

Job Class Profile: Design Approval Technician II**Pay Level: CG-35 Point Band: 766-789**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	5	5	2	5	5	5	5	1	4	
Points	233	83	13	24	150	108	103	21	43	778

JOB SUMMARY

The Design Approval Technician II performs advanced responsible technical and administrative work in the review, approval and registration of design and plan documents relating to a broad spectrum of acts, codes and regulations in support of various regulatory and/or infrastructure programs.

Key and Periodic Activities

- Reviews plans and specifications and construction drawings as submitted by engineering consultants for infrastructure projects conducted by municipalities to determine if the proposed scope of work complies with legislation, accepted engineering practices and codes
- Performs responsible engineering work assisting in the implementation of departmental Capital Works Program to municipalities in the Region of responsibility.
- Assesses the adequacy of existing municipal infrastructure. Produces reports detailing issues of non-compliance with regulations of various Government departments and their legislation such as Municipal Affairs, Environment and Conservation, Occupational Health and Safety and Government Services. Meets with municipal authorities to provide results of review, operational information and direction to enable them to come into compliance with the various technical and legislative requirements.
- Reviews and approves as-built documentation submitted from consulting engineers, based on initial intent and scope of project.
- Provides technical advice and regulatory interpretation regarding functionality and operational effectiveness of municipal infrastructure to internal/external departments, agencies, municipalities and the general public.
- Reviews project status reports to monitor progress of capital projects. Maintains related databases to track progress.
- Reviews engineering drawings, specifications and reports including verifying design calculations, conducting required site visits, and liaising with consultants, other departments and proponents. Issues Permits to Construct as per the Water Resources Act for water and sewage systems. Designs are reviewed for compliance with Guidelines for the Construction and Operation of Water and Sewage Systems, Municipal Water, Sewer and Roads Specifications and various other standards.
- Designs, develops and implements policies, guidelines and programs for the installation,

Key and Periodic Activities

- operation and maintenance of water and sewage systems. Provides expert advice and technical and logistical support in the installation, operation and maintenance of water distribution and treatment systems and wastewater collection and treatment systems.
- Conducts regulatory field inspections to ensure the terms and conditions of Permits to Construct and Permits to Operate are being adhered to; advises parties of deficiencies and what corrective measures must be taken if required.
 - Identifies and assesses the specific needs of municipalities in terms of water and wastewater systems by conducting field inspections, sanitary surveys, public complaints investigations and sampling programs.
 - Participates in the evaluation and ranking of municipal capital works funding requests for municipal water and wastewater servicing.
 - Researches new innovative technology in the fields of water supply, treatment and distribution, sewage collection, treatment and disposal and makes appropriate recommendations. Plans and conducts studies regarding to the identification and resolution of drinking water problems related to water and wastewater systems. Develops and implements corrective measures to deal with drinking water quality issues including disinfection by-products, turbidity, lead, copper, arsenic and uranium.
 - Represents the department at municipal, interdepartmental and public meetings and on various committees.
 - Reviews and registers building drawings and specifications for compliance with the Building Accessibility Act and Regulations, Fire and Life Safety requirements of the National Building Code(NBC), Life Safety Code and National Fire Protection Association (NFPA) Codes.
 - Reviews Professional Engineer's design of large sewage treatment and disposal systems for compliance with Provincial Regulations and conducts compliance inspections for adherence to the approved design and permit stipulations.
 - Assesses proposed subdivision development for suitability for on site sewage disposal and water systems. Approves or refuses proposed subdivisions for development.
 - Reviews Fire Suppression Systems, Fire Alarm and Detection Systems and Fuel Storage and Dispensing design drawings for compliance with NBC and NFPA requirements.
 - Provides consultation, advice, interpretation and direction to Architects, Professional Engineers, and Government Officials on the various codes and systems or building design requirements.

SKILL

Knowledge

General and Specific Knowledge:

- Knowledge of various software for spreadsheet, database and design applications
- Knowledge of various construction plans, specifications and standards
- Knowledge of various pieces of legislation, regulations and codes.

Formal Education and/or Certification(s):

— Minimum: 3-year Diploma in Engineering Technology

Years of Experience:

— Minimum: 4-5 years

Competencies:

- Ability to operate a computer to prepare spreadsheets, develop and maintain databases.
- Ability to drafting software.
- Strong communication skills.

