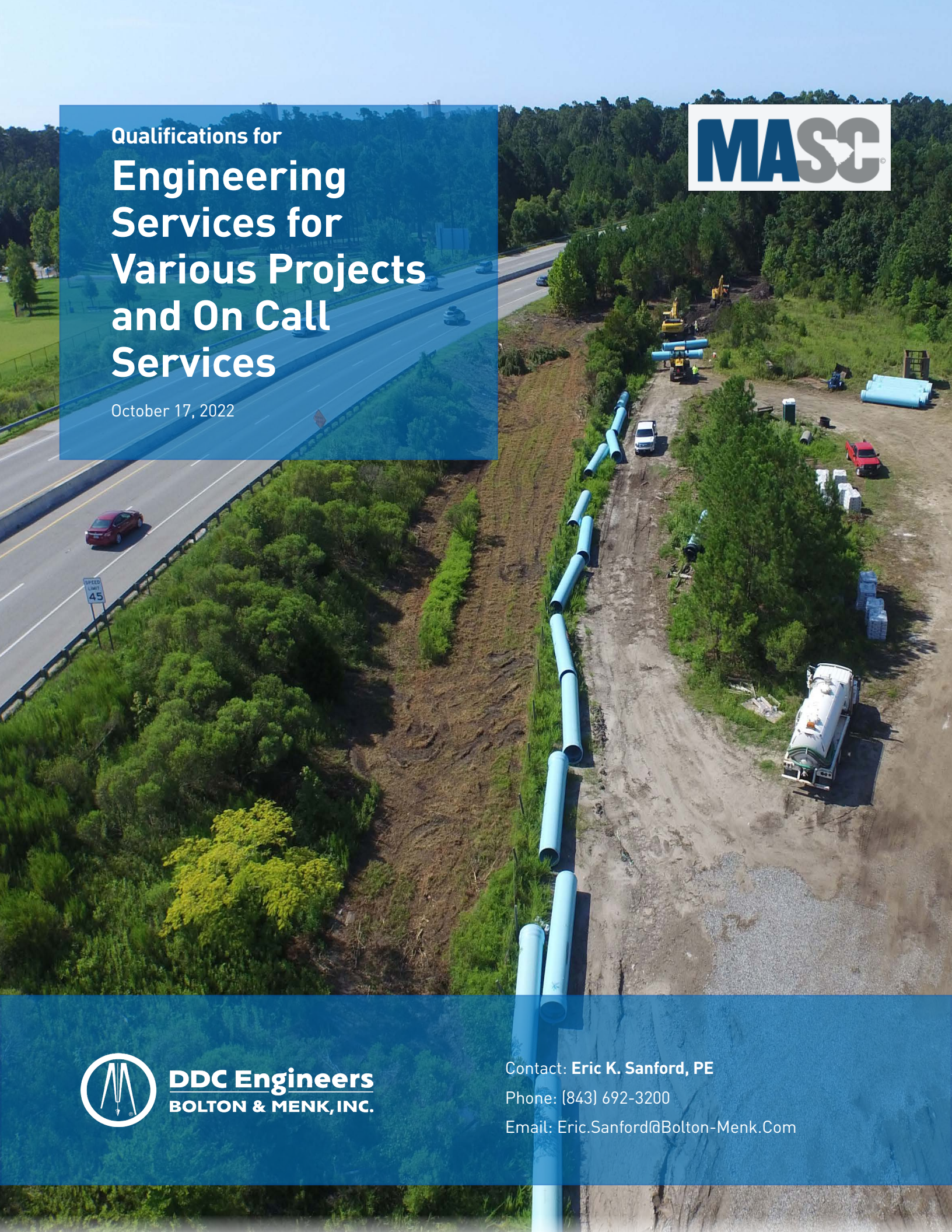


Qualifications for

Engineering Services for Various Projects and On Call Services

October 17, 2022

MASC

DDC Engineers
BOLTON & MENK, INC.

Contact: **Eric K. Sanford, PE**
Phone: (843) 692-3200
Email: Eric.Sanford@Bolton-Menk.Com

DDC Engineers
BOLTON & MENK, INC.

1298 Professional Drive
Myrtle Beach, SC 29577
Phone: (843) 692-3200
Fax: (843) 692-3210

October 17, 2022

Mr. Jake Broom
Chief Operating Officer
Municipal Association of South Carolina
P.O. Box 12109
Columbia, South Carolina 29211

Re: Request for Qualifications Engineering Services for Various Projects and On Call Services

Dear Mr. Broom:

DDC Engineers|Bolton & Menk, Inc. is pleased to present our qualifications for the Engineering Services for Various Projects and On Call Services located throughout South Carolina.

Bolton & Menk, Inc. is a national multi-faceted consulting engineering and survey firm, now with a total of 28 offices across South Carolina, North Carolina, Minnesota, Iowa, and North Dakota. With more than 70 years of experience as a firm and over 30 years of experience throughout the southeast United States, we have established a reputation as a dependable engineer for municipalities, counties, and other agencies.

Our team brings a depth of experience and history of successfully delivering projects in South Carolina. DDC's well-established footprint in the Carolinas has allowed them to provide professional civil engineering services to municipal and private development clients for many years. Through this experience, DDC has dealt with almost every imaginable issue. With our local expertise coupled with our partnership with Bolton & Menk, we have three times the capacity, staff, and experience to pull from in providing timely, vision-focused deliverables.

