



PENDER COUNTY UTILITIES

605 E. Fremont St.
Burgaw, NC 28425

Request for Qualifications
Professional Engineering Consulting Services

NC 210 Parallel Water Transmission Main and Booster Pump Station Upgrade

Pender County Utilities (PCU) seeks a Statement of Qualifications (SOQ) from consulting engineering firms that can adequately demonstrate they have the resources, experience and qualifications to provide PCU with quality survey, engineering design, permitting, and construction administration services in compliance with USDA-RD funding requirements for the NC 210 Parallel Water Transmission Main and Booster Pump Station Upgrade Project.

Section A: Background

Pender County is a fast-growing coastal county with a 2017 population of over 60,500. The growth in Pender County has been and will continue to be driven by its proximity to Wilmington and the increasing number of retirement communities and vacation home developments. To meet the growth and future water demands, the County engaged in long-range planning efforts and intense public infrastructure construction over the last 10 years.

In 2012, Pender County Utilities (PCU) completed construction of a 2 MGD surface water treatment plant (WTP) located on US Hwy 421 in the southwestern part of the County. The WTP was designed and constructed to enable an expansion from a 2 MGD treatment capacity to a 6 MGD treatment capacity with only equipment additions to serve all six (6) Water and Sewer Districts of the County. As part of the Water Treatment Plant construction project, approximately 7 miles of 24-inch diameter transmission main along US 421 and approximately 4 miles of 20-inch diameter transmission main from US 421 east along NC 210 was installed to connect the new water plant to the existing 12-inch diameter water distribution system at Little Kelly Road.

The existing 12-inch diameter PVC watermain begins near the westernmost edge of the Rocky Point/Topsail WSD at the intersection of Little Kelly Road (NC 210) and NC 133 and runs east along NC 210 approximately 18.5 miles to the intersection of NC 210 and US 17 in Hampstead. From Little Kelly Road, the 12-inch pipe supplies finished water to an existing 300,000 gallon elevated water storage tank just west of the intersection of NC 210 and US 117 at Rocky Point where it then connects to an existing 12-inch distribution pipe that runs north-south along US 117 from the Duplin County line to the New Hanover County line. Traveling east along NC 210 from Rocky

Point, water first passes into an existing 200,000 gallon ground storage tank, then is pumped from that site (Rocky Point Booster Pump Station) at approximately 750 gpm (both pumps running) to US 17. At the intersection of US 17, a 16-inch DIP watermain runs north to an existing 500,000 gallon elevated storage tank (Hampstead Tank). From the Hampstead Tank, water can flow further north by being pumped with the Sloop Point BPS to the "Topsail" 500,000 gallon elevated storage tank. The Sloop Point BPS can pump 800-1,000 gpm. From the same intersection of NC 210 and US 17, a 12-inch PVC watermain runs south to the Pender/New Hanover County line to serve the Scott's Hill Water & Sewer District.

During the design of the Surface Water Treatment Plant and Finished Water Transmission Main project in 2009-2010 it was discovered that the existing 12-inch pipe and Booster Pump Station along NC 210 that transfers water from the Water Treatment Plant to the Rocky Point/Topsail and Scott's Hill Water and Sewer District's was limited in capacity to approximately 1 MGD.

Section B: Purpose

PCU originally determined the 12-inch watermain along NC 210 was undersized for distribution of over 1 MGD to the Rocky Point and Hampstead areas of the county during the design of the Surface Water Treatment Plant and Finished Water Transmission Main project in 2009 by CDM(Smith).

PCU had CDM(Smith) prepare a *Preliminary Engineering Report for NC 210 Pipe and Pumps* that was required to request additional project funding from USDA-RD for a separate "NC 210 Parallel Water Main and Booster Pump Station Upgrade" project. The recommended project included a new 16-inch finished watermain from the end of the 20-inch at the intersection of Little Kelly Road (NC 210) and NC 133 all along NC 210 approximately 18.5 miles paralleling the existing 12-inch main to a point of connection with the existing 16-inch DIP watermain that runs along US 17 in Hampstead north of the intersection with NC 210 to the Pender/Onslow County line. South of the intersection of US 17 and NC 210, there is a 12-inch watermain along US 17 that runs south to the Pender/New Hanover County line. In addition, the NC 210 Booster Pump Station needs to be upgraded to increase pumping capacity to about 6 MGD in order to meet the projected 2050 water demand of 4.7 MGD to the Rocky Point/Topsail and Scott's Hill Water Districts along US 17.

