



Job Specification

Position Title: PROJECT SURVEYOR

Job Code: PEGO - Bargaining Surveyor 17, 17PBS

Job ID: 12597

Purpose of Position:

To plan, supervise and direct the production of engineering and legal surveys, plans and documents required for the planning, design and construction of transportation facilities; and to certify legal plans and documents for the acquisition and disposal of real property, and the assumption, designation, transfer and closing of highways.

Duties/Responsibilities:

Under the general direction of the Head, Geomatics Section:

Professional

- Examining and signing legal survey plans and documents for registration;
- Providing professional advice and opinions on boundaries and boundary law;
- Taking affidavits from property owners in matters pertaining to evidence or occupation in accordance with the Surveys Act;
- Attending, as an expert witness, Hearings regarding legal surveys and plans application, such as those made under the Boundaries, Certification of Titles, and Land Titles Acts;
- Maintaining professional expertise through continuing education, attending conferences and meetings.

Planning

- Ensuring plans and survey data are available for multi-year capital construction program by initiating aerial mapping, control and other survey projects;
- Estimating time and resources required to perform survey projects;
- Researching internal and external information sources to compile data necessary for survey projects.
- Co-ordinating the activities of staff to ensure productivity and efficiency.

Managing

- Scheduling and managing consultant assignments and participating as the survey expert on a TPM team by preparing Terms of Reference and consultant acquisition documents, preparing and evaluating EOLs, RFOs, RFPs, RETs, OC Plans;
- Negotiating with consultants for consultant assignments for completion dates, costs, and acceptability of deliverables.
- Planning, chairing or attending start-up and progress meetings, overseeing acceptance testing of deliverables for compliance with Ministry Standards, preparing consultant appraisals;
- Reviewing survey requests for accuracy and completeness, ensuring all necessary work will be

- performed; approving payment of consultant invoices;
- Ensuring Ministry staff and consultant work is performed in compliance with the Occupational Health and Safety Act, its regulations, and the safety policies and procedures of the ministry.

Advising

- Providing technical guidance and instruction to staff and consultants;
- Participating in technical training sessions as instructor;
- Dealing with other Ministry staff, consultants, municipalities, utility companies, solicitors, Land Registry Office staff and the general public to resolve survey problems and exchange information;
- Assessing and resolving complex or unusual survey problems;
- Maintaining knowledge of current industry standards, procedures, equipment and software, and promoting the implementation of new techniques.

Supervising

- Supervising technical aspects of the work of staff to ensure productivity, compliance with Ministry Standards and pertinent Statutes and Regulations, and completeness and accuracy of survey data and plans;
- Approving time sheets, expense accounts, equipment time sheet and cost reports, preparing and recommending staff appraisals, and participating on competition panels;
- Ensuring that supervising duties are carried out in compliance with the Collective Agreement and Ministry policies.

Knowledge:

Work requires:

- Membership in the Association of Ontario Land Surveyors as a Licensed Ontario Land Surveyor;
- Expert knowledge of the theory, principles and production of legal surveys and plans, federal and provincial Statutes and Regulations, and Ministry Standards;
- Thorough knowledge of the theory, principles, practices and production of engineering surveys and plans, Ministry Standards, specifications and administrative policies;
- Thorough knowledge of Ministry policies, procedures, Standards and Statutes and Regulations related to highway jurisdiction, land registration, expropriation, acquisition and disposal of property;
- Thorough knowledge of the pre-contract engineering process, Ministry organization, relevant policies and procedures, including the Ministry's consultant acquisition process;
- Thorough knowledge of co-ordinate geometry, co-ordinate systems and datums, the theory of least squares, horizontal and vertical project control and the survey requirements for the planning, design and construction of transportation facilities;
- Thorough knowledge of survey equipment such as total stations, data collectors, global positioning receivers, theodolites and levels;
- Good knowledge of computer surveys application software such as computer aided drafting (CAD), ground modelling and co-ordinate geometry;
- Good knowledge of the Occupational Health and Safety Act and Ministry policies/directives/procedures as they apply to Ministry and consultant survey crews;
- Skill in planning, supervising and directing the work of subordinate staff and consultants;
- Excellent communication skills are required to convey technical information and establish effective working relationships with Ministry staff, consultants and the public;
- Good knowledge of project management techniques;
- Good knowledge of contract law applicable to the acquisition and management of consultant services; and
- A valid Ontario Class "G" driver's license and an acceptable driving record.

