

ENGINEERING TECHNICIAN PG 16

GENERAL DESCRIPTION

Technical engineering and computer assisted drafting (CAD) and geographical information system (GIS) work in the design and construction of capital projects and maintenance of infrastructure of the streets, storm, water, electric and sewer systems of the City. This is technical work involving the development and maintenance of geographic databases and in the preparation of cartographic and other illustrative products utilizing geographic information systems software. The work requires knowledge of engineering methods, techniques and procedures, CAD operation at the journeyman vocational level and GIS development and operation at the journeyman level. This work is performed in both an office and field environment.

REPORTING RELATIONSHIPS

Reports to: Assistant City Manager/Director of Public Works or Designee

ESSENTIAL POSITION FUNCTIONS

1. Compiles routine topographic and planimetric information for the production of maps, including the gathering of field data.
2. Utilizes GPS-based collection equipment to locate and map City infrastructure in the field.
3. Utilizes GPS collected field information to create and maintain GIS maps and databases of all City infrastructure.
4. Develops CAD drawings for in-house capital and maintenance projects.
5. Performs basic surveying and construction layout; applies construction standards.
6. Maintains as-built drawings on CAD; maintains record drawing system of paper drawings.
7. Develops and maintains GIS system of maps and data.
8. Prepares specific purpose GIS maps as needed.
9. Trains others on GIS data development and maintenance.
10. Reviews development plans for compliance with standards.
11. Develops and maintains construction standards for infrastructure systems.
12. Assists with inspection of construction and repair projects.
13. Develops and maintains the fixed asset records for the department.
14. Performs mathematical calculations.
15. Operates personal computers and utilizes computer programs.
16. Composes letters, reports; drafts policies and procedures.
17. Operates field surveying and data collection equipment.

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18. These essential job functions are not to be construed as a complete statement of all duties performed. Employee will be required to perform other job-related duties as necessary and consistent with the position.

MINIMUM QUALIFICATIONS

KNOWLEDGE, SKILLS AND ABILITIES

- Knowledge of engineering methods, techniques and procedures.
- Knowledge of computerized drafting and CAD techniques.
- Knowledge and proficiency in operation of CAD and GIS software programs.
- Ability to read and understand engineering drawings and calculations.
- Ability to use drafting/CAD skills.
- Ability to use GIS skills.
- Ability to use basic survey skills.
- Ability to learn and apply policies and procedures, including safety rules and regulations.
- Ability to drive a City vehicle.
- Ability to sit at a desk and view a display screen for extended periods of time.
- Ability to communicate effectively orally and in writing.
- Ability to compose written correspondence.
- Ability to follow written and oral instructions.
- Ability to establish effective working relationships with employees, officials and the general public.

EDUCATION

High school graduation or equivalent, supplemented by five (5) year combination of education, training or experience which includes at least three years of experience as an engineering technician or higher level position utilizing CAD and GIS. Minimum of two (2) years of experience creating and maintaining GIS databases. Technical school or college level courses in CAD and GIS preferred. Any equivalent combination of training, education and experience that provides the necessary knowledge, skills and abilities may be considered for the minimum qualifications.

LICENSES, CERTIFICATIONS, OR REGISTRATIONS

Must possess a valid Florida Driver's License, and maintain compliance with Vehicle Use Policy requirements, Section 8.15 (c) in the City's Personnel Manual.

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ESSENTIAL PHYSICAL SKILLS

- Good vision (with or without correction)
- Good hearing (with or without correction)
- Moderate lifting and carrying (up to 45 pounds)
- Reaching
- Climbing
- Standing
- Walking
- Bending
- Driving

WORK ENVIRONMENT/CONDITIONS


- Works inside and outside in various weather conditions.

SELECTION GUIDELINES

Formal application, rating of education and experience; oral interview and reference check; job related tests may be required.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change. Reasonable accommodations will be made for otherwise qualified individuals with a disability.

Approval:  Approval: 
Human Resources City Manager

Council Approval Date: 9-20-16