PCU also hired McKim & Creed to modify their original *US 421 Two (2) MGD Water Treatment Facility (WTF) and Potable Water Main Environmental Assessment (EA)* completed for USDA-RD and NCDENR Department of Water Quality in November 2007 and subsequent Amendment # 1 completed in August 2009. The original EA received a Finding of No Significant Impact (FONSI) in February 2008.

A Letter of Application for additional funding for this project was submitted to USDA-RD on September 2009 and subsequently withdrawn in April 2012 due to the impact the additional debt service would have upon PCU Water Usage Rates to its customers.

PCU intends to again use USDA-RD funding for this project. PCU has confirmed with USDA-RD this project will qualify for a Categorical Exclusion requiring only an Environmental Report.

The purpose of this effort is bring the NC 210 Parallel Water Transmission Main and Booster Pump Station Upgrade project back to the forefront of PCU short-term planning by updating the

Preliminary Engineering Report and Environmental Report for NC 210 Pipe and Pumps and securing the necessary USDA-RD funding to allow this project to move into the construction phase.

Section C: Scope of Work

This RFQ is being used to select an Engineering Firm required to perform professional services related to the NC 210 Parallel Water Transmission Main and Booster Pump Station Upgrade project.

The preliminary scope of work for this project is provided below:

- Assess and confirm the appropriate pipe diameter and route along NC 210 to provide future finished water supply to the distribution mains serving PCU customers in the Northeast Cape Fear and New River basins as projected in the County’s 14.5 MGD IBT Certificate.
- Evaluate the best route utilizing “As-Built” information from the end of the existing 20-inch watermain on NC 210 (start of project) to the necessary interconnections with other existing water distribution facilities (existing 300,000 gallon elevated water storage tank just west of the intersection of NC 210 and US 117 at Rocky Point and where it then connects to an existing 12-inch distribution pipe that runs north-south along US 117 from the Duplin County line to the New Hanover County line) on to the NC 210 Ground Storage Tank and Booster Pump Station located at 7390 NC 210 and terminating at an interconnection with the existing 16-inch DIP watermain on US 17 (end of project). A primary goal of the project routing is to minimize easement acquisition. This may be accomplished by staying within the NCDOT Right-of-Way along NC 210 or evaluating an alternative route from the existing NC 210 Booster Pump Station to US 17 N through the Holly Shelter Game Land (if permitted), a Duke Power Transmission Rights-of-Way, or other alternative.
- Evaluate the necessary upgrades to the NC 210 Booster Pump Station to increase pumping capacity to about 6 MGD in order to meet the projected 2050 water demand of 4.7 MGD to the Rocky Point/Topsail and Scott’s Hill Water Districts along US 17.
- Develop an opinion of probable costs for project.
- Prepare all documentation in accordance with the requirements of the USDA Rural Development and assist PCU in securing USDA-RD funding.

Section D: Submission of a Statement of Qualification

Consulting engineering firms are invited to submit a Statement of Qualification to PCU to be received no later than 3:00 PM on Tuesday, August 21, 2018. Submittals received after this deadline will not be considered.

PCU will address questions regarding the RFQ until 3:00 PM on Friday, August 17, 2018.

Statement of Qualification shall be sent to:

Pender County Utilities
Attention: Michael Mack
605 E. Fremont Street
Burgaw, NC 28425
mmack@pendercountync.gov

SOQ shall be limited to 30 pages or less, excluding cover sheet, tabs, resumes and appendices. Firms shall submit four (4) hard copies and one (1) electronic copy in pdf format. Email the electronic copy to Michael Mack at the email address above.

PCU will follow a qualifications-based selection process. Consultants must demonstrate their level of competence and qualification to complete the following services:

- 1) Surveying
- 2) Verification of existing conditions and infrastructure
- 3) Design
- 4) System Modeling
- 5) USDA-RD funding
- 6) Permitting
- 7) Easement Acquisition Documents
- 8) Preparation of Plans, Specifications, Contract Documents
- 9) Contract Administration and Construction Observation

Section E: Consultant Evaluation and Selection

SOQ's will be evaluated based on the following considerations and demonstrated competence in the following criteria:

- 1) Project understanding and approach
- 2) Relevant staff experience proposed on similar projects and specific qualifications or resumes of key team members such as proposed Project Manager, Project Principal, sub-consultant firms, etc.
- 3) Adequate knowledge of local conditions relevant to the project.
- 4) Experience in USDA-RD funded projects.
- 5) At least three (3) examples of similar projects.
- 6) A minimum of three (3) references relating to completed projects for the services being requested with full name, title, address, phone number, and email address.

Notwithstanding great disparity in the submitted SOQ's, an interview process will likely follow the SOQ submittal.

