



IDENTIFICATION

| Department | Position Title | |
|------------------------|------------------------------------|------------------------|
| Infrastructure | Senior Project Officer, Structures | |
| Position Number | Community | Division/Region |
| 33-15992 | Yellowknife | Transportation |

PURPOSE OF THE POSITION

The Senior Project Officer performs engineering and related project management tasks for major Capital and Operational and Maintenance (O&M) projects involving bridges, culverts, and other transportation structures for the Department of Infrastructure (INF). The incumbent is a key person on the project team who undertakes projects to ensure structures are evaluated, maintained, rehabilitated, and reconstructed to be capable of withstanding the demands of increasing volumes and heavier traffic loads while meeting environmental regulations. The incumbent also provides structural engineering advice to other members of the Division and monitors current trends in bridge and culvert design, engineering, construction, and safety as needed.

SCOPE

Located in Yellowknife, the position reports to the Manager, Structures Section - Bridges.

On behalf of the Government of the Northwest Territories (GNWT), INF carries the responsibility for strategic planning for the GNWT's long term investment in the development of public transportation, and energy production, and distribution systems for the NWT, as well as the continuity of marine transportation services for the provision of fuel and dry goods to northern destinations.

The incumbent is a senior team member responsible for the design, maintenance, rehabilitation and construction of bridges, culverts, and other transportation structures.

The incumbent will directly manage projects as well as be part of various teams assembled to meet the needs of specific bridge and culvert maintenance, rehabilitation, and construction projects. These teams may be comprised of personnel from within the Section, Division, or the



Department, Territorial and Federal regulatory agency staff, consulting engineers, fabricators, material suppliers and construction contractors.

The incumbent has authority to manage the delivery of both Capital projects and O&M projects with a total value of up to \$300 million.

RESPONSIBILITIES

1. Manages project development stage for design and construction projects:

- Coordinates project team staff and/or consulting engineering firms to carry-out pre-engineering work (surveys, geotechnical investigations, hydrotechnical investigations, hydraulic studies, specialized engineering studies, material testing, environmental studies, archaeological investigations, and traditional knowledge considerations).
- Prepares requests for proposals, tender documents, requests for quotes and project terms of reference for engineering and construction and selects and manages engineering and construction contracts.
- Completes or oversees the preparation and review of detailed design and drawings.
- Identifies and obtains client, community, technical, and regulatory approvals and permits, as appropriate, throughout the design stage.
- Solicits comments and input on project documentation and drawings from outside agencies and applicable regulatory bodies and incorporates them into design as applicable.
- Conducts cost/benefit analyses as required and develops detailed project cost estimates.
- Develops, in collaboration with communities and local development corporations, plans to help maximize local/northern involvement, training and business development opportunities associated with projects.
- Negotiates contracts with Indigenous governments and develops documentation for cabinet approval.

2. Manages project construction stage:

- Arranges for tendering process with Procurement Shared Services and responds to enquiries from bidders.
- Manages the tender and award of construction contracts and carries out pre-construction activities including pre-construction meetings, verification of project scope, budget, and schedule, and addresses technical and regulatory issues.
- Manages the construction contracts (e.g., verifies and approves payments within authorities, inputs business incentive policy submissions into System for Accountability and Management [SAM], resolves technical and financial issues, and justifies change orders).
- Ensures quality control / quality assurance inspections, surveying, testing, and quantity measurements are completed.
- Interprets contracts, plans and specifications.
- Investigates and resolves any disputes with contractors including facilitating the dispute resolution process if required.



- Conducts regular inspections of all assigned projects to ensure work is of acceptable quality and is progressing in accordance with plans and specifications.
- Conducts interim and final inspections to identify any deficiencies and to turn project over to maintenance staff, conducting final inspection upon completion of all outstanding deficiencies.
- Prepares interim and final certificates of completion certifying work has been completed in accordance with the terms of the contract.
- Conducts warranty inspections and ensuring contractor to correct any identified deficiencies.
- Investigates and resolves the technical difficulties encountered during construction: negotiating and preparing change orders and recommending approval to supervisor.
- Checks monthly claims submitted by contractor; certifying that the work being claimed has been completed and approving payment of claim or recommending payment of claim to approval authority.
- Reviews "as-built" drawings and profiles.
- Establishes service contracts with local businesses for materials required for asset rehabilitation and maintenance.

3. Manages project compliance with governing authorities:

- Identifies opportunities to achieve GNWT policy objectives throughout all stages of the project planning and implementation and takes action to achieve policy objectives.
- Ensures consultant and contractor compliance with all the applicable and governing codes, permits, directives, regulations, and GNWT technical standards and guidelines, and takes necessary action when in default.

4. Performs associated project management tasks:

- Provides advice to supervisor, project team, colleagues, or clients about alternative solutions for bridge and culvert design, construction, or maintenance issues.
- Performs, or participates in, special projects (e.g., revisions to technical standards and guidelines, or policy).

WORKING CONDITIONS

Physical Demands

No unusual demands.

Environmental Conditions

No unusual demands.

Sensory Demands

No unusual demands.



Mental Demands

Field posting typically involves up to twelve weeks travel during the construction season. During the other times of the year the incumbent will be required to travel at least one week per month for inspections, project review, planning and meeting with consultants and contractors. Urgent situations may result in minimal notice prior to departure.

KNOWLEDGE, SKILLS, AND ABILITIES

- Knowledge in design and construction, management of heavy civil works, and structural projects such as bridges, culverts, and other transportation structures through all stages of development (planning to completion).
- Knowledge of principles of structural engineering, general civil engineering, and survey practices.
- Knowledge of bridge and culvert inspection and rehabilitation / maintenance techniques.
- Knowledge of Northern anomalies such as logistical requirements, material availability, construction practices, environment, soil conditions, regulations and laws, and the cross-cultural and political environment.
- Understanding of safe work practices and Workers' Safety and Compensation Commission (WSCC) rules and regulations.
- Knowledge of computer systems and software applications such as: Project Scheduling, Word Processing, Spreadsheets, Project Management Systems, and Financial Management Systems.
- Knowledge of risk management practices and identifying/mitigating project risks.
- Estimating and financial skills to control budgets for capital and O&M projects.
- Verbal and written communication skills.
- Skilled at keeping and maintaining organized detailed project records.
- Analytical, consulting, and problem-solving skills combined with common sense and creativity.
- Planning and organizational skills to meet work schedules, critical milestone dates, and to coordinate and organize own work activities with competing priorities in a multi-task work environment.
- Ability to work in a cross-cultural environment to deal with a diverse group of clients and staff.
- Ability to work independently, with little to no direction.
- Ability to work within a team setting.
- Ability to make critical decisions requiring a balance between cost and benefits, with continual consideration for safety of the asset users.
- Ability to work well under pressure and with tight deadlines.
- Ability to plan and execute work safely.



Typically, the above qualifications would be attained by:

A bachelor's degree in civil engineering with 4 years' relevant experience.

Equivalent combination of education and experience will be considered.

ADDITIONAL REQUIREMENTS

Eligibility for professional registration with Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG).

A valid Class 5 Driver's License.

Position Security (check one)

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applicable)

- French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) Intermediate (I) Advanced (A)

READING COMPREHENSION:

Basic (B) Intermediate (I) Advanced (A)

WRITING SKILLS:

Basic (B) Intermediate (I) Advanced (A)

- French preferred

Indigenous language: Select language

- Required
- Preferred