We are creative problem solvers - which means our team listens, collaborates, embraces challenge, and strategically applies the right tools to meet a community's needs.

Please contact us should you require additional information and please visit our website at www.ddcinc.com.

Sincerely,
DDC Engineers|Bolton & Menk, Inc.

James M. Wooten, P.E. F, ASCE
Principal Engineer

48-Inch water line serving water to Grand Strand customers from the Bull Creek Water Treatment Plant, a DDC Project.

In 2021, DDC Engineers joined the Bolton & Menk team. DDC Engineers brings 36 years of civil engineering, land surveying, planning and landscape architecture expertise from their Myrtle Beach, South Carolina location, where they have grown to be the Grand Strand's largest and most prolific professional design firm. **Our firms were all founded upon the same core values and principles, and we are drawn together by our commitment to the communities we serve.**

Today, **Bolton & Menk has more than 800 employees throughout 28 offices in the Midwest and Southeast**, including a professional staff of more than 250 engineers, planners, landscape architects, and surveyors providing services to more than 500 communities, investors, and agencies that advocate for communities.

DDC has served or is currently serving as the on-call civil engineering consultant for the following entities: City of Myrtle Beach; Horry County; City of North Myrtle Beach; Town of Surfside Beach; Coastal Carolina University; Horry Georgetown Technical College; Francis Marion University; Horry County Department of Airports; City of Conway; Georgetown County Water & Sewer District and Little River Water & Sewerage Company.

Our firm has a reputation for finding solutions to problems that not only work, they are cost effective, timely and environmentally sound. Over the years, we have been responsible for more than 1,000 municipal, commercial, and residential development projects. These range in size from two to six thousand acres.

Each of these projects were successfully designed, guided through the regulatory process and, ultimately, constructed.

DDC offers extensive local in-house experience for those specific services outlined for this assignment. Those services range from, but may not be limited to: surveying, preliminary engineering, final design, regulatory permitting, opinion of probable costs, bidding, grants/funding financing and construction observation and administration. A partial list of our in-house services is below.

SOLUTIONS PROVIDED:

Potable Water
- Overall Project Master Planning
- Water Transmission and Pumping Systems
- Water Distribution Systems
- System Analysis and Appraisal
- Rate Studies
- Elevated Tank Design
- Plant Operation and Maintenance
- Water System Modeling

Sanitary Sewer
- Overall Project Master Planning
- System Analysis and Appraisal
- Sanitary Sewer Design
- Sewage Transmission Systems
- Sludge Dewatering and Disposal
- Treatment Plant Design
- Innovative Wastewater Solutions
- Pump Station Design
- Inline Booster Design
- VFD Systems
- Horizontal Storage
- Self Cleaning Wetwells
- Force Main & Pump Modeling

I- TECHNICAL APPROACH / UNDERSTANDING

PROJECT UNDERSTANDING

DDC Engineers|Bolton & Menk, Inc. understands that the Municipal Association of South Carolina is seeking qualified civil engineering firms who process the expertise, familiarity, and experience to implement water and sewer improvement projects spurred by the American Rescue Plan Act Funding assignments. We also understand if chosen, our firm, will be added to the list to be used by the local governments.

TECHICAL APPROACH

DDC Engineers|Bolton & Menk, Inc. proposed approach for each assignment will reflect the approach utilized by our team for nearly every municipal project. The key elements will begin with a meeting with municipal representatives in an effort to gain information and insight regarding the muncipalities' goals, as well as to determine any available elements of the proposed project that may be of benefit to our design task. This sharing of ideas and information usually allows a more focused design effort which results in a timelier project.

After the initial meeting and sharing of information, DDC survey personnel, if required for the project, will be dispatched to the project area. Their task will be to complete an existing conditions survey of the project area so that it can be mapped for use in design and so that we will be in a position to understand any elements which would make the project less manageable from a design perspective. In addition to the survey team, the DDC Project Manager will visit the site and personally review existing conditions so that when design begins, he will have a clear understanding of the site in context with the existing conditions plan.

We will develop the base mapping for the project area and will initiate preliminary engineering design and an Opinion of Probable Cost for the project.

DDC will make initial contact with the regulatory agencies' staff early in the process to ensure that our design will be acceptable upon completion. When we have completed the plans and details and after thorough review by the municipal staff, we will make applications to these state regulatory agencies and respond to any comments or concerns. Upon satisfying the agencies, DDC will make final revisions to the plans and assist the municipality with advertising and bidding the project to qualified general contractors.

During the construction phase, DDC will provide contract administration and limited construction observation which will include a pre-construction conference, shop drawing review and project progress meetings. As the project nears completion, DDC will work with the Contractor to complete record drawings and with the regulatory agencies to closeout the permitting requirements.

SCHEDULING

DDC will complete the scope of services for each assignment based upon a mutually agreeable schedule.

DELIVERABLES

All drawings will be black and white, single line drawings. Contract Documents and specifications will be arranged in standard CSI/16 division format. We assume that surveys will reference the South Carolina State Plane Coordinate System, North American Datum of 1983 and North American Vertical Datum of 1988 and be provided to DDC in digital format.

II - WORK MANAGEMENT PLAN / EXPERIENCE OF PERSONNEL

Project Team: We have strategically selected the most qualified team of experts with experience in their respectful field of practice to provide successful projects that will meet and/or exceed municipalities expectations for the services outlined in the Request for Qualifications. This project team will work collectively to deliver the best service and solutions possible to each assignment - whatever it takes.

