



MUNICIPAL ENGINEERING, INC.

Engineering Excellence: Innovative Approaches / Sustainable Solutions

March 13, 2024

Ms. Jeneen McMillen, Finance Director
Town of Landis

RE: Statement of Qualifications
Patterson Road / Flat Rock Road Waterline

Dear Ms. McMillen:

Municipal Engineering, Inc. (MESCO) is pleased to submit our Statement of Qualifications for Professional Engineering Services associated with the Patterson Road / Flat Rock Road Waterline project for the Town of Landis. Mr. Bobby Blowe, P.E. will be your primary point of contact for questions during the RFQ selection process. He can be reached at (919) 772-5393 Office, or bblowe@mesco.com.

MESCO is a corporation headquartered in Garner, North Carolina with a branch office in Boone. Established in 1978, we have had the opportunity to complete many water and wastewater related projects for the Town of Landis and other municipalities across North Carolina. Our **NC HUB Certification** will also assist the Town in meeting the requirements of the State and Federal funding programs.

If selected, our engineering team will be headed by Mr. Vince Tomaino, P.E. at our Garner location. Mr. Tomaino will be supported by Mr. Gary Flowers, P.E. and other staff members as necessary. Each of these gentlemen has many years of experience in the design of water, wastewater and stormwater systems. Our Design Engineers and Project Managers are very familiar with the new requirements of the DWI Funding Programs and have great working relationships with the staff.

In closing, I would like to assure you and the Town that our Project Managers and I will be available at any time you need assistance. I have the professional staff available to get started immediately and complete the project within the timeframe provided by the funding agency. We look forward to continuing our work with you and the Town of Landis.

Very truly yours,
MUNICIPAL ENGINEERING, INC.

Carol R. Woodie
Principal Owner

MESCO.COM

Licenses: F-0812 & C-586

GARNER PH: (919) 772-5393
BOONE PH: (828) 262-1767

68 SHIPWASH DR., GARNER, NC 27529
820 STATE FARM RD., BOONE, NC 28607

GARNER FX: (919) 772-1176
BOONE FX: (828) 265-2601

STATEMENT OF QUALIFICATIONS

Professional Services - Civil Engineering Services

Patterson Road - Flat Rock Road Waterline

• Town of Landis, NC •



Submitted by:

Municipal Engineering, Inc.

Due: March 28, 2024



MUNICIPAL ENGINEERING INC.

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INTRODUCTION – BACKGROUND INFORMATION

Municipal Engineering, Inc. (MESCO) has prepared a response to the Town of Landis' Request for Qualifications that highlights our expertise in the planning, design, permitting, bidding, construction administration, and grant administration of many water and sewer infrastructure projects for local governments all across North Carolina – including the Town of Landis. Our projects have involved new and upgraded water and wastewater treatment plants, water distribution systems, wastewater collection systems, elevated water storage tanks, wastewater lift stations, and the replacement of water meters.

Originally chartered in 1978 as Municipal Engineering Services Company, P.A., MESCO was restructured on January 1, 2022 as Municipal Engineering, Inc. **Municipal Engineering, Inc.** is a majority *woman-owned business, or MBE*, offering **Professional Engineering, Surveying, and Geology services** all under the same name. Our **NC HUB Certified MBE designation** often assists our clients attain one of the goals of the American Rescue Plan Act (ARPA), as well as, other State and Federal funding programs.

Our corporate headquarters are located in Garner, NC and we also have a full-service satellite office in Boone. Since 1978, MESCO has performed Municipal and County Infrastructure projects throughout North Carolina. Our 6,500 square foot Corporate Office at 68 Shipwash Drive in Garner, N.C. employs 30 professional and support staff, and there are five professional and support staff in our Boone Office. MESCO has demonstrated its stability and commitment to North Carolina local Governments over the past 45 years by providing consistent and quality service throughout the firm's history. We have staff with experience working on many water and wastewater related projects funded by the Division of Water Infrastructure. The Highlighted Projects listed on the following pages will demonstrate a strong background in understanding comprehensive Water and Sewer System Design and Operation.

