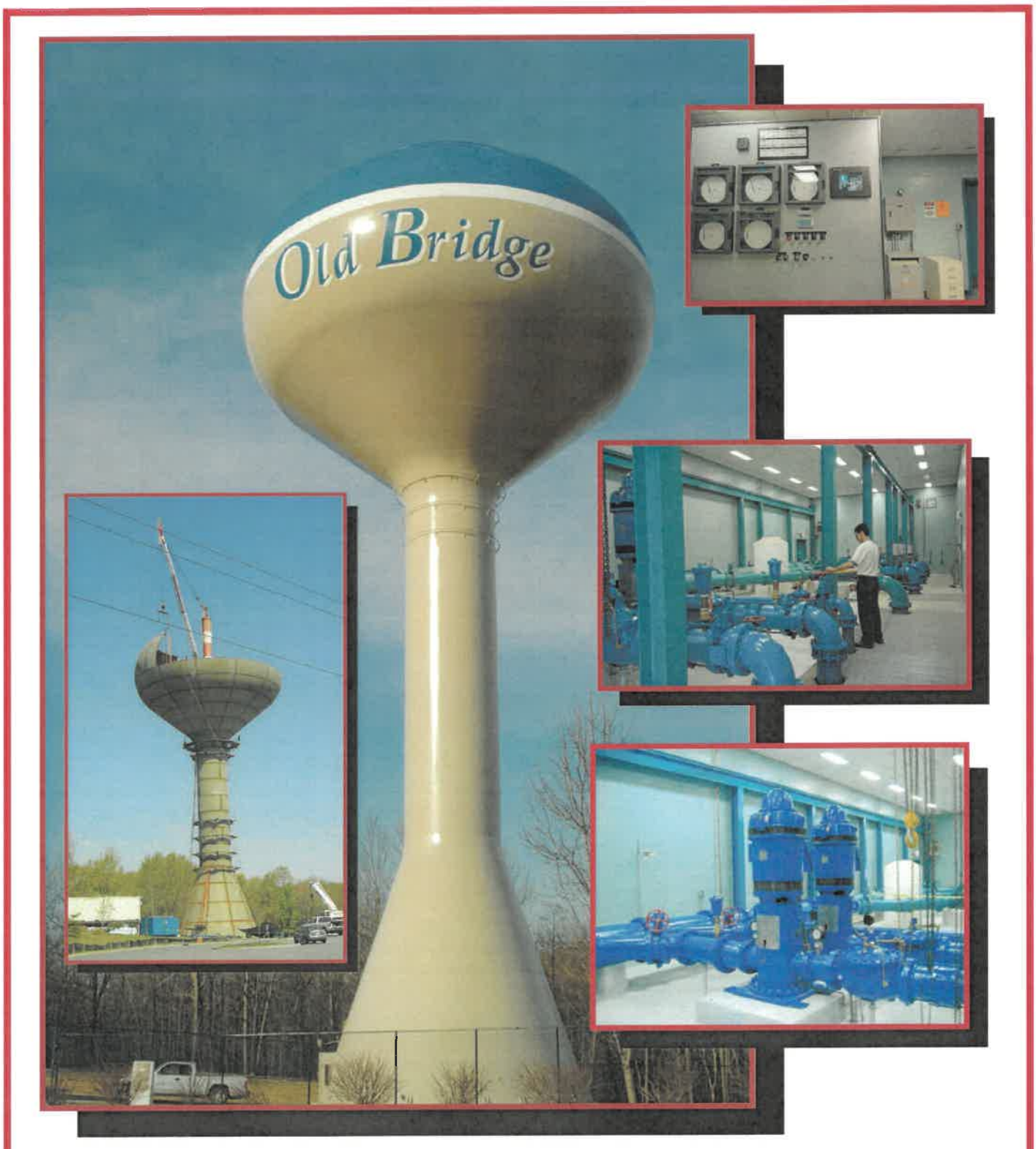
Old Bridge Route 9
Elevated Water Storage Facility
OBMUA

CME ASSOCIATES



Consulting and Municipal Engineers

"Old Bridge Route 9 Elevated Water Storage Facility"

Project Owner's Name:
Old Bridge Municipal Utilities Authority
Arthur Haney, Executive Director
Middlesex County, NJ

Completion Date: 2005
Cost Entire Project: $4.4 million (Both projects)

Michael J. McClelland, P.E.
Partner for CME

SAYREWOODS WATER TANK:

(History)

Recent commercial development along the Route 9 corridor in the Sayrewoods section of Old Bridge exceeded the fire flow capacity of the pump station and 100,000 gallon elevated water storage tank serving that section of town. Originally conceived as a large pump station project that would meet the daily water demands as well as fire flows by pumping from a ground level storage tank in another section of town, it became apparent that the replacement of the undersized elevated tank was the more economically feasible and practical project. With the construction of a 1,000,000 gallon elevated water storage tank and related upgrades to the existing Perrine Road pump station, sufficient water to meet all daily and fire demands would be continuously available at pressure without relying on pumps, and would allow the decommissioning of the antiquated pump stationwhich served the Sayrewoods area.

(Project Specifics)

Project consists of the construction of a 1,000,000 gallon elevated water storage tank of the spheroid design. The tank is approximately 150 feet tall to the high water line. Also included in the project is construction of the reinforced concrete foundations; several hundred feet of water main; and installation of the electric service and instrumentation and controls to be incorporated into the Authority's existing SCADA system for remote monitoring of the tank. The project also includes the demolition of the existing 100,000 gallon elevated tank.

PERRINE ROAD PUMP STATION IMPROVEMENTS:

(Project Specifics)

The project included the installation of two vertical turbine pumps that required the construction of a trench for the pumps in the existing pump station floor. Included with the (2) pumps was the installation of over 900 feet of 16" diameter transmission line to connect the Perrine Road pump station to the existing Sayrewoods area distribution system. Upgrades to the existing SCADA system and installation of pump control valves, flow control valve and a chlorine analyzer were also included as part of the project. Operation of the pumps based on the water level in the Sayrewoods tank and the sodium hypochlorite disinfectant feed rate at Perrine Road were automated through the SCADA system.

SIGNIFICANT PROJECT FEATURES

- Due to the tank's location near a shopping center parking lot and the difficulties experienced while painting in such a well-traveled area, a high performance paint system was researched and selected to provide a longer life span before re-painting will be required.
- The tank was designed with features to permit the easy installation of cellular phone antennas and support equipment in and on the tank at a later date, providing the Authority with the ability to lease space on the tank.
- Installation of (2) vertical turbine pumps in the existing pump station requiring demolition of existing pump station floor for construction of trench and modifications to existing 20" piping for connection of new pumps.
- Given the heavy development within the Sayrewoods area, there were few open parcels of land for the construction of a tank of this size. A detailed analysis and evaluation of several sites was performed, including analysis of the economics of a taller tank on lower elevation properties.

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GIS - ASSET MANAGEMENT PLAN GPS COLLECTION

Client: Old Bridge Municipal Utilities Authority
15 Throckmorton Lane, Old Bridge, NJ 08857
Mike Roy, PE - Authority Engineer
732-679-8565

CME Associates assisted the Authority with their need to create a GIS for their Asset Management Plan including the need to GPS all of their field assets for their water and sanitary sewer systems. The Authority also was interested in the ability to stakeout and be able to locate previously collected points so they could locate their assets when streets were snow covered.

The process included utilizing CME Associates' ArcGIS for Server, ArcGISOnline.com and the ESRI Collector app. After purchasing four GPS units that were compatible with Collector, CME trained the Authorities staff to collect points in the field that were instantaneously stored on CME Associates' ArcGIS for Server. CME hosted the data for the Authority to minimize startup costs on software and hardware. ArcGISOnline.com is being used by managers to see the data on CME's ArcGIS for Server to oversee the collection and input other items into the GIS such as main breaks.

PROJECT DATA SHEETS

ROUTE 516 FUELING FACILITY

Old Bridge Municipal Utilities Authority

Canopy - Dispenser Island – Above Ground Storage Tanks

10,000 Gallon AST, fill piping, access stairway and protective bollards (Under construction)

Fuel dispensing island, canopy and ASTs with protective bollards (Under Construction)

Fuel Dispensing Island with canopy support columns (Under Construction)

CME ASSOCIATES

ROUTE 516 FUELING FACILITY
OLD BRIDGE MUNICIPAL UTILITIES AUTHORITY

Client:	OBMUA
Contact:	Mike Roy, PE - Authority Engineer
Phone:	(732) 679-8440
Project Cost:	$901,217.50
Completion Date:	September 2017

PROJECT DESCRIPTION:

During Superstorm Sandy, the Old Bridge Municipal Utilities Authority (OBMUA) experienced fuel delivery delays for their vehicular fleet equipment and remote diesel fuel powered emergency generators located at various pumping facilities. In order to mitigate potential future fuel delivery issues during storm conditions, the OBMUA Staff implemented the design and construction of a fuel storage and dispensing facility. CME Associates provided design, permitting and construction phase engineering Services to the OBMUA to support the efforts in construction of the facility.

The new fuel facility consisted of the following:

- One (1) 10,000 gallon above ground storage tank for diesel fuel
- One (1) 10,000 gallon above ground storage tank for unleaded fuel
- One (1) fuel island with canopy for two (2) twin (unleaded / diesel) fuel dispensers
- A fuel management system for management of fleet fueling activities
- Diesel fuel filtration and purification system

A new emergency generator was installed for operation of the entire fueling facility in the event of a failure of utility power.

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HARBOR ROAD WATER TREATMENT PLANT

Township of Marlboro

CME ASSOCIATES

HARBOR ROAD WATER TREATMENT PLANT

Township of Marlboro

Construction cost:	$9.8 Million
Completion date:	August 2018
Contact:	Jonathan Capp, Business Administrator (732-536-0200)

The Project consisted of the installation of a new Water Treatment Plant, adjacent to the existing treatment plant. The new facility was constructed to be independent from the existing facility, allowing for construction with minimal interruption to the water system and allowing for the existing treatment plant to remain operational during construction. Included in the new treatment plant were ten (10) vertical type pressure filters utilizing Greensand Plus Continuous Regeneration filter media. Each filter contains a treatment capacity of approximately 340 gpm for a total maximum output of 3,400 gpm. Raw water to the treatment plant is supplied through four (4) existing production wells located on site.

Backwash waste generated from the new vertical filters is directed to two (2) new 300,000 gallon backwash holding tanks. Once the backwash waste has settled in the holding tanks, the decant is recycled back to the head of the treatment plant utilizing two decant recycle pumps. Sludge drawdown is performed periodically based on sludge settlement in the holding tanks. Drawdown of the sludge is directed to a new sanitary pumping station for transfer to the sanitary sewer collection system. The ability to also discharge the sludge drawdown to the existing sludge lagoons was incorporated into the Project.

Other aspects of the improvements include:

- Submersible type pump station to recycle the water generated during the draindown step of the backwash process. The pump station consists of a 10'x10' concrete wet well containing two submersible pumps and a level control system. The submersible pumps discharge draindown water to the backwash piping system for transfer to the backwash holding tanks.

- Site piping to connect the existing raw water and finished water piping to the new treatment plant; backwash waste piping to the holding tanks; decant recycle piping to the head of the treatment plant; sludge drawdown piping from the backwash holding tanks to the sanitary pump station; miscellaneous interconnections as required; etc.

- Ancillary facilities associated with the vertical filters including process air blowers, flow metering at each filter and interconnecting piping.

- Construction of a sanitary pump station for the conveyance of the sludge drawdown and domestic waste generated at the site.

- Supervisory Control and Data Acquisition (SCADA) to monitor the operations of the new treatment plant, the existing Tennent Road Water Treatment Plant and other off-site facilities.

- Chemical facilities consisting of storage tanks and chemical metering pumps to maintain chlorine residual, pH adjustment, and corrosion inhibitor. Chemicals utilized include sodium hypochlorite, sodium hydroxide, and zinc orthophosphate.

- Electrical facilities include an emergency generator to provide back-up power to the new treatment plant and wells #1 & #2.

The water treatment plant, designed by Mr. Samuel, was publically bid and completed in August 2018. Funding for the Project was provided through the New Jersey Environmental Infrastructure Trust. Through proper planning, design and construction management by the engineering team, the Township of Marlboro is operating a new state of the art Water Treatment Plant that will serve its residents and businesses for many years to come.

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Water Treatment Plant Expansion Project

Borough of Sayreville

CME ASSOCIATES

WATER TREATMENT PLANT EXPANSION PROJECT
Borough of Sayreville

Completion Date: 2013

Borough Engineer:
David J. Samuel, PE – Partner for CME

The Borough of Sayreville consolidated its two water treatment facilities by closing its small pressure filter plant located in the Morgan section of the Borough and expanding its modern larger, multi-stage filtration plant on Bordentown Avenue.

The expansion included the construction and installation of a new treatment train that consisted of a solids-contact clarifier and membrane filtration system. This treatment train was installed in parallel to the existing two treatment trains, providing a total of three filtration trains in the plant. With each train rated for 7 mgd, total filtration capacity will be increased to 14 mgd with one train in stand-by. Eight additional granular carbon filters (four banks of two vessels and interconnecting piping and valves) were added to the existing eight filters to bring the capacity of this portion of the treatment process up to 14 mgd with two filters out of service for backwashing or maintenance.

A solids contact type clarifier was installed for preliminary treatment and initial iron removal. Iron concentrations into the plant can vary from the low single digits to the mid 20's in parts per million.

To further enhance the efficiency of the treatment plant, water utilized for backwashing and blowdown from the Clarifier were recycled. Piping was constructed to direct the recycled water to an existing thickening tank on the site. The thickening tank allows for the separation of water and solids, allowing for the water to be re-used in the treatment system. By recycling the backwash and sludge blowdown water the facility is reducing, by approximately 80%, waste that would otherwise be discharged into the sanitary sewer.

Support facilities designed into the treatment plant expansion include replacement of the antiquated flow control and monitoring system. Eight granular activated carbon units located within a 3,200 square foot building expansion. Integration of the new treatment equipment into the plants existing SCADA system. Improvements of the existing chemical feed system.

The expansion, designed by Mr. Samuel was publicly bid and ground was broken for the expansion in January of 2012. Funding for the project was provided via a low interest loan from the NJDEP obtained by Mr. Samuel. In order to decommission the Morgan Plant and not renew the contract to purchase water from Middlesex Water Company, a rigorous construction schedule was adhered to and the expansion was placed on-line during the month of May 2013.

Through the planning, design and construction management of the their Municipal Engineer, the Borough of Sayreville now has one centrally located, state of the art Water Treatment Facility that will serve its residents and businesses for many years to come.

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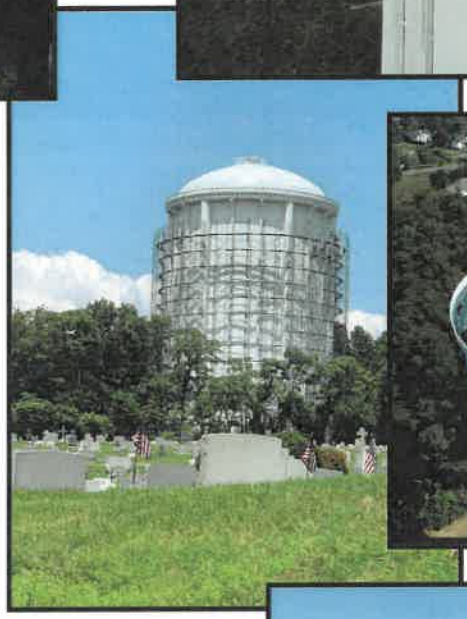
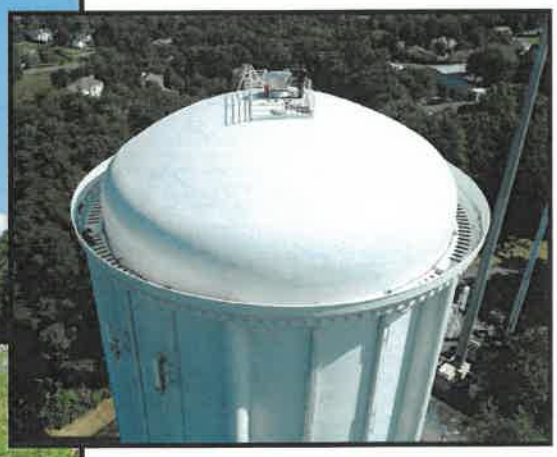
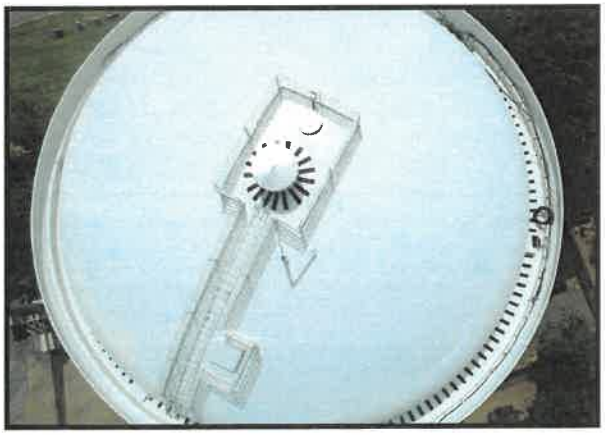
ELEVATED WATER STORAGE TANK REHABILITATION

The Borough of Sayreville, Middlesex County, New Jersey







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ELEVATED WATER STORAGE TANK REHABILITATION

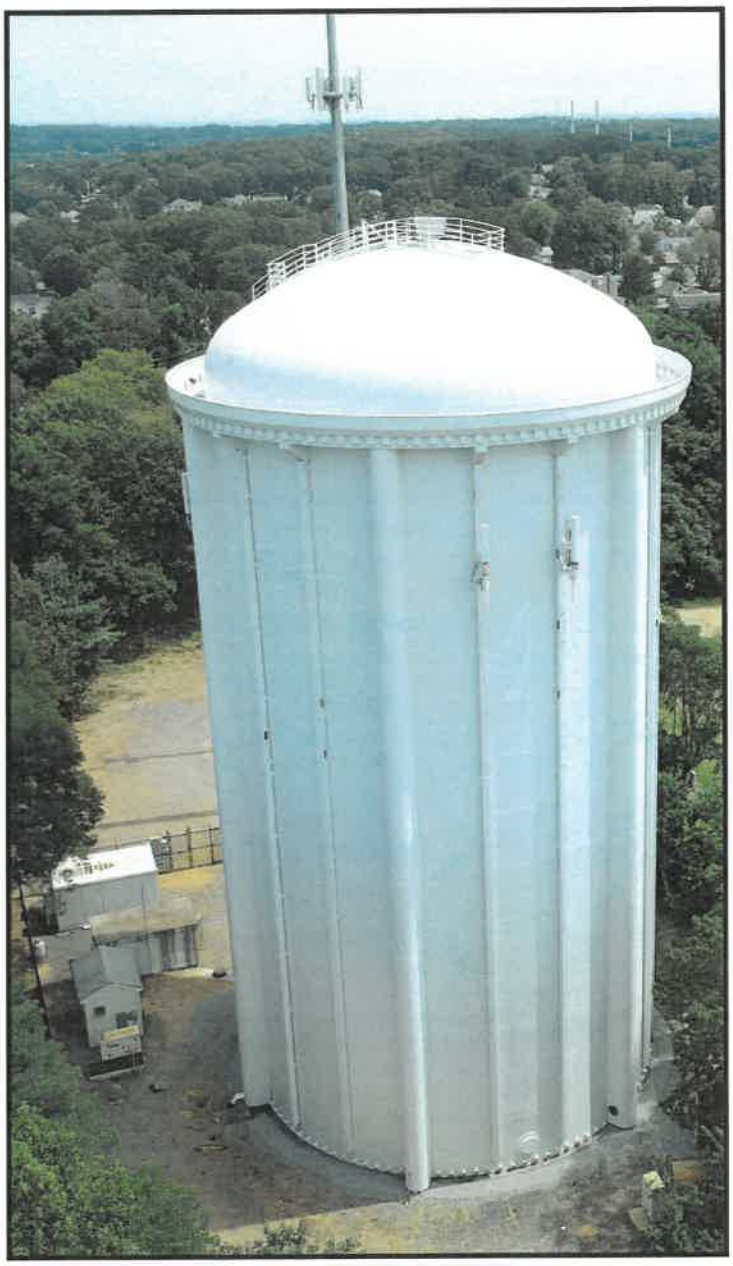
The Borough of Sayreville, Middlesex County, New Jersey

Contact: Dan Frankel • Business Administrator • 732-390-7050
Anticipated completion: Fall 2019
Project cost: $1,199,870.00

This tank was originally constructed and successfully placed into service in 1992 to replace a failing thirty year old prestressed concrete tank. The tank holds 3.0 Million Gallons of potable water, has 14 shell rings, and has a shell ring height of approximately 115 feet.

For over 25 years the Pulaski Tank had provided continuous beneficial service. The Borough of Sayreville authorized CME Associates to rehabilitate and upgrade the water storage tank. The project incorporated a cathodic protection system and a new tank mixer into the final design to extend the life of the tank and improve water quality. This project will provide water quality benefits by extending the useful life of the water tank which provides storage of potable water for the Borough for use during peak demand periods and for fire demand reserves for residents and businesses in the Borough of Sayreville. On August 14, 2018 the Borough of Sayreville received bids to rehabilitate the Pulaski Tank.

CME provided Construction Administration during the Water Tank Rehabilitation. The services provided included: The coordination of operations with the Borough Water System Operator, coordination of the removal and reinstallation of cellular telephone equipment for three cellular carriers, performing construction observation services, and performing shop drawing reviews. One of the challenges was managing the contractors work schedules so that the tank could be placed online prior to the summer peak demands.



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SAYREVILLE'S GREEN ENERGY PROJECT

SAYREVILLE, NEW JERSEY

CME ASSOCIATES

SAYREVILLE'S GREEN ENERGY PROJECT

SAYREVILLE, NEW JERSEY

Sayreville Borough, like many other municipalities throughout the state of New Jersey and across the nation, wanted to take advantage of green energy from solar arrays to reduce rising energy costs. Sayreville issued a Request for Proposal (RFP) to furnish solar energy to a number of sites. The responses required more than 10 acres of heavily wooded area to be cleared due to a lack roof area or open land for the solar array. The governing body rejected the proposals because they thought that it would have been environmentally destructive to the area. As a result they requested their Borough Engineer, David J. Samuel, P.E. of CME Associates to come up with a way to get the energy cost savings in an environmentally friendly manner.

Mr. Samuel and CME Associates recognized the need to preserve the wooded areas in order to minimize the environmental impact. A new RFP was specially prepared by CME Associates that required proposers to utilize creative approaches and to reduce or eliminate the destruction of wooded acres. The Borough of Sayreville received two (2) responses for a solar project to generate enough energy to power the water treatment facility and additional sites. A system of solar panels was desired for this project with the capacity to generate over four (4) megawatts, D.C. A major goal of the project design was the minimization of tree removal.

Approximately ten acres were required for a solar array capable of producing enough electricity plus a buffer zone to reduce shaded areas. This is the equivalent of over 7.5 football fields with the end zones included. The use of rooftops, car ports, and unused open fields did not provide enough area for the project requirements. There are wooded areas and athletic fields nearby but this was undesirable from an environmental stand point.

CME Associates evaluated the proposals received by the Borough of Sayreville. This review outlined the details of the proposals, costs/savings, and whether the proposers met the intent of the project. The lowest priced proposal was based upon clearing an area of trees, which was undesirable. The second proposal was more creative. Their solution proposed using the surface of the recharge lagoons and installing a floating array. There were additional benefits of this proposal which included a lower escalation factor which represented about a $100,000 savings over the contract term.

Although, it is difficult to predict the volatile changes in electric costs. Using data from the U.S. Energy Information Administration (EIA) it is estimated that there will be about an average of a 1.67 % increase in electrical costs per year over the next 15 years. Through the creative preparation of an RFP by CME Associates the Borough will see economic benefits without the destruction of wooded areas. The Sayreville Borough solar array is anticipated to result in a potential savings of more than a million dollars over the next 15 years since the PPA is locked in at a 0.75% escalation fee per year. This savings will be used to keep future water rate increases to a minimum for the Sayreville water users.

Floating Photovoltaics (FPV) systems are receiving increasing attention. Of particular interest is their use over man-made water bodies with existing infrastructure and operational management in place. The ten acre floating solar array in Sayreville, New Jersey will be the largest in New Jersey and may be the largest floating array in the country as of the date of this article.

This array will produce about 4.4 megawatts of DC electricity. This is enough to light the equivalent of 30,000 100 watt lightbulbs. The array was commissioned in early 2019.

CME Associates and the Sayreville Floating Array will undoubtably set a trend for using reservoirs and other large bodies of water for solar arrays. CME recognized the benefits of floating solar arrays. These benefits include the protection of valuable land surface, the reduction of large tree clearing, the cooling effects on the array by the water, the reduction of surface algae on water bodies, the reduction of sub aqueous weed growth, and reducing water evaporation in a reservoir. These and other factors benefit the environment while reducing the dependence on fossil fuels.

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DUHERNAL WELL FIELD REHABILITATION

Borough of Sayreville

CME ASSOCIATES

DUHERNAL WELL FIELD REHABILITATION

Borough of Sayreville

Contact: David Leitner (732) 390-7067
Construction costs: $1,000,000
Completion Date: June 2021

The Project consisted of the construction of replacement water supply wells located in the Duhernal Well Field. The wells draw water from the Old Bridge Sands Aquifer at a depth of approximately 90-feet below grade. Each well has a rated capacity of 700 gallons per minute (GPM) and were constructed within 100-feet of the existing well. The construction consisted of the installation of new well outer and inner casings, column pipe and permanent pump, motor, discharge head, automatic air release, blow-off, check valve and isolation valves.

In addition, the Borough's water supply well located in the Farrington Aquifer was rehabilitated. The existing well inner casing was found to be deteriorated and allowing sand to enter the well. The Farrington Well is the largest capacity well in the Duhernal Well Field and provides water quality with less iron than other wells. As a result, in order to minimize downtime associated with the construction and permitting of a "replacement" well, the rehabilitation method by "drilling in place" was selected. The drill in place method consisted of the removal of the existing well screen and inner casing. Upon success removal of the screen and inner casing, a new screen and inner casing was installed in the well. The existing electrical service and discharge piping connections were maintained. The total construction of the well rehabilitation was approximately 3 months.

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Plant Expansion
Berkeley Township MUA

CME ASSOCIATES

Consulting and Municipal Engineers

"Berkeley Township MUA Plant Expansion Project"

Project Owner's Name:
Berkeley Township MUA - Michele Nugent - Executive Director

Completion Date:	**May 2009**
Project Construction Costs:	**$2 million**
Consulting Engineer:	**Michael McClelland, P.E.- Partner for CME**

The Berkeley Township Municipal Utilities Authority's Plant Expansion Project consists of the installation of two new pressure filters and additional office space.

In the spring of 2006 the Berkeley Township Municipal Utilities Authority was advised by the NJDEP that the MUA's water treatment plant was nearing its maximum capacity. The Authority's existing treatment plant includes four (4) pressure filters rated at approximately 500,000 gallons of daily treatment capacity each. In order to address the need for the additional capacity, the Authority authorized the installation of two additional pressure filters to its treatment system in order to satisfy the NJDEP Bureau of Safe Drinking Water requirements. The existing treatment building will be expanded to house the two new filters.

In addition, the Authority's customer base has been growing over the last several years resulting in the need for more office space and a meeting room. Accordingly, in order to meet these growth pressures, the Authority's Board of Commissioners authorized the expansion of the office portion of the plant and the filter gallery.

Based upon preliminary estimates, it was apparent that the Authority had to seek a funding mechanism that would minimize the burden on its existing ratepayers. On behalf of the Authority, CME contacted the U.S. Department of Agriculture Rural Development for funding and the BTMUA was granted a combination of low interest loans and grants totaling $2.2 million of which $450,000 was grant funds.

The project was advertised for bids in December of 2007 and the project was awarded in mid February of 2008 to Santorini Contractors for a total construction cost of $2,090,000.00. The work is anticipated to be completed by Spring 2009.

The Water Treatment Plant Expansion was designed by CME Associates as the Authority's Consulting Engineer, and the architectural design was performed by Design Ideas Group.