Eric K. Sanford, PE, with over 40 years of professional civil engineering experience will be the main point of contact and lead engineer. He will be supported by three registered professional engineers, a professional land surveyor and support staff who all bring years of professional experience in their respective field of expertise.

The DDC office, located at 1298 Professional Drive in Myrtle Beach will be the office utilized for each and every municipal assignment. While we may, from time-to-time, depend on professionals from other offices of our parent company Bolton & Menk all work will be coordinated by and through the DDC office in Myrtle Beach.

MASC

* Civil Engineering
Seth A. Peterson, PE
Senior Principal Environmental Engineer

* Civil Engineering
Eric K. Sanford, PE
Principal Engineer

* Civil Engineering
Paul L. Saffert, PE
Senior Principal Environmental Engineer

* Civil Engineering
Herman D. Dharmarajah, PE, PhD
Environmental Practice Expert

* Civil Engineering
Dylan R. Jordan, PE
Project Engineer

Surveying
James E. Hayes, PLS
Surveying Manager

Schedule and oversee surveying services for each assignment.

Construction Services
Wes Anderson
Sr. Construction Project Representative

Direct and oversee construction observation and administration, record drawings and project closeout.

*
Site Reconnaissance
Meetings
Route Study
Easement Exhibits
Preliminary Engineering Report
Cost + Effectiveness Analysis
Discussion Matrix
Regulatory Permitting
Conceptual Design
Opinion of Probable Cost
Final Design
Bid Documents

Bolton & Menk, Inc. more than 800-employee Service Engineering Firm

Eric K. Sanford, PE

Principal Engineer

DDC Engineers
BOLTON & MENK, INC.

Education

Bachelor of Science, Civil Engineering (Environmental)
Rochester Institute of Technology, Rochester, NY

Registration

Professional Engineer
South Carolina (No. 29814)
North Carolina (No. 038312)
Florida (No. PE90916)
NCEES PE Record (No. 48833)

Organizations

Member - American Society of Civil Engineers - (M.ASCE)
Associate Member - SC Association of Stormwater Managers (SCASM)
Member - Southeast Stormwater Association (SeSwA)
Member - Water Environment Federation - (WEF)
Member - Water Environment Association of South Carolina - (WEASC)
Past WEASC Waccamaw District Chair - (2011-2012)

Continuing Education

Kentucky Pipe; WaterCAD; and SewerCAD

Summary

Eric has provided professional services in the field of civil engineering since 1982. He has worked extensively on water and sewer designs for the City of Myrtle Beach and other local governments, using both traditional and computer-aided design tools. Eric has also been involved in large-scale water, wastewater, and stormwater management studies. The water and sewer study projects include rate collection inventory, capacity analysis for water, gravity sewer, pump stations and force main networks for analysis of seasonal peaks, off-season, and future planning of the City of Myrtle Beach. Eric has a great deal of experience in retrofitting existing infrastructure systems to bring them into conformance with area growth, current industry standards, and to improve overall efficiency.

Eric has served as DDC's representative to the City of Myrtle Beach Public Works Department and has been responsible for all City's work accomplished by DDC for over 30 years. His knowledge of the City's infrastructure systems is without comparison with respect to those not directly employed by the City.

Also, Eric has modeled many complex large water systems and sewer force main manifold pump stations systems with over 200 pump station on a single force main, as well as the design and rehab of over 500 various flow rate submersible, flooded suction and self-priming pump stations. These stations include the development of self-cleaning wetwells and other methods to reduce wet well debris, odors, and hydrogen sulfide release along with the addition of horizontal storage to improvement pump stion cycle times and upgrades to the controls using Variable Frequency Drive (VFD) control or various sized pumps to efficiency of the station. Eric is well versed in maintenance of the stations and performing pump efficiency test to determine the performance of the pumps along pump station draw down test.

Experience

Grand Strand Water & Sewer Authority 48-Inch Water Line Installation, Horry County, SC - Eric was the lead design engineer for this water line project that now serves water to Grand Strand customers from the Bull Creek Water Treatment Plant. The project was funded by State Revolving Funds (SRF).

Duffy Street Force Main Replacement, North Myrtle Beach, SC - This project consists of installing over 6,350 lf of 16 inch force main pipeline to replace an existing 15 inch force main pipeline within a residential area. This project is currently under construction.

Engine Driven Emergency Pump Stations, Myrtle Beach, SC - The City of Myrtle Beach is adding some resiliency to their existing sewage system infrastructure by installing emergency engine driven backup pumps to sixteen (16) of their existing pump stations that are scattered through the city sewer service area. Eric is the lead engineer providing project management, design, funding assistance and regulatory permitting. The project is being funded by State Revolving Funds (SRF).

WTM Protective Measures, Myrtle Beach, SC - This project will consist of rehabbing the 11 existing pressure reducing valve (PRV) that protect the City of Myrtle Beach's water distribution system which stretches approximately 8.26± miles. Eric is the lead engineer providing project management, design, funding assistance and regulatory permitting. The project is being funded by State Revolving Funds (SRF).

Dylan R. Jordan, PE

Project Engineer

DDC Engineers
BOLTON & MENK, INC.

