



## **JOB DESCRIPTION**

**TITLE:** ENGINEERING SERVICES TECHNOLOGIST

**DEPARTMENT:** Engineering

**LEVEL:** 12

**Position Last Evaluated: Dec 2014**

**Job Desc. Last Updated: Mar 2020**

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### **JOB SUMMARY**

Under the general direction of the Manager, Municipal Infrastructure, the incumbent evaluates, defines, and recommends engineering service alternatives to meet existing and future growth. Coordinates the review and issue of the City's Engineering Standards and Specifications, organizes, directs, and monitors the work of consultants, compiles and reviews cost estimates, terms of reference, proposals, studies specifications, and tenders.

### **TYPICAL DUTIES AND RESPONSIBILITIES**

1. Evaluates and defines service alternatives considering growth and future planning by determining methods of providing municipal services to growth areas and by performing capacity analysis.
2. Collects and analyses data on the capacities and condition of present water, sewer, and drainage systems by implementing long and short-range water, sewer, rainfall, and storm flow monitoring programs, including selection of locations, types of equipment and technology, and overseeing the installation of equipment by contractors as well as CCTV program, including prioritization of sewer and drainage mains to CCTV, providing input and documentation for yearly CCTV contract, and monitoring progress and providing direction to contractors to ensure goals and objectives are accomplished.
3. Prepares reports on servicing assessments to the Manager, Municipal Infrastructure, senior management, Council, and others on engineering related issues. Prepares preliminary computer aided designs, drawings and cost estimates for water, sewer, and drainage systems.

**TYPICAL DUTIES AND RESPONSIBILITIES cont.**

4. Evaluates economic and technical benefits of proposed projects and prepares reports on alternatives showing costs, benefits, staging, financing, and intangible factors, and participates in the preparation and updates of the Infrastructure Long Range Improvement and Strategic Plans.
5. Evaluates proposals concerning engineering servicing and Land Use applications and developments, and prepares reports on service availability, required upgrading, and cost estimates.
6. Develops new standards and specifications for, coordinate's evaluation of, and makes revisions to the Engineering Standards and Specifications of the City by organizing, compiling, and/or researching all requests, consulting City staff for additional information or background history on particular subjects, and writing updates to the standards and specifications.
7. Determines the need for consultants and prepares Terms of Reference for studies, issues calls for expressions of interest and calls for proposals, makes recommendations on the hiring of consultants, and monitors progress and provides direction to consultants to ensure goals and objectives are accomplished. Reviews consultant's progress payment requests and makes recommendations on payment of invoices.
8. Defines and interprets scope of projects driven by other departments' concerns and studies recommendations, further defines the project scopes, provides estimated costs, determines priorities, and integrates other program objectives into the City's Five Year Capital Plan and Annual Budget.
9. Compiles and reviews cost estimates, Terms of Reference, proposals, studies, specifications, and tenders related to the planning of water, sanitary sewer, storm sewer, roads, traffic, and other engineering related works and services.
10. Performs other duties as required.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES**

Thorough knowledge of engineering practices, methods, standards, techniques, and equipment used in municipal engineering, planning, analysis, design, and operation specifically related to civil engineering design of water, sanitary sewer, and storm drainage systems.

Considerable knowledge of municipal engineering design, and computer aided design and drafting practices.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES cont.**

Considerable knowledge and skills in preparation of Terms of Reference and contract administration with emphasis in municipal engineering.

Considerable knowledge of civil engineering budgeting, estimating, mathematics, survey, design, construction, operation, and maintenance terminology, methods, techniques, practices, and equipment.

Excellent verbal and written communication skills and the ability to use persuasive diplomacy when recommending, clarifying, or negotiating issues.

Excellent organizational skills and the ability to self-organise work and priorities and to work independently with only general supervision.

Experience in computers and engineering application software and knowledgeable in the use of databases and spreadsheets (e.g. AutoCad, Microsoft Access, Word, Excel, Project, and monitoring and modeling software).

Ability to read, interpret, and prepare municipal engineering plans, specifications, contract documents, and related material.

Ability to research, collect, manage, analyse, and synthesize technical data and information, and prepare and maintain concise records, reports, and correspondence.

Ability to interact effectively with people in a team environment, seek input from other staff on designs and clarify such comments, and respond to input from other staff objectively.

Ability to communicate, understand, and carry out oral, as well as written, instructions and to effectively communicate with members of the public seeking information on technical matters.

**MINIMUM TRAINING AND EXPERIENCE REQUIRED**

Diploma of technology from a recognized Technical Institute in civil engineering, related to design, report preparation, survey, construction, computer aided design and drafting, plus additional specialized courses in the municipal infrastructure field.

A minimum of 5 years' related experience including a minimum of 3 years' experience in Municipal engineering detail design.

Or an equivalent combination of education and experience.

Possession of a valid Class 5 BC Driver's Licence.

**MINIMUM TRAINING AND EXPERIENCE REQUIRED cont.**

Membership in or eligible for membership in the Applied Science Technologists and Technicians of BC as an Applied Science Technologist.

**GENERAL STANDARDS**

All employees shall take reasonable care to protect their health and safety, and the health and safety of other persons by becoming familiar with the Occupational Health & Safety (OH&S) Program, following established safe work procedures, using protective equipment, and asking for training if unfamiliar with work requested to perform.

Contributes in maintaining a respectful, safe, and supportive work environment that embraces diversity and where everyone is treated with courtesy, dignity, and fairness.

Adheres to City policies and objectives.