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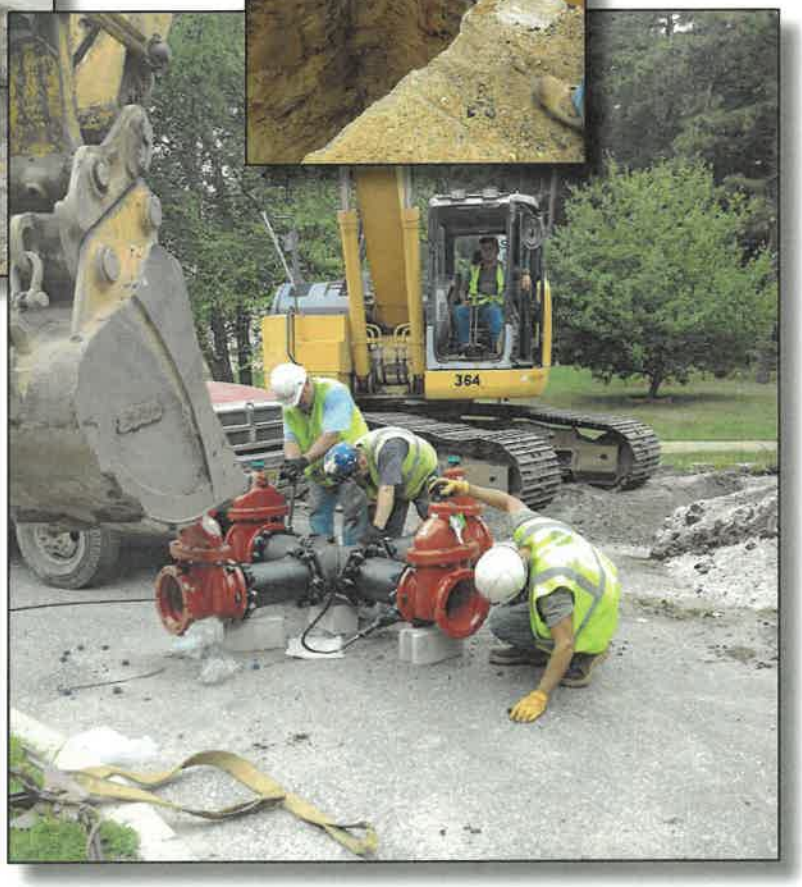
Phase V - Water System Improvements

Berkeley Township Municipal Utilities Authority



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PHASE V - WATER SYSTEM IMPROVEMENTS

Berkeley Township Municipal Utilities Authority

Construction costs: $1M

Completion date: December 2014

The Berkeley Township Municipal Utilities Authority's Phase V Water System Improvement project consisted of the installation of new water main within the existing Berkeley Township Municipal Utilities Authority Service Area. The BTMUA Service Area is a portion of Berkeley Township in Ocean County. There are six entities that purvey water in the Township. The BTMUA provides service to approximately 3,300 residences which are all located east of the Garden State Parkway. The location of the water system improvement project was along residential streets in an area bordered by Central Boulevard to the north, Veterans Boulevard to the south, Harding Avenue to the west and Princeton Avenue to the east. The water mains were installed along existing right-of-ways.

The improvements generally consisted of the construction of approximately 10,155 LF of new 8" cement lined ductile iron distribution mains, valves, fire hydrant assemblies, approximately 96 new residential service connections and other related work. The project will provide improved water quality and water supply to existing and new customers within the project area.

The project was required to provide the residents within the project area with a reliable supply of potable water. The selected project area had been previously developed and these residents received potable water from individual water supply wells. The shallow individual wells are more prone to contamination and do not have the same monitoring and treatment as the water provided by the Authority. In addition, the new water mains will provide additional looping in the existing distribution system and reduce the number of dead ends.

The proposed water system improvements project allows the Berkeley Municipal Utilities Authority to provide service to a larger number of residents within the Authority's Service Area and decrease the usage of private wells.

On behalf of the Authority, CME Associates coordinated with the NJDEP for funding through the New Jersey Environmental Infrastructure Trust Fund. The project received principal forgiveness for a portion of the project costs.

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Well #4

Berkeley Township Municipal Utilities Authority

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WELL #4

Berkeley Township Municipal Utilities Authority

Contact:	Michele Nugent, Executive Director (732) 237-0100
Project Completion:	May 2020
Construction Costs:	$1.6 Million
Authority Engineer:	Michael McClelland, PE – Partner for CME

The Berkeley Township Municipal Utilities Authority (BTMUA) service area is a portion of Berkeley Township in Ocean County. There are six entities that purvey water in the Township. The BTMUA provides service to approximately 3,300 residencies which are all located east of the Garden State Parkway.

The BTMUA draws its raw water from the Piney Point Aquifer utilizing three 700 gpm screened ground water wells located at their Station Road Water Treatment Plant. The Authority's "Firm" source capacity prior to construction of well #4 was approximately two (2) million gallons per day in accordance with NJDEP criteria. The NJDEP defines "Firm" capacity as source/treatment capacity minus the largest source or treatment component.

The Authority had a limited amount of their Firm Capacity remaining, which may restrict residents that depend on individual water supply wells in the service area from connecting to the Authority's distribution system. Well No. 4 provided the Authority with increased reliability and increased the Authority's Firm Capacity to 2.5 million gallons per day. The Authority selected a site for the new well that is located approximately 900 ft east of the three existing wells.

The Authority completed the Well No. 4 project in two phases. The first phase of the project consisted of the construction of the test well which includes drilling the well, installation of the casing pipe, screens and gravel and performing aquifer and water quality tests. The 465 ft. deep test well consisted of 40 ft of 30" diameter surface casing, 332 ft of 20" dimeter outer casing, 352 ft of 14" inner casing and 108 ft of 14" diameter stainless steel screen.

Phase II included the installation of the well pump, construction of the well building, transmission main from the well site to the Station Road Water Treatment Plant and modifications to the existing piping at the treatment plant.

On behalf of the Authority, CME Associates coordinated with the NJDEP for funding through the New Jersey Infrastructure Bank. The NJ I-Bank required the project be completed in two phases to be considered eligible to receive funding.

DANIEL RD. WTP

Borough of Spotswood

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DANIEL RD. WTP
Borough of Spotswood
Completion date: 2017

The Borough's Daniel Road Water Treatment Plant was construction in the mid 1970's and required a significant rehabilitation project. Improvements to the Facility included repairs to the underdrain inside both ion exchange filters and replacement of filter media; replacement of the pneumatically operated control valves with electrically operated butterfly valves, the underground steel chlorine contact tank and associated piping and valves, the brine storage and make-up system, the lime slurry tank mixing system with a lime storage and automated batching system, and the failed control system with new PLC based controls. The leased telephone lines were replaced with a radio communications system between the Boroughs's various water system facilities, allowing the new control system to automatically operate the plant based on level and permit continuous monitoring of the Borough's interconnections with adjoining towns. The controls also perform automatic operation of the electric butterfly valves and flow monitoring for backwashing of the filters. Various building improvements were included such as replacement of deteriorated doors, painting of interior rooms and installation of an industrial dehumidifier to reduce moisture and corrosion within the building.

CME Associates prepared the scope of work in coordination with Borough personnel and provided design and bid phase services, prepared Contract Drawings and Specifications for the project and performed engineering oversite during construction.

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Water Treatment Facility

Township of North Brunswick

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Water Treatment Facility
Township of North Brunswick

Construction of the original North Brunswick Water Treatment Facility and water distribution system were both completed around 1963. Business and population growth in North Brunswick increased water demand and triggered the need for expansion of the water treatment plant in 1967. Further additions to the plant were constructed in 1982, 1987, and 1989.

In 1990, construction was started for the expansion of the treatment plant. At that time, the eight MGD diversion rights of the facility was increased to ten MGD, which is the present approximate capacity of the plant. CME Associates designed the improvements to the treatment plant which were completed in 1992 and included travelling screens at the intake structure, new low lift pump station, control room, new high lift pumping facilities, auxiliary generator, modifications to the existing chemical feed facilities, an addition to the chemical feed building, a pressure filter building addition with six pressure filters, two backwash holding tanks, a lagoon transfer pumping station, and a sludge dewatering building that included a belt filter press. CME Associates also provided construction phase services for the project.

In 2008, the Township undertook a $16.1 million upgrade of the facility. The major improvements to the plant included:

- Construction of six (6) gravity filters.
- Conversion of the Backwash Holding Tanks to Gravity Thickeners.
- Replacement of the existing static mixer with Inline Mechanical Flash Mixers.
- Installation of a new polymer system for thickening and clarifying residuals.
- A new filtered Water Wet Well and Filtered Water Pumps.
- Construction of a new Filter Building for the Gravity Filters.
- Modification of the existing one MG Clearwell.
- Demolition of the existing Backwash Lagoon.
- Construction of new Backwash Equalization Tanks.
- Installation of process instrumentation.
- A comprehensive Supervisory Control and Data Acquisition (SCADA) System.
- Modifications to the existing electric power system.
- Installation of a new SCADA system at three remote storage/pumping facilities.
- Provision of various site/building security improvements.
- Installation of Solar Panels on the roof of the Filter Building.

Working in conjunction with CH2M-Hill, CME Associates was responsible for preparing plans and specifications for site piping, roadway modifications, landscaping, fencing, backwash holding tank conversions, chemical mixer modifications, and the replacement of backwash lagoon with backwash equalization tanks. CME Associates also provided construction phase services.

CME Associates recently completed an Operation & Maintenance Manual and Emergency Response Plan for the facility.

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TONNELLE AVENUE WATER MAIN REHABILITATION

Jersey City MUA

CME ASSOCIATES

TONNELLE AVENUE WATER MAIN REHABILITATION

Jersey City MUA

Contact: Jose Cuhna, Executive Director (201) 432-1150
Construction Costs: $10 million
Completion Date: September 2021

The Project was required to provide the residents of Jersey City with a reliable supply of potable water. The existing water mains along Tonnenlle Avenue (Route 1&9) are unlined cast iron with tuberculation and are at the end of their useful life. The water mains along Tonnelle Avenue had been experiencing a higher than expected rate of breakage. The width of the right of way for Tonnelle Avenue is narrow and the roadway occupies the full width. Lacking shoulders, the existing water mains were installed beneath the lanes of the heavily trafficked roadway. Repairing the breaks creates significant hardship for the JCMUA and its customers. Additionally, flow tests performed along Tonnelle Avenue have indicated low flows and substantial drops in pressure. The inside pipe diameter of the existing pipe was reported by the system operator to be as small as 2" in areas.

Prior to March 2020, the design of the water main replacement was underway with the greatest challenge being the accommodation of the Traffic during the work. Tonnelle Avenue is a heavily traveled roadway, located between the Holland Tunnel and Lincoln Tunnel. The NJDOT had required that a detour be set in place to address the congestion that would result from the closure of at least one lane to perform the water main replacement in addition to limiting overnight hours for the work. However, determining a detour that accommodates the needs of all stakeholders proved very difficult. When the stay at home orders due to the COVID-19 Pandemic were implemented, the volume of traffic on Tonnelle Avenue had been significantly reduced and that combined with the normal reduction due to schools being closed, the NJDOT agreed to ease restrictions on lane closures. The NJDOT approved the work to proceed with a single lane closure in each direction and extended overnight working hours 8:00 PM to 5:00 AM which is double that previously stated. Performing the work now provided many benefits to the JCMUA, Jersey City and surrounding municipalities and their residents.

The Project included the replacement of approximately 7,880-feet of existing 6" diameter water main and 2,500-feet of existing 12" diameter water main with new 12" and 16" diameter cement lined ductile iron water main along Tonnelle Avenue in Jersey City. The limits of the water main replacement along Tonnelle Avenue are from Utica Avenue to Secaucus Road. This water main project had been identified as a priority in a cooperative effort by the JCMUA Staff and Suez Water Jersey City based on the increased number of water main breaks within the Project Area. These changes will significantly improve flow and pressure along Tonnelle Avenue and reduce the number of costly water main breaks.

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PRESSURE REDUCING VALVE
SIXTH ST. & MARIN BLVD.
JERSEY CITY MUNICIPAL UTILITIES AUTHORITY

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PRESSURE REDUCING VALVE
SIXTH ST. & MARIN BLVD.
Jersey City Municipal Utilities Authority

Contact: Mr. Joseph Coviello, Acting Executive Director
P: 201- 432-1150
Project completed: July 2015
Project cost: $400,000

PROJECT BACKGROUND

Jersey City's (City) drinking water is delivered from the Boonton Reservoir in Boonton, NJ, via a 26 mile aqueduct. At Troy Street in the City, the treated water enters 240 miles of transmission and distribution mains divided into three gradient zones to meet the distinct pressure requirements in the distribution system. The three gradient zones are:

- Aqueduct Zone (240 zone) - the hydraulic grade line of this zone is controlled by the water level in the aqueduct near the Third River;

- Heights Zone (270 zone) - to maintain adequate pressure in the higher elevations of The Heights section of the City, water is pumped on a continuous basis from the Aqueduct Zone;

- Low Zone (140 zone) - water from the Aqueduct Zone is transferred to the Troy Street Tank through a pressure reducing valve and delivered to the lower elevations of the City (Downtown).

PROJECT PURPOSE

JCMUA, responsible for Jersey City's water treatment, storage and distribution infrastructure, persistently received low system pressure complaints from customers in the Downtown areas of the City. These complaints spiked during high summer demand, water main breaks and fire events, or any combination thereof.

A review of the JCMUA Water System indicated the presence of several gradient divide valves that are adjusted to a slightly open position to "bleed" water from the Aqueduct Zone into the Low Zone. The reason these valves were slightly open, as reported by JCMUA, was to circulate the water into the Low Zone to attempt to resolve the low pressure complaints. It was determined that the fixed opening of the gradient valves did not allow for pressure equalization in the system during periods of critical high demand in the Low Zone.

As JCMUA's Consulting Engineer, CME Associates was tasked to review all corrective options available. The Firm concurred with the proposed alternative that a Pressure Reducing Valve (PRV) be installed to directly tie the Aqueduct Zone to the Low Zone in order to automatically pass water between the zones to allow system pressures to remain stable during water main breaks, seasonal high and fire protection demands.

PROJECT DESCRIPTION

CME Associates provided the design and construction oversight for the project. The PRV was installed on the existing 20-inch diameter water main, in a below ground concrete vault located southeast of the intersection of Sixth Street and Marin Boulevard. The design called for two (2) 12-inch gate valves, a flowmeter and piping to the chamber with the installation of a 20-inch butterfly valve on the main. The facility is monitored via the JCMUA's SCADA system for valve position, flow and alarm conditions.

PROJECT HIGHLIGHT

Since the completion of the project, the low pressure complaints in the area of the new PRV have been resolved and the JCMUA is looking to install additional PRVs to resolve complaints in other areas of the City.

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HOBOKEN METER FACILITY

JERSEY CITY MUNICIPAL UTILITIES AUTHORITY
AND SUEZ NORTH AMERICA

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HOBOKEN METER FACILITY

JERSEY CITY MUNICIPAL UTILITIES AUTHORITY AND SUEZ NORTH AMERICA

Contact: Joseph Coviello, JCMUA Acting Executive Director 201 432-1150

Construction cost: $1,800,000.00

Due to the deteriorating infrastructure beneath the intersection of Newark Street and Harrison Street at the border of Jersey City and Hoboken, N.J., and a substantial water main break in the Fall of 2015 which damaged the existing water metering equipment, CME Associates was retained by the Authority to design and administer the construction phase of an emergency project which aimed to replace an underground concrete meter chamber and water facilities in this intersection and to restore the functionality of the metering equipment between the Utilities Authority and the City of Hoboken.

The project generally consisted of the demolition of the existing underground metering chamber and utilities building, replacement of six, twelve, sixteen and twenty-four inch water main, installation of twelve new valves for improved control of the water system, installation of a new precast concrete metering chamber and utility building, installation and startup of two water flow meters and the repaving of the intersection. A majority of the work was limited to around-the-clock working hours over summer weekends due to the location of the existing facilities in the middle of the main thoroughfare into and out of southern Hoboken, the fourth densest City in the United States. Since Hoboken's water supply is fed through the mains which were scheduled for replacement, only specific sections of water main were replaced each weekend to maintain a constant supply of water to the City. Further, since the site is within a flood zone, the new equipment building was constructed taller than the existing, with stairs and a false-floor included, raising and protecting equipment in the event of a heavy storm.

Extensive traffic control coordination, including partial closures, work-specific detour plans and the utilization of N.J. State Troopers for traffic coordination, was required in an effort to minimize impact to traffic and the community. Additional coordination was also required with NJ Transit due to two overhead bridges, one of which carries rail lines to the busy Hoboken Terminal, within the work site and due to the equipment building being located on NJ Transit property. Utilities coordination included the relocation of a PSE&G utility pole from behind the existing equipment building, reinstallation in a new location and connection of a new electrical service to the new equipment building.

Two magnetic flowmeters were installed inside of the new meter chamber to measure instantaneous and totalized flow delivered to the City of Hoboken. Equipment was also installed to measure instantaneous system pressure. This information is recorded by an RTU Panel within the equipment building and wirelessly transmitted, along with a set of system alarms, to JCMUA and Suez offices for their use.

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DISINFECTION SYSTEM UPGRADES

BRICK TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

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DISINFCTION SYSTEM UPGRADES

BRICK TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

Chris Theodos • Executive Director • 732-701-4236

Construction cost: $1.6 million

The Brick Township Municipal Utilities Authority (BTMUA) is responsible for the treatment and delivery of potable water to roughly 100,000 customers. The BTMUA's William Miller Water Treatment Plant, which is capable of processing up to 16 Million gallons of water per day, utilizes a chlorine gas treatment system to provide disinfection of raw water from the Metedeconk River and from supplemental deep groundwater wells. The existing chlorination system was in need of replacement, and the BTMUA saw this as an opportunity to enact additional safety precautions within the treatment plant, including enhanced air sealing measures surrounding the chlorination room and the installation of an Emergency Gas Scrubber unit which would be utilized in the event of a chlorine gas leak to contain the fugitive gas and neutralize the chlorine molecules, discharging the cleaned air to atmosphere with a concentration of less than 1 part-per-million.

Additional improvements included replacement of an existing steel monorail and hoist system which is utilized to move the 2,000-pound chlorine cylinders, as well as the replacement of existing doors and exhaust fans to allow the chlorination room to be sealed from surrounding atmosphere in the event of a gaseous chlorine leak.

The selected EGS unit is capable of handing the contents of two (2) full one-ton gas cylinders and operating at up to 5,000cfm. Upon detection of chlorine gas presence in the air by newly installed gas monitors, the EGS unit is automatically triggered to operate while simultaneously shutting down the HVAC system in the disinfection room and actuating intake dampers to balance the air demand of the EGS unit.

As the water plant treats water on a 24 hour-per-day basis, the new chlorination equipment was installed as a parallel system to the existing, allowing the existing system to operate until the new system was fully installed and operational. Replacement of the steel monorail and hoist system was coordinated with deliveries of the chlorine cylinders and at a time when demand for water was low, which maximized the timeframe during which the hoist could be out of service.

This Project enhances the safety and operational efficiency of the water treatment disinfection process at the William Miller Water Treatment Plant and will serve the MUA and its customers for years to come.

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AWARD WINNING PROJECT!

MEMBRANE TREATMENT FACILITY

City of Rahway

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MEMBRANE FILTER IMPROVEMENTS
CITY OF RAHWAY

Client:	City of Rahway
Contact:	Raymond A. Giacobbe Jr. - Mayor
Project Cost:	$10.4 milliion
Completion Date:	2019
Consulting Engineer:	David J. Samuel, PE - Managing Partner for CME Associates

PROJECT DESCRIPTION:

The City of Rahway owns and operates a Water Treatment Plant (WTP) for treating the surface waters of the adjacent Rahway River for distribution to their Public Water Supply serving the City of Rahway. The facility has been in operation for over 100 years.

The most recent significant upgrade to the WTP was to construct a Membrane Filter Facility to replace their existing sand filter beds. The Project included the construction of a new Membrane Filter Building housing a four train Membrane Filter System with an operational capacity of 7.7 MGD, an electrical upgrade of the WTP, including an emergency generator, reconfiguration and demolition of piping and tankage to accommodate the new membrane Filter System, a new sanitary Pump Station and off-site force main, and associated work. The Membrane System was a ZW1500 by GE Water and Process Technologies (presently Suez Water and Technologies Solutions). The final construction cost was $10,387,120. The Project was completed in 2019, and the Membrane Filters were placed fully on line in early 2018.

PROJECT CHALLENGES:

- PROVIDE ADDENDUMS AS NEEDED DURING THE BID PHASE TO MAINTAIN PROJECT CLARITY FOR ALL BIDDERS DURING BID PHASE
- HOLD PRE-CONSTRUCTION MEETING WITH CLIENT, CONTRACTOR, UTILITIES AND STATE AGENCIES
- PREPARE FAST TRACKED STRUCTURAL DESIGN, APPROVAL AND CONSTRUCTION TO REPLACE FAILING WALL OF COAGULATION BASIN
- COORDINATE CONSTRUCTION OF ALL NEW CONTROLS IN A MANNER OF ADAPTABILITY TO NEAR FUTURE WATER TREATMENT PLANT SCADA SYSTEM IMPROVEMENTS
- PERFORM ADEQUATE TESTING OF ALL NEW FACILITIES BEFORE PLACING ONLINE AND DECOMMISSIONING FORMER FACILITIES
- MAINTAIN AN ADEQUATE WATER SUPPLY TO THE CITY THROUGHOUT CONSTRUCTION
- CONSTRUCT IMPROVEMENTS THAT WILL ALLOW THE CITY TO MEET PRESENT AND FUTURE WATER DEMANDS AND MEET NJDEP WATER QUALITY STANDARDS

CME Associates provided construction administration and full time on-site inspection for the construction Contract, including review of shop drawings, resolution of technical issues, inspection of the work, processing payment applications, coordination of startup and Owner training and coordination with regulatory agencies. The Project was funded by the NJDEP through their Environmental Infrastructure Financing Program, and also by FEMA for the electrical upgrades of the facility.

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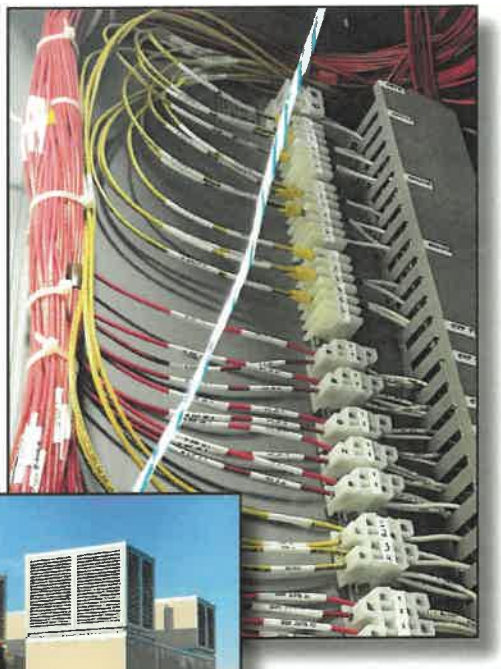
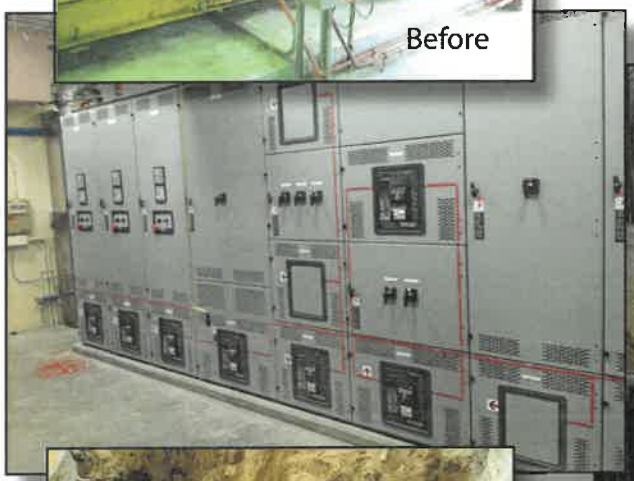
GENERATOR & ELECTRICAL IMPROVEMENTS

Brick Township Municipal Utilities Authority





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GENERATOR & ELECTRICAL IMPROVEMENTS
Brick Township Municipal Utilities Authority

Construction cost: 5.2 million
Completion date: April 2017

The Brick Township Municipal Utilities Authority provides potable water to approximately 100,000 residential, commercial, and light industrial customers in the Township of Brick and adjoining communities of Point Pleasant Beach Borough, Point Pleasant Beach, Lakewood Township and the Ramtown Section of Howell Township. Lakewood Township, Point Pleasant Beach Borough and Point Pleasant Beach are supplied via bulk water sales. Brick Utilities owns and operates the William Miller Jr. Water Treatment Plant capable of treating 16 million gallons per day (MGD) of a combination of surface water and ground water and a water distribution system comprised of approximately 403 miles of water main as well as six finished water storage tanks and six water pressure booster pumping stations.

The Brick Utilities had three diesel fueled emergency generators housed in a dedicated Generator Building at the William Miller Jr. Water Treatment Plant. The electrical equipment and generators are located on the lower level of the two story structure. The existing generators included (2) 750 kW Detroit Diesel units and (1) 600 kW Caterpillar unit. The electrical equipment included an automatic transfer switch, generator paralleling gear, motor control center and distribution panels. The generators were approximately 25 years old and the existing electrical equipment did not allow all three generators to operate at the same time at full capacity.

To enhance the reliability, resiliency and effectiveness of their operations, Brick Utilities decided to undertake a significant capital project which included the replacement of the existing emergency generators and electrical improvements.

CME Associates performed an evaluation to determine the required number of emergency generators and the size of the generators based on the criteria provided by Brick Utilities. In accordance with the conclusions of the evaluation the Brick Utilities made a determination to replace the existing emergency generator system with (3) new 1250 kilowatt (kW) diesel fueled generator units capable of meeting the peak future demand with one unit out of service and the two online units operating at 80% of rated capacity. The new generators are located outside in noise attenuation standalone enclosures in an area north of the existing Generator Building. By relocating the generators to a different location the lower level of the Generator Building is now available to the Brick Utilities for equipment required for upgrades at the treatment plant.

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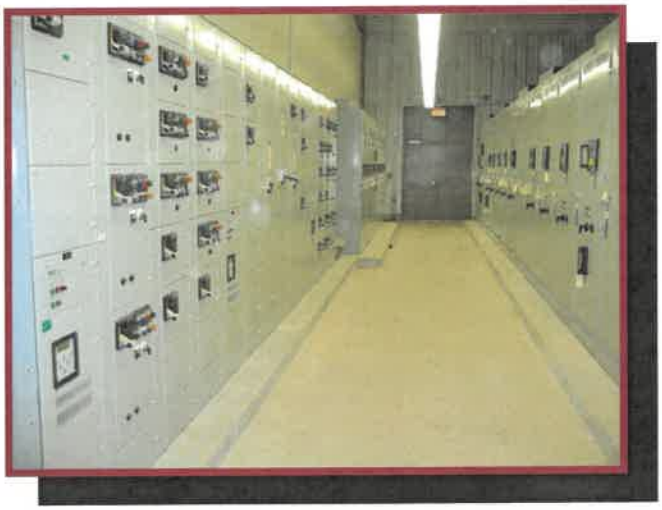

Consulting and Municipal Engineers

"Cogeneration Facility "

Project Owner's Name:
Joint Meeting of Essex and Union Counties
Samuel T. McGhee, Executive Director
Union County, NJ

Completion Date: **2009**
Construction Cost : **$15.7 million**

Consulting Engineer: **CME Associates**

The Joint Meeting of Essex and Union Counties is charged with the responsibility of operating and maintaining a wastewater trunk collection and treatment system serving residents of portions of Essex and Union Counties who are connected to local sewer collection systems. Chartered in 1899, the Joint Meeting experienced several periods of substantial construction: the trunk sewer system was constructed in pieces from the turn of the century to the 1930's; followed by the construction of primary treatment facilities at the Elizabeth site in the 1930's; the addition of secondary treatment facilities in the 1970's; construction of the powerhouse in 1980 and the construction of the Cogeneration Facility scheduled to be completed in 2008.

Operation of a wastewater treatment facility faces many challenges; the greatest of which is the disposal of residuals such as floatables, grease, oils and sludge. The grease, oil and sludge can be further reduced in volume by anaerobic digestion, the by-product of which is methane gas. The methane gas produced during the digestion process has a fuel volume of approximately 2/3 the values of natural gas and can be conditioned for use in engines connected to electrical generators.

The Joint Meeting has recently completed upgrades to their four digesters including improved gas mixing systems within the digester tank. These improvements have improved the gas production from the four digesters from approximately 450,000 cf/day to 720,000 cf/day.

Presently approximately half of the methane gas being produced by the digestion process is burned in the existing enginators in the powerhouse. The remainder of the digester gas is sent to the waste gas flare.

Several years ago the NJDEP mandated that the Joint Meeting install 100% standby power to avoid dry weather overflow and non-treatment during power outages. Construction of a Cogeneration Facility to power the entire treatment plant was a natural fit to meet the NJDEP mandate and consumption of the methane.

The new Cogeneration Facility project includes modifications to the existing substation; installation of an overhead pole line; connection to existing utilities; construction of a pile supported building foundation; installation of digester gas treatment equipment, four 810 kilowatt generators, radiators, transformers, switchgear and MCC. The generators will be capable of operating on digester gas or natural gas. The facility was designed to allow two additional generators to be installed in the future if required by digester gas production and treatment plant power demand. The recovered heat from the generator water jacket and exhaust will be used to heat the digesters and all of the buildings at the Joint Meeting. Upon completion of this project the Joint Meeting will be capable of generating 100% of the power required to operate the entire treatment plant. The utility company will then serve as the NJDEP mandated 100% standby power.