As a local North Carolina consulting firm, we can provide a much higher level of client support with lower overhead than many of our competitors. Over the years, our conservative business approach has allowed MESCO to remain a strong, debt-free, and financially stable company. As the founder of MESCO, Jimmy



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**NC Board of Examiners for
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License # F-0812**

**NC Board for Licensing of
Geologists:
License # C-586**

Federal ID # 56-2177667

*Carol Woodie, Principal
cwoodie@mesco.com*

Headquarters

**68 Shipwash Drive
Garner, NC 27529
Telephone: (919) 772-5393**

Branch Office

**820-B State Farm Rd.
Boone, NC 28607
Telephone: (828) 262-1767**

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Engineering for our clients since
1978!*

TOWN OF LANDIS

Patterson Road/Flat Rock Waterline

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Woodie, often says, *"There are many engineering firms that can design a project for you, but few that will offer you the level of personal attention that we do throughout the life of the project and beyond."*

SERVICES OFFERED

MESCO offers a full scale of civil engineering services in the areas of Water & Wastewater Treatment, Distribution, and Collection; in-house Surveying and Mapping; Rate Studies; Site Development; Stormwater; Solid Waste; Sidewalks; Permitting; Contract Administration; Construction Observation; and Funding Assistance.

MESCO has also been approved as a private consulting firm by the NC-DOT for the following disciplines: Erosion & Sediment Control Design, GPS-Technical Services, Field Data Collection-GIS, Public Water Distribution System-Utilities, Public Water Transmission Systems – Utilities, Route Location Surveys-Technical Services, Sanitary Sewer Collection System-Utilities, Sanitary Sewer Outfall System-Utilities, SUE-Technical Services, Utility Coordination-Utilities, Building Site Design-Facilities Management, Topographic Surveying-Facilities Management, Boundary Surveying-Facilities Management, and Easement Surveying-Facilities Management. *Much of our work with NC-DOT involves the relocation of water and sewer lines, and, we have two engineers each in the Boone Office and Garner Office who have received the NC-DOT Certification for Utility Coordination.*

Our project team also includes professionals who are certified Haested Methods Master Modelers of Water CAD and graduates of the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program.

Mr. Bobby Blowe, P.E. will be the primary point of contact for the purposes of this Statement of Qualifications. He can be reached at (919) 772-5393, or bblowe@mesco.com. The Senior Project Manager / Engineer assigned to any particular project will be the primary point of contact on all other matters. The Town's primary point of contact will be provided mobile phone numbers for all key MESCO personnel involved in the Project with the invitation to call at any time!

EXPERIENCE WORKING WITH GOVERNMENT AGENCIES

Each of our Senior Project Managers has extensive experience working with the State and Federal Agencies that manage financial assistance programs. Mr. Bobby Blowe, P.E. of our staff, has over 18 years of experience managing the Grant and CWSRF Programs administered by what is now the NC. Division of Water Infrastructure. He is also experienced working with other funding agencies such as EDA, USDA-Rural Development, Golden Leaf, Appalachian Regional Commission, CDBG-I, and the NC Department of Commerce. Mr. Blowe will be available to assist in the administration of the funding for this new waterline project administered by the NC Division of Water Infrastructure.

The newest addition to our staff, Mr. Vincent Tomaino, P.E., was previously the DWSRF Branch Head in the NC Division of Water Infrastructure and has over 30 years of experience in Drinking Water and Air Quality Engineering. His contributions to the development of the Division of Water Infrastructure's ARPA policies have made him an extremely valuable member of our team.

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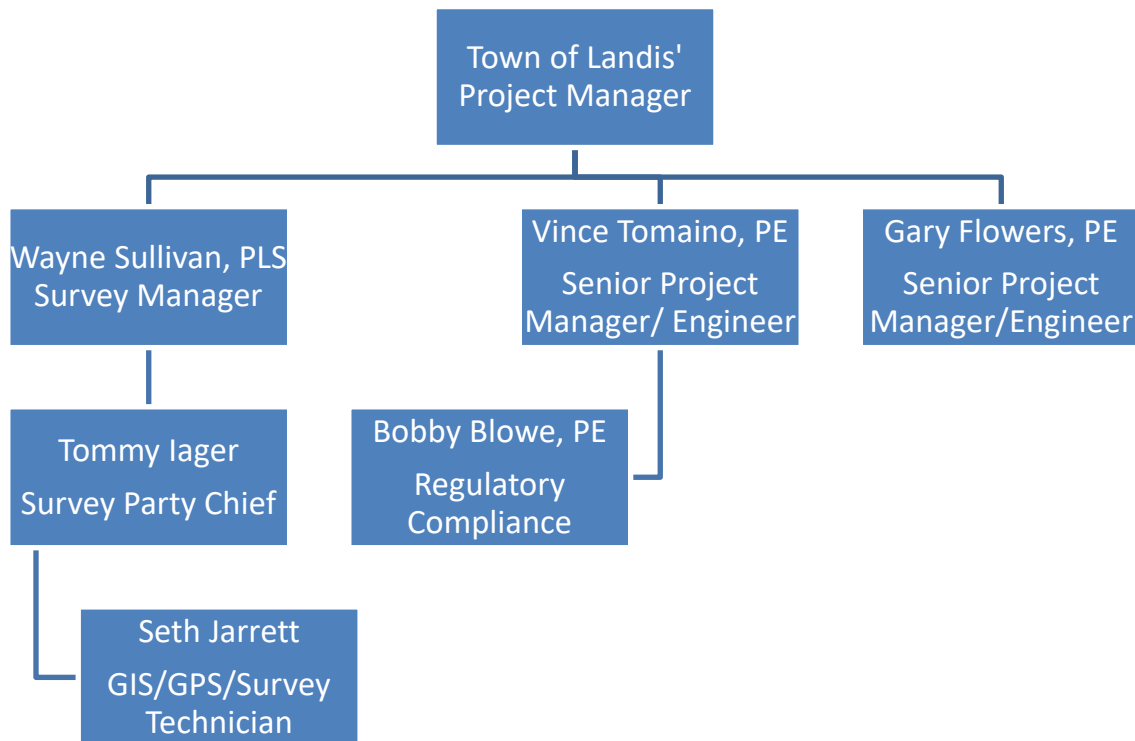


