



## **REQUEST FOR QUALIFICATIONS**

### **Engineering Design Services Courthouse Area Wastewater Treatment Plant Camden County, North Carolina**

**\*PROPOSALS DUE BY 5:00 PM MARCH 31, 2016\***

The County of Camden, North Carolina is requesting proposals from qualified consultants to engineer and design a Courthouse Area Wastewater Treatment Plant utilizing biological treatment processes and high-rate infiltration technology on a site of approximately 35 acres. The site is located approximately three miles west of the Camden County Courthouse (117 NC 343 North). The site is a combination of wooded land, agricultural land, and the remnants of an abandoned hog farm operation. Existing structures are to be demolished, and the existing access road to the abandoned hog farm structures will be improved and utilized as the access to the plant.

The intent of the work is to provide engineering and construction design of a facility capable of treating 50,000 GPD upon completion of Phase 1 construction and engineered and designed such that the facility is expandable and capable of treating 100,000 GPD upon completion of Phase II construction. The engineering and design proposal should also include the necessary collection system to connect to the County's existing force main system and redirect the wastewater flow between the Courthouse and Scotland Road to the Courthouse pump station. The Courthouse Area Wastewater Treatment Plant is to be engineered and designed using biological treatment processes and advanced high-rate infiltration basin technology in order to provide year round wastewater treatment.

The overall design intent is for phased construction improvements over multiple years in order to meet new demand for treatment within the Courthouse Service Area. The first phase budget is \$2.75 million. The design documents for the first phase will include a schematic design of the entire project and "For Construction" documents for the first construction phase with an estimated construction cost of approximately \$1.775 million.

The schematic design will define and ensure that construction completed in each phase will seamlessly integrate into the next. The County intends but does not imply or guarantee that one engineering/design team will be selected to serve as the Project Engineer for the entire project.

The complete RFQ document for this project is available in electronic form. The RFQ may be viewed online and downloaded without charge and without deposit from <http://www.camdencountync.gov/government/county-bid-rfp-solicitations> and is also available for review at the Camden County Administrative Office located at 330 US HWY 158 East, Camden, NC, 27921. RFQ/plan holders are responsible for their own reproduction costs.

Please go to <http://www.camdencountync.gov/government/county-bid-rfp-solicitations> to download the Courthouse Area Wastewater Treatment Plant Project documents. No hard copies will be mailed to interested proposers. Any addenda to the project will be posted on the website. The bidder is responsible for periodically checking the site. The Engineer/Contractor that is awarded the project will be responsible for printing all documents necessary for performing the work. Responders are requested to submit any questions concerning this RFQ via email to: [mrenshaw@camdencountync.gov](mailto:mrenshaw@camdencountync.gov).

All proposals must be received by 5:00 P.M. on March 31, 2016. Proposers must submit three (3) copies of their proposal. Proposals must be hand-delivered to:

**Camden County Administrative Offices  
ATTN: County Manager Michael Renshaw  
330 US HWY 158 East, Camden, NC 27921**

# **Request for Qualifications** ***Engineering Design Services***

## **A. BACKGROUND**

Camden County is a rural county with a population of approximately 10,300. The county has a long narrow shape consisting of 241 square miles with a length of 36 miles. It is located in Northeast North Carolina between Pasquotank and Currituck County and is divided into three townships: Shiloh Township in the south, Courthouse Township in the center, and South Mills Township in the north. The existing treatment facility was built in 2008 and is located within the South Mills Township in northern Camden County. This plant is located over 14 miles from the main sewer pump station in the Courthouse Township. The facility was permitted for 100,000 (GPD). Existing force mains constructed of excessive diameter and less than adequate pipe velocities result in poor and problematic influent wastewater at the South Mills treatment plant.

In 2008 the sewer district was proposed to provide service to a portion of the Courthouse Township including the section of US Highway 158 from Lambs Marina to the Camden Medical Park, along Gumbery Road, from NC 343 to US Highway 158, and along NC 343 from US Highway 158 to Scotland Road. The existing sewer collection system was designed to be a force main collector system. New pump stations were constructed at each school, government facility, business and home to be served by the district. These pump stations are located on private property by easement to the sewer district with electrical power being provided to the pump station by the individual business or residence. Connecting these pump stations are smaller diameter PVC and HDPE force mains. In the Courthouse Township, these force mains empty to a centralized large pump station located behind the Camden County Courthouse. It is from this centralized pump station that the effluent sewer travels approximately 6 miles to a booster pump station near 674 North NC 343. From this pump station the effluent sewer is pumped another 8 miles to the treatment plant located on Keeter Barn Road in South Mills Township. Treated water from this plant is routed north to a land application spray field sized to the plant capacity.

The County does not have engineering staff necessary for design, and therefore is proceeding with soliciting proposals from qualified consulting firms to provide technical assistance for design, contract administration and construction observation activities of the project.