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FLOOD MITIGATION

Joint Meeting of Essex & Union Counties

CME ASSOCIATES

FLOOD MITIGATION

Joint Meeting of Essex & Union Counties

Contact: Hanifa Z. Johnson, Executive Director

Tel: (908) 353-1313

Project Cost: $215,825,000.00

The Joint Meeting of Essex and Union Counties ("Joint Meeting") is charged with the responsibility of operating and maintaining a wastewater trunk sewer collection and treatment system that serves the residents of portions of Essex and Union Counties who are connected to local sewerage collection systems. The system serves all or portions of 19 municipalities in Essex and Union Counties, and serves an estimated 2010 population of approximately 450,000. The Joint Meeting wastewater treatment facility located at 500 South First Street in the City of Elizabeth, Union County, New Jersey has a design capacity of 85 million gallons per day (MGD).

The facility received structural and facilities damage due to storm surge flooding of over twelve feet generated by Super Storm Sandy on or about October 29, 2012 during the high tide. The purpose of the proposed project is to reduce the impact that natural disasters like Super Storm Sandy could have on the facility in the future and to avoid loss of wastewater service.

The Joint Meeting authorized CME to provide site investigations, analyses and studies of the damage resulting from Sandy. CME prepared a Facility Flood Report analyzing potential alternatives for mitigation projects. The report identified the construction of a concrete wall and earthen berms around the site perimeter to be the most feasible and cost effective project.

A Benefit Cost Analysis was performed by CME so cost effectiveness of the project was considered. An Environmental Analysis was performed by CME to assess the potential environmental impacts of the proposed project.

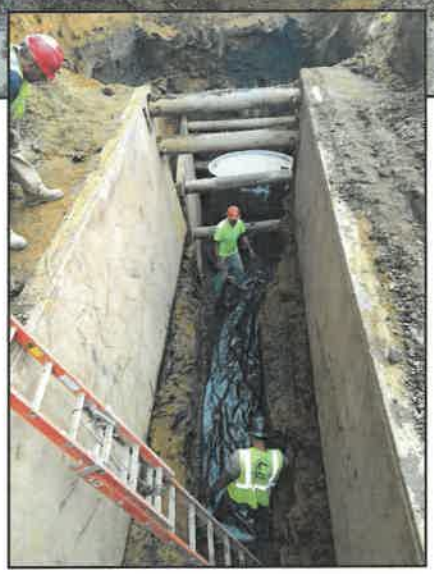
The project generally consists of installation of flood gates at entrances, construction of a reinforced concrete wall along portions of site boundaries, around the perimeter of the Biosolids Facility site, construction of a bituminous, curbed, Emergency Access Drive from Bayway Avenue, rehabilitation of the existing Army Corps of Engineers storm water pumping station, construction of a storm water pumping station at the Biosolids Facility, construction of an inline lift station and backwater isolation chamber in order to maintain the volume of treated effluent discharge from facility, interconnection of electrical from the Co-Generation power grid to the proposed effluent pump station, the existing Army Corps of Engineers storm water pumping station, and the Biosolids Facility, addition of two generators, and isolation of on-site storm water collections systems within the facility.

CME is currently preparing final plans for the flood mitigation project. The Joint Meeting has submitted an application for FEMA's Public Assistance Grant Program to receive a grant for this project.

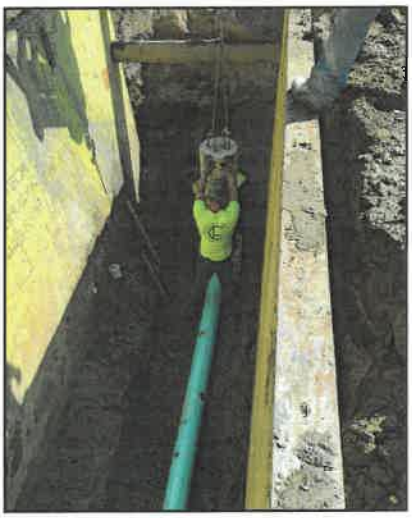
WOODFIELD AREA WASTEWATER COLLECTION SYSTEM AND RELATED PROJECTS

TOWNSHIP OF ABERDEEN





CME ASSOCIATES

WOODFIELD AREA WASTEWATER COLLECTION SYSTEM AND RELATED PROJECTS

Township of Aberdeen

Contact: Sandra Caceres, Director of Public Works – 732-583-4200 Ext. 400

Wastewater Collection System

Prior to 2015, the residents of the Township of Aberdeen's Woodfield Area did not have available public sanitary sewerage facilities. They relied on individual subsurface sewage disposal systems (septic systems) that had been susceptible to failure throughout the years. The failure of these systems had become a substantial burden and health concern to the affected residents within the Community and had resulted in costly repairs for the homeowners as well as impacting negatively on the overall Woodfield Area's quality of life and adjoining surface water quality

CME Associates, the Township of Aberdeen's Engineer, applied for and successfully secured funding from the New Jersey Environmental Infrastructure Trust (NJEIT) for the design, permitting, bidding and construction administration of a new public wastewater collection system to serve the Woodfield Area residents. The project consisted of the installation of 10,000 feet of 8" gravity sanitary sewer, 5,000 feet of sanitary force main, construction of a sanitary pump station and all other associated work.

Water Distribution System

The public water system in the Woodfield Area had an aging water distribution system that was over fifty (50) years old with a well-documented history of pipe breaks and failures. Accordingly, CME Associates determined that it would be prudent and beneficial for the Township to replace the water facilities as same would be negatively impacted by the installation of the new wastewater collection system utilizing open-cut trench work. CME Associates obtained additional NJEIT funding to replace the water distribution system, concurrent with the new wastewater collection system installation. The water system project consisted of the replacement of 8,000 feet of 8" water main and all associated work.

Project Highlights

1. Directional Drilling

The new collection system involved installation of approximately 5,200 LF of 4" force main to convey flow from the wastewater pump station to a connection point in the Township's existing collection system, located near Brookview Lane. The selected force main alignment traversed a former railroad right of way, NJ Route 34, and Gravelly Brook, located within the Borough of Matawan and the Township. In all these instances, trenchless methods, involving directional drilling, was employed to effect the required crossings.

2. Road Pavement

Prior to the approval of the combined projects, CME Associates advised NJEIT that anticipated street disturbance related to the projects would be substantial for several reasons, including:

I. depth of excavation for sewer pipes, over 20 feet in several areas.
II. number of laterals for new sewer connections
III. water main and number of water service connections
IV. prevailing poor existing soil and pavement conditions

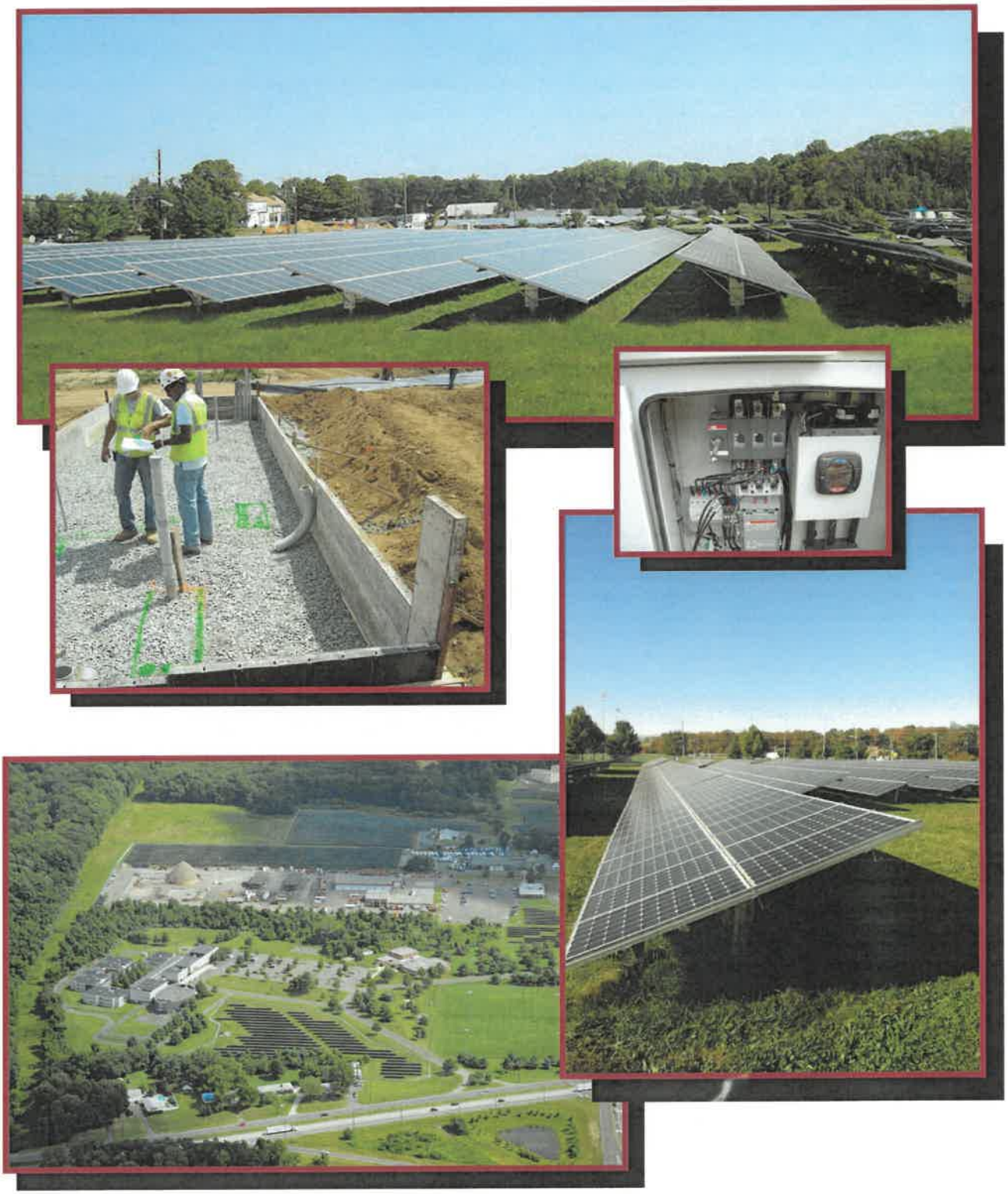
The preceding conditions required a new full width roadway pavement installation be a part of the entire project. Accordingly, the design incorporated the full-width repaving of all affected roadways with a permanent 3" of stabilizing base course asphalt over 6" dense graded aggregate (DGA) subbase. A subsequent project will be implemented by the Township to install final pavement of all affected roadways.

CME ASSOCIATES
Consulting & Municipal ENGINEERS

Barnegat • Berlin • Camden • Cape May Court House • Howell • Monmouth Junction • Medford • Parlin
732.727.8000 • www.cmeusa1.com

Solar Energy Savings Program
Apple Orchard Lane Complex
County of Middlesex

CME ASSOCIATES



Consulting and Municipal Engineers

Solar Energy Savings Program
Apple Orchard Lane Complex

Project Owner's Name: County of Middlesex
Anticipated Completion Date - 2013
Consulting Engineer: David J. Samuel, P.E. - Managing Partner for CME

Work done by CME Associates:

- Feasibility study to review existing electrical demands for project and determine possible locations for the installation of solar panels.
- Review of interconnection options to tie solar panels into existing County electrical system
- Preparation of detailed plans and specifications for installation of solar panels
- Assist Attorney with preparation of Power Purchase Agreement
- Oversee installation of solar panels

Miscellaneous facts concerning project:

- Allowed the County to reduce their electrical costs
- Power Purchase Agreement requires Solar Provider to finance, install, own, operate, and solar panels at no cost to County
- County pays Solar Provider reduced electric rate for energy produced by solar panels
- Contract executed for a period of 15 years
- Over 25,000 solar panels have been installed on the site
- The estimated energy savings to the County over the 15 year contract will be approximately $12.9 million

County buildings that will benefit from solar panel installation:

- Adult Correctional Center
- Youth Detention Facility
- Shelter Alternate School
- Road Department Complex
- Central Vehicle Maintenance Garage
- Archives and Records Building
- Sheriff Substation

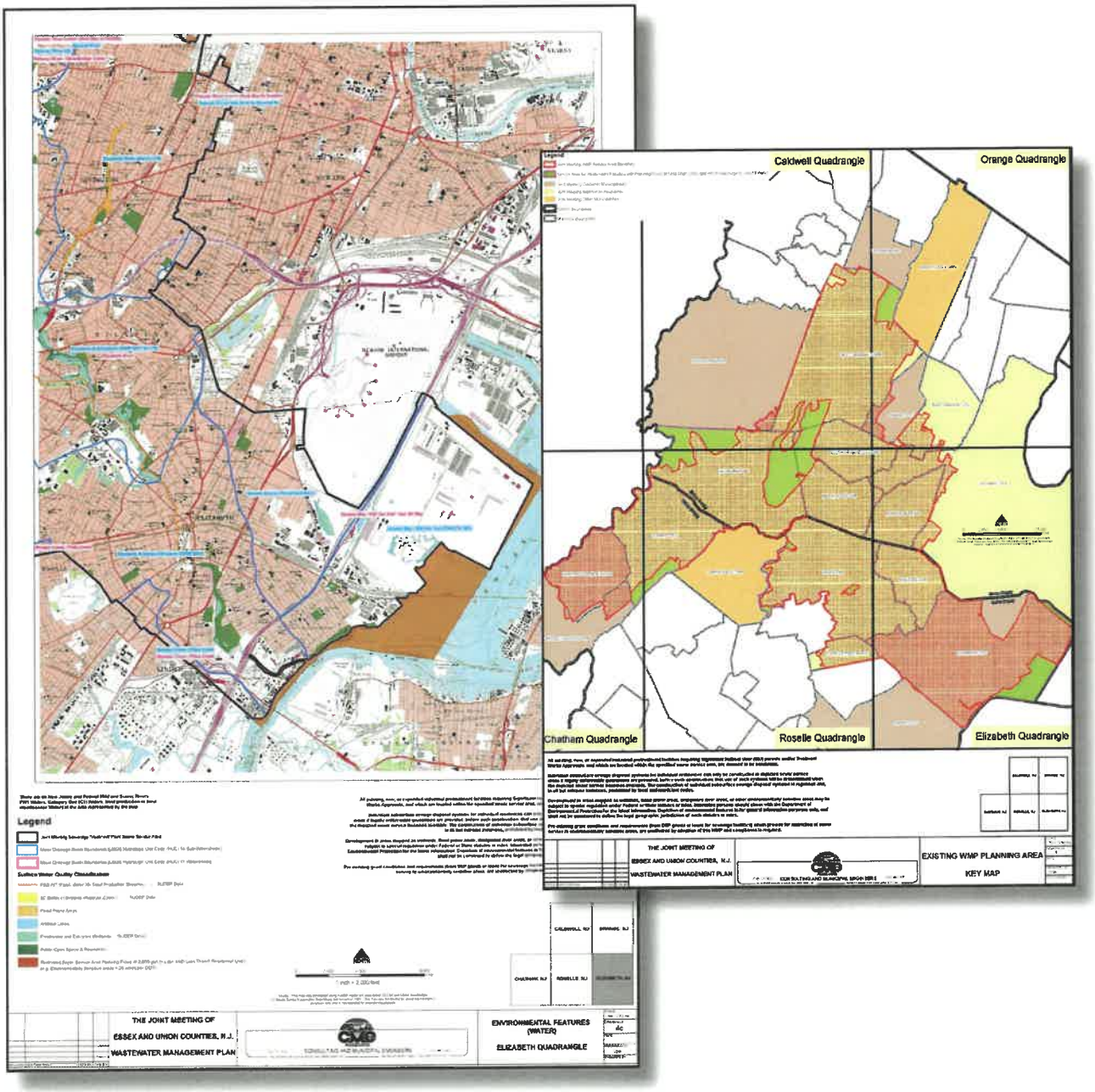
Approximately 6.9 Mega Watt of solar power provided at County

CME ASSOCIATES
Consulting & Municipal ENGINEERS
www.cmeusa1.com P: 732.727.8000

GIS - BUILD-OUT ANALYSIS

Client: **Joint Meeting of Essex & Union Counties**
Ms. Hanifa Johnson • Executive Director
P: 908-353-1313

Our firm assisted The Joint Meeting of Essex and Union Counties in the creation of the Wastewater Management Plan mandated by the State. The creation of the plan required a build-out analysis of the service area for the projection of future wastewater utilization. CME produced the necessary GIS layers and completed the analysis utilizing GIS software and queries.



PROJECT DATA SHEETS

GIS - GIS CONSULTING & TRAINING

Client:

Township of North Brunswick
Frances "Mac" Womack • Mayor
P: 732-247-0922

Township of Woodbridge
John E. McCormac • Mayor
P: 732-634-4500

Township of North Brunswick

CME Associates provides on-site consulting services to North Brunswick for the creation of water, storm and sanitary utility networks on GIS, and for the implementation of a GIS based pavement management process.

Township of Woodbridge

GIS training services were provided to the Township of Woodbridge for the implementation of their GIS system and utilization of the newly established GIS layers.

PROJECT DATA SHEETS

WATER SERVICES

TOWNSHIP OF ABERDEEN:

Woodfield Area Wastewater Collection System and Related Projects

Project consists of the installation of 10,000 feet of 8" gravity sanitary sewer, 5,000 feet of sanitary force main, construction of a sanitary pump station, the replacement of 8,000 feet of 8" water main and all other associated work. CME Associates determined that it would be prudent and beneficial for the Township to replace its aged (50 years old) water distribution pipes in the project area. It was cost effective since the same streets would be impacted by the open-cut trench work. CME Associates obtained additional NJEIT funding to replace the water distribution system, concurrent with the new wastewater collection system installation. The water system project consisted of the replacement of 8,000 feet of 8" water main and all associated work.

Finally, CME Associates was successful in "convincing" the NJEIT to fund the full-width pavement (3"stabilizing base over 6" DGA of affected roadways due to deep excavations required for sewer pipes, number of new laterals and the added-on water system improvements.


Woodfield Area

BOROUGH OF ATLANTIC HIGHLANDS:

Water Main Replacement at Water Treatment Plant

Upon completion of construction of a new well (#7) and well house in 2012, the Borough discovered leaks in the 8" ductile iron pipe raw water main connecting the well to its water treatment plant. Investigations concluded that the soils surrounding the pipe was corrosive in nature and led to the deterioration of the pipe. The contamination problem was exacerbated by other known historic contaminants in the area, namely, (a) a semi-volatile organic compound contamination of the soils in the area due to an underground storage tank and (b) a known area of contaminated soil and groundwater.

CME Associates was tasked with reviewing the benefits of various AWWA approved acceptable alternatives, including polyethylene encasement for ductile iron pipe and PVC pressure pipe, among others. Based on the limiting factors of each type of pipe material reviewed, cost information and additional research of AWWA information, PVC pressure pipe was selected as the most cost efficient and resilient solution.

Project challenges included the coordination of Borough, NJNG and Construction Contractor roles, interests and responsibilities, provision of clean backfill material, disposal of excavated soil and any ground water encountered during excavation. NJNG was responsible for, and provided decontamination facilities for the Contractor's equipment.


Water Main Replacement

BERKELEY TWP. MUNICIPAL UTILITIES AUTHORITY

Pinewald Area Improvements

The project consisted of the construction of 2,100 LF of 16", 20,000 LF of 12" and 11,000 LF of 8" cement lined ductile iron water mains throughout the Pinewald section of Berkeley Township. The work included the construction of water mains, butterfly and gate valves with valve boxes, hydrant assemblies, 247 residential service connections, wet taps, water main interconnections, excavation, backfill, right of way restoration, site clearing and other related work.


Pinewald Area

Well #4

Well No. 4 was constructed in two phases for the Berkeley Township Municipal Utilities Authority. Phase I included preparation of the water allocation permit, site preparation, construction of the test well, testing and water samples. Phase II included the installation of the water supply well, construction of the well building, the installation of approximately 1,000 lf of water main to the existing water treatment plant, modifications to the existing water treatment for connecting the new pipe and controls.

Phase 5 Water System Improvements

The project consisted of the construction of approximately 10,200 LF 8" cement lined ductile iron water main in the Pinewald section of Berkeley Township within the Berkeley Township Municipal Utilities Authority service area. The work included the construction of water mains, valves, valve boxes, hydrant assemblies, 103 water service connections, water main interconnections, excavation, backfill, restoration, site clearing and all other associated work.

Phase 6 Water System Improvements

The project consisted of the construction of approximately 2,000 LF of 12" and 9,800 LF of 8" cement lined ductile iron water mains within the existing Berkeley Township Municipal Utilities Authority Service Area. The work included the construction of water mains, valves, valve boxes, hydrant assemblies, 95 water service connections, water main interconnections, excavation, backfill, restoration, site clearing and all other associated work.


Phase 6 Water System Improvements

Water Treatment Plant Expansion

The Berkeley Township Municipal Utilities Authority's Plant Expansion Project consists of the installation of two new pressure filters and additional office space. The Authority's existing treatment plant included four (4) pressure filters rated at approximately 500,000 gallons of daily treatment capacity each. Due to the growing population in Berkeley Twp., the MUA needed to address the need for the additional capacity. The Authority authorized the installation of two additional pressure filters to its treatment system in order to satisfy the NJDEP Bureau of Safe Drinking Water requirements. The existing treatment building was expanded to house the two new filters, provide additional office space and a conference room.

BRICK TOWNSHIP MUNICIPAL UTILITIES AUTHORITY:

Generator and Electrical Improvements

The project consisted of the replacement of three existing emergency generators with three 1,250 kW emergency generators in sound attenuated enclosures. In addition the project included the installation of generator paralleling equipment, electrical switchgear, underground duct banks, conduit, wire, building modifications, site grading and restoration and all other associated work.


Generators

Chlorine Disinfection System

The project consisted of relocating the existing gas chlorine system from the existing Chlorine Facility Area adjacent to the Control Building to the existing Generator Building that was available due to the recent Generator and Electrical Improvements project. The project includes the decommissioning of the existing gas chlorine system, installation of a chlorination facility and chlorine cylinder storage area within the existing Generator Building, installation of an air scrubber and associated exhaust fan and ductwork, site improvements, and building modifications to the existing Generator Building.

DEPTFORD TWP. MUNICIPAL UTILITIES AUTHORITY:

Craig Drive Water Main Replacement Project

The emergency project, with final paving completed in October 2019, was authorized via emergency declaration by the Authority following a major pipe failure on April 19 and a second failure on April 20, 2019. The failures resulted in area residents being without water during the repair, extensive damage to the roadway and Authority crews having to work quickly and efficiently to expedite the replacement of the failed section of water main. The breaks along Craig Drive indicated the pipe had reached the end of its useful life, requiring the replacement of 1,800 LF of existing pipe.

CME prepared the plans and specifications for the replacement of the existing 6" transite water main along Craig Drive. The project involved the construction of 8" D.I.P. Class 52 water main parallel to the existing main, valves, fire hydrant assemblies and residential service connections. Construction Administration was provided by CME Associates

BOROUGH OF EAST NEWARK:

Municipal Building Generator

The project consisted of the demolition of an existing generator, automatic transfer switch, and appurtenances, and the furnishing / installation of a new natural gas generator, automatic transfer switch, gas piping, appurtenances and all other associated work.

EAST ORANGE WATER COMMISSION:

Water System Improvements

The project consisted of the replacement of approximately 1,650 water services within the northeast section of the City including corporation stops and curb stops and the installation of approx. 10,000 LF of 8" cement lined ductile iron pipe, valves, 250 water services and hydrants to replace existing undersized water main throughout the City.

White Oak Ridge Pumping Station (WORPS) Disinfection System Conversion Project

Design phase engineering services for the replacement of the facility's existing tablet chlorinator system with a liquid sodium hypochlorite system including construction of a new containment building with tanks, feed equipment, controls, ventilation and piping to a new injection point ahead of the clearwell

JERSEY CITY MUNICIPAL UTILITY AUTHORITY:

72" Diameter Steel Aqueduct Closure

Jersey City and several contiguous municipalities are served by two 26-mile long, 72" diameter parallel riveted steel water transmission aqueducts constructed in the early 1900s that convey an average of 50MGD of drinking water from the Jersey City Municipal Utilities Authority Reservoir and Treatment Plant in Boonton, New Jersey. After over 100 years in service, a leak was discovered at a connection between one of the aqueducts and the JCMUA distribution system. The downstream steel 42" transmission main had deteriorated due to external corrosion and, after several spot repairs, was determined to be beyond repair. Following the excavation of test pits to locate the end of the aqueduct pipe and surrounding utilities, CME Associates prepared a design to cut and cap the end of the 72" aqueduct where it met the deteriorated 42" transmission pipe.

Reservoir 3 Interconnection Removal

The Jersey City Reservoir No. 3 on Summit Ave in Jersey City was formerly used to store and supply drinking water to the City until open air reservoirs were prohibited from directly supplying water distribution systems without further treatment. The reservoir has been abandoned since, but the reservoir still contained water and the piping interconnecting the reservoir with the distribution system remained in place, isolated by closed valves. The JCMUA determined it was in the best interest of its customers to eliminate the chance of cross contamination by cutting the remaining interconnections. In response, CME prepared a design to eliminate the interconnections between the reservoir and the distribution system while maintaining water service through the project area.

Hoboken Meter Facility Replacement

Engineering services included survey, concept, design, and preparing bid documents, and permitting. The project included the construction of a new underground potable water meter chamber, precast elevated equipment shelter, and various system components to restore the flow meter station between Jersey City and Hoboken, located in a flood prone area and major traffic intersection. Also included was the replacement and reconfiguration of 16" and 24" water main, site restoration, and planning for traffic control and police direction.


72" Diameter Steel Aqueduct Closure

Pressure Reducing Valve

Engineering services including survey, design and construction oversight for construction of an underground chamber in a high traffic area to control and meter the flow of water from a high pressure zone to a lower pressure zone during peak demand periods including installation of water main bypass with isolation valves including pressure reducing/pressure sustaining control valve and associated electrical, control and radio communications work.

Lyndhurst Chlorination Facility Rehab

Engineering services including design and construction oversight for the replacement of the existing sodium hypochlorite storage tanks, containment basin, metering pumps, interconnecting and feed piping and injection pipes; modifications to electrical equipment, installation of controls and monitoring equipment for the injection of disinfectant into the Jersey City Aqueduct.

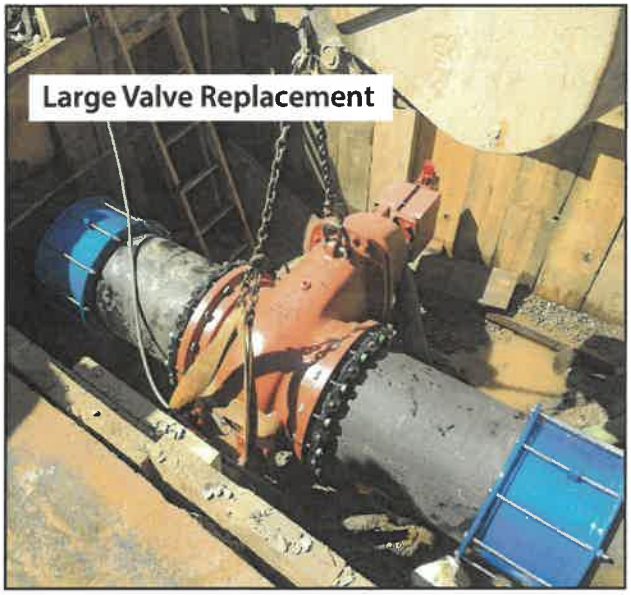

Reservoir 3

Tonnelle Ave. Water Main

The project consists of the replacement of approximately 4,060 lf of existing 6" diameter water main and 1,240 lf of existing 8" diameter water main with 16" diameter water main along Tonnelle Avenue in Jersey City. In addition, the project consisted of the replacement of all associated valves, water services, and fire hydrants.

Large Valve Replacement

Field Survey, Design and Construction Phase Services for replacement of approximately 30 valves ranging in size from 16 inch to 36 inch. Several valves critical to maintenance of water supply were replaced utilizing temporary line stops with by-pass piping without service interruption. Construction activities were coordinated with the City's Office of Emergency Management to minimize impacts to the residents and municipal services (fire, police and first aid).



Brookdale Gate House Improvements

Evaluation of upgrades to the Gate House located on the Aqueduct that supplies water to Jersey City and surrounding municipalities. Upgrades evaluated included installation of new 72-inch diameter valve on the existing twin 72-inch steel aqueducts and upgrades to the existing stop logs to facilitate shutdown of the aqueducts for inspection, repair and maintenance. Preliminary design is underway.

Water Meter Replacement

Preparation of Contract Documents for the installation of an Advanced Metering Infrastructure system for centralized reading of approximately 35,000 water meters throughout Jersey City. The System provides for reading of residential and commercial water meters from 3 tower base stations allowing continuous monitoring of the water usage to reduce non-revenue water.

