

City of Fort Worth, Texas Job Description

Classification Title	Engineering Technician II		
Job Code:	TC5130	Job Family:	Technical/Para-Professional
Pay Grade	509	Date Reviewed:	06/24/15
FLSA Status	Nonexempt	Date Revised:	10/12/19

GENERAL SUMMARY

Performs a variety of technical duties in assigned area including survey, design, mapping and materials testing activities. Drafts plans and specifications for construction and traffic engineering projects and related areas. Provides technical assistance to professional level engineering staff.

ESSENTIAL DUTIES & RESPONSIBILITIES

The intent of this job description is to provide a representative summary of the major duties and responsibilities performed by incumbents of this job. Incumbents may be requested to perform job-related tasks other than those specifically presented in this description.

1. Performs a variety of tasks in support of assigned area including design, mapping, drafting and related areas.
2. Participates in detail preliminary, topographic, construction, property, geodetic and other engineering surveys for various engineering and planning projects.
3. Assists engineering staff in the preparation of engineering designs, drawings, specifications and construction project estimates. Drafts plans for engineering and construction projects including traffic intersections, streets, storm, water and sewer systems, utilities and other capital improvement projects.
4. Analyzes engineering project problems in assigned areas. Gathers data through research, engineering studies and field investigations. Designs and recommend solutions and monitors implementation.
5. Provides information to the public, contractors and consultants relative to engineering office business and technical matters. Provides engineering support for various issues and inquiries from management or council members.
6. Performs more difficult laboratory testing of soils from construction sites, concrete cylinders and beams, crushed stone, washed rock and gravel, dust, sand and other material.
7. Tests materials for compactor, pressure, composition, moisture, strength, density to verify conformity to specifications. Records test results and writes reports describing procedures used.
8. Performs various mathematical calculations of test results to determine if materials tested meet the appropriate physical standards.
9. Performs other duties as required.

10. Adheres to assigned work schedule as outlined in the Department and City attendance policies and procedures; ensures all behaviors comply with the City's Personnel Rules and Regulations.

KNOWLEDGE, SKILLS & ABILITIES

- **Knowledge of:**
 - Methods, techniques and practices in assigned area including drafting, mapping and related technical engineering functions.
 - A variety of mathematical principles for application into assigned area including computation of angles, areas, and distances.
 - Design and construction theory.
 - Engineering design standards.
 - Terminology, methods, practices and techniques of drafting.
 - Materials, methods, and techniques of modern construction.
 - A variety of materials and equipment used in assigned area including CAD systems.
 - Methods and techniques of technical report writing.
 - Methods, techniques and practices in assigned area including drafting, mapping and related technical engineering functions.
 - A variety of mathematical principles for application into assigned area including computation of angles, areas, and distances.
 - Design and construction theory.
 - Engineering design standards.
 - Terminology, methods, practices and techniques of drafting.
 - Materials, methods, and techniques of modern construction.
 - A variety of materials and equipment used in assigned area including CAD systems.
 - Methods and techniques of technical report writing.
- **Skill in:**
 - Geographical Imaging Software (GIS), Accela and Microsoft.
 - Time Management.
 - Organization.
 - Documentation.
- **Ability to:**
 - Communicate clearly and effectively, both orally and in writing.
 - Inspect work quality.
 - Research areas for maintenance.
 - Prepare and implement contract.
 - Monitor contractors.
 - Investigate and document locations and terrain.
 - Reduce, interpret, and apply field notes in the performance of drafting duties.
 - Compile rough technical data.
 - Prepare statistical and narrative reports from field studies.
 - Perform civil engineering design, drafting and specification work.
 - Understand and interpret engineering plans and specifications.
 - Prepare accurate engineering records.
 - Operate a variety of materials and equipment used in assigned area including CAD systems.

- Use algebraic formulas, trigonometry tables and statistical mathematics to accomplish duties in assigned area.

MINIMUM JOB REQUIREMENTS

Associate Degree in Engineering, Architecture or related field and two years of increasingly responsible technical engineering experience in the areas of drafting, project design, review/analysis of projects for conformance of established standards, and/or land surveying.

OTHER REQUIREMENTS

Valid Texas Driver's License.

WORKING CONDITIONS

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Depending on assignment, positions in this class typically require touching, talking, hearing, seeing, grasping, standing, stooping, kneeling, crouching, reaching, walking, repetitive motions, climbing and balancing.

PHYSICAL DEMANDS

The physical demands described here 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 the essential functions.

Light Work – Depending on assignment, positions in this class typically exert up to 20 pounds of force occasionally, up to 10 pounds of force frequently, and/or a negligible amount of force constantly having to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for the Sedentary Work category and the worker sits most of the time, the job is rated Light Work.