

Ministry

Transportation and Economic Corridors

Describe: Basic Job Details

Position

Position ID

Position Name (200 character maximum)

Field Support Technologist

Current Class

Technologies 5

Job Focus

Operations/Program

Supervisory Level

00 - No Supervision

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

C&M, Southern Region, Operations - Pincher Creek

☐ Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Design: Identify Job Duties and Value

Changes Since Last Reviewed

Date yyyy-mm-dd

2025-03-17

Responsibilities Added:

None - updating for recruitment purposes

Responsibilities Removed:

None - updating for recruitment purposes

Job Purpose and Organizational Context

Why the job exists:

This position provides the technical expertise required for the delivery of the Highway Maintenance Contract to ensure the protection and preservation of the highway infrastructure and safety of the traveling public. It encompasses both materials and survey disciplines and supports the administration of the Provincial Highway Maintenance Contract by auditing technical work done by maintenance contractors and consultants. Collects and maintains inventory and condition rating information for the asset management and pavement preservation programs within the departments. Acts in the capacity of the MCI in his absence.

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

1. Collect and maintain accurate field data for the management of the department's assets to ensure accurate budget forecasting, development approvals and adherence to departmental policies.
 - Use technologically advanced Global Position Systems to inventory, inspect and assign ratings to departmental appurtenances.
 - Use technical software (GPS Pathfinder, TIMS, MS Access, MS Excel and MS Outlook) to manage data
 - Inventory collection and review of annual surface condition rating (SCR) of highway surfaces from the Department's asset management program.
 - Practice safe operating procedures to ensure employee safety while collecting data and maintaining safe traffic flow.
2. Provide technical expertise to administer the Highway Maintenance Contract to support the maintenance of the provincial highway system and ensure the safety of the traveling public.
 - Prepare detailed and technical inspection and deficiency reports, forms, records and related documents.
 - Ensure compliance with Highway Maintenance Specifications Manual, Maintenance Reference Guide, Highway Maintenance Guidelines and Level of Service Manual, Failures Definition Handbook, Pavement Marking Guide, Traffic Accommodations in Work Zones Manual, Alberta Highway Signing Manual, Surface Condition Rating Manual, Contract Administration Manual, Occupational Health and Safety Regulations.
 - Arrange for quality assurance and quality control testing as necessary.
 - Audit work performed by consultants and maintenance contractor staff ensuring the work is carried out in accordance with contractual agreements and adhering to departmental standards and contract specifications.
 - Complete field surveys and create solutions to a wide variety of highway maintenance needs.
 - Assist in the implementation of new technologies such as Intelligent Transportation Systems and Road Weather Information Systems and the deployment of Department owned portable message boards.
3. Regular field inspections to monitor contractors delivering road maintenance work and identify potential problem areas to ensure the safety and comfort of the motoring public.
 - Patrol area roads and bridges to observe conditions, any dangerous situations accessing needs and taking or recommending corrective actions.
 - Monitor contractor's performance on work in progress to ensure that adequate consideration and attention is given to the safety and convenience of the motoring public (lane closures, barricades).
 - Audit contractors' performance (adherence to specifications) on completed and warranty work and determining future maintenance requirements.
- 4.0 Assist in the preparation of contracts, service agreements, consultant agreements and contract administration.
 - Assess needs for extra work that may require special funding on a quotation.
 - Create practical solutions and cost estimates for a variety of projects.
 - Liaise with contractors and consultants outside of the main contract.Identify maintenance requirements and recommendations for future plans / programs.
 - Provide input into developing policies, long term plans and procedures for maintenance programs by assessing problems and deficiencies in standards, specifications, methods and techniques and recommends changes.

5.0 Participates as a member of a team in developing policies, long term plans and procedures for maintenance programs and participates on special committees, events and assignments.

- Provide expertise in establishing uniform provincial procedure and standards for new concepts.
- Meet with representative from environment protection and landowners addressing specific needs.
- Communicate department interests and policies to consultants and municipalities.
- Communicate effectively between peers and team members to achieve common goal and desired results.
- Implement innovative ideas and pilot project to support the department's goals of being a center of excellence.

Problem Solving

Typical problems solved:

Example 1:

A call from a landowner regarding a drainage concern.

As FST's we need to decide if this is Alberta Transportation's responsibility and if so how can we remedy the situations. Factors to consider are: Where can we drain the water? Are there environmental issues? Is there historical factors or agreements that need to be considered? Will the remedy impact the design and safety of the highway and ditch? (i.e. alter the slope). Will this affect the landowners? Are there right of way that can be affected i.e. gas lines, power lines, canal works, CPR and municipalities? Will the remedy fit within budgetary constraints? The resolution must address these concerns and at the same time placate the constituent.

Example 2

Maintenance of oil bound highway.

FST's were asked to determine which cost-effective method of rehabilitation should be undertaken to rehabilitate oil bound roads. After partnering and liaising with prime contractor, sub contractors, department personnel, municipality personnel, neighboring province's staff, landowners and traveling public we proceeded with the research and development of a new, innovative and cost effective method for rehabilitation.