CITY OF LINDEN:

New Generator at City Hall

The project consists of the installation of a 750KW dual fuel generator to provide backup power to the Linden City Hall and JT Gregorio Recreation Building.

TOWNSHIP OF MARLBORO:

Beacon Hill Water Storage Tank Rehabilitation

Engineering Services included the preparation of NJ Infrastructure Bank loan application, the preparation of plans, specifications and details for all the work necessary to repair and rehabilitate the storage tank. The work included replacement of the cathodic protection system, surface preparation and recoating of the exterior and interior of the tank.

Electric Upgrades to Wells 3&4

Engineering services included design, preparation of bid documents and providing construction observation. Project consisted of the replacement of the existing deteriorated and maintenance-prone outdoor cabinets and contents at each of the well sites. The electrical service and distribution equipment and controls were replaced and integrated into the existing radio based SCADA system. The new cabinets were provided with reduced voltage starters for the pump motors as well as manual transfer switches and exterior plugs for the connection of portable generators during utility outages.

Tennent Rd. Water Treatment Plant

The project generally consists of the construction of a new water treatment plant with a capacity of 1.0 MGD. The water treatment plant includes the installation of two (2) horizontal pressure filters, chemical feed systems, backwash recycling system, pumping equipment and ancillary facilities. Site work includes the construction of two (2) backwash holding tanks, site utilities including underground process piping, site grading, pavement, restoration, cleaning of existing sludge lagoons, demolition of existing facilities and all other associated work.

Harbor Rd. Water Treatment Plant

The project generally consists of the design and construction of a new water treatment plant with a capacity of 4.89 MGD. The water treatment plant includes ten (10) vertical pressure filters, chemical feed systems, backwash recycling system, pumping equipment and ancillary facilities. In addition, the work included the construction of a 90' x 90' building to house the filtration equipment and necessary laboratory and controls room and electrical equipment. Site

work includes the construction of two (2) backwash holding tanks, site utilities including underground process piping, site grading, pavement, restoration, cleaning of existing sludge lagoons, demolition of existing facilities and all other associated work.

Generator Replacement at the Recreational Complex

Engineering Services including design, bid phase services and construction oversight for work including the demolition of the existing generator and electrical appurtenances, installation of a new 450 kW diesel stand-by generator, load bank, automatic transfer switch, remote communications modem and other electrical system modifications for the Township of Marlboro Recreational Complex.

MIDDLESEX COUNTY

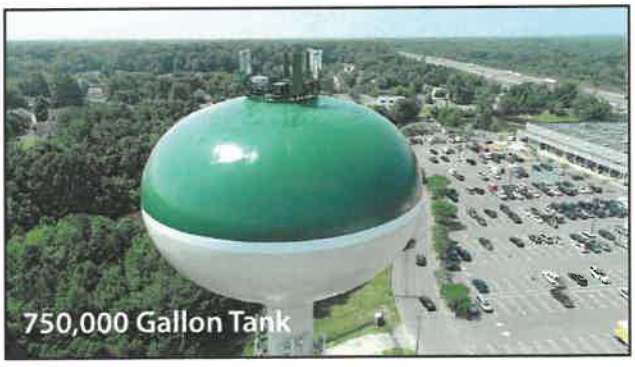
Vehicle Wash Facility

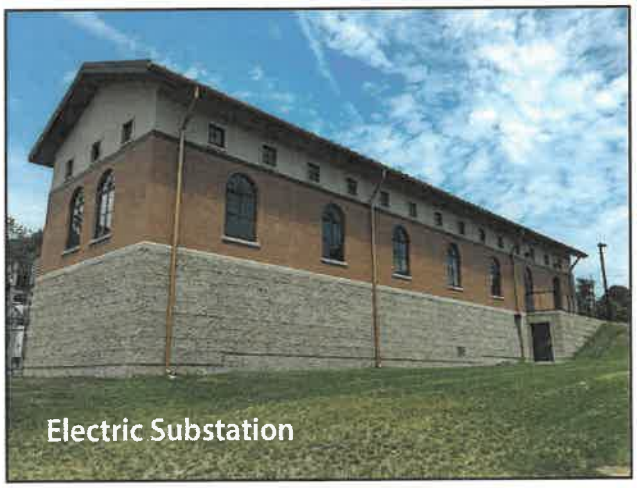
The project generally consists of running new water main, gravity sewer and a gas service from the existing utilities on Apple Orchard Lane for service to the facility, site excavation, foundation preparation and erection of the truck wash facility structure, connection of the facility to utilities, installation of mechanical and control equipment associated with the wash bay, construction of the storm water collection system, concrete flatwork and hot mix asphalt driveway, and associated site restoration.

MILLTOWN:

750,000 Gallon Water Tank Rehabilitation

In 2017, after over two decades of continued beneficial service and in an effort to extend its useful life, the Borough authorized CME Associates to rehabilitate and upgrade the elevated storage tank. The Borough tasked CME with incorporating new tank coating technology advances to rehabilitate the tank and related equipment. Further, taking advantage of prevailing favorable funding terms from the New Jersey Environmental Infrastructure Financing Program (NJEIFP), the Borough applied for and secured all the funding needed to complete the project. The NJEIFP is a State Revolving Fund program jointly administered by the New Jersey Department of Environmental Protection (DEP) and the New Jersey Environmental Infrastructure Trust (Trust) and uses a combination of funds provided by the United States Environmental Protection Agency, the DEP, and the Trust to provide very low interest loans to borrowers for environmental infrastructure projects.


750,000 Gallon Tank


Electric Substation

Electric Utility Flood Mitigation Project

The project consisted of the construction of a new electric substation including site improvements, structure to house the new switchgear, new transformers, transformer containment, electrical equipment, connections to the existing 5 kV feeders, connections to the 26 kV PSE&G feeders, 26 kV switches, 26 kV relay coordination, site work and all other associated work.

Water Distribution System Improvements

The project generally consists of the cleaning and cement lining of existing 12", 10", and 6" water mains within the Borough of Milltown including the construction of two (2) water main loops connecting dead-end water mains. The project also included the removal, furnishing and installation of fire hydrant assemblies; the furnishing and installation of valves and service connections; roadway trench repair, right-of-way restoration and all associated work.

Multi-Phased System Water Improvements
20" TRANSMISSION MAIN

The old water main was situated under Route 1 which had been widened over the years from a two lane cartway to a six lane divided highway. A new crossing under the highway required special approvals from the NJDOT. In addition to the obstacles to the construction indicated above, the new main had to be installed without damaging the sixty year old 12" water transmission, since water obtained through the line represents Milltown's only non-emergency source of potable water. When the new 20" transmission main was completed, it represented the completion of part 1 of the Multi-Phased Water System Improvement Program.

750,000 GALLON WATER STORAGE TANK

Construction of the 750,000 gallon water storage tank began with the excavation of the 200 cubic yard reinforced concrete footing for the tank which had to be advanced to approximately 20'-25' below existing grade due to the poor soils at the site. The new tank included access ladders, inlet and outlet piping, overflow drains and emergency lighting all contained with the shaft. Steel access tubing located inside the tank allows for a pleasing symmetrical exterior appearance. In order to facilitate future draining of the tank, an offsite storm drainage system was included in the overall project. Also, provisions for the future installation of radio antennae and pumping equipment were incorporated into the project as well.

2.0 MGD WATER PUMPING FACILITY AT ELKINS LANE

Part 3 of the Multi-Phased Water Improvements consisted of the design and construction of a new 2.0 million gallon per day water pumping facility at Elkins Lane to replace the existing underground station which dated back to the 1920's. Unique to this project was the Borough's requirement that the exterior of the pumping station blend in with the residential character of the neighborhood, especially since the old station was situated below grade. Another specific requirement was that the existing pumping station remain in service until the new facility was completed and fully tested. The new station had to be designed to function automatically since the Borough did not want to man the station 24 hours per day. It also had to be designed to handle large flow variations between average and peak day flows and in order to supplement the necessary fire flows throughout the Borough.

Water System Improvements

CITY OF NEWARK

Pequannock Water Treatment Plant Pump Upgrade Project

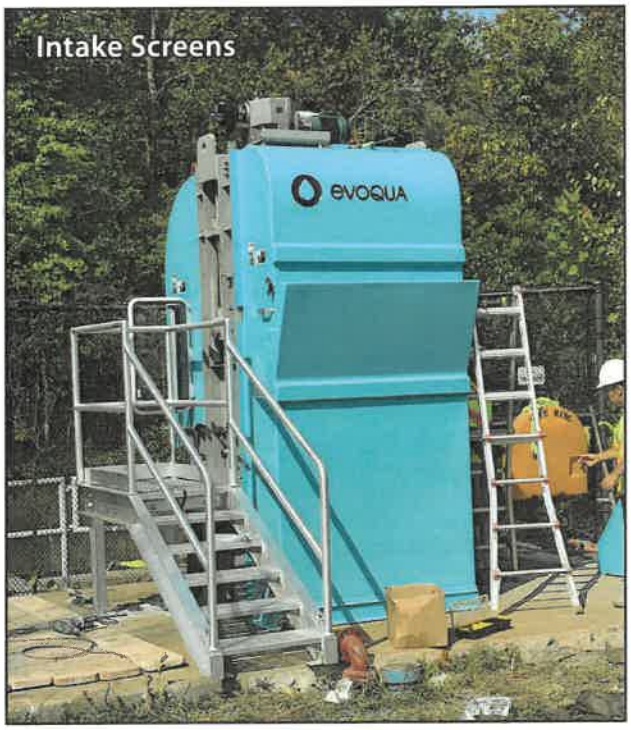
Under an on-call contract with CME Associates, the City of Newark's Department of Water and Sewer Utilities authorized the design, preparation of specifications, bid support and construction administration for two (2) spray wash pumps at its 80 mgd Pequannock Water Treatment Plant, West Milford, NJ. The work includes wiring and related items. The spray wash pumps are located in the Intake Screen Facility.

TWP. OF NORTH BRUNSWICK

Water Treatment Plant Raw Water Intake Screens

The CME Associates designed project was completed in January 2020 and included the replacement of the existing raw water intake screens, spray water piping, control panels and associated electrical work. The purpose of the project was to reduce the amount of water-borne debris from entering the North Brunswick Water Treatment Plant from its raw water source, the Raritan Canal. Additional improvements included the provision of an access platform with a staircase; provision of a roll-off container with drainage back to the intake; and a new electric service from the new control panels in the Pumping Building.

In addition to design, CME Associates also provided the Construction Administration and Bid Phase support services for the project.



Water System Computer Model

The project generally consists of the preparation of a computerized water model for the Township of North Brunswick water distribution system including preparation of pipe network, storage tanks and booster pumps; model calibration and modeling scenarios.

North Brunswick Water Treatment Plant

North Brunswick addressed its initial water utility infrastructure requirements by construction of a treatment plant and distribution system in 1963. Growth and regulatory requirements resulted in expansion and modifications of the treatment plant in '67, '82, '87, & '89.

As a result of additional growth, CME Associates designed and provided construction services for improvements and additions to the treatment plant in 1990, increasing the capacity to 10 MGD by providing traveling intake screens, new low and high lift pump facilities and electrical controls, chemical feed modifications, pressure filters and sludge dewatering facilities.

Again, in 2008, as a result of further additional growth and regulatory compliance, CME Associates, working in conjunction with CH2M-Hill, assisted the Township by providing engineering services for a $16.1 million upgrade to the treatment plant consisting of gravity filters, backwash holding tanks, mechanical mixers, chemical modifications, new filter building and backwash equalization tanks, electrical and instrumentation modifications and security and solar panels. CME was responsible for the design of site improvements, backwash holding tank modifications, and the addition of backwash equalization tanks, and was also responsible for providing construction phase services, and provided an Operation and Maintenance Manual and Emergency Response Plan for the facilities.

OLD BRIDGE MUNICIPAL UTILITIES AUTHORITY

Knoll Croft Water Main Rehabilitation

The project included the rehabilitation through cleaning and lining and/or replacement as required of the existing potable water pipes in the Knollcroft Development of Old Bridge Township. Originally installed in 1960s, the 6" un-lined cast iron water mains had reached the end of its useful life as attested by low pressure complaints and frequent pipe breaks. CME Associates provided design and construction administration services for the project, which involved installation of approximately 9,250 LF of PVC pipes and the replacement and installation of valves and hydrants. The project was successfully completed in the Spring of 2019.

SCADA System Upgrades

Engineering services including design, bid phase services and construction oversight for the upgrading of the original 20 year old components in the existing SCADA system through replacement of the existing radio communications equipment, remote and central control PLCs, power supplies, UPSs, antennae and cables. Also included replacement of the existing operator workstations and implementation of new open-architecture software at the remote locations and for the operator interface.

Perrine Rd. Carbon Adsorber Facility

Engineering services including design, permitting, submissions to and coordination with New Jersey Environmental Infrastructure Trust bid phase services and construction oversight for constructing a carbon filtration system to control and reduce disinfection byproducts in the potable water including an engineered building for housing Granulated Activated Carbon Adsorbers along with a welded steel Backwash holding tank, pumps and piping, chlorine storage and feed facility and connection to the existing SCADA system.

Perrine Rd 10 MG Tank Rehabilitation

Engineering services included design, preparing bid documents, submissions to and coordination with the NJ Environmental Infrastructure Fund, bid phase services, construction oversight, and project coordination for the rehabilitation of the existing 10 MG potable water ground level storage tank. The rehabilitation involved abrasive blasting, repairing, application of a new coating system on the interior and exterior surfaces of the tank, and the replacement of the cathodic protection system.

Demolition of Former Water Treatment Plant

Engineering services included site investigation, design, preparation of bid documents and providing construction observation and environmental remediation oversite and NJDEP coordination due to the presence of hazardous materials in the existing structures and soils. Project consisted of the demolition of two former abandoned water treatment plants, including remediation/removal of soils and demolition material that contained metals, PCB's and other contaminants.

Browntown Water Treatment Plant Re-Painting

Engineering services included design, preparation of bid documents and providing construction observation. Project consisted of the surface preparation and painting of the exterior facilities of the water treatment plant, including clarifiers, storage and holding tanks, filter vessels, structures, piping and appurtenances and the replacement of several large diameter valves in the treatment process.

Route 516 Booster Pump Station Improvements

Engineering services included design, obtaining permits, preparation of bid documents, preparation of documents for the New Jersey Infrastructure Trust Fund and providing construction observation. Project work at the Water Booster Station consisted of the replacement of a small pump with a larger variable speed pump with drive to provide redundancy, installation of a larger generator to power the entire facility, control system replacement and upgrade of its integration into the system-wide SCADA system and HVAC improvements to cool the building interior during peak operating times over the summer. Work at the treatment plants included replacement of a deteriorated storage tank and pump and replacement of four forced air tray aerators with gravity aerators.

Route 516 Maintenance Garage Fuel System

Design and Construction Phase Services for a new Fuel Storage and Dispensing System for Authority Vehicles and maintenance of fuel supplies for emergency generators. The Authority experienced fuel delivery interruptions during Super Storm Sandy which this project will prevent from reoccurring. The project included installation of an emergency generator to support the site, 2 - 10,000 gallon above ground storage tanks for diesel fuel and gasoline, leak detection, fuel dispensing and fuel management equipment.

Higgins Rd. and Route 516 Tank Interconnection

The project generally consists of the construction of approximately 2,100 feet of 16-inch DR18 PVC water main, 1,250 feet of 16-inch HDPE water main by trenchless installation, replacement of approximately 2,200 feet of 12" water main with 16-inch DR18 PVC water main, valves, valve chambers and all other associated work.

TOWNSHIP OF PISCATAWAY:

Westergard Library Standby Generator

The Project generally consists of the installation of an emergency generator at the Westergard Library including site preparation, construction of a concrete foundation, landscaping, electrical installation and all other associated work.

BOROUGH OF POINT PLEASANT:

WTP Pressure Filter Replacement

The recently completed project (July 2020) involved CME Associates providing Professional Engineering services including design, bid phase services and construction oversight for the replacement of three (3) pressure filters at each of the Borough's two water treatment plants, namely: Albert E. Clifton Water Treatment Plant and Riviera Parkway Water Treatment Plant. In addition, the project included modifications to an existing building wall at each treatment plant to provide access for removal and installation of the filters.

With the completion of the NJ Infrastructure Bank funded project, the residents of the Borough of Point Pleasant now have a reliable supply of potable water. The former pressure filters at both water plants had reached the end of their useful lives and needed to be replaced. The completed project will provide continued water quality and efficient operation of both water treatment plants.

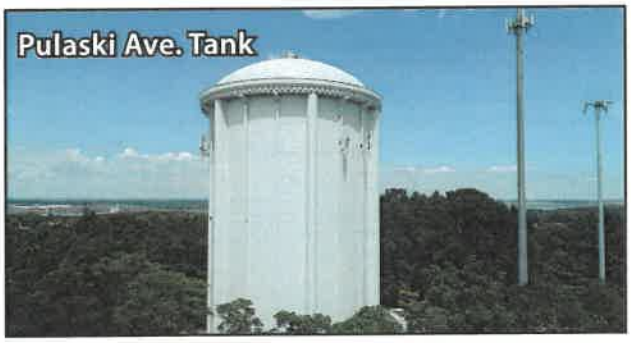
BOROUGH OF SAYREVILLE:

Duhernal Well Improvements

Following the 1994 approval from state authorities, the Borough of Sayreville, DuPont and Hercules came to formal terms relative to their purchase of the former 1/3 National Lead share of the Duhernal Water System. Today, following the negotiated purchase of the remaining partners' ownership rights, the Borough is the sole owner of the Duhernal System. Borough Engineer, CME Associates, subsequently designed the improvements to connect the Sayreville and Duhernal Systems to serve the Borough. The Improvements included redevelopment of wells, shutting down an old storage tank and upgrades to the Borough Water Treatment Plant.

Pulaski Avenue Tank Rehabilitation

Engineering services including survey, design, permitting, bid phase services and construction oversight for the rehabilitation and upgrades to the elevated storage tank. The project incorporated a cathodic protection system and a new tank mixer into the final design to extend the life of the tank and improve water quality. This project now provides water quality benefits by extending the useful life of the water tank which provides storage of potable water for the Borough for use during peak demand periods and for fire demand reserves for residents and businesses in the Borough of Sayreville.



Water Treatment Plant Expansion

The project generally consists of the construction of a new water treatment train to operate in parallel with the existing treatment facilities. The new water treatment train will consist of flow control, chemical injection and mixing, pre-treatment clarifier, membrane treatment system, additional granular activated carbon polishing filters, and all other associated work.

Ernston Road Tank Rehabilitation

Engineering services included design, preparing bid documents, bid phase services, construction oversight, and project coordination for the rehabilitation of the existing 3MG potable water standpipe. The rehabilitation involved abrasive blasting, repairing, application of a new coating system on the interior and exterior surfaces of the tank, and the installation of a new cathodic protection system and internal water mixer.

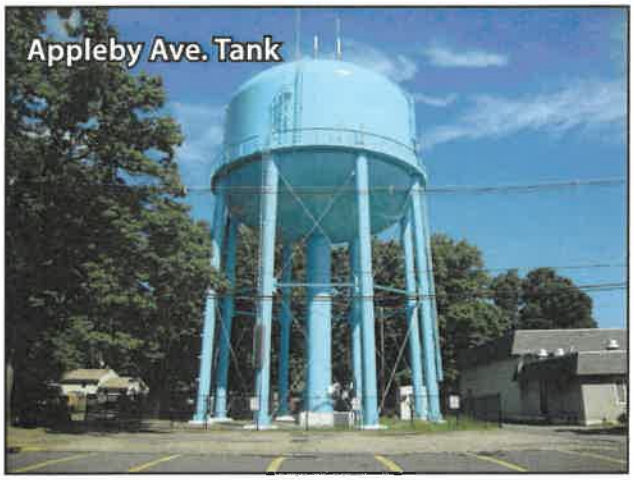
Sayreville Water Treatment Plant

The Borough of Sayreville provided potable water to its industrial, commercial, and residential users via a pressure filter plant that treated water from the Borough's three raw water sources. However, increasing growth demands necessitated the Borough expanding its treatment facilities and finding an additional source -achieved through a public /private partnership with the Duhernal Water System. Duhernal's wells had very high iron concentrations that necessitated that the expanded treatment plant employ a new technology to assure a high finished water quality. After pilot testing, the Krofta Dissolved Air Flotation/Filtration process was selected, followed by granular activated carbon filtration. The new $21 M plant's initial design capacity was selected at 7 MGD with redundancy and with the further ability to expand to 21 MGD. The overall design included: low, intermediate and high lift pumps; recycling and sludge pumping facilities; chemical storage and feed equipment; automated process control, operation and monitoring; provisions for emergency power; modern laboratory facilities; and a 3 MG storage tank.

BOROUGH OF SOUTH RIVER:

Appleby Ave. Tank Rehabilitation

The project generally consists of repairing, modifying and the interior and exterior surface preparation and painting of an elevated 500,000 gallon potable water storage tank on Appleby Avenue in South River, New Jersey.



South River Water Treatment and Supply Improvement Project

Improvements to the Borough's Water Facilities included work at the Water Treatment Plant / Filter Building involving replacement of filter media in the three horizontal filters, rehabilitation of components inside the filters and cleaning the vessels and preparation and painting of the filter exteriors. Additionally, the Sodium Hypochlorite Storage and Feed System was replaced, including new Chemical Feed Pumps and Variable Speed Controllers.

The 5+/- mgd Booster Pumping Station that supplies the treated water into the system for distribution had two of the three can-type vertical turbine pumps replaced and three new variable speed drives installed and controlled by a new PLC based control system that utilized radio communications to replace the former land-based leased telephone lines. A new roof was installed on the Booster Station, all interior walls, piping, equipment and components were prepared and painted and an industrial dehumidifier was installed on the lower floor in order to reduce humidity and moisture levels within the Station.

Well #2 at the Treatment Plant was redeveloped to restore performance and the well pump was rebuilt. The 2 million gallon finished water ground level storage tank was inspected, prepared and painted. Within the distribution system, the Appleby Avenue elevated water storage tank was also cleaned, prepared and painted and the leased telephone lines for communication were replaced with a radio system for level control.

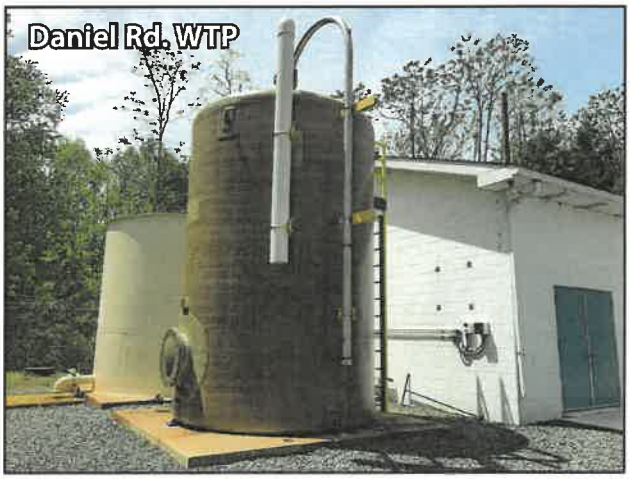
CME Associates prepared the scope of work in coordination with Borough personnel and provided design and bid phase services, prepared Contract Drawings and Specifications for the project and performed engineering oversite during construction.

BOROUGH OF SPOTSWOOD:

Daniel Rd. WTP

The Borough's Daniel Road Water Treatment Plant was construction in the mid 1970's and required a significant rehabilitation project. Improvements to the Facility included repairs to the underdrain inside both ion exchange filters and replacement of filter media; replacement of the pneumatically operated control valves with electrically operated butterfly valves, the underground steel chlorine contact tank and associated piping and valves, the brine storage and make-up system, the lime slurry tank mixing system with a lime storage and automated batching system, and the failed control system with new PLC based controls. The leased telephone lines were replaced with a radio communications system between the Boroughs's various water system facilities, allowing the new control system to automatically operate the plant based on level and permit continuous monitoring of the Borough's interconnections with adjoining towns. The controls also perform automatic operation of the electric butterfly valves and flow monitoring for backwashing of the filters. Various building improvements were included such as replacement of deteriorated doors, painting of interior rooms and installation of an industrial dehumidifier to reduce moisture and corrosion within the building.

CME Associates prepared the scope of work in coordination with Borough personnel and provided design and bid phase services, prepared Contract Drawings and Specifications for the project and performed engineering oversite during construction.



Water System Interconnect

The project consisted of the construction of a water system interconnection between the Borough of Spotswood and East Brunswick Township including installation of a valve chamber, flow control valve, flow meter, interconnecting piping, valves, electrical equipment, appurtenances and all other associated work.

TOWNSHIP OF STAFFORD:

Mill Creek Tank Repainting

Engineering services including design, permitting, bid phase services and construction oversight for the rehabilitation and upgrades to the storage tank. The project incorporated a cathodic protection system and a new tank mixer into the final design to extend the life of the tank and improve water quality.

Fawn Lake Tank Evaluation

At the request of the Township, CME Associates performed an initial condition assessment of the Fawn Lake Water Tank relative to reported structural stability involving loose anchor bolts at the base of the tank and the adequacy of the Tank to provide the necessary Emergency Storage in accordance with NJDEP requirements, storage for Fire Flows and storage for diurnal peak hourly demand flows. A subsequent review by water tank experts, Tank Industry Consultants, revealed that the grout under the perimeter of the tank, between the bottom plate and the concrete foundation, was in very poor condition with numerous voids. The TIC report disclosed that a sand cushion, varying between 1" and 3" in thickness, installed between the bottom of the tank and the concrete foundation and held in place by the grout had been compromised and sand had escaped. The combination of the failure of the grout and sand escaping through the voids appears to result in the wind causing the tank to rock. In response, the Township had been tightening the bolts to minimize the rocking. CME Associates recommended the replacement of the existing Fawn Lake Tank.

SECTION 4:
RESUMES OF KEY STAFF

CWE ASSOCIATES

RESUMES OF KEY STAFF

President/Chief Executive Officer
Andy (Andy) Paluri, PE, PTOE

Managing Partner
David J. Samuel, PE, PP, CME

Executive Vice President
Michael J. McClelland, PE, PP, CME

Senior Vice Presidents
Keith Chiaravallo, PE, CME
Behram Turan, PE, LSRP

Directors
Nelson Hernández, PE, LEED® AP
Michael McGurl, PLS, CFS
Donald Stevens, PE

Additional Key Staff
Richard Lafortune, PE
Keith Henderson, PE, PP, PLS
Henry Johnsen, PE
Michael Dziubeck, PE
Edward Traina, PE
Mackenie Binder, PE
Joseph Bonaccorso, C-4, N-4, S-4
Mohammed Sidhoum, Ph.D., BCEEM

ANAND (ANDY) PALURI, PE, PTOE
PRESIDENT/CHIEF EXECUTIVE OFFICER

EDUCATION / CERTIFICATION:

Andhra University,
BE Civil Engineering, 1984

Clarkson University
M.S. Transportation Systems Engineering, 1987

- New Jersey Professional Engineer License No. 24GE04606100
- New York Professional Engineer License No. 083899
- Pennsylvania Professional Engineer License No. PE054276E
- Professional Traffic Operations Engineer (PTOE)

PROFESSIONAL AFFILIATIONS:

- Institute of Transportation Engineering (Past-President and Executive Board Member)
- American Council of Engineering Companies (ACECNJ) Executive Committee Member
- American Society of Civil Engineers
- Intelligent Transportation Systems America
- North American Traffic Monitoring Council (NATMC)
- Association of Pedestrian and Bicycle Professionals (APBP)

GENERAL EXPERIENCE:

Andy joined CME with over 35 years of experience in transportation, water, environment, properties and buildings, and energy business sectors in the NY, NJ, and PA areas. He is well-versed in planning, design, and construction management of infrastructure projects of all sizes. He previously served as the Mid-Atlantic District Manager for a large international Infrastructure firm. He played a key leadership role in growing the district and making it one of the company's most efficient and profitable operations. He is affiliated with several professional, social, civic, and charitable organizations. He has served in leadership roles such as President of ITE Metropolitan Section and currently serves as a Member of the ACEC NJ Executive Committee.

TRANSPORTATION:

Mr. Paluri's technical experience includes working on concept development, environmental studies and design projects related to bridges, corridors, local streets, pedestrian and bicycle facilities, parking, transit, toll plazas, ports and airports. He led several Transit Projects, including the Hudson-Bergen Light Rail Extension, Development of NJ Transit Capital Plan, Newark Penn Station Improvements and various station improvements. He also led the PANYNJ Airport Capacity Improvement Study to increase passenger services at EWR, JFK, and LGA. He has experience in developing plans and designs by using the principles of Context Sensitive Design and effectively coordinating projects with stakeholders and general public. As a Project Manager, he has a successful track record in coordinating projects with multitude of clients and interested parties on schedule and within budget. He has a demonstrated ability to move projects forward by pro-active engagement.

