Manual of Instructions for the Survey of Canada Lands – Revitalization, Phase 1

Draft – July 12, 2013
Revitalization of the Manual of Instructions for the Survey of Canada Lands, Phase 1

It has been over 20 years since the last major revision to the Manual of Instructions for the Survey of Canada Lands. Technology has advanced and our user community has changed dramatically since the last edition was published. In order to maintain relevance and improve the effectiveness of the Manual, a more integrated and holistic approach has been adopted to better communicate the Why and When a survey is to be done, in addition to the Survey Standards or technical requirements. The new Manual will be built on the foundation of MYCLSS towards a fully modernized land survey system for Canada Lands.

The bulk of the new Manual will be partitioned into two parts. 1) ‘Getting a Survey Done’, will support users involved in land administration by giving an overview of the Canada Lands Survey System across the country. It will be designed to answer the Why and When a survey is required. While, 2) ‘Survey Standards’, will focus entirely on the technical requirements for land surveyors working on Canada Lands.

Provisional versions of both parts are included for your review and comments. To help with your discussions, we have highlighted on (page iii, attached), suggested major changes from the current Manual.

The rollout of the Manual will occur in phases. As you will see from the table on page iv, only the first three chapters (albeit the major ones) are included here for your review. Subsequent releases will include specific chapters for condominiums, mineral claims, oil and gas and survey reports. The expected release date for these chapters is noted in the table. This schedule will complete Phase one of the Manual modernization. Phase 2 will include the development of the Regional Bulletin Boards and implementation of secure electronic signatures scheduled for fiscal year 2014/15.

We will be following an iterative development process converging to completion in early 2014. As you can see from the schedule there are several opportunities for participation in the process.

I value and look forward to your comments and insights.

Sincerely,

Peter Sullivan
Surveyor General for Canada Lands
HIGHLIGHTED CHANGES TO THE MANUAL OF INSTRUCTIONS

Many portions of the manual were revised or rewritten entirely. To highlight them all here would be too exhaustive. Instead, nine major revisions are highlighted:

1) The proposed manual is more focused. Many existing chapters will be discontinued such as base mapping, boundary maintenance, as-builts and control surveys.

2) The concept of ‘Plan and Field Notes’ would be eliminated. Under the proposed revisions, most survey projects on Canada Lands will include both a Plan and Plan of Field Notes. The plan is meant to be a simpler product with the technical information being relegated to the field notes. This approach has two goals: a) to simplify plans and b) to support future endeavours into the digital realm where plans may be replaced by an updating of digital cadastral information.

3) Coordinated Survey Areas (CSAs) would be de-commissioned. It would no longer be required to tie to Coordinated Control Monuments (CCMs) when within a CSA area. This move reflects a shift in surveying practice in that coordinates are more expediently (and perhaps more accurately) obtained using other geo-referencing methods.

4) Mandatory geo-referencing for all surveys. Under the proposed revisions, it would be mandatory to geo-reference one or more points in all surveys to an accuracy of 0.10m (or better). These geo-referenced points would then be used to control the entire survey to an absolute accuracy of 0.20m or better.

5) The elimination of ‘Registration Plans’. The term ‘Registration Plan’ would be eliminated and plans of parcels on First Nation Reserves would be accommodated in the chapter on plans.

6) The requirement to cut out and blaze boundary lines would be eliminated unless specifically requested.

7) Ordinary High Water Mark (OHWM) is replaced with the term ‘water boundary’. The meaning of ‘water boundary’ would differ by the region of your work and by the intention/wishes of the landowner/grantor (e.g. water’s edge, vegetation edge, ad medium filum and MHWM and MLWM in the tidal regime).

8) Sections on digital submission of plans (electronic survey plans) and deferred monumentation are in development.

9) The proposed manual would be web-based with quick and easy navigation to make the information accessible to stakeholders.
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<td>5. Condominium Surveys</td>
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GETTING A SURVEY DONE
Chapter 1 - MANAGEMENT OF SURVEYS

The term survey is used in the context of a survey made to define boundaries of parcels of land suitable for the transfer of rights.

1.1 ROLE OF THE SURVEYOR GENERAL

1) The Surveyor General of Canada Lands, under provisions of the *Canada Lands Surveys Act*, has the:
   a) the management of surveys made under the Act
   b) the custody of all the original plans, journals, field notes and other papers connected with the surveys.
   c) the responsibility to provide instructions for surveys and to ensure that surveys of Canada Lands are made in accordance with the instructions.

2) The Surveyor General also has the management of surveys made under the authority of other federal and territorial legislation and agreements.