In addition, each of our Project Managers and Engineers has an excellent long-standing professional relationship with the financial and permitting personnel of the NC Division of Water Infrastructure and Division of Water Resources.

QUALIFICATIONS OF INDIVIDUAL TEAM MEMBERS

All project planning and design services for the Town of Landis will be managed from our Corporate Office located at 68 Shipwash Drive near Garner, NC, 27529. MESCO has a number of highly qualified Senior Project Managers / Design Engineers that will be available to participate as part of a Project Team based upon the individual experience, and/or desires of the Client. The Overall Project Management Team for the Patterson Road / Flat Rock Waterline will likely be headed by Vince Tomaino, P.E., with engineering and management support from Gary Flowers, P.E., Ben Clawson, P.E., and Bobby Blowe, P.E. MESCO performs our surveying in-house. Wayne Sullivan, P.L.S. is our Senior Survey Manager and Seth Jarrett is our GIS Specialist. These are the individuals that the Town's staff will actually be meeting and working with throughout the life of this project. These gentlemen will be supported by a plethora of technical and administrative support personnel, as well as having access to other professionals within our organization.

O-CHART OF PROPOSED KEY PROJECT TEAM MEMBERS



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Vince Tomaino, P.E.

NC Professional Engineer # 25068

Mr. Tomaino joins MESCO with 30 years of experience in Water Quality and Air Quality engineering. He has a BS Physics from Carnegie Mellon University and a MS Meteorology from Penn State University. Most recently, Mr. Tomaino served as the DWSRF Branch Head in the Division of Water Infrastructure where he assisted in establishing the Division of Water Infrastructure's Policies for administering the ARPA funds allocated to the Drinking Water Grant and Loan Programs. His experience in developing the criteria for the Drinking Water AIA criteria and reviewing hundreds of applications for funding will make him uniquely qualified to manage this project for the Town of Landis. Most recently, Mr. Tomaino is managing the Elevated Water Tank Replacement project for the Ocracoke Sanitary District, waterline extensions for the Town of Robersonville, as well as Water & Sewer AIA's for the Town of Robersonville, Village of Walnut Creek, and the Ocracoke Sanitary District.



Gary Flowers, P.E.

NC Professional Engineer # 20148

NASSCO Certified in Pipeline Condition Assessment, Manhole Condition Assessment and Lateral Condition Assessment.

Mr. Flowers has over 30 years of experience in water and wastewater infrastructure projects. He graduated from NC State University in 1991 with a BS in Civil Engineering. Mr. Flowers joined MESCO in February 2016 after 8 1/2 years with WK Dickson & Co. Prior to that, Mr. Flowers spent 2-1/2 years with Earth Tech and 19 years with Peirson & Whitman Architects and Engineers. During that time, Mr. Flowers personally managed the design and construction of over \$105,000,000 in municipal infrastructure projects involving over 225 miles of pipeline (new and rehabilitation), pump stations, roadways, elevated tanks and utility relocation projects. He has also managed over a dozen Water & Sewer AIA projects for our clients including the Town of Landis.



Bobby Blowe, P.E.

NC Professional Engineer #19677

Regulatory Compliance – Water Resources. Mr. Blowe has a BS Degree in Civil Engineering from NC State University and has over eight years with MESCO. He is also a licensed NC General Contractor and is licensed in NC Plumbing/HVAC (Plumbing-Class 1, H-1, H-2 & H-3). Mr. Blowe continually monitors changes in rules and regulations (both proposed and implemented), so MESCO can be "ahead of the game" in keeping our clients compliant. Mr. Blowe came to MESCO from the North Carolina Rural Economic Development Center (5 years) and NC Department of Environmental Quality (30 years). Mr. Blowe's experience meshes well with MESCO because of his work managing the NC Clean Water State Revolving Fund Program and the Construction Grants & Loans Section for 19 years.