Education

Bachelor of Science - Civil Engineering
Clemson University

Registration

Professional Engineer, SC (No. 40397)

Computer Skills

AutoCAD
Stormwater Studio
Hydrology Studio, HEC-HMS
EPA SWMM, SAP2000
SewerCAD
WaterCAD
Microsoft Word
Microsoft Excel
Microsoft PowerPoint

Organizations

FE Exam Passed - Water Resources & Environmental
Clemson University American Society of Civil Enigeers Student Chapter 2015-2018
Water Environment Association of SC 2017-current

Summary

Dylan has provided professional services in the field of civil engineering since 2018. He brings his expertise in Applied Fluid Mechanics; Hydrology and Hydraulics; Groundwater Contaminant and Transport; Hydrologic Analysis and Design; Stormwater Management and Design Coastal Engineering; and CAD and Engineering Applications (AutoCAD). He is responsible for the overall management and efforts associated with producing complete construction drawings for a variety of projects including municipal and residential.

Experience

Duffy Street Force Main Replacement, North Myrtle Beach, SC - Dylan assisted with the civil engineering services for this project to install a 16 inch force main pipeline to replace an existing 15 inch force main pipeline within a residential area. This project is currently under construction.

Arts and Innovation District Phase 1A + 1B, Myrtle Beach, SC - The City of Myrtle Beach is in the process of revitalizing their downtown superblock area (32± acres) now known as the Arts and Innovation District. Mr. Jordan is working with the City by providing civil engineering services which include but are not limited to updating the schematic utility design of domestic water and sewer service, associated parking, drainage and regulatory permitting.

Blue Granite Water Company Hydraulic Water Modeling I-20 System, Lexington, SC - Dylan is providing professional engineering services to develop a hydraulic water model that reflects the existing operation of the I-20 water system in Lexington, South Carolina. This model will include all pipes larger than six inches in diameter, system feed points, residential and commercial demands, etc. in sufficient detail to reflect the operation of the existing water system. DDC Engineers will also study previous growth in the subject area based upon meter data and online data to compute an expected growth rate for the years to come. DDC Engineers will develop several capital improvements to not only get the existing water system up to local requirements but to also ensure the existing system keeps pace with the growth computed for the area.

Huckleberry Lane Water Line Extension, Horry County, SC - Dylan provided the civil engineering design services to deliver water availability on Huckleberry Lane and Hamp-Ned Road. The waterline extension consists of approximately 7,138-lf of 8” and 1,224-lf of 6” waterline installation. Three complete fire hydrant assemblies were installed on Huckleberry Lane along with one post hydrant on Hamp-Ned Road.

Seth A. Peterson, PE

Senior Principal Environmental Engineer

DDC Engineers
BOLTON & MENK, INC.

Education

Bachelor of Science - Civil Engineering
South Dakota State University

Master of Science - Civil and Environmental Engineering
South Dakota State University

Registration

Professional Engineer, MN
Professional Engineer, WI

Summary

Having started as an intern at Bolton & Menk, Seth now leads one of the largest environmental groups in the Upper Midwest. Seth began engineering in 1995 and now serves as the environmental work group leader. If someone has a water or wastewater problem, he is willing to do what it takes to figure it out. His background includes planning, assisting with funding, and designing lift stations and water and wastewater treatment facilities; securing permits; working with regulatory agencies; and construction management.

Experience

Water Treatment Facility, City of Elko New Market, Minnesota - Seth provided design and construction services for a new 1,500 gpm iron, manganese, and radium removal ground water treatment plant. Provided assistance with funding and construction management. Project included raw watermain piping and connection to existing wells.

Northwest Area Utility Extensions, City of Inver Grove Heights, Minnesota - Seth was the lead design engineer for the lift station portion of this project.

Water Distribution Model and Water Supply Planning, City of Forest Lake, Minnesota - The City of Forest Lake needed a complete water distribution model to accommodate expansion of its water system and continued growth. Bolton & Menk designed a water distribution model for the city, offered recommendations for future developments, and provided tools to determine how to best solve issues and prioritize future plans.

Water Treatment Plant 4, City of Blaine, Minnesota - The City of Blaine needed a new water treatment plant to serve the entire city and provide additional reliability and flexibility for their water system. Seth was the project manager responsible for the overall design of the new $25 million facility. Seth brought his previous experience designing and managing complex projects and collaborated with city staff on design concepts. He encouraged input from operations staff to ensure total project buy-in. Through Seth's leadership the project team was able to deliver the design on time and meet the city's budget.

Paul L. Saffert, PE

Senior Principal Environmental Engineer

DDC Engineers
BOLTON & MENK, INC.

Education

Bachelor of Science - Civil Engineering
South Dakota State University

Master of Science - Civil and Environmental Engineering
South Dakota State University

Registration

Professional Engineer, ND
Professional Engineer, MO
Professional Engineer, NC
Professional Engineer, OH
Professional Engineer, SC

Summary

An environmental engineer since joining the firm in 2000, Paul began working for Bolton & Menk as an intern. Paul believes Bolton & Menk has always been committed to providing great opportunities coupled with appropriate training. He appreciates the education the firm provides for its employees to see the whole picture rather than only one specialty, which has given Paul many opportunities to learn and be successful throughout his career. He oversees a broad range of environmental projects in both the municipal and industrial fields. He uses his experience in planning and feasibility studies, design, construction management and observation, existing unit process evaluation, and facility operations services for water and wastewater treatment facilities to serve a range of clients.

