

## **ENGINEERING DEPARTMENT**

**Job Title:** Works Inspector

**Date:** July 29, 2010

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**Title of Immediate Supervisor:**

Engineering Technologist II – Projects

**Title of those supervised:**

none

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## **NATURE AND SCOPE OF WORK**

Employees in this position perform a variety of regulatory and field inspections and associated duties related to sewer, waterworks, roadway, drainage and other public works construction projects performed for the municipality, including: ensuring conformance with applicable bylaws, regulations, and other known standards; ensuring conformance with plans, specifications, schedules; attending pre-construction meetings; coordinating work between contractors, municipal crews and other agencies; monitoring volumes and quantities for release of security request; technical field survey work in support of departmental activities, assist to co-ordinate the work of others; assist in training staff. While considerable independence of judgment is authorized for the performance of tasks within established guidelines, complex or unusual situations are reviewed with the supervisor to determine the appropriate action.

## **ILLUSTRATIVE EXAMPLES OF DUTIES**

1. Complete field inspections of installations of a variety of civil works performed by municipal crews, contractors, developers and utility companies on subdivisions, developments, local improvements and other related engineering projects such as the installation and construction of: road works, curb, gutter and sidewalks; street lighting; traffic signals; sanitary and storm sewer systems; and water systems; using a variety of methods and techniques to ensure compliance with and adherence to plans, specifications, standards, encroachments, subdivision and soils deposit and removal bylaws, and other related requirements.
2. Ensure contractor, developer, utility company compliance with and adherence to relevant bylaws, policies, provincial regulations, WorkSafeBC regulations, quality assurance testing, and environmental requirements and notify appropriate authorities of any non-compliance concerns.
3. Prepare and maintain a variety of related inspection documents, including release of security request.
4. Attend pre-construction meetings.
5. Ensure that all required licenses, insurance, drawings, letters of credit, service fees and permits, and other related documents are received and properly completed prior to the commencement of related works.
6. Ensure receipt and accuracy of related as-built records and service record cards, and require any necessary corrections prior to the submission of the finalized as-built documents.

7. Review geotechnical reports pertaining to soil densities, to ensure all necessary components and certification of compliance are included, and advise supervisor of any deficiencies.
8. Operate electronic distance measuring devices (total stations), levels, data collectors, GPS receivers and various other surveying instruments and related software.
9. Set up, and operate surveyors levels used to establish or determine elevations or differences in elevation between survey points or benchmarks.
10. Make trigonometric calculations to set survey points on horizontal and vertical curves; determines coordinate positions, performs trigonometric leveling; determines profiles and percent of grade.
11. Assist in performing complex mathematical calculations as it relates to land surveying.
12. Read and interpret engineering blue prints, maps, plans, field notes, tie notes, leveling notes.
13. As required, act as rodman.
14. Issue and administer work orders to Public Works for development-related works and services.
15. Maintain constant contact and coordinate work between developers, contractors, utility company representatives, engineers, municipal crews and other agencies.
16. Responsible for compiling pertinent data and maintaining accurate records to be used in the preparation of progress estimates, reports and as-constructed plans.
17. Review materials and test reports and recommends acceptance or rejection of materials and workmanship.
18. Prepare and maintain a variety of tables, records, statistics, and reports, including word processing and data entry on to the municipal computer system related to public works inspection activities.
19. As requested co-ordinate and follow-up work of other works inspectors.
20. Assist in the development and delivery of training for new staff.
21. Provide information related to staff performance assessment.
22. Perform other duties related to the position.

### **REQUIRED KNOWLEDGE, ABILITIES AND SKILLS**

1. Considerable knowledge of the methods, practices, materials, tools and equipment used in the installations, construction and maintenance of municipal engineering services and facilities such as road works, curb, gutter and sidewalks; street lighting; traffic signals; sanitary and storm sewer systems; and water systems and other related services and facilities.
2. Considerable knowledge and understanding of related bylaws and regulations, municipal contract documents, construction drawings, and standard construction practices.
3. Working knowledge of methods, principles, techniques and equipment related to survey work, GPS, GIS and testing including related calculations in applying trigonometric and geometric formula.
4. Skill in the use of tools, instruments and equipment necessary to verify the layout of public works projects.

5. Skill in a variety of related computer applications including word processing, spreadsheets, and other engineering applications.
6. Ability to understand and execute oral and written instructions, including reading and interpreting plans and specifications.
7. Ability to enforce compliance to standards, regulations and other requirements with authority and impartiality, determine quality of materials and workmanship through inspections, and recommend corrective measures as required.
8. Ability to read and understand maps, plans, and construction and technical drawings.
9. Ability to gather, summarize and analyze data for reports, find solutions to various technical problems, and prioritize work.
10. Ability to make accurate notes and sketches, and prepare a variety of reports for work accomplished.
11. Ability to establish and maintain effective working relationships with internal and external customers and to communicate tactfully and effectively.
12. Ability to be calm, courteous and tactful in a variety of demanding situations.

#### **REQUIRED EDUCATION, TRAINING AND EXPERIENCE**

Completion of Grade 12 or equivalent.

Completion of a Intermediate Certificate of Technology program in civil engineering, or an equivalent combination of training and experience. Course of study to include public works inspection, asphalt and materials testing, survey.

Minimum of 3 years experience in inspection or public works construction, or recognized equivalent.

#### **REQUIRED LICENSES, CERTIFICATES AND REGISTRATION**

ASTTBC Certified Public Works Inspector 2

Occupational First Aid, Level 1

Valid B.C. driver's license