Section F: Insurance Requirements

Pender County Utilities must be additional insured and endorsement required.

- ❖ General Liability - \$1,000,000 per occurrence/\$2,000,000 aggregate for claims of personal injury, property damage or death arising out of work performed.
- ❖ Auto Liability - \$1,000,000 per occurrence combined single limits applicable to claims due to bodily injury and/or property damage.
- ❖ Workers Compensation - Statutory workers compensation for employees engaged for performance of work.
- ❖ Professional Liability not less than \$1,000,000 per loss.

Notification

The selected firm will be notified by telephone and/or email.
PCU reserves the right to reject any and all Proposals.

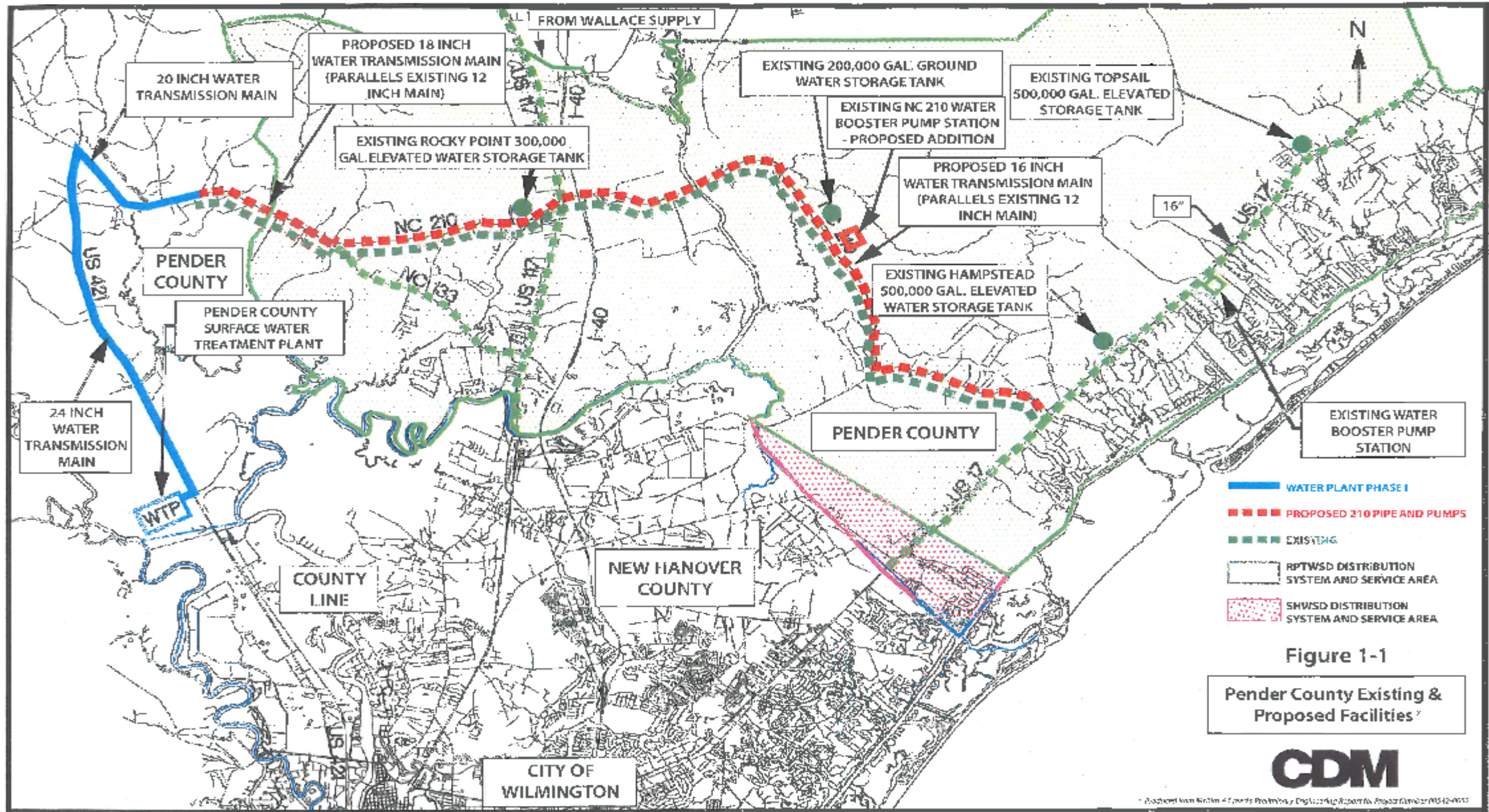


Figure 1-1
 Pender County Existing & Proposed Facilities



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