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Ben Clawson, P.E.

NC Professional Engineer # 33710

Certified Master Modeler from Haestad Methods Training

Mr. Clawson has a **BS Degree in Environmental Engineering from NC State University** and has 24 years with MESCO. He is skilled in AutoCAD 12-15 (2004) Civil 3D, ASPEN, ASIM, Innovyze-H2O, and is a Certified Master Modeler from Haestad Methods Training Course. During his career with MESCO, Mr. Clawson has been involved in the planning, design and modeling of many new water distribution systems, wastewater collection systems, pump stations, force mains, inverted siphons, treatment plants, and associated office and maintenance buildings. Mr. Clawson has also served as the Senior Design Engineer and Project Manager for numerous water and wastewater projects funded by DWI, USDA, Golden Leaf, EDA, and the Department of Commerce.



D. Wayne Sullivan, P.L.S.

NC Professional Surveyor # L-2525

D. Wayne Sullivan, Project Coordinator/Advisor, has a BS Degree in Civil Engineering from NC State University and has over 45 years of experience in surveying with 34 years of experience with Municipal Engineering. Mr. Sullivan coordinated numerous boundary surveying and mapping projects, deed research, preparation of deed descriptions, horizontal/vertical control surveys, topographic, planimetric, location layout, and route surveys (water and sewer line projects). He has provided surveys for state and federal government agencies and universities, cities, and counties across North Carolina. Mr. Sullivan has been the *Principal Project Manager* for all surveying projects performed by MESCO in the 34 years he has been with the firm, including those listed herein. He has been the PLS of record for most of the surveying projects during those 34 years as well.

Tom Iager, Survey Party Chief

Mr. Iager has served as MESCO's Survey Party Chief since 1986. His surveying experience also includes Railroad and NC DOT Encroachments and Easement Plats. He understands the state and federal requirements that must be met from a technical standpoint. He is experienced in working through the Senior Project Managers on regulatory issues on projects of all sizes and scopes. Mr. Iager has performed numerous surveys for MESCO since 1986, including Boundary Surveys, Wetlands Location, Horizontal/Vertical Control, Subdivision Layout, Topographic Surveys, Construction Layout, Easement Surveys, Planimetric Surveys, Route Location, and Hydrographic Surveys. He has worked on many water, wastewater, and solid waste landfill projects for MESCO over the past 35 years.

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Seth Jarrett
GIS Specialist

Mr. Jarrett has a BS in Geography from Appalachian State University and a Certificate in Geographic Information Systems. He started with MESCO upon his graduation in 2016. He is experienced in GIS and Remote Sensing, data collection and management, spatial analysis, LiDAR point cloud data, both vector and raster data, geo-computation, and floodplain mapping. He is also experienced in field surveying with Total Station and Trimble GNSS. He has provided GIS mapping for many of our clients' water distribution and wastewater collection systems.

Some of Mr. Jarrett's recent related projects include: *Water and Sewer Asset Inventory and Assessment* projects for the Towns of Landis, Warrenton, Old Fort, Murfreesboro, and North Wilkesboro. Each of those projects involved the creation of a GIS database and collection of existing water and sewer systems for physical and interactive digital maps for the Towns to manage and improve their systems.

SUB-CONSULTANTS

It is not anticipated that any Sub-Consultants will be needed for this project; however, MESCO has a group of highly qualified firms, many of which are also HUB-Certified, that we routinely partner with on an as needed basis.

OTHER / SIMILAR PROJECTS

GIS MAPPING

MESCO performs all of our Surveying and Mapping services in-house. We believe in utilizing the latest surveying technologies to improve accuracy and decrease the time necessary to complete the project. Each of our Mapping Projects involves GNSS location of utility features with Trimble R10 Receiver connected to NC-VRN. All features are coded to include detailed attribute lists such as size, location, material, etc. MESCO will discuss which specific attributes can be identified and included in the database with the Town's Administrative and Technical personnel.

Most of our more recent Mapping & Hydraulic Modeling Projects have been financed through the NC Division of Water Infrastructures Asset Inventory Assessment (AIA) Grant Program.