Once the project was underway and problems arose the FST was frequently on site to refine the process and deal with stakeholder concerns. The ongoing analysis and re-evaluation of the application process with varied stakeholders helped to streamline the process and achieve a quality end result for this project.

Types of guidance available for problem solving:

- prioritize work activities and allocate resources for the priority works to meet budget allocation as developed by the department annually.
- mediate and negotiate for dispute resolutions with highway maintenance contractor, the general public

Direct or indirect impacts of decisions:

Decisions made by the FST will impact the final outcome of the annual provincial highway maintenance program and subsequent satisfaction of the motorists, residents and municipalities in the CMA.

Key Relationships

Major stakeholders and purpose of interactions:

Internal Areas:

Position oversees the work of contractors who provide highway maintenance within the highway right of way for a large geographic area, consisting of approximately 1000 kilometers of provincial highway and provincial park roads and approximately 400 kilometers of canal infrastructure.

External Areas:

Position has regular contact with the public, RCMP, rail companies, municipalities, other government departments and other levels of government to address concerns relating to Department interests.

Diversity / Complexity / Creativity:

Position works in a highly technical environment and understands engineering principles and complex

technical processes. The diversity and complexity of the work requires the assimilation and integration of information from many sources. The work of this position has a high impact on highway operations and programming of future maintenance activities.

Required Education, Experience and Technical Competencies

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Diploma (2 year)	Engineering		

If other, specify:

Job-specific experience, technical competencies, certification and/or training:

- Technical diploma in civil engineering technology and 2 years of directly related experience, or high school and 5 years of work related experience.
- Strong interpersonal skills and leadership abilities to be able to work within a team environment.
- Sound practical knowledge of road design, highway construction / maintenance and contract administration.
- Thorough knowledge or preliminary survey, construction layout, construction practices, plan/profiles, mosaics, as-built surveying, and project management.
- Ability to provide accurate and concise survey and materials testing information for quality control and to ensure that contract specifications are adhered to.
- Strong ability to problem solve in unique situations with creative and innovative solutions for all aspects of highway maintenance activities.
- Advanced knowledge of computers to trouble shoot problems and provide software support to maintenance staff.
- Advanced knowledge of Microsoft Office software (Word, Excel, Access) to provide documents, spreadsheets, reports and maintain and update various software databases.
- Sound knowledge of GPS (Global Positioning System) satellite hardware and procedures for collecting all highway appurtenance information within a contract maintenance area (CMA) for the asset management within the Department (TIMS, AIA).
- Ability to import, export, edit and manage and process collect4ed appurtenance data using Datalogger for Appurtenance Inventory Application (AIA).
- Advanced knowledge of PMA - M software for creating work orders for accepting or rejecting work, verifying quantity and quality of completed work for payment to maintenance contractors.
- Working knowledge of PMA - M software to provide revisions/updates of bid items, unit prices, CMA segments, job numbers to the databases for the maintenance contract and to generate progress estimate payments to the maintenance contractors.
- Sound knowledge of "Impromptu" software for generate ad-hoc queries by the public and generate reports to audit and monitor the contractors performance and to track the budget requirements.
- Sound knowledge of TIMS (Transportation Infrastructure Management System), to provide new and updated GPS data for incorporation into the system.
- Evaluated new technologies, the flexibility to learn new skills, and be adaptable to new situations.

- Highly effective verbal and written skills to exchange information and communicate effectively with internal and external stake holders and groups.
- Strong understanding of traffic safety, traffic accommodation strategies and traffic management through work zones and procedures for emergency situations.
- Ability to work with minimal supervision
- Assist with planning and scheduling of work to fit within allocated budgets.
- Knowledge of winter and summer maintenance methodologies and emergency response protocols an asset.

Behavioral Competencies

Pick 4-5 representative behavioral competencies and their level.

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		
Creative Problem Solving	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Focuses on continuous improvement and increasing breadth of insight: <ul style="list-style-type: none"> • Asks questions to understand a problem • Looks for new ways to improve results and activities • Explores different work methods and what made projects successful; shares learning • Collects breadth of data and perspectives to make choices 	
Build Collaborative Environments	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Facilitates open communication and leverages team skill: <ul style="list-style-type: none"> • Leverages skills and knowledge of others • Genuinely values and learns from others • Facilitates open and respectful conflict resolution • Recognizes and appreciates others 	
Systems Thinking	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Observes and understands larger impact of role: <ul style="list-style-type: none"> • Sees impact of work on organization; anticipates change in own area based on activities in other areas • Considers how own work impacts others and vice versa 	

		<ul style="list-style-type: none">• Ask questions to understand broader goals• Aware of how organization adds value for clients and stakeholders	
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Benchmarks

List 1-2 potential comparable Government of Alberta: [Benchmark](#)

Assign

The signatures below indicate that all parties have read and agree that the job description accurately reflects the work assigned and required in the organization.