## **B. SCOPE OF WORK:**

Camden County is soliciting qualifications for engineering services necessary to design and construct the facility within the approved budget and schedule. Components of the project is to provide engineering and construction design of a

facility capable of treating 50,000 GPD upon completion of Phase 1 construction and engineered and designed such that the facility is expandable and capable of treating 100,000 GPD upon completion of Phase II construction. The engineering and design proposal should also include the necessary collection system to connect to the County's existing force main system and redirect the wastewater flow between the Courthouse and Scotland Road to the Courthouse pump station. The Courthouse Area Wastewater Treatment Plant is to be engineered and designed using biological treatment processes and advanced high-rate infiltration basin technology in order to provide year round wastewater treatment.

The overall design intent is for phased construction improvements over multiple years in order to meet new demand for treatment within the Courthouse Service Area. The first phase budget is \$2.75 million. The design documents for the first phase will include a schematic design of the entire project and "For Construction" documents for the first construction phase with an estimated construction cost of approximately \$1.775 million.

The schematic design will define and ensure that construction completed in each phase will seamlessly integrate into the next. The County intends but does not imply or guarantee that one engineering/design team will be selected to serve as the Project Engineer for the entire project.

### **Engineering Services**

1. **Basic Design Services.** The Engineer will design the improvements to the standards of the North Carolina Department of Environment and Natural Resources, Camden County, and other reviewing agencies which may include the Economic Development Administration. These design services will include, but not be limited to:
  - a. Perform design survey, engineering design; prepare detailed drawings, technical specifications, bid forms, notice to bidders and Instructions to bidders. The Engineer shall prepare contract documents for distribution to bidders which include all addenda, notice and instructions to bidders, model contract agreement, general and supplemental general conditions, technical specifications, and all other compliance forms required by EDA and/or Camden County.
  - b. After easement requirements have been identified (if any), negotiate with the County for surveying and mapping services necessary for the acquisition of needed easements.
  - c. Submission of plans and specifications to the County for review and approval prior to bid advertisement. Resolve any deficiencies in these documents as may be required by the County and regulatory agencies.

- d. Attend public meetings and conferences with the County as required.
2. **Contract Administration Services.** The Engineer shall provide contract administration services to include, but not be limited to:
- a. Placement of notice to bidders and advertisement for bids.
  - b. Attend bid opening, tabulate bid proposals, analyze and make recommendations to the County.
  - c. Assist with pre-construction conferences.
  - d. Check and approve necessary shop and working drawings.
  - e. Prepare change orders as may be required.
  - f. Review and approve estimates for progress and final payment.
  - g. Project closeout conference.
3. **Construction Observation Services.** The Engineer will be required to provide construction observation services to include, but not be limited to:
- a. General engineering observations of the work appropriate to the stage of construction.
  - b. Report to the construction administrator when the work is unsatisfactory, faulty, or defective, or does not conform to the contract documents.
  - c. Make final observation of all construction and provide a written certification of final observation to the County and applicable agencies.

**C. ENGINEER SELECTION PROCEDURES/PROJECT SCHEDULE:**

Proposals will be reviewed by a selection committee and a recommendation will be forwarded to the County Commissioners for consideration. After considering factors outlined in Selection Criteria, the consulting firm will be selected, subject to negotiation of fair and reasonable compensation. Consultants will be notified by mail of the County's selection. The project is expected to commence immediately upon approval of the Engineer by the governing body. The project design and construction is estimated to require eighteen (18) months to complete.

**D. FEE SCHEDULE:**

For purposes of proposal evaluation and in accordance with G.S. 143-64.31, the Engineer is requested to submit an hourly fee schedule for all personnel to be involved in the project. The hourly rates should include fringe benefits, indirect costs and profit. The Engineer's charge for reimbursable expenses should also

be identified. The Engineer's fee schedule should be applicable to the design phase, contract administration phase, and construction observation phase. Right-of-way/easement engineering charges, if required, will be negotiated upon completion of the design phase. The fee schedule will not be the sole criteria for selection of the Engineer.

**E. PROPOSAL CONTENT:**

The Engineer's proposal must contain four parts:

1. **Technical.** Describing the approach to be taken in addressing the proposed scope of work. This description is to include delineation of specific tasks to be undertaken in each project activity.
2. **Management and Staffing.** Describing the management plan to be used, staffing configurations, and the like. This is to include a project schedule showing start and completion dates for all major tasks. A brief resume of the individuals involved in the project will be required.
3. **Prior Related Experience.** A brief description of High Infiltration Wastewater Treatment engineering experience including contact person and phone numbers for each referenced job.
4. **Fee Schedule.**

**F. FACTORS FOR AWARD/EVALUATION CRITERIA:**

The following factors will be used in evaluating Engineer's proposals and awarding of contract:

1. Technical Approach/Understanding of Project.....(25 POINTS)
2. Experience of Proposed Personnel .....(25 POINTS)
3. Experience of the Firm in Biological Treatment Processes and Advanced High-Rate Infiltration Basin Engineering .....(25 POINTS)
4. Familiarity with Locality .....(25 POINTS)
5. Minority/Women Owned Business .....(15 POINTS)

**G. FEDERAL AND STATE TERMS AND CONDITIONS:**

The selected Engineer must comply with all the requirements of the State, County, and any granting agencies. Procurement and contract procedures to include any affidavits, procurement limits, etc. will also apply.