Experience

Wastewater Treatment System Improvements, City of Paynesville, Minnesota - The City of Paynesville's wastewater treatment facility needed improvements. Bolton & Menk collaborated with significant industrial users and the city to design new grit removal, screening, main lift station, and other improvements, which helped secure an MPCA grant and PFA loan and provide the best fit wastewater treatment system for the community.

Wastewater Regionalization, Cities of Annandale/Maple Lake/Howard Lake, Minnesota - Paul was the lead environmental engineer on the regionalization of wastewater for Annandale, Maple Lake, and Howard Lake. Bolton & Menk completed the wastewater facility plan, design, project funding assistance, and construction services. Major improvements included: construction of new lift stations and 27 miles of forcemain.

Water Treatment Plant, City of Litchfield, Minnesota - The City of Litchfield had three existing water facilities. Upgrading each facility was evaluated as well as construction of a new centralized facility. The results of the study indicated the long-term, cost-effective solution was to construct a new facility and drill new wells. Paul served as project engineer for the study.

Wastewater Treatment Improvements, City of Sioux Center, Iowa - Bolton & Menk implemented plans for the Sioux Center wastewater treatment facility. Paul served as the design engineer and performed detailed design of biological systems. He developed a robust and flexible design for a successful wastewater treatment facility.

Herman E. Dharmarajah, PE, PhD

Environmental Practice Expert

DDC Engineers
BOLTON & MENK, INC.

Education

Bachelor of Science - Civil Engineering
University of Sri Lanka

Doctorate - Environmental Engineering
Iowa State University

Master of Science - Environmental Engineering
Iowa State University

Registration

Professional Engineer, IA
Professional Engineer, MN
Professional Engineer, CA

Certifications

American Academy of Environmental Engineers and Scientists

- AAAE Certified Member

Summary

Herman provides innovation and education on environmental engineering projects for his clients. He was the process engineer for the first reverse osmosis (R.O.) water treatment facility in the State of Minnesota. Herman is experienced with the management, design, and construction of water and wastewater treatment facilities, performing these projects since 1982. He also supervises and provides technical assistance to staff design engineers, drafting personnel, and construction management staff. Herman has conducted numerous pilot tests for various systems to reduce the level of contaminants in their water. He was also a principal investigator for the national surface water study, which evaluated more than 40 water treatment plants throughout the United States.

Experience

Water Supply and Treatment System Improvements, Spencer Municipal Utilities, Iowa - Herman served as the lead design engineer for the $15 million upgrade to the plant which included new gravity filters, lime and soda ash feed system, TOMCO PSF carbon dioxide feed system, and lime press for dewatering lime sludge.

Water System Improvements, City of Morris, Minnesota - Herman served as the lead process and design engineer for this project. This lime soda ash softening treatment facility reduces chloride in the city's wastewater treatment effluent. The city not only achieved the objective of reducing chloride in the wastewater treatment plant effluent but also supplying very low hardness of water to its customers.

Water Treatment Plant 4, City of Blaine, Minnesota - Herman served as the lead design engineer for this project. The project incorporated plate settlers to maximize the backwash water reclamation. The project is currently under construction.

James E. Hayes, PLS

Survey Manager

DDC Engineers
BOLTON & MENK, INC.

Summary

James has an Associate Degree in Civil Engineering and is a Professional Land Surveyor in South Carolina (13557) as well as several additional southeastern states. He has been providing professional services in the field of land surveying since 1982. Mr. Hayes has a vast level of experience and professional expertise in all elements of land surveying and mapping. He will be responsible for the critically important surveys which will be required to facilitate engineering design and modeling. He will oversee the work of our field crews and our mapping department to ensure that their product is both thorough and accurate. Surveying is a critical building block of this assignment and we are very pleased James will be leading this effort for us.

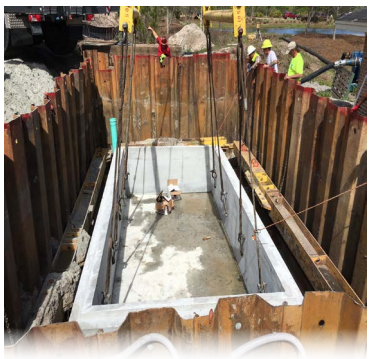
Wes Anderson

Sr. Project Construction Representative

Summary

Since 1988, Wes has provided professional experience in the construction and land surveying industry. He is responsible for interaction with the contractor selected for each project, as well as the various local and state regulatory agencies that must ultimately approve the work. Wes serves as the field representative for the design teams and, more importantly, the Client. He will schedule and oversee the construction services needed observe and monitor the construction of the project along with the project closeouts.

In an administrative role, Wes supervises construction coordinators and construction observers, as well as the coordination of survey crews. Typical projects for which he is responsible for encompass municipal, private, commercial and industrial sectors.