MESCO has completed, or is in the process of performing, Asset Inventory Assessments for the Towns of North Wilkesboro (Water & Sewer), Old Fort (Sewer), Stantonsburg (Sewer), Jamesville (Water & Sewer), Landis (Water & Sewer), Warrenton (Water & Sewer), Kinston (Water), Ayden (Water & Sewer), Murfreesboro (Water, Sewer & Stormwater), Louisburg (Water & Sewer), Kenly (Water & Sewer), Fremont (Water, Sewer & Stormwater), Ocracoke Sanitary District (Water), River Bend (Water & Sewer), Bunn (Water & Sewer), Micro (Water & Sewer), Robersonville (Water & Sewer), and the Village of Walnut Creek (Water & Sewer). In addition, MESCO recently completed mapping of the Town of Atlantic Beach's Water System.

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RELOCATION OF UTILITIES IN NC-DOT RIGHTS OF WAY

US 1 Water Line Relocations – Richmond County, NC. Bryan Land, Richmond County Manager
bryan.land@richmondnc.gov, (910) 417-1189. Gary Flowers, P.E., Senior Project Manager/Design Engineer

NCDOT Project (R-2501C) was required to relocate waterlines along US 1 from SR 1001 to SR 1606 in Richmond County to widen US Highway 1. The Project consisted of the design and relocation of approximately 19,300 linear feet of 10-inch water line, 400 linear feet of 8-inch waterline, and 400 linear feet of 6-inch water line. All branch lines off the mainline within the project area were also designed and relocated, and approximately 40 water services were relocated and replaced. The Project required coordination between MESCO, NCDOT, Richmond County, the natural gas and power companies, and telephone, cable, and fiber-optic utilities. MESCO also obtained all permits required for the Project (NC Public Water Supply, Sedimentation & Erosion Control), assisted Richmond County with bidding and awarding the Project, and provided construction administration and construction observation services. **The Project was constructed on time and approximately \$82,000 under the \$1.18 million construction budget.**

WATER TREATMENT PLANTS

Town of Jamesville, NC, New RO Water Treatment Plant (*population 495*)

Contact: Kim Cockrell, Town Administrator/Town Clerk/Finance Officer

jamesville@embargmail.com (252) 792-5006. MESCO Principal Project Manager is Michael McAllister, and Ben Clawson, P.E. is the Senior Design Engineer.

MESCO assisted the Town of Jamesville in obtaining Grant/Loan funding to replace the Town's existing Water Treatment Plant. The existing 100,000 gpd water treatment plant, built-in 1972, is in very poor condition due to wear and significant corrosion. As noted in a recent State inspection, many of the vital components for the treatment train are in need of repair or replacement, and failure of any of these components could result in a total loss of the Town's water supply. This Project will include a replacement of the water treatment plant with a new 100,000 gpd Reverse Osmosis plant, a new Operations Building, SCADA system, and dedicated Standby Generator. This project is currently under construction with a scheduled completion date of August 2024.

Richmond County Water Treatment Expansion from 6.7 MGD to 9.0 MGD

Contact: Bryan Land, County Manager,

bryan.land@richmondnc.gov (910) 997-8211



Jimmy Woodie, P.E., and the project team at MESCO assisted the County with the Funding, Design, and Construction Administration/Observation of upgrading the capacity of the County's 6.7 MGD Water Treatment Plant to 9.0 MGD. The Project included a capacity upgrade by adding basins, filters, sludge removal systems, high service pumps, new filters with air scour, and a complete overhaul of the chemical dosing system. The owner and operator were involved in each step of the design process. This Project was completed in March 2017.



Town of Jonesville Water Treatment Plant Expansion (*population 2,551*)

Contact: Michael Pardue, Town Manager mpardue@townofjonesvillenc.com (336) 835-3426

Jimmy Woodie, P.E. and the project team at MESCO assisted the Town with the Funding, Design, Permitting, and Construction Administration/Observation of doubling the Water Treatment Plant's capacity from 0.5 MGD to 1.0 MGD using an entirely new treatment technique. The Town of Jonesville maintained an aging water treatment plant built in the 1960s until 2011. At that point, the treatment plant was using powdered alum, dosed into an open channel using vibrational feeders. The old plant had a permitted capacity of approximately 0.5 MGD. The plant upgrade brought the plant's capacity to 1.0 MGD by undertaking major renovations and including an entirely new treatment technique, Microsand Enhanced Flocculation (MEF). MESCO evaluated several new innovative techniques by including pilot-scale testing at the site using the pre-existing raw water source. This pilot testing incorporated several coagulants and flocculation aids over a range of known turbidities from four to several hundred NTU to ensure the dependability of the processes over these conditions. Municipal Engineering worked closely with the owners and operators, making several trips to visit plants using the new technology in other states, as this was to be the first stand-alone facility of its kind in the state of North Carolina. The Project was completed in March 2013.

