

SURVEYOR SERIES

PREAMBLE

Inclusions

This series is intended to cover those professional positions which have responsibility for the delivery and management of surveying or mapping projects or programs. Included are those positions which require a Commission as a Manitoba land Surveyor as dictated by various Manitoba Statutes and Regulations, not limited to but including The Land Surveyors Act, The Real Property Act and The Expropriation Act. Positions in this series are employed in the fields of topographic mapping, surveying data management, land (legal) or geodetic surveying.

Exclusions

Positions not included in this series are those which provide administrative or clerical support to surveying and mapping programs as well as technical support Draftspersons.

Also excluded are positions where the primary duties and responsibilities are included in the definition of any other class specification.

Structure

Positions progress through the series as the job focus shifts from on-the-job training to the delivery of specific surveying or mapping projects, through the various facets of project and resource management to the most senior level of overall development and management of a major surveying or mapping program on a province-wide basis.

Definition

Project - An activity which is finite in term, generally undertaken in support of a program.

Program - Ongoing functions or activities, generally of major scope and significance.

Deliver - to provide a land related project/program to the Manitoba public.

Delivery System - the methodology and resources utilized to provide a land related project/program.

SURVEYOR 1

GENERAL

This is the recruitment and training level which couples responsible professional work with on-the-job training. An incumbent may be responsible for collecting, collating and compiling surveying and/or mapping data, or for the operation of a survey field party on projects of limited scope and complexity. Although initial assignments are supervised, incumbents gradually assume more difficult tasks and work with greater independence. Progression to the next level is not automatic.

TYPICAL DUTIES

Assists in planning logistics of projects.

Participates in and, upon instruction, supervises the work of a field party or several technicians involved in computational or mapping operations.

Monitors the collection and transference of data, checks for accuracy and omissions.

Prepares plans of survey from field and office data for subsequent drafting.

Undertakes compilation and complex mathematical computations of survey data prior to detailed analysis.

Maintains pertinent records and assists in the development and preparation of technical reports.

Assists in the implementation and application of approved surveying and/or mapping projects.

Participates in special or complex surveying and mapping projects.

Performs other related duties as assigned.

QUALIFICATIONS

Knowledge, Abilities and Skills

Knowledge and skill in the use of specialized surveying and mapping instruments.

Good knowledge of mathematics and surveying and mapping principles and practices.

Ability to prepare clear, concise and complete technical reports, and to keep detailed records.

Ability to communicate and maintain effective working relationships with professionals in other disciplines, and the general public.

Ability to exercise initiative in the performance of duties.

Education, Training and Experience

Bachelor of Science Degree in Surveying Engineering, or other acceptable combination of education and training.

SURVEYOR 2

GENERAL

This is the full working level for Manitoba Land Surveyors and other professional surveyors where incumbents are responsible, under general direction, for the organization and supervision of complete surveying and mapping projects including the execution, collection, analysis and presentation of all relevant project data. The complexity of projects undertaken at this level requires broad knowledge and experience as well as the ability to direct and supervise the activities of technicians and junior surveyors.

TYPICAL DUTIES

Organizes and supervises all aspects of a surveying or mapping project from assignment to completion.

Reviews new surveying technology and methodology and recommends appropriate action.

Co-ordinates and supervises the activities of one or more field parties in the execution of a survey.

Prepares survey plans for registration or other purposes.

Provides direction to staff and overall product quality control in the preparation and production of topographical maps.

Designs, develops and implements surveying and mapping application computer systems.

Designs horizontal and vertical control survey networks; co-ordinates and supervises the field implementation of these networks.

Computes positional values, mathematically adjusts and integrates networks in reference to the national datum, analyzes and statistically reports on results.

Prepares technical reports and agreements.

May be required to supervise subordinate professional and/or technical staff in the execution of assigned projects.

Performs other related duties as assigned.

QUALIFICATIONS

Knowledge, Abilities and Skills

Comprehensive knowledge of the principles of a specific field in surveying and mapping with a general knowledge of the broad field.

Comprehensive knowledge of modern techniques and instrumentation in the applicable field.

Knowledge of Acts, Regulations and Specifications appropriate to the area of specialization.

Ability to successfully implement projects.

Ability to organize, analyze, and interpret information or evidence and prepare and present accurate and factual data and reports.