82nd Avenue North Pump Station, Myrtle Beach, SC - Wetwell Installation. Construction Services by DDC Engineers

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
Grand Strand Water and Sewer Authority

REFERENCE
Christy S. Everett, PE
843-443-8293
christy@gswsa.com

SERVICES
Site Reconnaissance
Route Study
Easement Exhibits
Preliminary Engineering Report
Cost + Effectiveness Analysis Discussion Matrix

Surveying + Mapping
Regulatory Permitting
Conceptual Design
Opinion of Probable Cost
Final Design
Bid Documents
Construction Observation + Administration
Record Drawings / Project Closeout

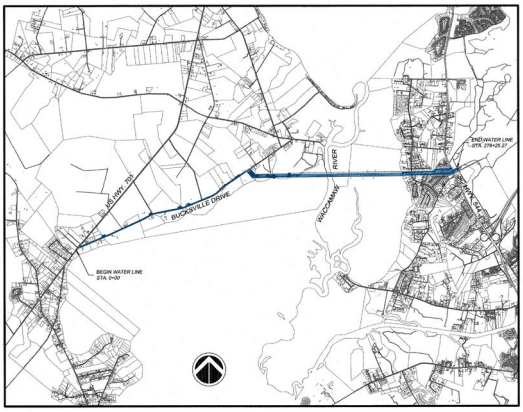
HIGHWAY 701 TO HIGHWAY 544 48-INCH WATER TRANSMISSION LINE

Horry County, SC

SURVEYING + CIVIL ENGINEERING

This project is located in the southwestern portion of Horry County. The existing 36" PVC waterline was replaced by a 48" water line which serves water to Grand Strand customers from the Bull Creek Water Treatment Plant. This 27,825 lf of 48" steel waterline is the main water feed from the Bull Creek Surface Water Treatment Plant to the northern part of Horry County on the other side of the Waccamaw River from the River to Little River along with most all of the northern portion of unincorporated Horry County.

The project started at the intersection of Highway 701 and Bucksville Drive in Bucksville, South Carolina and runs along the northwest side of Bucksville Drive in the right-of-way and in private easements adjacent to the ROW for approximately 2.4 ± miles and then turns southeast and follows along the southeast side of the Santee Cooper Transmission power line right-of-way in a series of private easement for 2.5 ± miles which crosses the Waccamaw River into the Socastee area of Horry County, from there the proposed transmission line will then across the Santee Cooper power line right-of-way to the north side of the right-of-way at Highway 814 and then down a couple of property lines to the cul-de-sac at the end of Peachtree Lane and then down Peachtree Lane across Highway 544 where the proposed 48" water line will turn south back to the Santee Cooper power line then tie into the existing 36" water line that runs north up the power line to the existing to the Perry Road Water Booster Pump Station and 4 million gallon ground storage tank near Highway 501. The project is funded by State Revolving Funds (SRF) and is completed.



2,500 lf direct drill under the Waccamaw River

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
City of North Myrtle Beach

REFERENCE
Kevin Blayton, P.E.
Public Works Director
(843) 280-5555
kdblayton@nmb.us

SERVICES
Engineering Field Work
Surveying
Conceptual Design
Hydraulic Modeling + Calculations
Final Design
Regulatory Permitting
Opinion of Probable Cost
Bid Documents
Construction Observation + Adminsitration
Record Drawings / Project Closeout

CHERRY GROVE SEWER FORCEMAIN REPLACEMENT

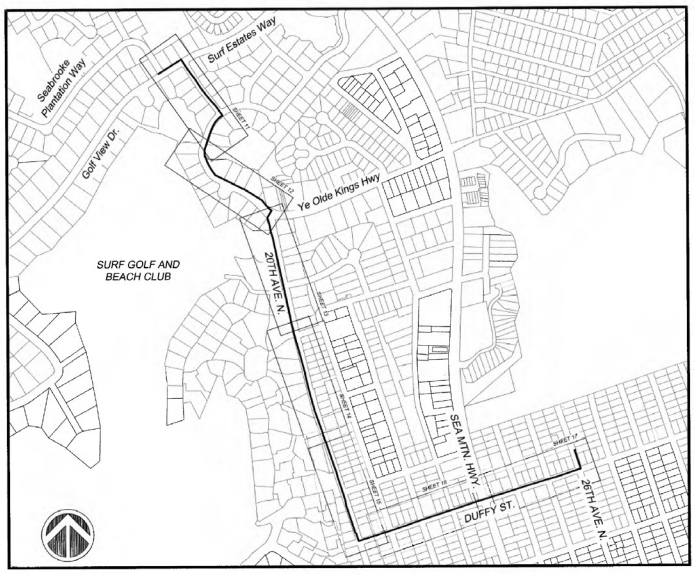
North Myrtle Beach, SC

CIVIL ENGINEERING

The project consists of installing over 6,350 lf of 16 inch force main pipeline to replace an existing 15 inch force main pipeline. The northern end of the new pipeline will be approximately 130-ft. from a salt marsh area associated with the Cherry Grove Inlet that flows to the Atlantic Ocean. The entire project site is located approximately 0.25 miles from the Atlantic Ocean.

The force main pipeline starts at Seabrook Plantation Way and travels down Surf Estates Way, then Marsh Pointe Place, then Surf Point Drive to 20th Avenue North. The pipeline then travels down 20th Avenue North to Duffy Street, and then along Duffy Street to 26th Avenue North where it connects to an existing sanitary sewer pump station. The entire pipeline route is located in the City of North Myrtle Beach; Horry County, South Carolina.

Various BMP's are being used during the completion of the project including inlet protection and the minimization of exposed areas during each portion of the project. This project is currently under construction. DDC Engineers will provide the construction services to the completion of the project.