Town of Wilkesboro 2.0 MGD Clear Water Reservoir (*population 3,495*)

Contact: Ken Noland, Town Manager, townmanager@wilkesboronc.org (336) 838-3951; Jimmy Woodie, P.E. / Ben Clawson, P.E. were the Project Managers for MESCO.

This Project consisted of expanding the 1.0 MGD Clear Well capacity at the Town of Wilkesboro's Water Treatment Plant by adding a new 2.0 MGD Clear Well and High Service Pumping Station. The new clearwell structure consisted of cast-in-place reinforced concrete with a pre-cast plank roof structure. The new pump station included two (2) 600 Hp vertical turbine pumps and one (1) 100 Hp vertical turbine backwash pump. The Project also included a standby generator and yard piping. The total Clear Well capacity at the completion of the Project in 2005 was 3.0 MGD.

WATER DISTRIBUTION

Town of Wilkesboro Brown's Ford Road Water Improvements (*population 3,495*)

Contact: Ken Noland, Town Manager, townmanager@wilkesboronc.org (336) 838-3951; Ben Clawson, P.E. was the Project Manager for MESCO.

The Town of Wilkesboro had an existing industry that was expanding their manufacturing facility on NC Hwy 268 where the Town had consistent issues with water pressure and water quality from a bottle neck in the system. Municipal Engineering worked with the Town to upgrade the existing 8" waterline from the Town's Water Treatment Plant to a 16" waterline. MESCO designed a new 16" waterline along Brown's Ford Road that crossed the Yadkin River and connected to an existing 10" waterline on



US 421, thereby creating a loop and eliminating the dead end waterline. In addition, MESCO designed a new 500,000 gallon elevated water storage tank for fire protection, a 540 gpm booster pump station, and

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modified one existing booster pump station. The completed Project was able to remediate long standing problems with water pressure, water quality, and fire protection in this area of Wilkesboro's water system. The Project was completed in late 2020. **Funding was provided by the US EDA, Golden Leaf, and NC Department of Commerce Industrial Development Fund.**

Richmond County Water System Improvements

Contact: Bryan Land, County Manager, (910) 997-8211 bryan.land@richmondnc.gov

MESCO has assisted Richmond County with the funding, design, and construction of many Water Tanks over the years. One Project consisted of three (3) phases that were successfully fast-tracked due to an immediate need for large amounts of treated water for the construction of Progress Energy's nearby power generation facility. Phase 3 included the design, permitting, specifications, construction administration, and observation for the construction of a 750,000-gallon elevated water storage tank on Airport Road and a variable frequency drive pump station. MESCO completed surveying for the tank and 16,000 feet of waterline, including a route location survey, a topographic survey, boundary surveys, and easement surveys.



MESCO completed a hydraulic planning study of approximately 200 miles of waterlines, 6 pump stations, and seven water storage tanks. Designed, permitted, and performed construction administration/observation of another 750,000-gallon elevated water storage tank on Highway 220.

MESCO designed, permitted, and performed construction administration and observation of a 300,000-gallon elevated water storage tank on Gibson Road. The cost of this tank was covered by a CDBG grant and included the tank, water, sewer, and access road.



One of our most challenging and rewarding projects was raising an existing 500,000-gallon elevated water storage tank approximately 40 feet to achieve the same hydraulic profile throughout the pressure zone, which resulted in a 60% increase in its capacity.

MESCO's Hydraulic Modeling has proved useful to the County in recognizing areas where more waterlines are needed in order to meet increasing demands caused by growing development.

Town of Columbus, NC (population 1,167)

Contact: Timothy Barth, Manager, manager@columbusnc.com (828) 894-8236; Ben Clawson, P.E. is the MESCO Project Manager.

This is a 3 Phase project for the Town of Columbus. **Phase I** involved the Design and Construction of a new 500,000-gallon finished water ground storage tank adjacent to the Town's existing tank. The purpose of this tank was to replace the old existing concrete tank. The new tank sits immediately adjacent to the existing tank. In order to build the new tank with the same overflow elevation as the existing tank, the old

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abandoned water plant had to be removed, and the significant excavation work and other earthwork was accomplished to achieve the required floor level and overflow elevation for the new tank. **Phase 2:** Phase 2 included designing and constructing a new 12" PVC/DIP water line from the main 12" water line, coming from the Town to the new tank to replace the old 10" asbestos cement line.

Additionally, an existing cross-country 8" AC water line was abandoned, and a new 8" water line installed along a roadway. This new 8" PVC/DIP water line connects to a new 10" directionally drilled water line across Hwy 74. **Phase 3:** Phase 3 involved installing and rehabilitating several old terra cotta sewer lines in various locations throughout the Town's sanitary sewer system. The main purpose of these sewer lines was to redirect sanitary sewer from under several buildings to new sewer lines that will not cross under existing buildings. The project was completed in July, 2022.