EXPERIENCE:

- Preliminary Engineering and Environmental Studies for the Widening of the New Jersey Turnpike between Interchanges 6 to 9, NJ
- Goethals Bridge/I-278 and US Route 1&9 Interchange Ramps Concept Development Study, Union County, NJ (PANYNJ)
- Concept Development, Feasibility Analysis and Preliminary and Final Design of Atlantic City Expressway (ACE) Direct Connection to Atlantic City International Airport, NJ
- Rehabilitation of the Spruce Street Bridge over the Passaic River, Paterson, NJ
- Route 22 Sustainable Corridor, Long Term Improvements, Somerset County, NJ
- University Place Office Park Traffic Impact Analysis (TIA), Durham, NC
- U.S. Department of Justice, Federal Bureau of Prisons, Prison Facility Traffic Impact and Access Study, multiple existing and new facilities in: NC, KY, PA, CA, NH and HI
- Construction Inspection Services along West Side Highway, NY, for nighttime construction inspection services for the installation of two six-foot water intake pipes into the World Trade Center buildings.
- 4th Ward Parking Capacity, Operations and Forecasting Study, East Orange, NJ

PUBLICATIONS:

- "High Price of Parking," TransAction Conference, Atlantic City, NJ
- "Transportation Corridor Management Plan, a Case Study," ITE 2002 Annual Conference, Atlantic City, NJ
- "South Jersey Transportation Authority – Five Point Energy Management Plan," TransAction Conference, Atlantic City, NJ
- "Balancing Transportation Systems with Community Expectations," ITE 2005 Annual Conference, Melbourne, Australia
- "A Methodology to Evaluate Design Consistency on Two-Lane Rural Highways," World Road conference, Seoul, South Korea

AWARDS:

Mr. Paluri has been honored by several professional organizations, including: the American Council of Engineering Companies (ACEC-NJ); Jewish Family Services of Middlesex County – Community Leadership Award; and the American Society of Civil Engineers – Excellence in Management Award.

DAVID J. SAMUEL, PE, PP, CME
MANAGING PARTNER

EDUCATION / CERTIFICATION:

Newark College of Engineering
B.S. Civil Engineering 1974

- New Jersey Professional Engineer License No. 25838
- New Jersey Professional Planner License No. 2455
- Certified Municipal Engineer N.J.M.E.I. Certification No. CME 058
- Certified Public Works Manager NJ Certification No. M0459

PROFESSIONAL AFFILIATIONS:

- American Society of Civil Engineers
- New Jersey Society of Civil Engineers
- American Water Works Association
- New Jersey Society of Municipal Engineers
- New Jersey Recreation & Park Association
- Water Environment Federation
- Association of Environmental Authorities
- Chi Epsilon

GENERAL EXPERIENCE:

For more than 46 years, Mr. Samuel has served in the capacity of Municipal Engineer, Consulting Engineer and Authority Engineer for various counties, municipalities, and improvement and utility authorities. He has provided: municipal engineering services; project supervision of design and construction administration of capital projects; public / private partnership of water and wastewater utilities; engineering oversight of county-wide recycling program; professional testimony; planning board and zoning board of adjustment consultant services; environmental services; and engineering evaluations and management studies.

Currently, Mr. Samuel is named the Municipal Engineer for the Borough of South River, Borough of Highland Park, Borough of Sayreville, Township of Plainsboro, Township of Aberdeen, Township of South Brunswick, and the City of Bayonne. He is also the Consulting Engineer for the Township of North Brunswick, Township of Monroe, Township of Woodbridge, the Middlesex County Improvement Authority, the Joint Meeting of Essex & Union Counties, and the Jersey City Municipal Utilities Authority. He also currently serves as the Water Engineering Consultant for the Old Bridge Municipal Utilities Authority.

EDUCATION/RECREATION FACILITIES:

Mr. Samuel has served as Consulting Engineer to various Boards of Education and other agencies for a full range of athletic and recreational projects that include: feasibility studies; infrastructure upgrades; natural and artificial turf fields; level playing fields; rubberized running tracks; tennis and basketball courts; and site improvement facilities including lighting, drainage, landscaping, circulation roadways and parking lots. Mr. Samuel has also been involved in construction management projects, feasibility studies, and assorted other projects for educational facilities.

WATER / WASTEWATER FACILITIES:

Mr. Samuel has provided engineering services for a wide range of potable water, wastewater, and hydraulic projects including: feasibility studies; master plans; design; permitting and/or construction management of such projects.

TRANSPORTATION ENGINEERING:

Mr. Samuel has provided traffic and transportation engineering services to various clients for projects ranging in scope from minor roadway improvements to major highway related work. Projects include: roadway evaluations and capital master planning; intersection review and designs for various counties and municipalities; roadway reconstructions; traffic counts and analysis; and the design and construction administration of major roadways, including four-lane divided highways and grade separated intersections. Noteworthy projects include services as performed for the Garden State Parkway and New Jersey Turnpike Authority for their high-speed E-Z Pass toll facilities, inspection of bridges, sign structures and high mast light poles as well as the inspection of construction of the Driscoll Bridge.

REDEVELOPMENT:

As a result of the high cost of real estate and the shortage of land, Mr. Samuel has been involved in the planning, design and implementation of multiple redevelopment projects in the Borough of Sayreville, Borough of Carteret, City of South Amboy, Township of Aberdeen, Town of Morristown, City of Perth Amboy, the Borough of Dunellen, and other locations. Mr. Samuel's experience and participation has been instrumental in the municipalities' realization of their redevelopment goals.

AWARDS:

During Mr. Samuel's career, he has received awards from the American Public Water Works Association, the Robert B. Kinsey Memorial Award Foundation (NJRPA), the Ruth Hughes Innovative Accessible Recreation Facility Award, and more than thirty (35) awards from the New Jersey Society of Municipal Engineers for his design and/or construction management excellence.

MICHAEL J. McCLELLAND, PE, PP, CME
EXECUTIVE VICE PRESIDENT

EDUCATION / CERTIFICATIONS:

New Jersey Institute of Technology
B.S. Civil Engineering 1986

New Jersey Professional Engineer
License No. 32468 - Issued 1987

Pennsylvania Professional Engineer
License No. PE085341

New Jersey Professional Planner
License No. 3770 - Issued 1987

Certified Municipal Engineer
N.J.M.E.I. Certification No. CME 0117
- Issued 1989

Certified Public Works Manager
Certificate No. M0458 - Issued 1996

PROFESSIONAL AFFILIATIONS:

- American Society of Civil Engineers
- American Water Works Association
- New Jersey Society of Municipal Engineers

GENERAL DESCRIPTION OF EXPERIENCE:

Traffic and Transportation Engineering: Analysis, preparation of reports, design, specifications, permits, and construction administration for various traffic related projects including major and minor road and highway construction and/or reconstruction, bridges, traffic circulation and control, signage, striping, and intersection signalization and improvements.

MUNICIPAL SERVICES:

Municipal engineer representative to governing bodies, planning boards and boards of adjustment; subdivision and site development reviews and observation of construction; design and construction administration of various municipal capital projects including: Municipal Electrical System Improvements, parks and recreation facilities improvements; storm water management facilities; traffic and transportation facilities, potable water and wastewater facilities and master plans; feasibility reports; and assistance in preparation of capital budgets.

ENVIRONMENTAL ENGINEERING:

Water and Wastewater System Masterplanning, Hydraulic, hydrologic and sanitary sewer analysis, design and project supervision of potable water systems, including supply storage, treatment and distribution piping and booster pumping stations, and of wastewater systems including collection, transportation and pumping systems; preparation of facilities plan element for federally funded wastewater collection system.
Preparation of grant and/or loan applications for various types of projects in accordance with requirements of funding agencies including I-Bank, NJDEP, EPA, HUD, DOT, FAUS and Green Acres.

Coordination with regulatory agencies and preparation of applicable permit applications, including NJDEP Land Use Permits, waterfront development, air pollution control, sewer extension, potable water facilities modifications, Army Corps of Engineers, and other regulatory permits and approvals.

With more than 41 years' experience in all facets of civil engineering, Mr. McClelland is responsible for providing municipal engineering services and consulting engineering services to various counties, municipalities, and Authorities. Currently he is the primary contact for the Townships of North Brunswick, Woodbridge, Aberdeen, Plainsboro, Old Bridge, East Brunswick, and Piscataway, the Boroughs of Edgewater, Milltown, and Dunellen, the Cities of Newark, East Orange, Rahway and Linden, as well as the Counties of Middlesex, Bergen, Monmouth, Salem, Union, and Gloucester.

Authorities include, the Old Bridge Municipal Utilities Authority, the Jersey City Municipal Utilities Authority, the Franklin Township Sewerage Authority, the Brick Township Municipal Utilities Authority, the Township of Ocean Sewerage Authority, and the Berkeley Township Municipal Utilities Authority.

EXPERIENCE:

2024 To present	CME Associates Executive Vice Preident
1997 to 2023	CME Associates Partner
1990 to 1997	CME Associates Project Manager & Chief Traffic Engineer
1986 to 1990	CME Associates Project Engineer
1983 to 1986	CME Associates Design and Construction Engineer
1981 to 1983	Goodman, Allgair & Scott Design and Construction Engineer
1979 to 1981	Township of Berkeley Heights, NJ Senior Engineering Aide

KEITH CHIARAVALLO, PE, CME
SENIOR VICE PRESIDENT
DIRECTOR, WATER/WASTEWATER DIVISION

EDUCATION / CERTIFICATION:
Rutgers University
B.S. Civil Engineering 1993

New Jersey Professional Engineer
License No. 43451

Certified Municipal Engineer:
N.J.M.E.I. Certification 09-11

PROFESSIONAL AFFILIATIONS:
- Water Environment Federation
- NJ Water Environment Association
- American Water Works Association

GENERAL DESCRIPTION OF EXPERIENCE:
As Director of the Water/Wastewater Division, Mr. Chiaravallo is responsible for managing the Department. The Department completes all Water/Wastewater Projects for the Company which include evaluations, permitting, water and wastewater system design, hydraulic modelling and project management. Mr. Chiaravallo's responsibilities include client management, proposal preparation, project management, project scheduling and project cost estimates. Mr. Chiaravallo has extensive experience with New Jersey Infrastructure Bank Funding and US Department of Agriculture Funding and regularly attends funding program update seminars.

Water and Wastewater Engineering experience includes: Evaluations, preparation of reports, design, specifications, permits, bid documents and construction phase services for projects including upgrades, rehabilitation and expansion of water and wastewater systems. Water system experience includes water supply, storage, pumping facilities, treatment and distribution systems and wastewater system experience includes collection systems, pumping facilities and treatment facilities.

General Engineering experience includes: Review of developer submittals for conformance with Municipal and Authority requirements. Preparation of applications for funding from the New Jersey Infrastructure Bank and United States Department of Agriculture for capital improvement projects. Coordination with regulatory agencies and preparation of various permit applications including air pollution control, treatment works approval, Bureau of Water System Engineering construction permits, physical connection permit for drinking water, lead and copper sampling plans, water allocation permits and other regulatory permits and approvals.

WATER PROJECTS:
Mr. Chiaravallo's experience with water system engineering includes the evaluation of existing facilities, water distribution system and treatment design, annual report preparation, permit application preparation, water supply well design and water system hydraulic modeling. In addition, Mr. Chiaravallo has extensive knowledge of the requirements of the Water Quality Accountability Act (WQAA) and the America's Water Infrastructure Act of 2018 (AWIA).

Water system projects include upgrades of existing water distribution systems, water main cleaning and lining, design of new water distribution systems, water supply well design, booster pump station upgrades, water storage tank design and rehabilitation, raw water pump stations, water treatment plant design for surface water and ground water treatment, water system interconnections, disinfection systems and gas chlorine disinfection systems.

WASTEWATER PROJECTS:
Mr. Chiaravallo's experience with wastewater engineering includes the evaluation of existing facilities; upgrades to existing and design of new wastewater facilities including siphon design and gravity sewer design; sewage pumping station force main evaluations and design; Inflow & Infiltration studies; annual report preparation and permit application preparation.

Sewage pumping station projects include rehabilitation of existing pumping stations, conversion to submersible pumping stations, design of new pumping stations, force main evaluations and pump station evaluations.

Wastewater Treatment Plant projects include treatment plant upgrades, digester rehabilitation, aeration tank upgrades, sludge storage tank conversion, gravit belt thickeners for dewatering sludge, concrete tank rehabilitation, mechanical bar screens, high purity oxygen system upgrades, settling tank mechanism upgrades, chlorination facilities and dechlorination facilities.

ENGINEERING PROJECTS:
Mr. Chiaravallo's additional experience has included the design of underground piping installation using trenchless technologies, emergency generator systems including a system with (3) three 1,250 kW generators and paralleling gear, electrical substation relocation for a 36 MVA substation, SCADA systems, flood mitigation, Green Acres roperty acquisition and video surveillance systems.

EXPERIENCE:
Engineering Experience: 30 years

BEHRAM TURAN, PE, LSRP
SENIOR VICE PRESIDENT
DIRECTOR OF ENVIRONMENTAL ENGINEERING SERVICES

EDUCATION / CERTIFICATIONS:

Rutgers University, New Brunswick, New Jersey
Ph.D. Candidate, Civil and Environmental Engineering

Colorado State University, Fort Collins, Colorado
M.S., Hydrology and Water Resources Management, 1984

Istanbul Technical University, Istanbul, Turkey
B.S., Civil Engineering, 1980

New Jersey Professional Engineer
License No. 24GE03921000

Delaware Professional Engineer
License No. DE-No. 9606

Certified Subsurface Evaluator in New Jersey

Licensed Site Remediation Professional, NJ
License No. 509399

- NJDEP Case Study Training for LSRPs (2013)
- NJDEP SRRA Implementation: The Final Rule Package (2012)
- NJDEP's Regulatory Training in Underground Storage Tanks (2002, 2006, 2009, & 2012)
- NJDEP's Site Remediation Basics (2003 & 2009)
- 40-hour OSHA Hazardous Waste Site Operations Health and Safety Certification (1992)
- 8-hour HAZWOPPER refresher (yearly since 1992)
- 8-hour HAZWOPPER Supervisor/Management (2006)

GENERAL QUALIFICATIONS

Mr. Turan is the Principal and Director of Environmental Services of CME Associates. Mr. Turan has over 25 years of experience in the fields of environmental engineering, including site remediation, brownfields redevelopment, management of dredged materials and beneficial reuse, solid and hazardous waste management, wetlands mitigation, surface water hydrology, hydrogeology, groundwater flow and contaminant mass transport, and water resources planning. Mr. Turan is a Professional Engineer in the state of New Jersey, a Licensed Site Remediation Professional (LSRP), and a Certified Subsurface Evaluator. Mr. Turan has successfully completed a number of challenging site remediation projects leading to No Further Action Letter determinations from the NJDEP. Mr. Turan has issued more than twenty (20) Response Action Outcomes (RAOs), and is currently involved in more than ninety (90) site remediation projects since the initiation of the LSRP Program.

SUMMARY OF EXPERIENCE:

LSRP Program Experience

Old Homestead Facility in Frankford Township in Sussex County
Principal and LSRP in charge for the closure of a regulated 1,000-gallon leaded gasoline underground storage tank and associated remediation at the Based on the findings of the post-remedial soil and groundwater sampling, Mr. Turan issued an unrestricted Response Action Outcome (RAO) for the former 1,000-gallon UST.

Princeton Meadows Golf Course in Plainsboro, Middlesex County, New Jersey
Principal and LSRP in charge of remedial activities related to the soil and groundwater contamination associated with the former five (5) USTs removed from the maintenance building area at the golf course.

County of Sussex
Principal and LSRP in charge of remedial activities related to Multi-year LSRP services for five Road Maintenance Garage (RMG) locations within the county.

Regulatory Compliance and Permitting

NJTA Interchange 12 Final Improvements Project
Principal in charge of procuring the environmental permits including NJDEP Freshwater Wetlands General Permit Nos. 12 and 14, an Individual Freshwater Wetlands Permit/ Waterfront Development, Water Quality Certification, Transition Area Waiver and Coastal Consistency and Individual Section 10 and 404 Permit from the U.S. Army Corps of Engineers, and preparation of wetlands mitigation proposal, and engineering design of compensatory wetlands mitigation for approximately 10-acre area including the procurement of NJDEP and ACOE permit approvals.

ILR Landfill in Edison, NJ,
Principal in charge of procuring NJDEP permits for the redevelopment of a portion of ILR Landfill in Edison, NJ, including, Waterfront Development Permit, Landfill Closure and Post-Closure Plan, Major Landfill Disruption Permit, and Closure and Post-Closure Financial Plan, and Remedial Action Workplan approval.

EXPERIENCE:

Engineering Experience: 44 years

NELSON HERNÁNDEZ, PE, LEED® AP
DIRECTOR OF STRUCTURAL AND GEOTECHNICAL SERVICES

EDUCATION / CERTIFICATION:

Brown University
B.S. Civil Engineering, 1994

New Jersey Professional Engineer
License No. 24GE04960500

New York Professional Engineer
License No. 077867

Leadership in Energy and Environmental Design, Accredited Professional

FHWA-NHI-130055
Safety Inspection of In-Service Bridges
(Certified March 2019)

GENERAL DESCRIPTION OF EXPERIENCE:

Mr. Hernández is a dynamic, proactive and detail-oriented professional with over 27 years of experience and outstanding success in planning, managing and executing all aspects of structural engineering projects in the design, rehabilitation and inspection of steel, prestressed, precast and reinforced concrete and timber bridges, as well as steel, reinforced concrete and timber structures.

BRIDGE DESIGN EXPERIENCE:

- Replacement of the W. Century Road Bridge, the Magnolia Avenue Bridge and the Greenwood Avenue Bridge for Bergen County
- Replacement of the North Clinton Avenue Bridge, the Jernee Mill Road Bridge and the Pulaski Street Culvert for Middlesex County
- Reconstruction of Nine (9) Bridge and Culvert Structures on County Route 3, Bridge R-5 and the Deerfield Lane Footbridge for Monmouth County
- Replacement of the Raymond Avenue Bridge, the Netherwood Avenue Bridge, the Martine Minor Avenue Bridge, the Lower Road Minor Bridge and the Dill Avenue Bridge for Union County

BRIDGE INSPECTION EXPERIENCE:

- 2019 Routine Bridge Inspections of the Riverside-Delanco Bridge and Four Minor Bridges for the Burlington County Bridge Commission
- 2020 In-Depth Bridge Inspections of Four Minor Bridges for the Burlington County Bridge Commission

DAM DESIGN AND INSPECTION EXPERIENCE:

- West Branch Reservoir Dam Improvements Project for Somerset County
- Improvements to the Duhernal Lake Dam for Middlesex County
- Formal and Regular Inspections of the Plainsboro Pond Dam and the Regular Inspection of the Duhernal Lake Dam for Middlesex County
- Formal Inspection of the Apshawa Main and Auxiliary Dams for Passaic County
- Regular Inspections of the Deer Head Lake Dam, the Lake Barnegat Dam, the Parker Avenue Dam and the Bamber Lake Dam for Ocean County
- Regular Inspection of the Millhurst Pond Dam for Monmouth County
- Regular Inspection of the Old Mill Pond Dam for Wall Township
- Regular and Formal Inspections of the Iona Lake Dam and the Franklinville Lake Dam for Franklin Township

STRUCTURAL AND GEOTECHNICAL DESIGN EXPERIENCE:

- Effluent Pumping Station for the Joint Meeting of Essex and Union Counties
- Pile-supported Foundation for the Jackson Street Fire House for the Borough of Sayreville
- Carteret Waterfront Park and Recreation Pier for the Borough of Carteret
- ADA Accessible Seawall Project for the Township of Aberdeen
- Vehicle Canopy Projects for the Department of Public Works and for the Police Department in the Township of Piscataway
- Bayfront 1 Redevelopment - Phase 1A Surcharge Program for the Jersey City Redevelopment Agency

SPECIAL STRUCTURAL CONSTRUCTION INSPECTIONS:

- Gilmore School Addition and Renovations, Union City, NJ
- Union City Board of Education 36th Street Parking Garage, Union City, NJ

INSPECTION EXPERIENCE (AT PREVIOUS FIRM):

- The 2011 Queens-Midtown Tunnel Interim Inspection, the 2009 Inspection of the Main Span Traveler Rails of the Verrazano-Narrows Bridge and the 2009 Water Infiltration Study of the Ventilation Buildings of the Queens-Midtown Tunnel for the TBTA of NY
- The 2008 Condition Survey of the Passaic River Lift Bridge (which carries PATH trains over the river), the 2008 Biennial Inspection of the New Jersey Marine Terminal Bridges (also inspected in 2004 and 2006), the 2007 Condition Survey of the Holland Tunnel Sign and Lighting Structures, the 2007 Biennial Inspection of the George Washington Bridge Lower Level (also inspected in 2005), the 2006 Biennial Inspection of the Newark Liberty Internation Airport Bridges, the 2005 Condition Survey of the George Washington Bridge Bus Station, the 2003 Biennial Inspection of the Lincoln Tunnel New York Approach Roadways, the 2002 Biennial Inspection of the Outerbridge Crossing Main Span and Approaches and the 1999 Biennial Inspection of the George Washington Bridge Upper Level (including towers and cables) for the PANY&NJ.

MICHAEL McGURL, PLS, CFS
DIRECTOR OF SURVEYING

EDUCATION / CERTIFICATIONS:

New Jersey Institute of Technology
B.S. Surveying Engineering Technology 1993

Rutgers University Cook College
B.S. Exercise Physiology 1985

New Jersey Professional Land Surveyor
License No. GS 38338

Pennsylvania Professional Land Surveyor
License No. SU-054826-E

New York Professional Land Surveyor
License No. 050463-1

New Jersey Certified Floodplain Surveyor
License No. NJ-35

OSHA Trained per 27 CFR 1910.120 (E), (1.2)

OSHA Trained per 27 CFR 1910.120 (E), (3)

PROFESSIONAL AFFILIATIONS:

- NJ Society of Professional Land Surveyors
- American Congress on Surveying & Mapping
- National Society of Professional Land Surveyors
- Tau Alpha Pi National Engineering Honor Society

GENERAL DESCRIPTION OF EXPERIENCE:

Mr. McGurl has over thirty eight years experience in boundary and right-of-way surveying. This experience has included: the preparation of right-of-way documents, large boundary surveys, establishment of horizontal and vertical control networks through land based and satellite techniques, hydrographic and topographic mapping, research of public and private title records, and the preparation of legal descriptions for fee and easement acquisitions. Over the past twenty-five years Mr. McGurl has prepared right-of-way mapping for the New York State Department of Transportation, New Jersey Department of Transportation, New Jersey Turnpike Authority, and various county and municipal clients.

SPECIFIC EXPERIENCE:

NYC-DDC Underground Storage TanksDesign, reconnaissance, construction and adjustment of a GPS Network encompassing the five Boroughs of New York City for the New York City Department of General Services. The GPS Network was controlled by nine (9) horizontal stations and five (5) vertical stations . Overall 76 horizontal control points were set from this network.

Monmouth County Route 3, Tennent Road, Manalapan
Survey and mapping for 3-miles of Monmouth County Route No. 3, Tennent Road, Township of Manalapan, preparation of General Property Parcel maps (32) and Individual Parcel (150) maps for the acquisition of private property for the improvement of the Monmouth County Route No. 3, Tennent Road, five (5) bridges and adjacent roadway.

West Century Road Bridge, Paramus Borough
Survey and mapping for 800 feet of West Century Avenue, preparation of General Property Parcel and Individual Parcel (5) maps for the acquisition of private property for the improvement of the West Century Road bridge and adjacent roadway.

New Jersey Turnpike Authority
Right-of-Way surveys and mapping for the conveyance of extraneous property to local authorities for public use. Pennval Road, Smith & Dahl Streets, Woodbridge Twsp.

Improvements to GSP Interchange 142,
Union, Hillside and Irvington, NJ
Provided the Right-of-Way, storm and sanitary sewer as-built surveys of approximately four miles of U.S. Highway Route 78 (I-78) and three miles of the Garden State Parkway in the vicinity of Interchange 142. The General Property Parcel and Individual maps were prepared in accordance with NJDOT and New Jersey Turnpike Authority standards for twelve parcels.

Main Street & Woodbridge Center Drive, Woodbridge, NJ
Provided Boundary, Topographic, Right-of-Way and utility surveys for the realignment and widening of CR 514 and improved access to Woodbridge Center Drive. The project was immediately adjacent to twenty-five residential and commercial private properties and required the acquisition of fee and/or easement parcels from seven property owners.

Xanadu Recreation Complex, Secaucus, NJ
Prepared the Boundary, Right-of-Way, Topographic, Utility and Hydrographic surveys for the design and proposed development of the Xanadu Complex on the former Brendan Byrne Arena site. Prepared the ALTA-ACSM survey of the Brendan Byrne Arena property, reestablishment of the existing rights-of-ways for New Jersey State Highway Route Nos. 3 and 120, Paterson Plank Road, and a portion of the New Jersey Turnpike immediately adjacent to the proposed development.

EXPERIENCE:

Surveying experience: 38 years

DONALD STEVENS, PE
DIRECTOR OF CONSTRUCTION MANAGEMENT AND CONSTRUCTION INSPECTION SERVICES

EDUCATION / CERTIFICATION:
New Jersey Institute of Technology
B.S. Civil Engineering 1997

New Jersey Professional Engineer License No. 46165

PROFESSIONAL AFFILIATIONS:
- American Society of Civil Engineers

GENERAL DESCRIPTION OF EXPERIENCE:
A Civil Engineer with over 27 years of construction experience ranging from the design and construction of very complex eco-system restoration projects to heavy civil construction of Mega-Projects. With expertise in project design and management and construction management, overseeing projects with construction budgets ranging from $5M to over $750M in South America, the Middle East and the US. Adept at working in adverse conditions and solving complex and challenging problems.

DETAILED EXPERIENCE:
Mr. Stevens has managed design phase projects with duties including conceptual design through finished design plan development, specification development, bid development, client expectations and stakeholder management. He has also managed construction phase projects with duties like preconstruction tasks, shop drawings, pay applications, contractor schedule, resolution of construction issues and management of field inspectors and office support staff. Major projects include:

Chesapeake Bay Bridge and Tunnel, Tunnel Expansion
- Used project proposal to establish sequencing, understand funding budgets, and determine required resources vs. available resources for the project
- Established work plans and staffing plans and oversaw the recruitment of project personnel
- Managed the Project Engineers, Field Engineers, Superintendents and Foremen in charge of the day-to-day construction and overall direction of the project and project team
- Met with project team to outline work plans, assign duties, and developed Responsibility Matrix

Kwajalein Atoll, Republic of Marshall Islands, Echo Pier Restoration
- Oversaw the day to day construction activities managing them through two Superintendents
- Overall responsibility for on-site safety, directly managing the site Health and Safety officers
Managed the staffing of all phases – 150+ employees
- Coordinated all RFIs, Serial Letters, REAs, Submittals, RFPs, QC Deficiencies, Etc. with the client
- Coordinated Procurement schedules, shipping, receiving, logistics
- Maintained schedule, from works schedule, pre-submittal through procurement
- Responsible for all meetings with client, stakeholders, military liaisons Etc.

Doha, Qatar, Services Agreement for CSC for Stadiums, Precincts and Training Sites – Supreme Committee for Delivery and Legacy:
Provided overall coordination and project management to the staff on-site for Demolition Works on Fourth Precinct Stadium, Main Package Works for Al Rayyan Stadium, Enabling Works and Main Package Works for Lusail Stadium, Enabling Works and Main Package Works for Training Sites.

Lincoln Park Tidal Marsh Restoration Project, Hudson County, NJ
Program Manager who oversaw conceptual design through final construction of over 40 acres of tidal marsh restoration along the Hackensack River in Jersey City NJ. Responsible for all aspects of the project from design to administration. Coordination between multiple state agencies and multiple consultants and contractors.

United States Army Corps of Engineers – Middle East District, Dahla Dam Design Project, Kandahar Afghanistan.
Program Manager who oversaw the day to day management of the engineering oversight for Survey Data Collection and Geotechnical Investigations. Coordinated with the US Military, US State Department, Provincial Afghan Government and local officials as well as the USACE to maintain working conditions and stability within the current security conditions. In charge of coordination between LBG personnel, on-site Personnel Security Details (PSDs) and the project risk management company.