Overall plan

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
City of Myrtle Beach

REFERENCE
Chris Miller
Infrastructure Manager
(843) 918-2000
camiller@cityofmyrtlebeach.com

SERVICES
Preliminary Design
Final Design
Opinion of Probable Cost
SCDOT Encroachment Permit
Bid Documents
Construction Observation + Adminstration
Record Drawings / Project Closeout

MR. JOE WHITE FORCE MAIN REPLACEMENT

Myrtle Beach, SC

CIVIL ENGINEERING

The City of Myrtle Beach removed and replaced certain sections of the existing 36" DIP force main that runs along the outside west bound lane of Mr. Joe White Avenue to U.S. Highway 17 Bypass. The replacement involved the removal of the existing 36" DIP sewer force main and replaced with a new PVC force main in the same size and location. This section of force main replacement is approximately from Ocala Street west toward U.S. Highway 17 Bypass to around Osceola Street approximately 600± linear feet in order to tie into the recent force main repairs.

This is an RIA Grant project and is complete.

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
City of Myrtle Beach

REFERENCE
Chris Miller
Infrastructure Manager
(843) 918-2000
camiller@cityofmyrtlebeach.com

SERVICES
Topographic Survey + Mapping
Preliminary Engineering Report (PER)
Preliminary Design
Final Design
Opinion of Probable Cost
Regulatory Permitting
Bid Documents
Construction Observation + Adminstration
Record Drawings / Project Closeout

PRESSURE REDUCING VALVE INSTALLATION

Myrtle Beach, SC

SURVEYING + CIVIL ENGINEERING

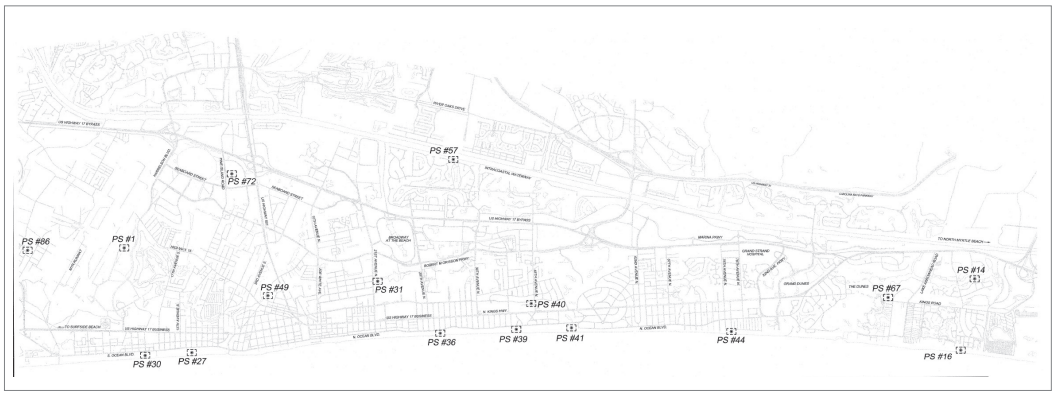
The City of Myrtle Beach contracted with DDC Engineers to provide the surveying, civil design, the preparation of a Preliminary Engineering Report (PER) and construction services for each of the existing Pressure Reducing Valve (PRV's), sites along Highway 17 Bypass to provide pressure relief at various strategic locations along the LDM to protect the water line from pressure surges and over pressurization of the distribution system from the Myrtle Beach SWTP. The designs will utilize the existing PRV concrete vaults that are at the existing PRV sites except for the ones that will have to be upgraded from a check valve vault to a PRV vault.The project is currently going through the State Revolving Funds (SRF) permitting stage.

Project layout

PUMP STATION PROTECTIVE MEASURES STANDBY PUMP INSTALLATION

Myrtle Beach, SC

The project entails the installation of a bypass backup pump at sixteen existing wastewater pumping stations throughout the City of Myrtle Beach for pump and failures for each pump station. The bypass pump at each station will be an aboveground engine-driven, self-priming pump. The suction line of these pumps will extend into the existing wet well, horizontal storage, or upstream manhole at each station. The pump discharge line will connect to the existing forcemain leaving each station. The bypass pump, suction line, and discharge line will be installed at each existing station site, with exact layout depending on the details of each site. The project is currently going through the State Revolving Funds (SRF) permitting stage.



Project layout

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
City of Myrtle Beach

REFERENCE
Chris Miller
Infrastructure Manager
(843) 918-2000
camiller@cityofmyrtlebeach.com

SERVICES
Topographic Survey + Mapping
Preliminary Design
Final Design
Opinion of Probable Cost
Regulatory Permitting
Bid Documents
Construction Observation + Adminstration
Record Drawings / Project Closeout

ARTS & INNOVATION DISTRICT PHASE 1A+1B

Myrtle Beach, SC

SURVEYING + CIVIL ENGINEERING

In 2020, The City of Myrtle Beach began the revitalization of the Downtown "Superblock" area now known as the "Arts and Innovation District" in efforts to revive this portion of the city into a setting that would bring locals and enhance tourism to this sector of the City. DDC Engineers is providing the surveying and civil engineering services in order to assist the city with the on-going enhancement of the Arts and Innovation District to take shape. (32± acres)

As part of Phase 1A and in keeping with the updated schematic utility design completed by DDC, the project utilities (water, sewer and drainage) were relocated in the back parking lot area.

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
City of Elko New Market

REFERENCE
Thomas Terry
City Administrator
952-461-2777

WATER TREATMENT FACILITY

City of Elko New Market, Minnesota

WATER SUPPLY, TREATMENT AND DISTRIBUTION

Due to elevated levels of radionuclides in the source water wells, the City of Elko New Market needed additional treatment for their drinking water.

