

CIVIL ENGINEER

General Statement of Duties

Performs technical and professional engineering and design work, and other related activities providing engineering services to the Town.

Distinguishing Features of the Class

An employee in this class performs sidewalk, parks, storm water and other infrastructure design, construction estimates, inspection, surveying, and other engineering, construction management, and administrative work for the Town. The employee performs advanced computer-aided design work. Work includes design computations and mapping; reviewing plans, permits and encroachments; estimating amounts of materials and costs for projects; field work for cadastral engineering surveys; preparation and recording of legal documents; and related professional and technical work. Work may subject the employee to environmental conditions, extreme temperatures, and construction noise and hazards. Work is performed under the general supervision of the Town Engineer and is evaluated based on conferences, review of completed work, and observation of demonstrated skills.

Duties and Responsibilities

Essential Duties and Tasks

Performs computer-automated drafting, design, and related projects; performs design and mapping work projects and assignments.

Prepares detailed drawings of construction projects including plans and profile, streets, storm sewer, drainage projects, easements, traffic changes, and other requests.

Assists in planning, designing, and project management of capital infrastructure plans for the Town including stormwater, sidewalks, parks and related projects.

Conducts studies, researches rights-of-way and easements, prepares designs, recommends policies and procedures, and coordinates field crews in managing the storm water system for the Town.

Estimates amounts of materials and costs of projects for the Town; procures material and professional services quotes; participates in the capital improvements budget process.

Researches and recommends engineering and design standards and specifications.

Drafts project bidding and contract documents; reviews project bids for completeness and correctness.

Reviews work of consultants and construction vendors; reviews and inspects on site construction; coordinates project schedules with Town officials, contractors, business, citizens and state and local inspectors; approves and oversees payment; participates in review and recommending acceptance of infrastructure by the Town from private contractors.

Prepares easement maps and legal descriptions; performs deed research; assists and coordinates a variety of surveys and legal documents including right-of-way acquisitions, agreements, easements, and bids.

Receives and investigates citizens complaints, recommends solutions, provides information and options to staff, boards, and citizen groups; researches drainage problems and solutions.

Provides administrative back-up other department staff; prepares and produces records, reports and related documents.

Assists with implementation and enforcement of related Town ordinances, standards, requirements, and permits.

Additional Job Duties

Performs related duties as required.

Recruitment and Selection Guidelines

Knowledges, Skills, and Abilities

Considerable knowledge of civil engineering principles and practices including hydraulics, storm water management, concrete design, etc.

Considerable knowledge of computerized engineering design and drafting, AutoCAD, Civil 3D, mapping, and GIS system techniques, processes and procedures.

Considerable knowledge of mathematics including algebra, geometry, and trigonometry.

Considerable knowledge of utility and street construction.

Considerable knowledge of laws, regulations, ordinance and policies related to municipal infrastructure project design and construction.

Considerable knowledge of the application of information technology to the work of the unit.

Considerable knowledge of municipal budgeting, bidding, and purchasing laws, regulations, policies and procedures.

Knowledge of field survey principles and practices and instruments.

Knowledge of legal processes involved in encroachments, land acquisitions, and other public works issues.

Skill in collaborative conflict resolution, teamwork, and customer service excellence.

Ability to estimate materials amounts and project costs.

Ability to read and prepare plans and specifications.

Ability to communicate complex and technical information clearly in oral and written form.

Ability to communicate effectively with the general public, contractors, and other employees.

Ability to establish and maintain effective working relationships with the Town officials, the general public, and other employees.

Physical Requirements

Must be able to physically perform the basic life operational support functions of standing, walking, grasping, fingering, talking, hearing, and repetitive motions.

Must be able to perform light work exerting up to 20 pounds of force occasionally, 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects.

Must possess the visual acuity to compile and compute data and statistics, operate a computer terminal, do extensive reading, and use measuring devices.

Desirable Education and Experience

Graduation from a college or university with a bachelor degree in civil engineering, and considerable related engineering experience; or an equivalent combination of education and experience. Prefer supervisory experience.

Special Requirement

Possession of a valid North Carolina driver's license.

Possession of NC professional Engineer License.