- Maintained progress schedules and budgets to direct project personnel ensuring work progressed on schedule and within budget
- Provided technical advice to project personnel
- Coordinated with stakeholders; clients, government agencies, permitting agencies, and subcontractors, etc.
- Coordinated all RFIs, Serial Letters, REAs, Submittals, RFPs, QC Deficiencies, Etc. with the client
- Coordinated procurement schedules, shipping, receiving logistics

EXPERIENCE:
Planning Experience: 27 years

RICHARD S. LAFORTUNE, PE
SENIOR ELECTRICAL ENGINEER

EDUCATION / CERTIFICATION:

New Jersey Institute of Technology
B.S. Electrical Engineering, 1995

New Jersey Professional Engineer
License No. 24GE04941600

Professional Engineer/NY
License No. 091515-01

Virginia Professional Engineer
License No. 0402051236

Pennsylvania Professional Engineer
License No. ALE13624

Maine Professional Engineer
License No.PE13089

Oregon Professional Engineer
License No. 88428PE

Texas Professional Engineer
License No. 129964

Alaska Professional Engineer
License No. ALE13624

California Professional Engineer
License No. 22401

Maryland Professional Engineer
License No. 42623

GENERAL DESCRIPTION OF EXPERIENCE:

Mr. Lafortune has over 20 years of diverse electrical design experience with medium voltage and low voltage power distribution, interior and exterior lighting, grounding systems and life safety systems for telecommunications facilities, and governmental, commercial and light industrial projects. He has been responsible for electrical design work, conducting site surveys, supervising engineers, designers and draftsmen to produce contract drawings. He has also prepared technical specifications and coordinated with other trades to avoid system conflict and specify correct electrical system capacities. Mr. Lafortune also has experience in fire protection and fire suppression systems.

SPECIFIC EXPERIENCE

Motorola Solution Emergency Communications Transformation Program for Fire Department and Police Department at multiple existing sites in New York City.
Electrical engineer responsible for the existing infrastructure power assessment and design of the emergency communication systems for the New York City Fire and Police Departments at multiple rooftop and grade level shelter locations throughout the boroughs of New York City. Responsibility included, survey of the existing communication shelter for new equipment rack allocation, evaluation of existing power, grounding system, antenna placement and RF cable routing. Conducted electrical load analysis and developed designed documents in accordance with Motorola R56 standard.

Statewide Agencies Radio System Program (STARS), Emergency Services Communications System State of Virginia.
Electrical Engineer responsible for evaluation and design of remote transmitter facilities throughout the state of Virginia to support the State Troopers. Coordinate with utility company. Electrical Engineer responsible for Power distribution based on Motorola R56 standard.

One Grand Central Place Telecommunications Head End Room and Distributed Antenna System, 60 East 42nd Street, New York City.
Electrical engineer responsible for the design of a 1,000 square foot telecommunications equipment room at the Cellar Level of the building. Responsibility included survey of the existing facility distribution, coordination with the building engineer for power connectivity, space allocation for telecom equipment at the cellar level, antenna placement and associated conduit and cable routing throughout every floor of the 55 story high rise building. The design included load analysis, electrical single line diagram distribution, grounding, power plan for HVAC and rack equipment, antenna placement and mounting details.

Google Building Data Center, 111 8th Avenue, New York City.
Electrical Engineer responsible for a feasibility study to convert an existing office space into data center space. Project included investigation of the existing electrical system, including UPS, generators, raised floor grounding and system grounding. Developed a report with recommended options.

Empire State Building Telecommunications Head End Room and Distributed Antenna System, 350 5th Avenue, NY.
Electrical engineer responsible for the design of a 1,000 square foot telecom equipment room in the Lower Concourse Level of the historic landmark building. Responsibility included survey of the existing facility distribution, coordination with the building engineer for power connectivity, space allocation for telecom equipment at the cellar level, antenna placement and associated conduit and cable routing throughout every floor of the 105 story high rise building. The design included load analysis, electrical single line diagram and power distribution riser to 105th floor, grounding, power plan for HVAC and rack equipment, antenna placement and mounting details.

KEITH HENDERSON, PE, PP, PLS
SENIOR PROGRAM MANAGER

EDUCATION / CERTIFICATION:
BS, Civil Engineering, Drexel University, 1975
MS, Environmental Engineering,
Manhattan College, 1978
Post Master Study, Biochemical Engineering,
Drexel University, 1984

New Jersey Professional Engineer
License No. 24GE03080400

Pennsylvania Professional Engineer
License No. PE-027367-E

New Jersey Professional Planner
License No. 33LI00357600

Pennsylvania Professional Land Surveyor
License No. SU-001363-A

PROFESSIONAL AFFILIATIONS:
- National Society of Professional Engineers
- Water Environment Federation
- American Water Works Association

GENERAL DESCRIPTION OF EXPERIENCE:
Mr. Henderson has more than 40 years of experience in the fields of environmental and civil engineering. His expertise includes asset management, rate studies, capital facility planning and financing, stormwater management and water and sewer system design and operation.

He is also experienced in master planning, civil engineering design, scheduling, interpretation of contract plans and specifications, technical analysis, and construction management from initiation to completion.

Mr. Henderson has performed numerous Phase I and Phase II environmental site assessments, environmental audits and remediation projects. His clients have included private industry, financial institutions and municipal governments.

DETAILED DESCRIPTION OF EXPERIENCE:
Designated Consultant to Various NJ Sewerage Authorities Water Commissions and Municipal Utility Authorities. Communities include Barnegat Township Water and Sewer Utility, Lacey Municipal Utilities Authority, Ocean Township Municipal Utilities Authority, Tuckerton Borough Water and Sewer Utility, Mount Holly Sewerage Authority, Pennsauken Sewerage Authority, Plainfield Municipal Utilities Authority, Berkeley Sewerage Authority, Northwest Bergen County Utility Authority, Western Monmouth Utility Authority, and the Passaic Valley Sewage Commissioners.
Borough of Highlands Stormwater System Improvements
Principal in charge of the preparation of design plans and permit applications for the renovation and upgrade of a Borough wide stormwater system. The project included installation of a new stormwater collection system in the downtown area, construction of a new stormwater pump station at Snug Harbor, which included two 36-inch diameter axial flow pumps, and upgrades to the Valley Street stormwater pump station.

Stormwater Management Consultant to over 20 municipalities and municipal authorities for compliance with NJDEP Phase II Municipal Stormwater Management Permit requirements. Responsibilities include preparation of Municipal Stormwater Pollution Prevention Plans (SPPP), Municipal Stormwater Management Plans and directing Municipal Departments' compliance with stormwater permit requirements.

Northwest Bergen County Utilities Authority (NBCUA)
Authority Engineer responsible for the planning, design and construction management for all of the Authority's capital projects. Major projects include expansion of the interceptor system into the Borough of Franklin Lakes, reconstruction of the Authority's three major pumping stations, construction of a septage receiving station and new head works at the 16 MGD treatment plant.

Passaic Valley Sewerage Commission
Principal-In-Charge of many projects in this 330 MGD facility, including design and construction management of a new plant wide security system; and construction management for the reconstruction of the head works, sludge thickening facilities and reconstruction of the final clarifiers. Total construction value of all projects exceeds $45 million.

EXPERIENCE:

Engineering Experience: Over 45 years

HENRY L. JOHNSEN, PE
SENIOR PROGRAM MANAGER

EDUCATION / CERTIFICATION:
Clemson University
B.S. Civil Engineering 1961

Newark College of Engineering (NJIT)
M.S. Civil Engineering 1964

New Jersey Professional Engineer
License No. 13855

New York Professional Engineer
License No. 41962

Vermont Professional Engineer
License No. 98143

PROFESSIONAL AFFILIATIONS:
- American Society of Civil Engineers
- NJ Water Environment Association

GENERAL DESCRIPTION OF EXPERIENCE:
Experience expanding from the design of housing and industrial subdivisions and site plans including water, storm sewers, sanitary sewers, roads and related facilities to complete design and project management of water and sewage treatment plants.

Hydraulic and environmental engineering, including preparation of feasibility reports, project reports, master plans; analysis and design, including specifications of major transmission systems, treatment plants, storage and supply facilities and pumping stations for both potable water and sanitary sewer facilities.

ENVIRONMENTAL AND HYDRAULIC PROJECTS:
Mr. Johnsen's experience prospered at Rist-Frost Associates with design and resident engineering responsibility for the Village of Granville Secondary Sewage Treatment Plant which included trickling filters; the Village of Saranac Lake and Lake Placid secondary sewage treatment plants, which include suspended growth systems; and the City of Saratoga Springs Water Treatment Plant.

While at Killam Associates, Mr. Johnsen's work expanded to include the design and construction management of large regional collection and sewage treatment facilities such as South Monmouth, Western Monmouth, Neptune, Hanover and Berkeley Heights, all of which have trickling filters. Additional activated sludge projects including the Joint Meeting of Essex and Union, Warren Twp., and Rockaway Valley.

Mr. Johnsen's experience continued to thrive at CFM Associates with project management responsibilities for the design of advanced wastewater treatment plants including, rotating biological contactors, oxidation ditches, nitrification, filtration and ultraviolet disinfection for Mendham, Washington Township, and Long Hill Township with oxidation ditches. Industrial pre-treatment experience includes heavy metal removal for Driver Harris, oil removal for Atlas Refinery, and pH control for Proctor and Gamble.

Mr. Johnsen's current success at CME Associates includes project management for both water and wastewater. Projects include the Joint Meeting of Essex and Union Counties Wastewater Treatment Plant, Delran Township Sewerage Department, Linden Roselle Sewerage Authority, Township of Neptune Sewerage Authority, North Brunswick Water Treatment Plant, Old Bridge MUA, Sayreville Water Treatment Plant, Milltown water and sewerage improvements, City of New Brunswick sanitary and stormwater separation, and the Township of Ocean Wastewater Treatment Plant.

NEW JERSEY CLIENTS:
*Joint Meeting Essex and Union Counties, Linden Roselle Sewerage Authority, Delran Township Sewerage Authority, *South Monmouth Regional Sewerage Authority, *Western Monmouth Sewerage Authority, *Hanover Sewerage Authority, *Berkeley Heights, Long Hill Township, Washington Township Municipal Utilities Authority, Ford Motor Company, Driver Harris Alloys, Six Flags Great Adventure, Proctor and Gamble, Sundor Food Products,Bedminster Township, North Brunswick Township, *Neptune Township Sewerage Authority, Township of Ocean Sewerage Authority, the Borough of Sayreville, Old Bridge MUA, the Borough of Milltown, and the City of New Brunswick.

NEW YORK STATE CLIENTS:
Saratoga Springs, *Lake Placid, *Saranac Lake, Granville, New York State Department of Environmental Conservation, Glens Falls, South Glens Falls, Queensbury, Hudson Falls, Fort Edward and Lake George.

VERMONT CLIENTS:
Brandon Training School, Stratton Mountain Corp., Inglenook Lodge - Jay Peak.

* Co-generation clients

EXPERIENCE:
Consulting & Municipal Experience: 60 years

MICHAEL DZIUBECK, PE
SENIOR PROGRAM MANAGER

EDUCATION / CERTIFICATION:
New Jersey Institute of Technology
B.S. Mechanical Engineering 2005

New Jersey Professional Engineer
License No. 48358

PROFESSIONAL AFFILIATIONS:
- NJ Water Environment Association

GENERAL DESCRIPTION OF EXPERIENCE:
Design, preparation of plans, specifications and bid documents for projects including potable and non-potable water systems, including storage, pumping facilities, treatment and distribution systems, and of wastewater systems, including collection systems, pumping facilities and upgrades of, treatment facilities.

Coordination with regulatory agencies and preparation of various permit applications including air pollution control, treatment works approval, physical connection permit for drinking water and other regulatory permits and approvals.

WATER SUPPLY PROJECTS:
- Design of water main upgrade projects for various clients in New Jersey. The projects have included water main replacement, directional drilled water mains, service replacements, water main lining

- Development and operation of water models utilizing Bentley WaterGEMS. Modeling included the preparation of hydraulic systems including development of skeletal model, importation of water demands, field and office model calibration, water system evaluation utilizing the developed model, indentification of potential water system improvements and continual model maintenance. Water Model development have been prepared for the following water systems:
    - Old Bridge Municipal Utilities Authority
    - Borough of Sayreville
    - Township of North Brunswick
    - Berkeley Township Municipal Utilities Authority

- Design of a 5 MG water treatment plant on Harbor Road in Marlboro Township including ten (10) vertical pressure filters, backwash tanks, laboratory, 10,000 square foot building, instrumentation and site piping.

- Construction phase services for 7 MG water treatment plant in the City of Rahway including four (4) membrane filter trains, replacement of pond liners, backwash waste recycle system, metal building enclosure and site piping.

- 7 MG water treatment plant in the Borough of Sayreville including four (4) membrane filter trains, clarifier tank, backwash waste recycle system, granular activated carbon filters, and site piping.
- Improvements to the North Brunswick 10 mgd Water Treatment Plant including backwash tanks, thickener modifications, inline mechanical mixer and site piping.

WASTEWATER PROJECTS:
- Design of (3) three 1,250 kw generators for the Township of Brick Municipal Utilities Authority.

- Replacement of three (3) 350 HP sewage pumps including variable speed drives, transformers and controls at the Joint Meeting of Essex and Union Counties.

- Upgrades to various pumping stations for the Western Monmouth Utilities Authority including Brunswick Drive Pump Station, Prince William Pump Station, Texas Road Pump Station, Greenwood Road Pump Station, Lloyd Road Pump Station and Hawkins Road Pump Station.

- Design and construction phase services for the South Monmouth Regional Sewer Authority, Sea Girt Avenue Pump Station that consisted of a mobile equipment enclosure due to the location of the station in a flood prone area.

- Design of the South Monmouth Regional Sewerage Authority, Lake Como Pump Station. The design include gravity sewer and force main extensions to relocate the pump station approximately 1,000 feet to remove it from a flood prone area. A unique design approach was implemented in order for the new pump station to maintain the aesthetics of the neighborhood.

- Design of sewage pump station upgrade projects for various clients in New Jersey. The projects have included pump replacement, piping modifications, wet well rehabilitation, conversations to submersible type pump stations, control systems, site improvements, construction of utility buildings and other various upgrades as deemed necessary to implements fully functional pumps station.

EXPERIENCE:

Engineering experience: 18 years

EDWARD TRAINA, PE
SENIOR PROGRAM MANAGER

EDUCATION / CERTIFICATION:
Stevens Institute of Technology
B.E. Mechanical Engineering 1988

New Jersey Professional Engineer
License No. 38241

Pennsylvania Professional Engineer
License No. 61527

PROFESSIONAL AFFILIATIONS:
- Central NJ Water Environment Federation
- American Society of Mechanical Engineers

GENERAL DESCRIPTION OF EXPERIENCE:

Mr. Traina has been involved in various stages of client and project management, conception, design, permitting, bidding and engineering services during construction for a wide variety of potable and wastewater projects and clients, including suburban and urban municipalities and Authorities.

Hydraulic, mechanical, and project design/management and construction engineering services of potable and non-potable water systems including storage, pumping facilities and treatment and distribution systems, and of sanitary and combined sewer systems, including collection systems and pumping facilities, and upgrades of, modifications to, and expansions of various treatment facilities.

Coordination with regulatory agencies, permit application preparation and submission and reception of applicable permits, including air pollution control, New Jersey Pollutant Discharge Elimination System, safe drinking water and treatment works applications to construct and operate. Application and coordination with various entities regarding project funding methods including the New Jersey Environmental Infrastructure Trust and United States Department of Agriculture.

Mr. Traina's experience includes client management for a number of water and/or sewer Authorities involving Commissioners Meeting attendance, project conceptualization and coordination, applications and presentations for local approval and coordination with other local, county and state level project stakeholders.

WASTEWATER PROJECTS:
Mr. Traina performed management, design, permitting, bid and construction phase engineering services for a wide variety of sanitary and combined sewerage systems including the rehabilitation of anaerobic digester and sludge storage tanks, replacement of digester mixing systems, construction of sodium hypochlorite and dechlorination facilities, and was involved in the installation of 350 hp variable frequency drives, design of a plant-wide SCADA system, a NJPDES permit appeal and development of permit compliance reports. Mr. Traina also oversaw numerous design and construction projects for new sewage pump stations and the rehabilitation of or modifications to existing sewage stations ranging up to 50-mgd capacity including a 2.5 mgd, 125 psi sewage pump station involving extensive modeling for the re-use of a 90 year-old, 9000-foot long cast iron force main; the conversion of buried can-type sewage pump stations to
submersible style stations; the replacement of large antiquated sewage pump stations with submersible stations; slip-lining of several thousand feet of deteriorated 54-inch concrete cylinder pipe under a railroad; extensive replacement and/or rehabilitation of existing large diameter combined sewers in an urban environment; the installation of 8 pump station bypass systems and the reconstruction of two beachside sewage pump stations in flood zones utilizing transportable and/or storm resistant structures, all utilizing a single interconnected force main; performance of inflow and infiltration studies; and various other facility and equipment upgrades and installations for a variety of clients.

WATER PROJECTS:
Mr. Traina has been involved in a variety of aspects of the management, design, permitting and construction of water system facilities for suburban and urban clients, including the design and construction of a 7-mgd potable water treatment plant and the subsequent 7-mgd expansion utilizing membrane filtration; rehabilitation and upgrade of water treatment plants ranging in size from less than 1 mgd to 14 mgd; a 10.4 mgd, 100 psi potable water pumping facility; 2-mg and 10-mg ground level and two 1-mg elevated storage tanks; rehabilitation of various elevated and ground level water tanks from 0.5 to 10-mg; and installation of new and replacement of existing treatment plant and distribution system-wide SCADA systems. Many distribution system improvements projects included extensive replacements of existing in-service water mains, some in State highways and City streets with many existing surrounding utilities and conflicts; directional drill and jack-and-bore installations; construction of interconnecting pressure control and bulk meter facilities located in City streets requiring extensive local authority and traffic control; chlorination facility rehabilitation; large diameter aqueduct studies and reviews of proposed crossings; and computer based water system modeling.

EXPERIENCE:
Engineering Experience: 35 years

MACKENZIE BINDER, PE
SENIOR PROFESSIONAL WATER/WASTEWATER ENGINEER

EDUCATION / CERTIFICATION:
University of Delaware
Bachelors of Chemical Engineering 2016

New Jersey Professional Engineer
License No. 24GE05725800

GENERAL DESCRIPTION OF EXPERIENCE:
General engineering experience includes evaluations, preparation of reports, design, plans, specifications, permits and bid documents for upgrade, rehabilitation and installation of water and wastewater systems projects. Water system experience includes water supply, storage, treatment and distribution systems and wastewater system experience includes collection systems, pumping and treatment facilities.

Coordination with regulatory agencies in preparation of various permit applications including NJDEP Treatment Works Approval, Bureau of Water System Engineering Construction Permits, Lead and Copper Sampling Plans, Water Allocation Permits and Soil Conservation District Permits.

Review of developer applications for water and sewer system extensions and connections for conformance with Municipal and Authority requirements.

WASTEWATER PROJECTS:

- Evaluation of the Commerce Drive Pump Station for the Franklin Township Sewerage Authority including an alternatives analysis report with a preferred alternative for enhancement of operations at the pump station site. Design of upgrades consistent with the preferred alternative including building relocation, installation of a valve chamber and new pumps and piping.
- Contact – Joseph Danielsen, Executive Director/Special Project Manager, 732-873-2121)

- Capacity evaluation of the Kingswood Pump Station for the Township of East Brunswick including identification of existing available pump station capacity, determination of future proposed flows and pump station improvements required to accommodate the additional flows. Design of pump station reconstruction alternative as determined by alternative analysis and in conjunction with the Township.
- Contact – Daniel Losik, Public Works Director, 732-390-6884

- Review of inspections and assessments performed to evaluate the existing conditions and determine required rehabilitation necessary along the Mile Run Interceptor for the Township of North Brunswick. Based on the evaluation of the inspections, improvements to sections of the sewer were prioritized. Design of upgrades consistent with assessment findings including replacement and lining of existing 36-inch diameter interceptor sewer.
- Contact – Justine Progebin, Business Administrator, 732-247-0922

- Evaluation and design of upgrades to the Sludge Control Building for the Township of Ocean Sewerage Authority including an evaluation of the existing roof, exterior brick, lintels, roof access stairs and building structure and preparation of bid documents for the recommended building improvements.
- Contact – Timothy Shea, PE, Executive Director, 732-531-2213

- Design and Bid Phase Services for the rehabilitation of nine (9) sanitary sewer pump stations for the Brick Township Municipal Utilities Authority including conversion of can-type stations to submersible stations and elevation of critical equipment above the FEMA flood elevation.
- Contact – Stephen Specht, PE, Deputy Executive Director, Director of Engineering/Operation, 732-458-7000)

- Design of Pine Street Sewer Replacement for Jersey City Municipal Utilities Authority including replacement of 54" diameter brick sewer beneath the Conrail Railroad Tracks with approximately 160 LF of 54" centrifugally cast fiberglass reinforced polymer mortar pipe inside a 72" steel casing installed via jack and bore.
- Contact – Jose Cunha, PE, Executive Director, 201-432-1150

- Design of Hawkins Road Pump Station and Mill Ponds Pump Station Force Main Replacements for the Western Monmouth Utilities Authority including force main installation via trenchless technologies.
- Contact – Brian Valentino, Chief Executive Officer, 732-446-9300

- Design of relocation of the Linkages Pump Station for Monmouth County including demolition of existing pump station site, extension of existing gravity sanitary sewer and force main and construction of new pump station including wet well, valve chamber, utility building and generator.
- Contact – Michael Aravich, Principal Engineer, 732-431-7760

EXPERIENCE:

Engineering Experience: 8 years

JOSEPH BONACCORSO
SENIOR PROGRAM MANAGER

EDUCATION / CERTIFICATION:

Providence College
B.A. Biology, Minor: Chemistry 1971

Seton Hall University Graduate School
Methods and Philosophy of Teaching 1976

Middlesex County College
Advanced Wastewater Operations 1978

New Jersey Institute of Technology Graduate School
Environmental Engineering 1987

Instructor, Water and Wastewater Treatment
N.J. Dept. of Education
N.J. Department of Environmental Protection

N.J.D.E.P. S-4 License (Highest Level) # S-3236
N.J.D.E.P. C-4 License (Highest Level) #C-3234
N.J.D.E.P. N-4 License (Highest Level) #28020

PROFESSIONAL AFFILIATIONS:

- Water Environment Federation
- N.J. Water Environment Association
- North Jersey Section, NJWEA
- American Water Works Association
- NJAWWA
- N.J.D.E.P. Education Advisory Committee (1987-1993)
- N.J.D.E.P. Advisory Committee on Water Supply & Wastewater on Licensed Operator Training (1993-Present)

GENERAL DESCRIPTION OF EXPERIENCE:

Joseph Bonaccorso, formerly the Superintendent of the Joint Meeting of Essex and Union Counties, 85 million gallon per day Wastewater Treatment and Collection Facilities in Elizabeth, NJ, is a licensed operator holding top level New Jersey Department of Environmental Protection (NJDEP) licenses in Wastewater Collection System Operation, Wastewater Treatment Operation and Industrial Wastewater Treatment Operation with over 30 years operating experience. He has taught Water and Wastewater Treatment classes for the certification of operators since 1984 and holds certification in Adult Continuing and Vocational Education from the State of New Jersey Department of Education and is an approved NJDEP course instructor.

REPRESENTATIVE WASTEWATER EXPERIENCE

- **CME Associates**

Provides wastewater treatment plant operational assistance, regulatory assistance and reporting, maintenance assistance and budget strategies for the Joint Meeting as well as with other clients.

- **Joint Meeting Essex and Union Counties**

As Superintendent and Licensed Operator of the Joint Meeting, was responsible for all aspects of Plant and Collection System Operations and Maintenance activities of the 85 MGD Conventional Activated Sludge Facility, including personnel staffing, process control, laboratory, safety. Responsible for contract oversight of Digester rehabilitation and Sludge Drying Facility construction projects as well as writing specifications for material and services, budget development, procurement, plant regulatory reporting. Responsible for the installation and operation of the facility 50 node computer network, computerized plant operating and maintenance data systems.

- **Passaic Valley Sewerage Commission**

As Assistant Superintendent of Maintenance was responsible for developing and enacting the reorganization of the Maintenance and Collection System Department, upgrading the Computerized Maintenance Management System, Streamlining the Preventative Maintenance System, developing the Toxic Catastrophe Prevention Act Maintenance Compliance System, supervising Electrical, Mechanical, Instrumentation, HVAC, Vehicle and Building and Grounds Maintenance Departments. Developed and executed a privatization plan for custodial services. Developed a plan for predictive maintenance for Process Air Compressors and Process Reactors for the PVSC Wet Air Oxidation Facility (Zimpro), supervised the preparation for start-up and commissioning of a mothballed plate and frame filter press facility including 5 three meter presses and appurtenant conveyors, assisted in the start-up of a centrifugal dewatering and lime stabilization facility, wrote specifications for material, services and supply contracts and assisted in the coordination of the material and supply handling and inventory system.

EXPERIENCE:

Consulting Experience	46 years (Full-time & part-time)
Government Experience	34 years

MOHAMMED SIDHOUM, PH.D, BCEEM
SENIOR PROGRAM MANAGER

EDUCATION:
B.E Chemical &Cryogenic Engineering. Algerian Petroleum Institute 1978

MS, Chemical Engineering,
Stevens Institute of Technology,1985 Ph.D., Chemical Engineering, Stevens Institute of Technology,1988

Master of Technology Management, Howe School of Management, 2005

Board Certified Environmental Engineer

PROFESSIONAL AFFILIATIONS:
American Institute of Chemical Engineers New York Academy of Sciences
American Academy of Environmental Engineers

GENERAL DESCRIPTION OF EXPERIENCE:

•Conducted a pilot study for PFAS removal from drinking water for a Municipality in New Jersey

•Trouble shooting of a 14 MGD Municipal potable water treatment plant in NJ

•Brought the plant operation from 50% to its full design capacity

•Conducted extensive testing (bench scale; pilot and test runs) to optimize plant operation

•Reduced drastically annual consumption of coagulant chemicals and lime

•Designed, constructed and operated a pilot unit demonstrating an additional 40% reduction in lime consumption

•Troubleshooting the operation of ultrafiltration hollow fiber filtration modules. Modified manufacturer's CIP procedure which resulted in restoring membrane modules performance.

•Design and procurement of UV disinfection systems for two wastewater treatment plants.

•Conceptual design of a membrane bioreactor and reverse osmosis system for the treatment of 100,000 GPD leachate with groundwater recharge of treated effluent.

•Troubleshoot root causes of drastic chlorate increase in process water. Directed the EPC for three innovative on-site chlorine dioxide generators and upgraded the water treatment system for the largest shrimp farming and processing plant in Honduras.

•Developed operating procedures for plant operators and supervisors at a 30 MGD wastewater treatment plant in North Africa.

•Field Project Manager and QA/QC Officer for the New Jersey Toxics Reduction Workplan sediments, water and Hydrodynamic monitoring for NY/NJ Harbor.

•Development of local limits of industrial discharges for POTWs

•Managed the revamping of a 50,000 GPD compact activated sludge wastewater treatment plant.

•Design of remediation treatment systems for contaminated sites (groundwater and soils)

•Design of leachate treatment systems through a combination of physical and biological systems

•Development of local limits for POTWs

•Design of remediation treatment systems for contaminated sites (groundwater and soils)

•Developed a new process and directed a pilot study at an Army Ammunition Production Plant for the biological treatment of process water contaminated with Perchlorate

•Destruction of energetic compounds (RDX, HMX, and TNT) in aqueous waste streams using zero valent iron followed by biological treatment

•Technology development and pilot demonstration unit for the destruction of the explosive RDX by alkaline hydrolysis followed by biological treatment.

•Developed a novel greywater biological treatment system under micro-gravity conditions for NASA interplanetary space missions

•Design of immobilized packed bed bioreactors for the removal of ammonia from wastewater.