Interpersonal Skills

- A range of interpersonal skills include listening to information from other people, asking questions to get information, providing routine information and direction to others, communicating complex and specialized information, gaining the cooperation of others to address issues/solve problems and providing expert advice to others. Also deals with conflict or contentious situations with consulting engineers, municipalities, and the general public.
- Communications occur with employees in the immediate work area, employees in the Department, employees of other government departments, Managers, Municipal government representatives, engineering consultants, Departmental Executive and the General Public
- Most significant interactions are with professional engineers/consultants, architects and contractors to provide interpretation of regulations and design/code requirements; municipalities to discuss system problems and advise on regulatory requirements, projects and permitting; co-workers/employees in the department and immediate Supervisor to report on projects and get direction, advice and consultation.

EFFORT

Physical Effort

- Work rarely results in considerable fatigue requiring periods of rest.
- Position requires fine finger work regularly when at the computer; occasional to regular standing, walking and driving, and occasional use of hand tools that require accurate control and steadiness. Positions occasionally may be required to lift items of equipment, drawings and tools 10-25lbs.
- Positions spend the majority of time in an office environment with occasional field/site visits to monitor projects, conduct inspections, perform surveys and attend meetings.

Concentration

- **Visual** concentration is a regular requirement and higher than normal levels of alertness may be required when working around equipment or inspecting operating waste and water treatment facilities and industrial sites.
- **Auditory** concentration is required when working and listening to conversation over the phone, in public meetings and on noisy work sites.
- Occasionally, **other sensory demands** such as olfactory/smell concentration for gases that may be a health hazard or indication of system problems.
- There are regular **time pressures** to complete review and approval of designs and issue permits as required. Constant **interruptions** from general public, engineers and contractors, municipalities looking for permits and technical advice, unscheduled meetings when people

drop in and briefing note requests that have to be given priority.

- **Exact results and precision** are required when: reviewing designs and specifications and checking related calculations; preparing briefing notes; and producing official permits with stipulations.

Complexity

- Tasks typically range from regularly repetitive/well defined to regularly being different and unrelated which require a broad range of skills and diversity of knowledge.
- The most typical issues to solve are: determining if designs submitted meet specification, standards and code and proposing or approving alternative solutions to address unique or local conditions; requiring changes to projects because the designs do not meet code requirements and thus putting the permitting process on hold; helping assess and resolve issue relating to the delivery of safe potable water to communities; resolving a dispute regarding interpretation of contract language; troubleshooting a leak within a water treatment system; and providing a plan and cost estimate to repair or construct highway infrastructure within a defined budget.
- Regularly there are challenges or problems that must be defined and practical solutions found. Occasionally there are challenges with limited opportunity for standardized solutions and those that require creative problem definition and development of complex solutions.
- Department Master Specifications, Professional design standards, various Provincial Acts and regulations, National Building Code, Life Safety Code, NFPA Codes, Canadian Standards Association Codes, Building Accessibility Act and regulations, OHS regulations, Guidelines for Design, Construction and Operation of Water and Sewerage Systems, precedents and professional Engineering and other expert staff are available as references or resources.

RESPONSIBILITY

Accountability and Decision-Making

- Work tasks are somewhat prescribed or controlled.
- Various decisions can be made without written or verbal approval such as those concerning approving or rejecting designs and issuance of project permits, recommending changes to designs and specification to meet regulatory requirements and estimating and recommending projects for funding and conducting final inspections for compliance and resolving differences of opinion regarding contractual obligation between parties.
- Independent discretion, judgement and latitude are exercised in making decisions on approving or refusing permits to Construct and Operate, solving technical problems, providing technical advice and carrying out activities.

Impact

- Results are directly felt within the immediate work area, department, within and outside the organization and by clients and the general public.
- Results directly impact equipment, processes, finances, material and human resources, contractors, the general public, health and safety and corporate image.
- Work tasks and decisions ensure buildings are safe for employees and the general public,

water treatment and wastewater systems and other municipal infrastructure are designed and operating properly.

- Consequences of errors could be significant and felt outside the department by clients and the public.

Development and Leadership of Others

- There is no supervision of staff. Expectation to provide routine advice to new staff.

WORKING CONDITIONS

Environmental Working Conditions

- Work tasks require protective gear and precautions when out conducting inspections and performing duties in the field.
- The likelihood of injury and illness is limited if precautions are followed.
- Occasionally may be exposed to a variety of undesirable environmental conditions and hazards such as dust, noise, fumes, wet or slippery surfaces, vibration, bodily fluids and waste, electrical shocks, awkward or confining workspaces, temperature extremes, hazardous chemicals, isolation/, dangerous heights, and heavy machinery when on construction sites and performing inspections of buildings and water and sewage systems.