

	<i>Title:</i> Engineering Assistant 2	<i>Date:</i> September 2002
	<i>Department:</i> Engineering	
	<i>Classification::</i> Inside	<i>Pay Grade:</i> 25
	<i>Date Signed Off by the Union:</i>	

Nature and Scope of Work

This is technical work involving preliminary and construction survey, data analysis, data analysis and regulation and inspectional work of some complexity in ensuring that work performed and materials produced by and for the City conform to contract specifications. An employee of this class is responsible for the use of the surveying equipment and/or drafting instruments on moderately complex assignments; for plotting, calculating quantities and grades; for preparing and maintaining municipal base, legal and utility servicing maps; for recording and computing related non-graphic data using computed assisted techniques and equipment; for writing or interpreting field notes, and for making routine technical and mathematical computations. The incumbent frequently supervises assistants in the field and is responsible for making decisions on routine matters. Increasing independence of judgment and action is exercised as the employee becomes more skilled in the work. Accuracy is of major importance as the work may form the basis for important engineering determinations. New assignments are given orally or in sketch form and technically difficult tasks are performed under the direction and supervision of the Director of Engineering.

Illustrative Examples of Work

1. Uses surveying instruments in the running of lines and grades, taking cross sections, and running contours for the construction of roads, pavement, sewers and other civil engineering projects and records as built details of completed work.
2. By using drafted profiles, establishes centre lines and stakes out intersections, curb and road grades, catch basins, sewer lines and a variety of other engineering installations.
3. Writes detailed field notes on instrument work performed.
4. Directs the work of field assistants engaged in cutting brush, measuring distances, driving stakes and other manual tasks pertaining to field engineering and surveying work.
5. Check field notes; make routine calculations; plots cross sections and profiles; draft maps, as built plans and does a variety of other semi-skilled tasks in drafting.
6. Does routine work in checking and reporting on conditions requiring numerical counts, rough field sketches or technical narrative reports to facilitate the planning of new engineering projects.

7. Researches, compiles, analyzes and enter geographic and associated non-graphic data from legal source maps, orthophotographs, engineering design and record drawings and related documentation into a computer database, using a graphic workstation and related equipment; produces computer assisted base, legal and utility servicing maps and related materials are required.
8. Performs related work as required.

Required Knowledge, Abilities and Skills

1. Thorough knowledge of elementary engineering principles and practices including the materials and equipment used in the area of specialization.
2. Considerable knowledge of engineering drafting and mapping terminology, computer assisted mapping, principles, practices and techniques.
3. Ability to plan, coordinate and supervise work of subordinates.
4. Ability to understand and execute oral and written instructions and to interpret engineering plans and specifications.
5. Ability to establish and maintain effective working relations as necessitated by work assignments.
6. A basic knowledge of computers and their use in engineering applications (i.e. AutoCAD Map, etc.).

Desired Training and Experience

1. Diploma in engineering from a recognized Institute of Technology;
2. At least 5 years experience of municipal engineering, GIS and database applications; or
3. Equivalent combination of training and experience.

Required Licences, Certificates and Registrations

1. Valid Class 5 Driver's Licence for the Province of British Columbia.
2. Registration or eligible to be registered as an Applied Science Technologist or Technician in the Province of British Columbia