EXPERIENCE:
Engineering experience: 46 years

NAME	DISCIPLINE	NJ LICENSE
Anand Paluri – Parlin	Professional Engineer – NJ Professional Engineer – NY Professional Engineer – PA	24GE04606100 083899-1 PE054276E
David J. Samuel – Parlin	Professional Engineer Professional Planner	24GE02583800 33LI00245500
John J. Stefani – Howell	Pro. Eng. & Land Surveyor Professional Planner	24GB02427100 33LI00208900
Jay B. Cornell – Parlin	Professional Engineer Professional Planner	24GE03296200 33LI00387400
Michael J. McClelland – Parlin	Professional Engineer Professional Planner	24GE03246800 33LI00377000
Gregory R. Valesi – Howell	Professional Engineer Professional Planner	24GE03445800 33LI00436100
John Hess – Barnegat	Professional Engineer Professional Planner	24GE03119900 33LI00346700
Bruce M. Koch – Parlin	Professional Engineer Professional Planner	24GE03437800 33LI00437200
Laura Neumann – Howell	Professional Engineer Profession Planner	24GE04731300 33L1006090
Louis Ploskonka – Parlin	Professional Engineer	24GE04063800
Robert J. Russo – Parlin	Professional Engineer Professional Planner	24GE03896600 33L100554600
Trevor Taylor – Howell	Professional Engineer Professional Planner	24GE04457800 33LI00603200
Behram Turan – Monmouth Junction	Professional Engineer	24GE03921000
Malvika Apte – Howell	Professional Planner	33LI00605600
Peter Bednarsky – Parlin	Professional Engineer	24GE05370700
Paulo Benatti – Parlin	Professional Engineer	24GE04934300
Mackenzie P. Binder – Parlin	Professional Engineer	24GE05725800
Shane C. Bonczak – Parlin	Professional Engineer	24GE05723100
Kevin E. Chen – Parlin	Professional Engineer	24GE04870000
Keith Chiaravallo – Parlin	Professional Engineer	24GE04345100
David H. Coats – Parlin	Professional Engineer	24GE02855100
Justin Cornell – Parlin	Professional Engineer	24GE05321200
James Coyle – Parlin	Professional Engineer	24GE03382500
Edward D'Armiento – Camden	Professional Engineer - NJ Professional Engineer - PA	24GE05450200 PE090505
Christopher Dochney – Camden	Professional Planner	33LI00622500

Michael Dziubeck – Parlin	Professional Engineer	24GE04835800
Peter Giammona – Parlin	Professional Engineer-NJ Professional Engineer-NY	24GE05120800 099838-1
Anthony Goodwin	Professional Land Surveyor-NJ	24GS04343900
Joseph G. Gray - Medford	Professional Engineer	24GE05401300
Alexander Guerrero – Parlin	Professional Engineer	24GE05771300
John Joseph Helbig – Medford	Professional Planner	33LI00531700
Keith Henderson – Parlin	Professional Engineer	24GE3080400
Nelson Hernandez – Parlin	Professional Engineer-NJ Professional Engineer-NY	24GE04960500 077867-01
Henry L. Johnsen – Parlin	Professional Engineer	24GE01385500
Zachary M. Jordan – Barnegat	Professional Engineer	24GE05652700
Samuel N. Kleinberg – Parlin	Professional Engineer	24GE02475600
Lyra Knust – Parlin	Professional Engineer	24GE04865900
William E. Korosec – Parlin	Professional Engineer	24GE05724400
Paul M. Kowaleski – Howell	Professional Engineer	24GE06050000
Richard Lafortune – Parlin	Professional Engineer-NJ Professional Engineer-NY Professional Engineer-PA	24GE04941600 091515-01 PE080469
Drew G. Lewis – Monmouth Junction	Professional Engineer Professional Planner	24GE05440000 33LI00649600
Danny Lopez – Howell	Professional Engineer	24GE06073400
Stephen Mastripolito – Monmouth Junction	Professional Engineer	24GE04733200
Bennett Matlack – Howell	Professional Engineer	24GE04934600
Darren Mazzei – Parlin	Professional Engineer	24GE04869400
Mike McGurl – Parlin	Professional Land Surveyor-NJ	24GS03833800
John Meskill, III – Parlin	Professional Engineer Professional Planner	24GE03618000 33LI00566000
Gary Oliva – Parlin	Professional Engineer	24GE04748300
Maheshkumar K. Patel – Parlin	Professional Engineer	24GE04627800
Drew Pavlick – Howell	Professional Engineer Professional Planner	24GE04063800 33LI00363400
Ronald Peterson – Parlin	Professional Land Surveyor-NJ Professional Land Surveyor-NC	GS 35395 5330
Rand Pianin – Monmouth Junction	Professional Engineer	24GE06094700
John D. Popivchak – Parlin	Professional Engineer	24GE05721600
Joseph David Prince – Parlin	Professional Engineer	24GE04035500
Suresh Puppala – Monmouth Junction	Professional Engineer	24GE04315300
Ronald J. Reinertsen – Parlin	Professional Planner	33LI00589100

Jordan A. Rizzo – Howell	Professional Engineer	24GE05534600
Michael J. Roberts – Camden	Professional Engineer	24GE05152600
Roland Eric Robinson – Parlin	Professional Engineer	24GE04513200
Douglas Rohmeyer – Howell	Professional Engineer	24GE04643700
Robert K. Sanchez – Parlin	Professional Land Surveyor	24GS04329400
Zahid M. Siddiqui – Monmouth Junction	Professional Engineer-NJ Professional Engineer-VA	24GE04480100 0402036480
Justin Sorrenti – Parlin	Professional Engineer	24GE05680000
Donald B. Stevens – Parlin	Professional Engineer	24GE04616500
Joseph V. Sullivan III – Parlin	Professional Engineer	24GE03939900
Nolan Towers – Parlin	Professional Engineer	24GE05188500
Edward Traina – Parlin	Professional Engineer – NJ Professional Engineer - PA	24GE03824100 PE061527
Geeta Tripathi – Parlin	Professional Engineer – NJ Professional Engineer – NY	24GE05654600 101040-01
Gregory A. Valesi – Parlin	Professional Engineer	24GE05875900
Thomas Van De Sande – Howell	Professional Land Surveyor	24GS03927800
Jim Watson – Parlin	Professional Engineer	24GE04452800
Abd Elazeem Youssef – Parlin	Professional Engineer – NJ Professional Engineer – NY	24GE05796900 106543-01
Mohammad Zaman – Monmouth Junction	Professional Engineer	24GE04798000
Ken Zielinski – Parlin	Professional Engineer Professional Planner	24GE03670400 33LI00566500
Matthew Zwingraf – Howell	Professional Engineer	24GE05628500

SECTION 5: GOVERNMENT CLIENTS / REFERENCES

Government Clients

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

- Aberdeen
- Atlantic City
- Atlantic County Utilities Authority
- Atlantic Highlands
- Avalon
- Barnegat
- Bass River
- Bayonne
- Bayshore Regional Sewerage Authority
- Beach Haven
- Beachwood
- Beachwood Sewerage Authority
- Belleville
- Bergen County
- Bergen County Housing Authority
- Bergen County Utilities Authority
- Bergenfield
- Berkeley
- Berkeley Township Municipal Utilities Authority
- Berlin
- Bloomfield
- Bloomingdale
- Bordentown
- Bradley Beach
- Brick
- Brick Township Municipal Utilities Authority
- Bridgeton
- Brigantine
- Burlington
- Burlington County
- Burlington County Bridge Commission
- Burlington County Department of Parks
- Camden Community Partnership
- Camden
- Camden County
- Cape May County
- Carteret
- Carteret Port Authority
- Carteret Redevelopment Agency
- Cranford
- Cumberland County
- Cumberland County Improvement Authority
- Cumberland County Utilities Authority
- Delran
- Deptford
- Deptford Township Municipal Utilities Authority
- Dover
- Dumont
- Dunellen
- East Brunswick
- East Brunswick Utilities Department
- East Greenwich
- East Newark
- East Newark - Board of Education
- East Orange
- East Orange Water Commission
- Edgewater
- Edgewater Park
- Edison
- Elizabeth
- Englewood
- Essex County
- Essex County Improvement Authority
- Estell Manor
- Evesham
- Fair Haven
- Fair Lawn
- Fairfield
- Fanwood
- Flemington
- Florence
- Franklin (Gloucester County)
- Franklin (Somerset County)
- Franklin Township Sewerage Authority
- Freehold (Borough)
- Freehold (Township)
- Galloway

Government Clients

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

- Gloucester
- Gloucester County
- Gloucester County Health Department
- Gloucester County Improvement Authority
- Gloucester County Utilities Authority
- Haddon
- Haddon Heights
- Hamilton
- Hamilton Bureau of Water Pollution Control
- Hazlet
- Hazlet Township Sewerage Authority
- Highland Park
- Highlands
- Hillsborough
- Holmdel
- Howell
- Howell Municipal Utilities Authority
- Hudson County
- Irvington
- Jackson
- Jersey City
- Jersey City Redevelopment Agency
- Jersey City Municipal Utilities Authority
- Joint Meeting of Essex & Union Counties
- Keansburg
- Keyport
- Lacey
- Lake Como
- Lakewood
- Lakewood Municipal Utilities Authority
- Lavallette
- Linden
- Little Falls
- Lumberton
- Long Branch
- Manalapan
- Manasquan
- Mantua
- Maple Shade
- Maplewood
- Marlboro
- Marlboro Water Utility Division
- Matawan
- Mercer County
- Mercer County Park Commission
- Metuchen
- Middle
- Middlesex County
- Middlesex County Improvement Authority
- Middlesex County Utility Authority
- Millburn
- Millstone
- Milltown
- Millville
- Monmouth County
- Monmouth Beach
- Monroe (Middlesex County)
- Montclair
- Morristown
- Mount Holly
- Mount Laurel
- Neptune (Township)
- Neptune Township Sewerage Authority
- Newark
- New Brunswick
- New Jersey
- New Jersey Department of Transportation
- New Jersey Meadowlands Commission
- New Jersey Turnpike Authority –
  (Turnpike and Garden State Parkway Divisions)
- New Jersey Rate Payer Advocate
- North Brunswick
- Ocean County
- Ocean

Government Clients

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

- Ocean Township Sewerage Authority
- Old Bridge
- Old Bridge Municipal Utilities Authority
- Palmyra
- Paulsboro
- Pemberton
- Pemberton Township Municipal Utilities Authority
- Perth Amboy
- Plainfield
- Plainfield Municipal Utilities Authority
- Plainsboro
- Pleasantville
- Piscataway
- Point Pleasant Beach
- Point Pleasant - Board of Education
- Point Pleasant (Borough)
- Rahway
- Rahway Valley Sewerage Authority
- Red Bank
- Riverside
- Roselle
- Roselle Public School District
- Rumson
- Salem County
- Salem County Pollution Control Finance Authority
- Sayreville
- Sayreville Board of Education
- Seaside Park
- SERA – Sayreville Economic Redevelopment Agency
- Scotch Plains
- Somerset
- South Amboy
- South Amboy Redevelopment Agency
- Southampton
- South Bound Brook
- South Brunswick
- South Monmouth Regional Sewerage Authority
- South Plainfield
- South River
- Spotswood
- Stafford
- State of New Jersey Rater Payer Advocate
- Summit
- Sussex
- Tinton Falls
- Toms River
- Trenton
- Union Township
- Union, County
- Union County Improvement Authority
- Union County Utilities Authority
- Upper Freehold
- Voorhees
- Wall
- Watchung
- Waterford
- West New York
- West Orange
- Westampton
- Western Monmouth Utilities Authority
- Wildwood
- Wildwood Crest
- Willingboro
- Winslow
- Winslow Township School Board
- Woodbridge
- Woodland Park
- Wrightstown

References

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

ABERDEEN
Bryan A. Russell, QPA & Township Manager
P. 732.583.4200

ATLANTIC COUNTY
Douglas DiMeo, PE & County Engineer
P. 609.645.5898

ATLANTIC HIGHLANDS
Robert Ferragina, Chief Executive Officer
P. 732.291.1444 ext. 3101

BARNEGAT
Martin Lisella, Township Administrator
P. 609.698.0080

BAYONNE
James Davis, Mayor
P. 201.858.6010

BERGEN COUNTY
Joseph A. Femia, PE, Director & County Engineer
P. 201.336.6808

BERGEN COUNTY (NORTHWEST) UTILITIES AUTHORITY
Robert E. Laux, Executive Director
P. 201.807.5801

BERKELEY TOWNSHIP MUA
Michele Nugent, Executive Director
P. 732.237.0100

BRADLEY BEACH
Meredith DeMarco, Acting Borough Administrator
P. 732.776.2999 ext.1012

BRICK
Joanne Bergin, Business Administrator
P. 732.262.1040

BURLINGTON COUNTY
Joseph Brickley, PE, County Engineer & Director of Public Works
P. 856.642.3700

BURLINGTON COUNTY BRIDGE COMMISSION
Joseph Andl, Executive Director
P. 856.829.1900

BURLINGTON COUNTY DEPARTMENT OF PARKS
Matt Johnson, Coordinator of Open Space Acquisition and Park Development
P. 856.642.3850

CAMDEN
Vic Carstarphen, Mayor
P. 856.757.7200

CAMDEN COMMUNITY PARTNERSHIP
Joseph Meyers, Chief Operating Officer
P. 856.912.1018

CAMDEN COUNTY
James Winckowski, PE & County Engineer
P. 856.566.2971

CAMDEN COUNTY MUA
Oleg Zonis, Director of Engineering
P. 856.583.1222

CARTERET
Daniel J. Reiman, Mayor
P. 732.541.3800

CUMBERLAND COUNTY IMPROVEMENT AUTHORITY
Gerard Velazquez III, President & CEO
P. 856.825.3700

DELRAN
Gary Catambrone, Mayor
P. 609.800.4279
Joseph Bellina, Business Administrator
P. 856.461.7734

DEPTFORD
Donald Banks, Director of Community Development
P. 856.686.2218

DEPTFORD TOWNSHIP MUA
Michael Cusick, Executive Director
P. 856.415.1111

DOVER
James P. Dodd, Mayor
P. 973.366.2200 ext. 1144

References

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

DUNELLEN
Jason Cilento, Mayor
P. 732.968.3033

EAST BRUNSWICK
Joseph Criscuolo, Business Administrator
P. 732.390.6810

EAST GREENWICH
Dale Archer, Mayor
P. 856.423.0654

EDGEWATER
Gregory Franz, Administrator
P. 201.943.1700

EDISON
Sonia Alves-Viveiros, Business Administrator
P. 732.248.7298

ELIZABETH
Steven Rinaldi, Supervising Engineer
P. 908.820.4278

ESSEX COUNTY - DEPARTMENT OF PARKS, RECREATION AND CULTURAL AFFAIRS
Daniel K. Salvante, Director
P. 973.268.3517

EVESHAM
Kevin Rijs, Director of Community Development
P. 856.983.2914

FAIRFIELD
Mike Burden, Township Administrator
P. 856.451.9284

FANWOOD
Colleen Mahr, Mayor
P. 201.288.2600

FRANKLIN (GLOUCESTER CO)
Matthew Finley, Township Administrator
P. 856.694.1234

FRANKLIN (SOMERSET CO)
Robert Vornlocker, Township Manager
P. 732.873.2500

FRANKLIN TOWNSHIP SEWERAGE AUTHORITY
Joseph Danielsen, Executive Director
P. 732.873.2121

FREEHOLD
Stephen Gallo, Business Administrator & Special Projects Manager
P. 732.462.4200

GALLOWAY
Anthony Coppola Jr., Mayor
P. 609.652.3700

GLOUCESTER COUNTY
Barry C. Beckett, PE & County Engineer
P. 856.307.6600

GLOUCESTER COUNTY HEALTH DEPARTMENT
Matthew Olejarski, Principal REHS
P. 856.218.4170

GLOUCESTER COUNTY IMPROVEMENT AUTHORITY
George Strachan, Executive Director
P. 856.825.3700

GLOUCESTER COUNTY UTILITIES AUTHORITY
John Vinci Sr., Executive Director
P. 856.423.3500

HAMILTON (MERCER CO)
Fred B. Dumont, Director of Community and Economic Development
P. 609.890.3627

HAZLET
Robert A. Bengivenga Jr., Administrator
P. 732.264.1700

HIGHLAND PARK
Teri Jover, Borough Administrator
P. 732.819.3789

HIGHLANDS
Michael Muscillo, Borough Administrator
P. 732.872.1224

HILLSBOROUGH
Anthony Ferrera, Administrator & Clerk
P. 908.369.4313

References

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

HOLMDEL
Jay Delaney, Township Administrator
P. 732.946.2820

HOWELL
Joe Clark, Interim Manager
P. 732.938.4500

JERSEY CITY MUNICIPAL UTILITIES AUTHORITY
Jose R. Cunha, PE & Executive Director
P. 201.432.1150

JOINT MEETING OF ESSEX AND UNION COUNTIES
Hanifa Johnson, Executive Director
P. 732.353.1313

KEYPORT
Kimberly Humphrey, Borough Administrator
P. 732.739.5123

LAKE COMO
Andrew Huisman, Borough Administrator
P. 732.681.3232

LAKEWOOD TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Justin Flancbaum, Executive Director
P. 732.363.4422

LINDEN-ROSELLE SEWERAGE AUTHORITY
Jeffrey Williams, Executive Director
P. 908.862.7100

LONG BRANCH
Charles F. Shirley, Business Administrator
P. 732.571.5645

MANASQUAN RIVER REGIONAL SEWERAGE AUTHORITY
Brian J. Brach, PE & Executive Director
P. 732.431.8185

MANALAPAN
Tara L. Lovrich, Township Administrator
P. 732.446.8308

MAPLE SHADE
Susan Danson, QPA & Township Manager
P. 856.779.9610

MAPLEWOOD
Paul J. Kittner, PE & Township Engineer
P. 973.762.8120

MARLBORO
Jonathan Capp, Business Administrator
P. 732.536.0200

MATAWAN
Joseph Altomonte, Mator
P. 732.566.3898 ext. 605

MERCER COUNTY IMPROVEMENT AUTHORITY
Allan C. Collins, Deputy Executive Director
P. 609.278.8100

MERCER COUNTY PARK COMMISSION
Aaron Watson, Executive Director
P. 609.303.0700

METUCHEN
Jonathan Busch, Mayor
P. 732.632.8540

Melissa Perilstein, Borough Administrator
P. 732.632.8509

MIDDLESEX COUNTY
Ronald Sendner, PE & County Engineer
P. 732.745.3283

MIDDLESEX COUNTY IMPROVEMENT AUTHORITY
H. James Polos, Executive Director
P. 609.655.5141

MIDDLESEX COUNTY UTILITIES AUTHORITY
Joe Cryan, Executive Director
P. 732.721.3800

MIDDLETOWN
Anthony Mercantante, Township Administrator
P. 732.615.2010

Ted Maloney, Township Engineer
P. 732.615.2110

MILLTOWN
George Murray, Mayor
P. 732.828.2100 ext. 160

References

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

MONMOUTH COUNTY
Joseph Ettore, PE & County Engineer
P. 732.431.7760

MONROE
Stephen Dalina, Mayor
P. 732.521.4400

MOUNT LAUREL
Meredith Riculfy, Municipal Clerk & Township Manager
P. 856.234.0001

NEPTUNE TOWNSHIP
Gina LaPlaca, Business Administrator
P. 732.988.5200 ext. 232

NEW JERSEY TURNPIKE AUTHORITY
Daniel L. Hesslein, Acting Chief Engineer
P. 732.442.8600

NJDOT - DESIGN ASSISTANCE PROGRAM
Julie Seaman, Program Manager
P. 609.963.2004

NORTH BRUNSWICK
Francis "Mac" Womack, Mayor
P. 732.247.0922

OCEAN TOWNSHIP
Dave Brown, Township Manager
P. 732.531.500 ext. 3310

OCEAN SEWERAGE AUTHORITY
Tim Shea, Executive Director
P. 732.531.2213

OLD BRIDGE
Nicole Shapiro, PE, Township Engineer & Director of Community Development
P. 732.721.5600 ext. 7906

Anahita Feltz, Business Administrator
P. 732.721.5600 ext. 7902

OLD BRIDGE MUNICIPAL UTILITIES AUTHORITY
Michael Roy, PE, Executive Director & Authority Engineer
P. 732.566.2534

PALMYRA
John Gural, CPM & Borough Administrator
P. 856.829.6100 ext. 125

PARSIPPANY-TROY HILLS SEWER UTILITY
Joseph Beckmeyer, Sewer Superintendent & Engineering Consultant
P. 973.428.7593

PISCATAWAY
Brian C. Wahler, Mayor
P. 732.562.2300

PLAINFIELD
Zenobia L. Fields, Director of Economic Development
P. 908.753.3664

PLAINSBORO
Peter Cantu, Mayor
P. 609.799.0909

PLEASANTVILLE
Judy M. Ward, Mayor
P. 609.484.3603

POINT PLEASANT BOROUGH
Robert A. Sabosik, Mayor
P. 732.892.3434

RAHWAY
Raymond A. Giacobbe, Mayor
P. 732.827.2004

RED BANK
James Gant, Borough Manager
P. 732-530-2748

SAYREVILLE
Glenn Skarzynski, Business Administrator
P. 732.390.7071

SAYREVILLE BOARD OF EDUCATION
Erin Hill, Business Administrator
P. 732.525.5204

SEASIDE PARK
John A. Peterson Jr, Mayor
P. 732.793.3700
Karen Kroon, Administrator
P. 732.793.3700

References

CME Associates currently provides, or has previously provided, Municipal and/or Consulting Engineering and Planning Services to the following Governmental Entities.

SOMERSET COUNTY
Matthew D. Loper, PE & County Engineer
P. 908.231.7024

SOUTH AMBOY
Fred A. Henry, Mayor
P. 732.727.4200

SOUTH BOUND BROOK
Christina Fischer, Administrator
P. 732.356.0258 ext. 111

SOUTH BRUNSWICK
Bryan Bidlack, Township Manager
P. 732.329.4000 ext. 7300

SOUTH MONMOUTH REGIONAL SEWERAGE AUTHORITY
Ryan Krause, Executive Director
P. 732.681.0611

SOUTH PLAINFIELD
Glenn Cullen, Administrator & CFO
P. 908.226.7602

SOUTH RIVER
Peter Guindi, Mayor
P. 732.803.9157

TOMS RIVER
John Salonis, Business Administrator
John M. Mele, PE, Township Engineer
P. 732.341.1000

UNION COUNTY UTILITIES AUTHORITY
Linda D. Stender, Acting Executive Director
P. 732.382.9400

UPPER
Gary Demarzo, Township Administrator
P. 609.628.2011

VINELAND
David J. Maillet, PE & City Engineer
P. 856.794.4000 ext. 4098

VOORHEES
Steven Steglik, Township Administrator
P. 856.429.7174
Mario DiNatale, Community & Economic Development
P. 856.882.5263

VOORHEES ENVIRONMENTAL COMMISSION
Edward Hale, Chairman
P. 856.429.7757

WALL
Jeffry Bertrand, Township Administrator
P. 732.449.8444

WATCHUNG
Ronald Jubin, Mayor
P. 908.756.0080

WESTAMPTON
Wendy Gibson, Township Administrator
P. 609.267.1891 ext. 6

WESTERN MONMOUTH UTILITIES AUTHORITY
Brian J. Valentino, Chief Executive Officer
P. 732.446.9300

WILDWOOD
Lisa A. Brown, City Clerk
P. 609.522.2444

WILLINGBORO
Dwayne Harris, Township Manager
P. 609.877.2200

WINSLOW
Joseph Gallagher, Township Administrator
P. 609.567.0700

WINSLOW BOARD OF EDUCATION
Tyra McCoy-Boyle, Business Administrator
P. 856.767.2850 ext. 7501

WOODBRIDGE
John E. McCormac, Mayor
P. 732.634.4500

SECTION 6:
AWARDS

AWARDS

NJ SOCIETY OF MUNICIPAL ENGINEERS

CME Associates is dedicated to providing quality project solutions for its clients, and has been recognized by the ***New Jersey Society of Municipal Engineers*** at its Annual Awards Presentation for a number of projects as follows:

2022
Township of Holmdel
Holmdel Firehouse

City of Bayonne
Improvements to Frances G Fitzpatrick Park

Borough of Highland Park
Highland Park Synthetic Turf and Track Resurfacing

2021
Township of Franklin
Construction of the Franklin Township Youth Center

Township of Woodbridge
Cypress Park

2020
Borough of Sayreville
Management of a Green Energy Solution aka
Sayreville Solar Project

Townhip of Marlboro
Harbor Road Water Treatment Plant

Borough of Carteret
Construction of the Carteret Municipal Marina
Phase II & III

City of Bayonne
Improvements to Dennis Collins Park

Township of Aberdeen
Failing Septic System Eliminated in Aberdeen

2019
Township of Aberdeen
Raritan Bay Asphalt Trail

Borough of Highlands
Improvements to Valee Street

Township of Brick
Improvements to Bernie Cooke Park

County of Union
Trailside Nature and Science Center at Watchung
Reservation

2018
Township of Lacey
Reconstruction of Bayfront Park

City of Bayonne
Improvements to Richard Korpi Ice Rink

City of Rahway
Improvements to the Rahway Water Treatment Plant

2017
Township of Brick
Facilities Improvement Project

Borough of Sayreville
Sayreville's Choice for Water for the New Generation

The Reconstruction of Veterans Field
Borough of Edgewater

Firehouse Management Project
Borough of South River

2016
Borough of Milltown
Electrical Substation Construction

Town of West New York
Improvements to Veterans Park

Township of Piscataway
Department of Public Works Vehicle Canopy Project

2015
Township of Woodbridge
Avenel Street Improvements

Township of Marlboro
Tennent Road Water Treatment Plant

Township of Delran
Delran Community Park

Township of Manalapan
Splash Pad and Comfort Building

2014
Township of Evesham
Diamonds at Arrowhead Park

County of Middlesex
Intersection of Bordentown Ave. and Ernston Rd.

AWARDS

NEW JERSEY ALLIANCE FOR ACTION

2023 Distinguished Engineering Awards
The Awards Program honors a truly special circle of Garden State engineering projects that have a significant and extraordinary impact on the state's economy and environment. CME Associates received awards for 2 such projects. The Improvements to Long Branch Avenue in the City of Long Branch also the Francis G. Fitzpatrick Park Improvements located in the City of Bayonne.

AMERICAN COUNCIL OF ENGINEERING COMPANIES – NEW JERSEY (ACECNJ)

2024 Engineering Excellence Awards
The ACECNJ Engineering Awards recognizes engineering firms for projects that demonstrate an exceptional degree of innovation, complexity, achievement and value. CME Associates was recognized with a Distinguished Award for the design and construction of the Francis G. Fitzpatrick Park Improvements located in the City of Bayonne.

RECREATION FACILITY AWARDS

CME Associates has been recognized by various park and recreational organizations for excellence in design.

NEW JERSEY RECREATION AND PARK ASSOCIATION

2021 EXCELLENCE IN DESIGN AWARD
CME Associates was awarded the Excellence in Design Award for the Improvements to Bayside Park, located in Brick, New Jersey

2021 EXCELLENCE IN DESIGN AWARD
CME Associates was awarded the Excellence in Design Award for the Improvements to Cypress Park, located in Woodbridge, New Jersey

2020 EXCELLENCE IN DESIGN AWARD
CME Associates received the Excellence in Design Award for the Improvements to Bernie Cooke Park, located in Brick, New Jersey

2019 EXCELLENCE IN DESIGN AWARD
CME Associates received the Excellence in Design Award for Trailside Nature and Science Center at Watchung Reservation, located in the County of Union

2018 EXCELLENCE IN DESIGN AWARD
CME Associates received the Excellence in Design Award for Bay Front Park, located in Lacey Township , NJ

2018 EXCELLENCE IN DESIGN AWARD
CME Associates received the Excellence in Design Award for Veterans Park, located in Edgewater, NJ

2018 EXCELLENCE IN DESIGN AWARD
CME Associates received the Excellence in Design Award for Cedar Grove Park, Essex County's newest county park located in Cedar Grove, NJ

2015 EXCELLENCE IN DESIGN AWARD
CME Associates received the Excellence in Design Award for Diamonds at Arrowhead Park, located in Evesham Township, NJ.

The Robert B. Kinsey Memorial Award is given each year by the NJ Recreation and Park Association at their Annual Conference in recognition of Design Excellence.

SECTION 7:
FORMS

MORRIS COUNTY MUA

Administrative Documents

A. Please submit the following documents with your response to the RFP

Owner's Checkmarks		Bidder's Initials
X	Statement of Ownership Disclosure	KC
X	Non-Collusion Affidavit	KC
X	Disclosure of Investment Activities In Iran	KC
X	Certification of Non-Involvement in Prohibited Activities in Russia or Belarus	KC
X	Affidavit of Non-Debarred Status	KC
X	Affirmative Action Compliance Notice	KC
X	Mandatory EEO Language	KC
X	Americans with Disability Act of 1990 Form	KC
X	Anti-Discrimination Requirements	KC
X	Pay to Play Advisory Notice	KC
X	Certificate of Employee Information Report/AA-302	KC
X	W-9	KC
X	New Jersey Business Registration Certificate	KC
X	Proposal (document not provided)	KC

MORRIS COUNTY MUA

Statement of Ownership Disclosure

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information with the bid is cause for automatic rejection of the bid or proposal.

Name of Organization: CME Associates

Organization Address: 3141 Bordentown Avenue, Parlin, New Jersey 08859

Part I Check the box that represents the type of business organization:

☐ Sole Proprietorship (skip Parts II and III, execute certification in Part IV)

☐ Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)

☐ For-Profit Corporation (any type) ☑ Limited Liability Company (LLC)

☐ Partnership ☐ Limited Partnership ☐ Limited Liability Partnership (LLP)

☐ Other (be specific): _____

Part II

☐ The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. (**COMPLETE THE LIST BELOW IN THIS SECTION**)

OR

☑ No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. (**SKIP TO PART IV**)

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Address

MORRIS COUNTY MUA

Statement of Ownership Disclosure

Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed**.

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II other than for any publicly traded parent entities referenced above. **The disclosure shall be continued until names and addresses of every noncorporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Address

Part IV Certification

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the ***Morris County Municipal Utilities Authority*** is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with ***Morris County Municipal Utilities Authority*** to notify the ***Morris County Municipal Utilities Authority*** in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the ***Morris County Municipal Utilities Authority*** to declare any contract(s) resulting from this certification void and unenforceable.