To determine the best solution for the City's water supply needs, Bolton & Menk completed a Water Supply Study which evaluated options for treatment location, capacity, and technology. The study resulted in the design and construction of a 1,350 gpm gravity filtration water treatment facility, a new 1,000 gpm supply well, and more than 10,000 feet of new watermain.

Through thorough evaluation and planning, the final design of the facility provided the City with a water treatment facility that will not only meet the current needs of the City, but can easily be expanded to meet the needs of the growing community in the future.

III. EXPERIENCE OF THE FIRM

CIVIC

CLIENT
City of Paynesville

REFERENCE
Renee Eckerly
City Administrator
320-243-3714

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS

City of Paynesville, Minnesota

WASTEWATER TREATMENT

The City of Paynesville's wastewater treatment facility needed improvements. Significant industrial users collaborated with the city and Bolton & Menk to develop the best fit wastewater treatment for the community. They chose to modify the existing aerated pond and spray irrigation system.

Bolton & Menk designed new grit removal, screening, and main lift station; expanded the aeration pond capacity; and renovated the irrigation pump station. Existing infrastructure, including 240 acres of stabilization ponds and 1,200 acres of spray irrigation fields, will continue to be used for final polishing and disposal. Because of the treatment and spray irrigation improvements associated with this project, the city secured a Beneficial Use of Wastewater Grant administrated by the MPCA. Bolton & Menk assisted in partnering the grant funding with a low interest loan administrated by the Public Facilities Authority.

IV. FAMILIARITY WITH FEDERAL FUNDING REQUIREMENTS

Funding Opportunities - DDC Engineers is proactive in positioning our clients to receive funding. We have been extremely successful in obtaining more than $100 million in low interest loans and grant dollars for our clients' projects. We understand these programs, the requirements, and the timelines; we position our clients to take advantage of these funding sources. We also work closely with community partners and industries to develop cost-effective solutions.

SRF	South Carolina State Revolving Fund
CDBG	Community Block Grant
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
HUD	Housing and Urban Development
SCPRT	South Carolina Parks, Recreation and Tourism
SCDOC	South Carolina Department of Commerce
SCDHEC	South Carolina Department of Health and Environmental Control
EPA	Environmental Protection Agency

Refer to Page 20 for a listing of funded South Carolina projects.

REFERENCES

Lawrence Ragsdale, Regional Director, SC Department of Health & Environmental Control
Ann Clark, Assistant Chief, SC Department of Health & Environmental Control
Bridgett Clark, P.E. South Carolina Department of Health & Environmental Control
Ron Andrews, P.E. , City of Myrtle Beach {retired}
Kevin Blayton, P.E., Director of Public Works, City of North Myrtle Beach
Christy Everrett, P.E., Chief Executive Officer, Grand Strand Water and Sewer Authority

Inline Sewage Booster Station for Grand Strand Water and Sewer Authority

IV. FAMILIARITY WITH FEDERAL FUNDING REQUIREMENTS

STATE REVOLVING FUNDS (SRF)		CONSTRUCTION COST
City of Myrtle Beach		
Plantation Pointe Pump Station	Duplex 340 GPM Submersible Pump Station	$ 479,115.00
Ocean Creek #1 Pump Station	Duplex 720 GPM Submersible Pump Station	$ 491,115.00
Dunes Club #1 Pump Station	Duplex 300 GPM Submersible Pump Station	$ 545,700.00
5th Avenue South Pump Station	Triplex 6000 GPM Submersible Pump Station	$2,366,096.00
82nd Avenue South Pump Station	Triplex 1500 GPM Submersible Pump Station	$1,153,150.00
Pump Station Protective Measures Standby Pump Installation - (16) Self-priming Engine Driven Pumps		$2,623,960.00 estimated
Pressure Reducing Valve Installation (PRV) - 20 PRV to Zone Water System		$3,289,393.00 estimated
Grand Strand Water and Sewer Authority		
Highway 701 to Highway 544 25,780 lf of 48-Inch Water Transmission Line 2,500 lf of 48" Directional Drill		$24,887,376.00
8,375 of 36" Water Line Interconnection between GSW&SA and City of Myrtle Beach		$ 5,347,415.00
South Wastewater Transmission System Upgrade - 12,398 lf of 36" Force Main and 12 mgd Duplex VFD Booster		$10,755,672.00
62nd Avenue North 23 MGD Water Booster Station		$ 4,353,503.00 estimated
COMMUNITY DEVELOPMENT BLOCK GRANT		
City of Myrtle Beach		
Charlies Place - Roadway and Drainage		$112,984.84
Mary C. Canty Recreation Parking Addition - Parking Lot		$225,000.00
Grey Street Improvements - Roadway and Drainage		$835,000.00
SC RURAL INFRASTRUCTURE AUTHORITY (RIA Grants)		
City of Myrtle Beach		
Mr. Joe White Force Main Repairs 400 lf of 36" Force Main		$673,500.00
Boundary Street Force Main Replacement 200 lf of 20" Force Main		$472,441.75
ENVIRONMENTAL PROTECTION AGENCY (EPA)		
City of Myrtle Beach		
14th Avenue North Ocean Outfall 1,300 lf of Dual 84" PCCP Pipe		$1,000,00.00