1.2 ROLE OF FEDERAL, TERRITORIAL AND FIRST NATION GOVERNMENTS ADMINISTERING THE LAND

1) Federal, Territorial and First Nation Governments under various acts, regulations, policies and agreements have the responsibility to manage land under their administration. This can include establishing systems of land management and land tenure, granting interests in land and providing a system of registration or recording of land interests.

2) Where surveys are required for government purposes and the cost for them are to be paid for by public funds the administering departments may request the Surveyor General Branch, Earth Sciences Sector, Natural Resources Canada, to manage the survey contract process.

3) My Canada Lands Survey System (MyCLSS) for surveyors is a collaborative website application between the Association of Canada Lands Surveyors (ACLS) and the Surveyor General Branch. MyCLSS for land administrators when developed will enable land administrators to monitor survey project progress and to approve surveys. The website address for MyCLSS is [www.myclss.ca](http://www.myclss.ca).

1.3 ROLE OF A PERSON OR ENTITY REQUIRING A SURVEY

1) The person or entity requiring a survey may be a government body, including a First Nation, administering the land or a third party wanting to obtain an interest in the land. The person requiring a survey will need to engage a Canada Lands Surveyor to carry out the survey.

2) It is critical that the type of land interest required, the extent of the land required and if applicable the layout of parcels or lots within the land be determined. Compliance is also required with any land use and/or development plans for the land. In the chapters that follow,
the types of surveys required for various land interests on different types of Canada Lands are identified.

1.4 RESPONSIBILITIES OF THE CANADA LANDS SURVEYOR

1) Only Canada Lands Surveyors holding a license to practice under the Canada Lands Surveyors Act may conduct surveys under the Canada Lands Surveys Act and as well under several other federal and territorial acts and regulations.

2) Any Canada Lands Surveyor engaged to undertake a legal survey or prepare a plan of survey of Canada Lands must carry out the work in accordance with the instructions of the Surveyor General of Canada Lands.

1.5 THE SURVEY PROCESS

1) The following process is common to most surveys on Canada Lands however the process will vary depending of the land administration regime; for example: surveys under land titles legislation, oil and gas surveys, mineral claims to name a few. If the process is different guidance will be provided to the Canada Lands Surveyor through MyCLSS and/or specific survey instructions.

2) The person or entity requiring a survey will engage a Canada Lands Surveyor. The surveyor will require the following information:
   a) the purpose of the survey (intended land transaction)
   b) a description of the lands to be surveyed
   c) type of survey required
   d) who owns the land being surveyed
   e) who needs to be consulted during the course of the survey.

3) For all legal surveys, the surveyor must open a project on My Canada Lands Survey System Web application (MyCLSS) by accessing the site at www.myclss.ca. The application requires the surveyor to select the type of survey being done for the project. If the selected survey type requires specific instructions, the application will prompt the surveyor to input additional information to request the specific instructions.

4) For all legal surveys, the surveyor must open a project on My Canada Lands Survey System Web application (MyCLSS) by accessing the site at www.myclss.ca. The application requires the surveyor to select the type of survey being done for the project. If the selected survey type requires specific instructions, the application will prompt the surveyor to input additional information to request the specific instructions.

5) No specific instructions are required for legal surveys carried out under the following legislation:
   a) Indian Oil and Gas Regulations, 1995;
   b) Canada Oil and Gas Land Regulations;
   c) Canada Mining Regulations;
   d) Condominium Act (N. W. T.);
   e) Condominium Act (Nunavut).
6) It is the responsibility of the land surveyor to review the status of rights in the land which will be surveyed before requesting specific survey instructions. Copies of documents dealing with land rights can be obtained from the appropriate lands administrator, land registry or land titles office.

7) A surveyor requesting specific survey instructions will be prompted in MyCLSS to supply the Surveyor General Branch with the following information:

   a) authorization to carry out the survey from the department, person or other body that has the responsibility for approval of surveys;
   b) a survey sketch (diagram) depicting:
      i. the dimensions and/or extent of the lands to be surveyed and, in the case of a subdivision, the layout of the lots; and
      ii. the location of the lands to be surveyed relative to an existing survey framework, or if none exists, relative to geographical coordinates, control surveys or topographic features;
   c) the nature of all interests affecting the land to be surveyed with the name of the right holders; and
   d) any other documentation required in Chapters 2 to 7 required for the issue of specific survey instructions.

8) If a surveyor cannot comply with any general or specific survey instruction, then the surveyor must inform the Surveyor General Branch and obtain, in writing, authorization to proceed in another manner. If the intention or applicability of any survey instruction is in doubt, the matter should be referred to the Surveyor General Branch for clarification.