Town of Kenly, NC (*population 1,683*)

Contact: Tony Sears, Town Manager, town.manager@townofkenly.com (919) 284-2116; Michael McAllister, was the MESCO Principal Project Manager.

The Town of Kenly had a recurring disinfection byproducts issue within its water system partially caused by water age due to no mixing in their existing 100,000-elevated tank that was built ca. 1939. The Town also had an abandoned town hall adjacent to the tank that needed to be demolished. The Project consisted of demolishing the old single-story brick building and constructing a new 100,000-gallon elevated pedestal tank with separate inflow and outflow pipes, a hydraulic interior mixing system, and a recirculation pump. The existing tank was demolished and removed, the west elevation of the adjacent building was painted, the site was graded, and grass sod was installed. The Project created a green space for public events within the downtown business district. The Project was completed on time and well under budget, which allowed the Town to purchase much-needed equipment related to the water system with the remainder of the grant funds. The Town received a \$25,000 STEP grant (for study), a \$983,000 loan, and \$1,128,000 grant from USDA.

Brunswick County / Columbus County – Water and Sewer Improvements.

Contact: Brent Lockamy, P.E., Project Manager, brent.lockamy@brunswickcountync.gov 910-253-2460; Ben Clawson, P.E. is the Project Manager for MESCO.

Municipal Engineering, Inc. provided the Route Surveying and Design for 11,000 LF of 16 inch Water line, Collection Sewers, 2 Sewer Pump Stations and a Force Main to serve the Mid-Atlantic Industrial Rail Park in Brunswick County. The Project included the location of the highway boundary, Piedmont Natural Gas easement, wetlands, storm structures, and topographic features. The Project was tied to the N.C. State Plane Coordinate System with control set at close intervals along the entirety of the route. This project was completed in July 2022.

Hertford County Northern Water District – Waterline Extensions

Contact: Stanley Lassiter, Rural Water Manager, stanley.lassiter@hertfordcountync.gov (252) 395-1417; Ben Clawson, P.E. was the Project Manager for MESCO

MESCO assisted the Hertford County Northern Water District obtain a USDA grant/loan commitment in the amount of \$1.35 million to further extend the existing County system into additional unserved areas.



The project consisted of approximately 25,000 lf of 4” – 8” waterline extensions to serve and loop four areas of the County’s system. This project was successfully completed in late 2019.

Town of Wilkesboro Waterline Extensions and System Improvements

Contact: Kenneth Noland, Town Manager, townmanager@wilkesboronc.org (336) 838-3951; Ben Clawson, P.E. is the Project Manager for MESCO.

This project involved providing updates to the Hydraulic Model of Wilkesboro’s water system *originally created* by MESCO; numerous waterline extension projects utilizing 6” to 30” waterline and totaling over 25,000 linear feet; restoration of a 500,000 gallon elevated water storage tank and a 150,000 gallon elevated steel water storage tank; an inspection of the Town’s elevated water storage tanks; preparation of plans and specs for painting the interior and exterior of the Town’s elevated water storage tanks; and Phase I and II Environmental Site Assessments.

Richmond County Well Contamination Project

Contact: Bryan Land, County Manager bryan.land@richmondnc.gov (910) 997-8211;

The North Carolina Division of Public Health notified particular residents in Richmond County that wells in the vicinity of Fox Road were found to have substandard water quality. Wells in the area tested positive for a known carcinogen, 1, 2-dibromo-3-chloropropane (DBCP). Residents whose wells were impacted were warned to avoid consumption of water from those wells and to limit physical contact, i.e., baths and showers, to 10 minutes or less.

Municipal Engineering designed approximately **60,000 LF of waterline** (approximately 7,179 LF of 2” SDR-21 PVC; 3,080 LF of 6” SDR-21 PVC; 15,240 LF of 8” SDR-21 PVC; 32,478 LF of 12” SDR-21 PVC; and 2,120 LF of 14” SDR-21 PVC) and associated appurtenances to serve the area. MESCO was responsible for funding assistance, grant administration, design, surveying, permitting, bidding, construction contract administration, record drawings and construction observation. **Ben Clawson, P.E. was the MESCO Project Manager.**

Franklin County Water System Improvements

Contact: Chris Doherty, Utilities Director cdoherty@franklincountync.us (919) 556-6177; Ben Clawson, P.E. was the Project Manager for MESCO.

