ENGINEERING TECHNICIAN

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

JOB OBJECTIVES
To perform technical level duties in support of the City’s engineering and capital improvement projects; to perform land survey and construction inspection duties; to provide information and assistance to contractors, developers, engineers and the general public on the City’s engineering services and activities; and to perform a variety of technical tasks relative to assigned area of responsibility.

SUPERVISION RECEIVED AND EXERCISED
Receives direction from higher level management or supervisory staff.

ESSENTIAL JOB FUNCTIONS
The following tasks are typical for positions in this classification. Any single position may not perform all of these tasks and/or may perform similar related tasks not listed here:

1. Perform technical level duties in support of the City’s engineering and capital improvement projects including office work, drafting, surveying, construction inspection and related technical functions.

2. Perform construction inspection duties on assigned projects; monitor and review work performed by contractor; ensure work performed complies with project standards and contracts; coordinate materials testing with contracted services; refer issues to higher level engineering staff as required.

3. Perform field survey duties; operate survey equipment and devices to measure distances, angles and elevations; maintain accurate and legible field notes of survey work including lines, angles, distances, benchmarks and mathematical calculations.

4. Assist in the preparation of construction drawings, specifications and technical documents for assigned projects; review plans and specifications; draft drawings from engineering sketches, survey field notes and other data using a variety of specialized computer software and equipment.

5. Perform drafting assignments including complete sets of working drawings for projects; provide as-built drawings upon completion of the project and transfer information to plans; revise maps and other drawings as appropriate.

6. Prepare and update maps consistent with project improvements; utilize specialized geographic systems information software to generate, update and maintain mapping systems.

7. Compile quantities to be used for engineering estimates; assist in preparing and revising specifications for bid documents.

8. Provide information and assistance to contractors, developers, engineers and the general public on engineering services and activities; respond to general inquiries; ensure issues are resolved in a timely and efficient manner.

9. Provide technical support to a variety of engineering studies; research, collect, interpret and record data; prepare maps, graphs, drawings and reports to present study results.

10. Perform related duties and responsibilities as required.
QUALIFICATIONS

Knowledge of:

- Operations, services and activities of a comprehensive municipal engineering design and construction program.
- Construction methods, procedures, standards and materials.
- Computer aided drafting and design methods.
- Methods and techniques of conducting land surveys.
- Principles and practices of geographic information systems programs.
- Operational characteristics of survey equipment and devices.
- Methods and techniques of conducting site inspections.
- Methods and techniques of researching, compiling, interpreting and presenting statistics and data.
- Mathematical principles as applied to engineering work.
- Engineering maps and records.
- Principles and practices of record keeping.
- Modern office procedures, methods and computer equipment.
- Pertinent Federal, State and local laws, codes and regulations.

Ability to:

- Perform technical engineering duties in support of capital improvement projects.
- Prepare a variety of drawings, sketches, maps, graphs and related technical documents.
- Conduct site inspections and monitor project progress.
- Perform survey duties.
- Prepare clear and concise technical reports.
- Maintain accurate engineering files and records.
- Utilize drafting tools and equipment for the preparation of engineering drawings.
- Perform mathematical calculations quickly and accurately.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.

Education and Experience Guidelines

Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education:

- Equivalent to the completion of the twelfth grade supplemented by college level course work in engineering or a related field.

Experience:

- Two years of increasingly responsible technical engineering experience.

License or Certificate

Possession of, or ability to obtain, a valid appropriate driver’s license.
PHYSICAL DEMANDS AND WORKING CONDITIONS

The physical demands herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform these essential job functions.

**Environment:** Office environment; travel from site to site; field environment; exposure to construction equipment.

**Mobility:** Incumbents require sufficient mobility for walking, standing or sitting for prolonged periods of time.

**Vision:** Visual acuity to read computer screens, drawings, technical documents and to conduct site inspections.