Ability to communicate effectively, both orally and in writing.

Ability to supervise the activities of junior staff and to establish and maintain effective working relationships.

Education, Training and Experience

Bachelor of Science Degree in Surveying Engineering, or other acceptable combination of education and training, supplemented by directly related experience. Commission as a Manitoba Land Surveyor is required for positions responsible for the execution of land surveys.

SURVEYOR 3

GENERAL

This is the advanced working level for professional surveyors who are responsible for a district survey office or specialized in a major surveying discipline. An incumbent at this level will be responsible, under the general direction of a Section Head or Branch Director, for the organization and direction of complete and long term surveying and mapping projects. This level is distinguished from level II by the wider range of supervisory and administrative responsibilities required in the planning and development and/or execution of major surveying or mapping projects. As a specialist, the incumbent has achieved and is required to apply a high level of technological expertise at a post graduate level in a major discipline of surveying and mapping.

TYPICAL DUTIES

Responsible for administering the operations of a district survey office.

Plans, co-ordinates, supervises and participates in field and/or office investigations relating to short and long-term surveying or mapping projects.

Participates in the development of provincial surveying and mapping standards and specifications.

Independently prepares and monitors contracts and agreements.

Makes recommendations and assists in the implementation of Branch policy, programs and procedures.

Conducts specialized research in specific areas of surveying and mapping technology, methodology and instrumentation.

Prepares and edits comprehensive reports or maps and supervises their compilation.

May be required to supervise professional surveyors in the execution of their duties.

Maintains technical liaison with government agencies and the private sector.

On assignment, acts on behalf of a Section Head.

QUALIFICATIONS

Knowledge, Abilities and Skills

Comprehensive knowledge of Acts and Regulations appropriate to the specific field of expertise.

Specialized knowledge in one or more fields of surveying and mapping.

Thorough understanding of current concepts and trends in surveying and/or mapping technology and operations.

Ability to co-ordinate all aspects of a program from assignment to completion.

Ability to develop appropriate specifications, plans and programs.

Ability to test, evaluate and recommend new hardware, software, and methodology.

Ability to communicate and to supervise professional and technical staff.

Demonstrated ability to perform at an advanced professional level.

Education, Training and Experience

Bachelor of Science Degree in Surveying Engineering, or other acceptable combination of training and experience, supplemented by significant directly related experience. For some positions, Commission as a Manitoba Land Surveyor, or other specialized training may be required.

SURVEYOR 4

GENERAL

This is a senior position accountable for the management and delivery of major programs within the surveying and mapping sphere. Responsibilities include the planning, organization and direction of technical and administrative activities of a Section in a surveying or mapping agency. Employee is involved conjointly with senior management in the formulation of long-range surveying and mapping policy. This level is distinguished from level III by its broad managerial mandate.

TYPICAL DUTIES

Manages the section's projects including methodology, operational strategy, budget, staff and equipment requirements, priorities, logistics, and reporting format.

Provides general supervision and co-ordination of the activities of all professional and technical staff in the section.

Promotes new practices and procedures and encourages acceptance of projected policies among staff and related external groups.

Acts on inter/intra departmental committees and/or represents the province on national or international committees.

Participates in the formulation of policy, in long range planning, and in the development of province-wide programs.

Maintains effective liaison with, and provides consultation to, the private sector and agencies within all levels of government.

On assignment, acts on behalf of the Director.

QUALIFICATIONS

Knowledge, Abilities and Skills

A recognized expertise in a particular field and a broad knowledge of surveying and mapping.

Ability to formulate plans and programs consistent with long range land information management goals, and to successfully implement these programs.

Ability to co-ordinate all administrative aspects of the operation of a section of a branch, and to direct and develop subordinate professional, technical, and other support staff.

Ability to effectively communicate and maintain good working relationships with related agencies, all levels of government and private industry.

Ability to exercise sound managerial judgement, as well as a high degree of technical skill.

Education, Training and Experience

Bachelor of Science Degree in Surveying Engineering, or other acceptable combination of education and training, supplemented by extensive directly related experience. For some positions, Commission as a Manitoba Land Surveyor, or other specialized training may be required.

Demonstrated satisfactory experience managing professional and technical staff, as well as major projects/programs, is essential.