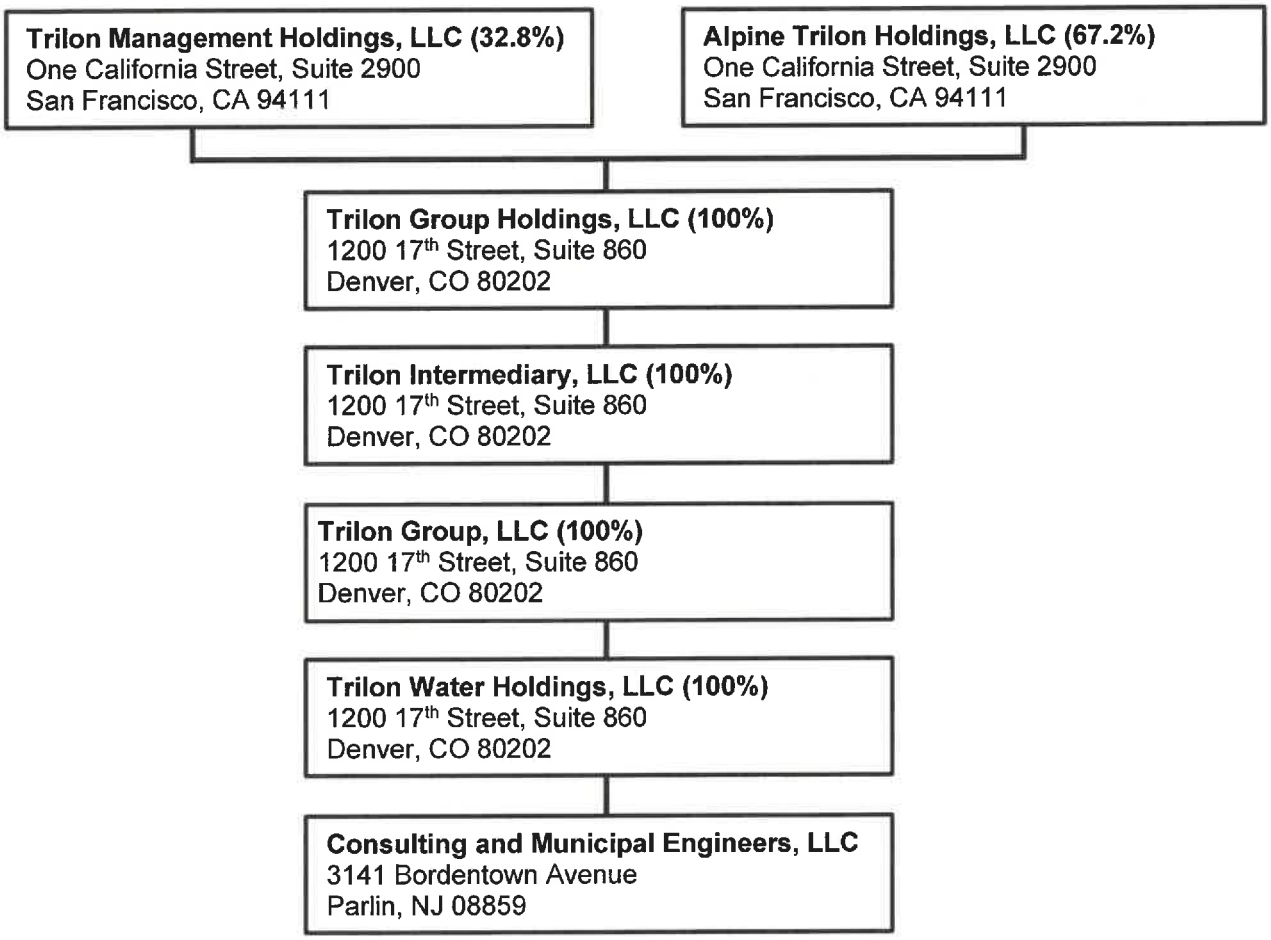
Full Name (Print):	Keith Chiaravallo, PE, CME	Title:	Senior Vice President
Signature:		Date:	January 28, 2025

Consulting & Municipal ENGINEERS

CME ASSOCIATES

ATTACHMENT TO STATEMENT OF OWNERSHIP
REGARDING CME ASSOCIATES (CONSULTING AND MUNICIPAL ENGINEERS, LLC)

CME Associates (Consulting and Municipal Engineers, LLC) is wholly owned by Trilon Water Holdings, LLC. • Trilon Water Holdings, LLC is wholly owned by Trilon Group, LLC. • Trilon Group, LLC is wholly owned by Trilon Intermediary, LLC. • Trilon Intermediary, LLC is wholly owned by Trilon Group Holdings, LLC. • Trilon Group Holdings, LLC is 32.8% owned by Trilon Management Holdings, LLC and 67.2% owned by Alpine Trilon Holdings, LLC.



No individual person, pursuant to the Statement of Ownership in accordance with the requirements of *N.J.S.A* 52:25-24.2 as set forth in the Proposal Documents, owns a 10% or greater interest in Trilon Management Holdings, LLC and Alpine Trilon Holdings, LLC.

MORRIS COUNTY MUA

Non-Collusion Affidavit

STATE OF NEW JERSEY
MORRIS COUNTY MUNICIPAL UTILITIES AUTHORITY ss:

I certify that I am Keith Chiaravallo

of the firm of CME Associates

the Respondent making this Proposal for the bid or proposal for the above named project, that I executed the said proposal with full authority to do so; that said bidder has not, directly or indirectly entered into any agreement, participated in any collusion in connection with the above named project; and that all statements contained in said proposal and this affidavit are true, correct, and made with full knowledge that the Morris County Municipal Utilities Authority relies upon the truth of the statements contained in said Proposals and in the statements contained in this affidavit in awarding the contract for the said project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies.

Signature of Representative: K C

Subscribed and sworn to before me this 28th day of January, 2025

Print Name of Affiant: Keith Chiaravallo

Allison R Karpiak

Notary Public of New Jersey

My commission expires August 9, 2029

ALLISON R KARPIAK
Notary Public, State of New Jersey
Comm. # 50224443
My Commission Expires 8/9/2029

MORRIS COUNTY MUA

Disclosure of Investment Activities in Iran

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that the person or entity, or one of the person or entity's parents, subsidiaries, or affiliates, is not identified on a list created and maintained by the Department of the Treasury as a person or entity engaging in investment activities in Iran. If the Director finds a person or entity to be in violation of the principles which are the subject of this law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the person or entity.

I certify, pursuant to Public Law 2012, c. 25, that the person or entity listed for which I am authorized to bid/renew:

Bidder/Offeror: CME Associates

☑ is not providing goods or services of $20,000,000 or more in the energy sector of Iran, including a person or entity that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; is not a financial institution that extends $20,000,000 or more in credit to another person or entity, for 45 days or more, if that person or entity will use the credit to provide goods or services in the energy sector in Iran.

In the event that a person or entity is unable to make the above certification because it or one of its parents, subsidiaries, or affiliates has engaged in the above-referenced activities, a detailed, accurate and precise description of the activities must be provided in part 2 below to the Division of Purchase under penalty of perjury. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN
You must provide, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

Name: _____ Relationship to Bidder/Offeror: _____

Description of Activities: _____

Duration of Engagement: _____ Anticipated Cessation Date: _____

Bidder/Offeror Contact Name: _____ Contact Phone Number: _____

Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that Town/ Township/ Borough/Government Agency is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the MCMUA to notify the MCMUA in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with Morris County Municipal Utilities Authority, New Jersey and that the MCMUA at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): Keith Chiaravallo, PE, CME Signature: _____

Title: Senior Vice President Date: January 28, 2025

MORRIS COUNTY MUA

Certification of Non-Involvement in Prohibited Activities in Russia or Belarus

Pursuant to N.J.S.A. 52:32-60.1, et seq. and N.J.S.A.40A:11-2.2 (L. 2022, c. 3) any person or entity (hereinafter "Vendor") that seeks to enter into or renew a contract with a local contracting unit subject to the Local Public Contracts Law for the provision of goods or services, or the purchase of bonds or other obligations, must complete the certification below indicating whether or not the Vendor is identified on the Office of Foreign Assets Control (OFAC) Specially Designated Nationals and Blocked Persons list, available here: https://sanctionssearch.ofac.treas.gov/. If the Department of the Treasury finds that a Vendor has made a certification in violation of the law, it shall take any action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

I, the undersigned, certify that I have read the definition of "Vendor" below, and have reviewed the Office of Foreign Assets Control (OFAC) Specially Designated Nationals and Blocked Persons list, and having done so certify

(Check the Appropriate Box)

☑ A. That the Vendor is not identified on the OFAC Specially Designated Nationals and Blocked Persons list on account of activity related to Russia and/or Belarus.

OR

☐ B. That I am unable to certify as to "A" above, because the Vendor is identified on the OFAC Specially Designated Nationals and Blocked Persons list on account of activity related to Russia and/or Belarus.

OR

☐ C. That I am unable to certify as to "A" above, because the Vendor is identified on the OFAC Specially Designated Nationals and Blocked Persons list. However, the Vendor is engaged in activity related to Russia and/or Belarus consistent with federal law, regulation, license or exemption. A detailed description of how the Vendor's activity related to Russia and/or Belarus is consistent with federal law is set forth below.

(Attach Additional Sheets If Necessary.)

Signature of Vendor's Authorized Representative	January 28, 2025 Date
Keith Chiaravallo, PE, CME, Senior Vice President Print Name and Title of Vendor's Authorized Representative	22-3484435 Vendor's FEIN
CME Associates Vendor's Name	732-727-8000 Vendor's Phone Number
3141 Bordentown Avenue Vendor's Address (Street Address)	732-727-3989 Vendor's Fax Number
Parlin / New Jersey / 08859 Vendor's Address (City/State/Zip Code)	kchiaravallo@cmeusa1.com Vendor's Email Address

[i] Vendor means: (1) A natural person, corporation, company, limited partnership, limited liability partnership, limited liability company, business association, sole proprietorship, joint venture, partnership, society, trust, or any other nongovernmental entity, organization, or group; (2) Any governmental entity or instrumentality of a government, including a multilateral development institution, as defined in Section 1701(c)(3) of the International Financial Institutions Act, 22 U.S.C. 262r(c)(3); or (3) Any parent, successor, subunit, direct or indirect subsidiary, or any entity under common ownership or control with, any entity described in paragraph (1) or (2).

MORRIS COUNTY MUA

Affidavit of Non-Debarred Status

AFFIDAVIT OF NON-DEBARRED STATUS

STATE OF NEW JERSEY)
) SS:
COUNTY OF Morris)

I, Keith Chiaravallo of the City Town of Toms River, in the County of Ocean and the State of New Jersey, of full age, being duly sworn according to law on my oath depose and say that:

I am Keith Chiaravallo (Name), a a Senior Vice President (Title, Position, etc.)

of CME Associates (Name of Firm, Company or Corporation), the Bidder making the Bid for the Morris County Municipal Utilities Authority and that I executed the said Bid with full authority so to do; that said Bidder at the time of making this Bid is not included on the State of New Jersey, State Treasurer's List of Debarred, Suspended and Disqualified Bidders; and all statements contained in said Bid and in this affidavit are true and correct and made with the full knowledge that the Morris County Municipal Utilities Authority relies upon the truth of the statements contained in said Bid and in the Statements contained in this affidavit in awarding Contract for said project.

The undersigned further warrants that should the name of the firm, company or corporation making this Bid appear on the State Treasurer's List of Debarred, Suspended and Disqualified Bidders at anytime prior to, and during the life of the Contract, including the Guarantee Period, that the Morris County Municipal Utilities Authority shall be immediately so notified by the signatory to this Eligibility Affidavit.

The undersigned understands that the firm, company or corporation making the Bid as a CONTRACTOR is subject to debarment, suspension and/or disqualification in contracting with the State of New Jersey and the Department of Environmental Protection if the CONTRACTOR, pursuant to NJAC 7:1-5.2, commits any of the acts listed therein, and as determined according to applicable law and regulation.

(Seal if Corporation)

(Signature of Bidder)

Keith Chiaravallo, PE, CME, Senior Vice President
(Printed or Typed Name & Title of Bidder)

3141 Bordentown Avenue, Parlin, New Jersey 08859
(Address of Bidder)

MORRIS COUNTY MUA

Affirmative Action Compliance Notice

EXHIBIT A

GOODS, GENERAL SERVICES, AND PROFESSIONAL SERVICES CONTRACTS

This form is a summary of the successful vendor's requirement to comply with the requirements of N.J.S.A. 10:5-31 and N.JA.C. 17:27.

The successful respondent shall submit to the public agency, after notification of award but prior to execution of the contract, one of the following three documents as forms of evidence:

1. Letter of Federal Affirmative Action Plan Approval

2. Certificate of Employee Information Report

3. A photocopy of an Employee Information Report (AA302) provided by the Division and distributed to the public agency to be completed by the vendor in accordance with N.J.A.C. 17:27-4.

The successful vendor(s) must submit the copies of the AA302 Report to the Division of Contract Compliance and Equal Employment Opportunity in Public Contracts (Division). The Public Agency copy is submitted to the public agency, and the vendor copy is retained by the vendor.

The undersigned vendor further understands that his/her proposal shall be rejected as non-responsive if said vendor fails to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27.

Business Name: CME Associates

Representative's Name (print): Keith Chiaravallo, PE, CME, Senior Vice President

Representative's Signature: 

Date: January 28, 2025 **Phone:** 732-727-8000

MORRIS COUNTY MUA

Mandatory EEO Language

EXHIBIT A

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE

N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127)

N.J.A.C. 17:27 et seq.

GOODS, GENERAL SERVICES, AND PROFESSIONAL SERVICES CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union of the contractor's commitments under this chapter and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to make good faith efforts to meet targeted county employment goals established in accordance with N.J.A.C. l7:27-5.2.

MORRIS COUNTY MUA

Mandatory EEO Language

The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, and labor unions, that it does not discriminate on the basis of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

In conforming with the targeted employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions. The contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

Letter of Federal Affirmative Action Plan Approval;

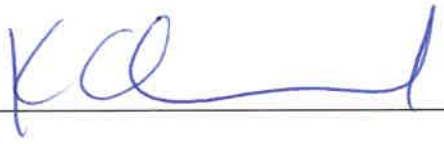
Certificate of Employee Information Report; or

Employee Information Report Form AA-302 (electronically provided by the Division and distributed to the public agency through the Division's website at: http:// www.state.nj.us/treasury/contract_compliance.

The contractor and its subcontractors shall furnish such reports or other documents to the Division of Purchase & Property, CCAU, EEO Monitoring Program as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Purchase & Property, CCAU, EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq

Business Name: CME Associates

Representative's Name (print): Keith Chiaravallo, PE, CME, Senior Vice President

Representative's Signature: 

Date: January 28, 2025

Certification 1818

CERTIFICATE OF EMPLOYEE INFORMATION REPORT

RENEWAL

This is to certify that the contractor listed below has submitted an Employee Information Report pursuant to N.J.A.C. 17:27-1.1 et. seq. and the State Treasurer has approved said report. This approval will remain in effect for the period of 15-FEB-2023 to 15-FEB-2026

CME ASSOCIATES
1460 ROUTE 9, SOUTH
HOWELL NJ 07731 1194

ELIZABETH MAHER MUOIO
State Treasurer

MORRIS COUNTY MUA

Americans with Disabilities Act of 1990 Form

The CONTRACTOR and the OWNER do hereby agree that the provisions of Title 11 of the Americans With Disabilities Act of 1990 (the "ACT") (42 U.S.C. S12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereunto, are made a part of this contract. In providing any act benefit, or service on behalf of the OWNER pursuant to this contract, the CONTRACTOR agrees that the performance shall be in strict compliance with the Act. In the event that the Contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the CONTRACTOR shall defend the OWNER in any action or administrative proceeding commenced pursuant to this Act. The Contractor shall indemnify, protect, and save harmless the OWNER, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The CONTRACTOR shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the OWNER grievance procedure, the CONTRACTOR agrees to abide by any decision of the OWNER which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the OWNER or if the OWNER must any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the CONTRACTOR shall satisfy and discharge the same at its OWN expense.

The OWNER shall, as soon as practicable after a claim has been made against it, give written notice thereof to the CONTRACTOR along with frill and complete particulars of the claim. if any action or administrative proceedings is brought against the OWNER or any of its agents, servants, and employees, the OWNER shall expeditiously forward or have forwarded to the CONTRACTOR every demand, complaint, notice, summons, pleading, or other process received by the OWNER or its representatives.

It is expressly agreed and understood that any approval by the OWNER of the services provided by the CONTRACTOR pursuant to this contract will not relieve the CONTRACTOR of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the OWNER pursuant to this paragraph.

It is further agreed and understood that the OWNER assumes no obligation to indemnify or save harmless the CONTRACTOR, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the CONTRACTOR expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the CONTRACTOR'S obligations assumed in this Agreement, nor shall they be construed to relieve the CONTRACTOR from any liability, nor preclude the OWNER from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the owner from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

Business Name (Print): CME Associates

Representative's Name (Print): Keith Chiaravallo, PE, CME

Representative's Title: Senior Vice President

Representative's Signature: 

Phone: 732-727-8000 **Date:** January 28, 2025

MORRIS COUNTY MUA

New Jersey Anti-Discrimination

Pursuant to N.J.S.A. 10:2-1:

a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;

b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;

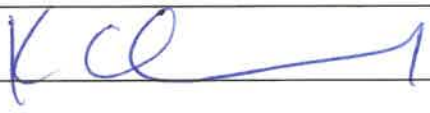
c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of $ 50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and

d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

Business Name (Print): CME Associates

Representative's Name (Print): Keith Chiaravallo, PE, CME

Representative's Title: Senior Vice President

Representative's Signature: 

Phone: 732-727-8000 **Date:** January 28, 2025

MORRIS COUNTY MUA

Pay to Play Advisory

PAY TO PLAY ADVISORY
Disclosure Requirement
(N.J.S.A. 19:44A – 20.27)

Any business entity that has received $50,000 or more in contracts from government entities in a calendar year will be required to file an annual disclosure report with ELEC.

The report will include certain contributions and contract information for the current calendar year.

At a minimum, a list of all business entities that file an annual disclosure report will be listed on ELEC's website at www.elec.state.nj.us.

If you have any questions please contact ELEC at:
1-888-313-ELEC (toll free in NJ) or
609-292-8700

An analyst from ELEC's Special Programs Section will assist you.

Initials KC

CME ASSOCIATES

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE

Taxpayer Name:	CONSULTING AND MUNICIPAL ENGINEERS LLC
Trade Name:	
Address:	1460 ROUTE 9 SOUTH HOWELL, NJ 07731
Certificate Number:	2786089
Effective Date:	October 31, 2022
Date of Issuance:	January 03, 2023

For Office Use Only:

20230103100839074

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give form to the requester. Do not send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See *Specific Instructions* on page 3.

1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)

Consulting & Municipal Engineers, LLC

2 Business name/disregarded entity name, if different from above.

CME Associates

3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor ☐ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate

☑ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) . . . . . P

Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.

☐ Other (see instructions)

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any)

(Applies to accounts maintained outside the United States.)

3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . ☐

5 Address (number, street, and apt. or suite no.). See instructions.

3141 Bordentown Avenue

Requester's name and address (optional)

6 City, state, and ZIP code

Parlin, New Jersey 08859

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer Identification number

2	2	–	3	4	8	4	4	3	5

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here | **Signature of U.S. person** Joe Marchetti | **Date** January 28, 2025

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/30/2024

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

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

PRODUCER Willis Towers Watson Insurance Services West, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	CONTACT NAME: WTW Certificate Center PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@wtwco.com
INSURED Consulting and Municipal Engineers LLC (CME Associates) 3141 Bordentown Avenue Parlin, NJ 08859	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: Liberty Mutual Fire Insurance Company — 23035 INSURER B: Liberty Insurance Corporation — 42404 INSURER C: American Guarantee and Liability Insurance — 26247 INSURER D: Allied World Surplus Lines Insurance Compa — 24319 INSURER E: Indemnity National Insurance Company — 18468 INSURER F: RSUI Indemnity Company — 22314

COVERAGES **CERTIFICATE NUMBER:** W37154758 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC OTHER:	Y	Y	TB2-641-446161-054	12/31/2024	12/31/2025	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 1,000,000 $ 25,000 $ 2,000,000 $ 4,000,000 $ 4,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY	Y	Y	AS7-641-446161-044	12/31/2024	12/31/2025	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 2,000,000 $ $ $
C	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			ADC 8344746-01	12/31/2024	12/31/2025	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: No (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	WC7-641-446161-064	12/31/2024	12/31/2025	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
D	Professional Liab incl Pollution			0313-8987	12/31/2024	12/31/2025	Each Claim Limit Policy Aggregate	$5,000,000 $5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Certificate Holder included as an Additional Insured as respects to General Liability and Auto Liability. The General Liability and Auto Liability shall be Primary and Non-Contributory with any other insurance in force for or which may be purchased by The Certificate Holder. Waiver of Subrogation applies in favor of The Certificate Holder with respects to General Liability, Auto Liability, and Workers Comp, as permitted by law.
SEE ATTACHED

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

SECTION 8:
COST PROPOSAL

CME ASSOCIATES

AUTHORITY CONSULTING ENGINEERING SERVICES
GENERAL CONDITIONS AND HOURLY RATE SCHEDULE TO JANUARY 1, 2026

Program Manager	$227.00 Per Hour
Project Manager	$226.00 Per Hour
Senior Professional Engineer/Project Leader	$225.00 Per Hour
Professional Engineer, Environmental	$224.00 Per Hour
Assoc. Professional Engineer, Environmental	$223.00 Per Hour
Professional Engineer	$209.00 Per Hour
Project Engineer, Environmental	$220.00 Per Hour
Associate Professional Engineer	$223.00 Per Hour
Project Engineer/Senior Designer II	$220.00 Per Hour
Engineer/Senior Designer	$216.00 Per Hour
Associate Engineer/Designer	$208.00 Per Hour
Engineer, Environmental	$216.00 Per Hour
Associate Engineer, Environmental	$208.00 Per Hour
Senior Scientist	$231.00 Per Hour
Lead Scientist/Senior Geologist	$217.00 Per Hour
Scientist/Project Geologist	$209.00 Per Hour
Associate Scientist/Staff Geologist	$179.00 Per Hour
Environmental Technician	$157.00 Per Hour
Professional Surveyor	$216.00 Per Hour
Survey Manager	$195.00 Per Hour
Party Chief	$177.00 Per Hour
Robotic Total Station	$ 84.00 Per Hour
Survey Technician	$159.00 Per Hour
Chief Construction Manager	$230.00 Per Hour
Construction Manager	$204.00 Per Hour
Senior Construction Technician	$200.00 Per Hour
Construction Technician	$173.00 Per Hour
Associate Construction Technician	$143.00 Per Hour
Support Staff	$130.00 Per Hour
Drone Pilot	$159.00 Per Hour
Drone Technician	$ 86.00 Per Hour
CAD Technician	$197.00 Per Hour
Senior Landscape Architect	$189.00 Per Hour
Landscape Architect	$179.00 Per Hour
Certified Tree Expert	$161.00 Per Hour
Associate Landscape Designer	$150.00 Per Hour
Principal Planner	$225.00 Per Hour
Professional Planner	$212.00 Per Hour
Senior Planner	$193.00 Per Hour
Planner	$189.00 Per Hour
Senior Leadership	$232.00 Per Hour
Executive Leadership	$251.00 Per Hour
Executive Leadership, Environmental	$232.00 Per Hour

Invoices - CME Associates (CME) will submit invoices to Client monthly and a final invoice upon completion of services. Payment is due upon presentation of invoice and is past due thirty days from invoice date. Client agrees to pay a finance charge of one and one-half percent per month, or the maximum rate allowed by law, on past due accounts. In the event that the invoice is not paid voluntarily and promptly, and must therefore be referred to an attorney or agency for collection, the Client agrees to pay a collection fee equal to the actual attorney or agency collection fee incurred by CME. Overtime rates are applicable after eight hours Monday through Friday, and all day

Saturday and Sunday, and charged at one and one-half times the quoted rate. Holidays are charged at two times the quoted rate. Expenses incurred for reproduction, postage handling, photographs and for services including subconsultants equipment and facilities not furnished by CME are charged to the Client at cost plus fifteen percent. Automobile travel may be charged at the current rate per mile allowed by the Internal Revenue Service.

Standard of Care - Services performed by CME under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. NO OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

Contaminated Material - It is understood that CME is not, and has no responsibility as a handler, generator, operator, treater or storer, transporter or disposer of hazardous or toxic substances found or identified at any site. Client shall undertake or arrange for, either directly or indirectly through other contractors, the handling, removal, treatment, storage, transportation and disposal of hazardous substances or constituents found or identified at any site.

Utilities - In the execution of the work, CME will take all reasonable precautions to avoid damage or injury to subterranean structures or utilities. The Client agrees to hold CME harmless for any damages to subterranean structures which are not called to CME's attention and/or not correctly shown on the plans furnished.

Right of Entry/Worksite - Client will provide for right of entry for CME personnel and equipment necessary to complete the work. While CME will take all reasonable precautions to minimize any damage to the property it is understood by Client that in the normal course of some damage may occur, the correction of which is not part of this agreement.

Client shall furnish or cause to be furnished to CME all documents and information known to Client that relate to the identity, location, quantity, nature or characteristics of any hazardous or toxic substances at, on or under the site. In addition, Client will furnish or cause to be furnished such other information on surface and subsurface site conditions required by CME for proper performance of its services. CME shall be entitled to rely on Client provided documents and information in performing the services required under this Agreement; however, CME assumes no responsibility or liability for their accuracy or completeness.

CME will not direct, supervise or control the work of contractors or their subcontractors. CME services will not include a review or evaluation of the contractor's (or subcontractor's) safety measures.

CME shall be responsible only for its activities and that of its employees on any site. Neither the professional activities nor the presence of CME or its employees or subcontractors on a site shall imply that CME controls the operations of others, nor shall this be construed to be an acceptance by CME of any responsibility for jobsite safety.

Indemnification - To the full extent permitted by law, Client shall indemnify, defend and hold harmless CME and its subcontractors, consultants, agents, officers, directors and employees (herein collectively referred to as Engineer) from and against all claims, damages, losses and expenses, whether direct, indirect or consequential, including but not limited to fees and charges of attorneys and court and arbitration costs, arising out of or resulting from the services of work of Engineer or any claims against Engineer arising from the acts, omissions of work of others, unless it is proven in a court of competent jurisdiction that the Engineer is guilty of negligence or willful misconduct in connection with the services and such negligence or willful misconduct was the sole cause of the damages, claims and liabilities.

Client agrees to indemnify and hold harmless Engineer from and against all claims, damages, losses and expenses, direct or indirect, and consequential damages, including but not limited to fees and charges of attorneys and court and arbitration costs, brought by any person or entity, or claims against Engineer which arise out of, are related to, or are based upon, the actual or threatened dispersal, discharge, escape, release or saturation or smoke, vapors, soot, fumes, acids, alkalis, toxic chemical, radioactive materials, liquids, gases or any other material, upon, in or into the surface or subsurface soil; water or watercourse; objects; or any tangible or intangible matter.

To the fullest extent permitted by law, such indemnification shall apply regardless of the fault, negligence, breach of warranty or contract or strict liability of Engineer. This indemnification shall not apply to claims, damages, losses or expenses which are determined by a court of competent jurisdiction to be the sole result of negligence or willful misconduct by the Engineer of obligations under this Agreement.

Limitations of Liability - CME's total liability to Client for any and all injuries, claims, losses, expenses or damages whatsoever arising out of, or in any way related to, this Agreement from any cause or causes, including but not limited to CME's negligence, errors, omissions, strict liability, breach of contract or breach of warranty, shall not exceed the total contract amount for the services provided by CME or $50,000, whichever is less.

In no event shall CME be liable for consequential damages, including, without limitation, loss of use or loss of profits, incurred by Client or their subsidiaries or successors, regardless of whether such claim is based upon alleged breach of contract, willful misconduct, or negligent act or omission.

Professional services rendered for a Client shall be provided for that Client. The Client is responsible for the proper operation and use of the subject facilities and/or report and nothing herein shall provide any rights to any third party. The Client, in authorizing CME to proceed, acknowledges that the professional responsibility is limited.

Termination - This Agreement may be terminated by either party upon fourteen (14) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, CME shall be paid for services performed to the termination notice date plus reasonable termination expenses.

In the event of termination, or suspension for more than three (3) months, prior to completion of all work contemplated by this Agreement, CME may complete such analyses and records as are necessary to complete its files and may also complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension shall include all direct costs of CME in completing such analyses, records and reports.

Assigns - The Client may not delegate, assign, sublet or transfer his duties or interests in this Agreement without the written consent of CME.

This agreement shall not create any rights or benefits to parties other than the Client and CME, except such other rights as may be specifically called for herein.

Consulting & Municipal
ENGINEERS

Barnegat • Berlin • Camden • Howell • Medford • Monmouth Junction • Parlin
WWW.CMEUSA1.COM