The Town of Franklinton experienced difficulties meeting EPA limits for disinfection by-products (TTHM and HAA5) at its water treatment facility. In order to address this critical issue, Municipal Engineering Services Co. (MESCO) was asked to design modifications to the facility as well as make much needed improvements to the distribution system. MESCO utilized grant funding in the amount of \$1,573,250 which **included \$750,000 from CDBG** and \$823,250 from the NC Rural Center.

The improvements to the distribution system included replacement of approximately 11,450 LF of 3/4", 1", 2" galvanized iron pipe and 6" cast iron pipe with new 2" and 6" PVC water pipe in various areas of the Town of Franklinton. In areas where pipe size was increased to 6", new fire hydrants were installed. Additional gate valves were installed to allow the isolation of smaller areas for repairs whereas before almost the whole town was affected. All street cuts were repaired, including several on NC DOT

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roadways. New service lines and new meters were also installed. The project was completed within budget.

Municipal Engineering, Inc. is currently working with the *Town of Landis* and the Ocracoke Sanitary District on the replacement of two elevated water storage tanks.

GENERAL WATER STORAGE TANKS IN NORTH CAROLINA

Over the years, MESCO has designed numerous elevated and ground-level storage tanks ranging in size from 10,000 gallons to 2,000,000 gallons. We have also been involved with many maintenance and refurbishment projects.

The following is a list of our water storage tank clients: Blue Ridge Water Association, Brushy Mountain Water Association, City of Laurinburg, Moravian Falls Water Works, Inc., Mulberry-Fairplains Water Association, Ocracoke Sanitary District, Richmond County, Surry County, Town of Boone, Town of Cofield, Town of Columbus, Town of East Bend, Town of Elizabethtown, Town of Garner, Town of Linville, Town of Newport, Town of Stantonsburg, Town of Surf City, Town of White Lake, Town of Wilkesboro, West Wilkes Water Association, and West Wilkes Sanitary District (now owned by West Wilkes Water Association).

SUCCESSFUL PROJECT MANAGEMENT

Our Team has significant experience with all aspects of the design and construction of new and expanded water treatment, distribution, and transmission facilities. Our previous work with the Town of Landis' Wastewater AIA and Water AIA grants, Lift Station Replacement grant, and in preparing the Funding Application for this water line project has provided our Project Management Team a great deal of background knowledge of the Town's water distribution system. It has been our experience that successful project management is based not only upon a strong understanding of the technical requirements necessary to achieve the desired goals, *but just as importantly*, ongoing communication and participation of the client to ensure that all parties have a clear understanding of the desired final project.

REFERENCES

In addition to the Contact Info for the projects highlighted above, please feel free to contact the following Water System and Water AIA clients:

Hertford County Water: Stanley Lassiter, Rural Water Manager, (252) 358-1417

Town of Jamesville: Kim Cockrell, Clerk/Finance Officer, (252) 792-5006

Town of Robersonville: Chris Roberson, Town Manager, (252) 508-0311

Town of Fremont: Joyce Artis, *Interim* Town Administrator, (919) 242-5151

Town of Louisburg: Sean Medlin, *New* Town Administrator – *Previously* Town Finance Officer, (919) 497-1015

Town of Murfreesboro: Carolyn Brown, Town Administrator, (252) 398-5904



WHY HIRE MESCO?

- ✓ **MBE / HUB Goals:** Municipal Engineering, Inc. is a majority Woman Owned Business. We also utilize the services of MBE / HC HUB sub-consultants for electrical and geotechnical engineering.
- ✓ **Our Team:** Our team members have many years of experience in the areas of Water Distribution System planning, design, modeling, and Asset Inventory and Assessments.
- ✓ **Our Project Experience:** MESCO has been providing these services to clients all across NC since 1978 – including many for the Town of Landis.
- ✓ **Our Funding Administration Experience:** Two of our team members managed the Clean Water and Drinking Water SRF Programs for the Division of Water Infrastructure. Mr. Blowe was also the Senior Project Engineer at the NC Rural Center and Mr. Tomaino was involved in developing the State’s guidance for ARPA funds administered by the Division of Water Infrastructure.
- ✓ **Personal Service:** Our conservative business approach, lower overhead, attention to detail, accessibility, and level of personal service coupled with the knowledge and experience of our Team Members makes MESCO the obvious choice.



***GRANT / LOAN FUNDED
MESCO PROJECTS
in Partnership with the
TOWN OF LANDIS***



Landis Water AIA

Landis Sewer AIA's (2)

***Landis Sewer Lift Station
Replacement***

Landis Waterline Improvements

***Landis S. Upright Sewer
Rehabilitation***

***Landis 100,000 gal Elevated Water
Tank***

***Numerous On-Call Projects for the
Town of Landis***