This knowledge and skill is acquired through graduation with a Bachelor of Science degree in Surveying, successful completion of a term of Articles, successful completion of professional exams, commissioning as a Licensed Ontario Land Surveyor and progressively responsible administrative and practical experience in surveying.

Judgement:

Judgement is used in:

- Assessing survey evidence which often conflicts with survey evidence shown on previous survey plans, deeds or descriptions;
- Providing professional opinions on boundary and related legal issues based on review and interpretation of survey evidence, statute and case law;
- Establishing and adjusting survey and plan preparation schedules;
- Evaluating engineering survey requests to ensure adequate coverage;
- Recommending and determining extent of work required for surveys and methods to be used to optimize production and minimize costs;
- Resolving survey problems referred by Ministry staff and consultants;
- Evaluating new methodologies and equipment;
- Assessing consultant invoices and approving their payment;
- Evaluating and recommending quotations for consultant fees;
- Evaluating EOLs, RFPs, RFOs, RETs;
- Producing, reviewing and accepting engineering and legal surveys and plan deliverables;
- Preparing and recommending staff appraisals;
- Producing fair and defensible consultant appraisals; and
- Recommending and resolving sensitive human resource issues and Occupational Health and Safety issues.

Professional Judgement:

- Professional opinions on boundary and related legal issues based on review and interpretation of survey evidence, statute and case law;
- Providing survey advice to survey staff, consultants and to section management;
- Presenting accurate information and testimony on legal survey matters at board/court hearings representing the Ministry, on such matters, as an expert witness in a court of law.

Accountability - Programs:

- The management (defining terms of reference, estimating, scheduling, appraising) of survey related projects in a cost effective manner, including participating on a TPM team;
- The accuracy and completeness and acceptance of engineering survey information and plans used in the planning, design and construction of transportation facilities;
- Accuracy and completeness and acceptance of legal survey information, plans and associated documents used by the Ministry in the acquisition, expropriation and disposal of lands, and for the assumption, transfer and closing of highways;

Accountability - Personnel:

- Ensuring adequate training for subordinates to improve their technical skills and to ensure currency with technological advances such as the use of automated surveying techniques and computers;
- Supervises Geomatics Plan Technicians (up to 6) and Senior Party Chiefs (up to 4) directly and Senior Technicians Surveys (up to 9) indirectly.

Accountability - Finance & Material:

- Approve consultant invoices, approve travel expense accounts and purchase of field supplies and equipment in accordance with delegation of authority documents.

Accountability - Impact of Errors:

Completed work is accepted as technically accurate and authoritative and only reviewed for achievement of objectives. Ineffective management of survey projects could result in capital program and construction delays.

Inaccurate survey data, plans and documents can result in incorrect property boundaries and incorrect design. This can cause delays to the capital program, litigation, delayed or invalid real property transactions, erroneous payment to property owners, and lead to costly delays or changes during construction.

Contact - Internal:

Position requires frequent contact with Regional, Head Office, and Area staff of the ministry.

Contact - External:

Position requires frequent contact with consultants and Land Registry Office staff, MGCS Regional Surveyors, Land Surveying firms, and less frequent contact with other government agencies, Association of Ontario Land Surveyors, municipalities, utility companies, equipment vendors, software help desks, property owners and the general public.

Contacts are made for the purpose of providing and obtaining information and materials, opinions, advice and direction on technical and administrative matters of mutual concern.

Position is required to participate on ministry committees and task forces to develop ministry survey standards, procedures and guidelines.