9) The Surveyor General Branch, with due cause, may at any time, amend, or cancel specific survey instructions.

10) The issuing of specific survey instructions does not constitute a financial undertaking by the Surveyor General Branch to pay any costs related to the survey. The surveyor will be charged for any documents provided with the specific survey instructions.

11) Returns of survey consist of survey documents (plans and/or field notes), survey reports, digital spatial file, main monuments coordinate file and any other documents prescribed in the survey standards for Canada Lands or in specific survey instructions.

12) The surveyor shall review each survey document using MyCLSS. Where applicable, a checklist number shall be added to each survey document, prior to submission to the Surveyor General Branch.

13) The Surveyor General Branch will review the returns based on a list of critical elements. If the returns of a survey are not satisfactory, a notice will be sent to the surveyor and new set of returns shall be submitted with a new checklist number on each of the survey documents.

14) The Surveyor General Branch will identify corrections required to the plan and/or field notes. If the surveyor wishes to appeal the Surveyor General Branch’s decision, the matter may be discussed with the Branch's contact person identified in the notice.
15) The Surveyor General Branch will ensure that all approvals have been obtained from the person with delegated responsibility for approvals of surveys. For survey plans on First Nation lands if a person has not been given responsibility for approvals, the surveyor will obtain the approval in writing from the First Nation Council.

16) If approvals cannot be obtained, the surveyor should consult with the appropriate Surveyor General Branch’s Regional Office.

1.6 ENSURING COMPETENCY – THE ROLE OF THE ASSOCIATION OF CANADA LANDS SURVEYORS

1) The Association of Canada Lands Surveyors is the national licensing body for professionals surveying in the three Canadian territories, in the national parks, on First Nation reserves, and in the offshore. The Association has disciplinary powers to govern its members’ competency and professional conduct.

2) Only Canada Lands Surveyors holding a license to practice under the Canada Lands Surveyors Act may conduct surveys under the Canada Lands Surveys Act and as well under several other federal and territorial acts and regulations.

3) While the Association of Canada Lands Surveyors governs its members’ competency and professional conduct responsibility for ensuring surveys and survey plans comply with the instructions (standards) of the Surveyor General clearly rests with the Surveyor Generals Branch.

Association of Canada Lands Surveyors

1.7 CONSTRUCTION SURVEYS, SITE SURVEYS, REAL PROPERTY REPORTS, ETC…

1) Canada Land Surveyors may also carry out construction surveys, site surveys, real property reports (usually for mortgage purposes), as-built surveys and boundary location surveys (usually for fencing). However as they do not define boundaries of parcels of land for the transfer of rights they are not managed by the Surveyor General under the Canada Lands Surveys Act or under any other act or regulation.

2) Standards of practice for these types of surveys are maintained by the Association of Canada Lands Surveyors.

3) However if during the conduct of these surveys lost, disturbed or obliterated monuments marking boundaries or parcels are re-established or restored, field notes must be prepared in accordance with the general instructions of the Surveyor General and submitted to the Surveyor General Branch.

Association of Canada Lands Surveyors

Links to pertinent survey standards and specimen plans
Chapter 2 - FIRST NATION LANDS

2.1 FIRST NATION RESERVES

1) Under the Indian Act “reserve” is defined as: A tract of land, the legal title to which is vested in Her Majesty, that has been set apart by Her Majesty for the use and benefit of a band.

SURFACE RIGHTS

Land Administration

2) Surface rights on reserve land are administered under the Indian Act by the Lands Branch, Aboriginal Affairs and Northern Development Canada (AANDC) through its headquarters office in Gatineau, Quebec and through staff in regional offices and business centres. Contact information is available on the AANDC website.

3) Through the Reserve Land and Environment Management Program many First Nations are assuming responsibility for Indian Act land management responsibilities on behalf of the Minister of Aboriginal Affairs and Northern Development.

4) The Land Management Manual produced by AANDC contains information, procedures and policies needed to manage reserve land.

5) The Indian Lands Registry contains instruments relating to Reserve lands. It is accessible online through the on-line Indian Lands Registry System (ILRS).

6) The Indian Land Registration Manual describes the criteria and procedures for the registration of instruments in the Indian Lands Registry.

Survey Requirements

7) The type of survey and type of plan required for various land transactions are provided in Schedule A of the 2013 Interdepartmental Letter of Agreement between Natural Resources Canada and AANDC.

8) As a general rule, surveys of jurisdictional boundaries require confirmed plans. In the case of a First Nation a jurisdictional boundary is the exterior boundary of a First Nation Reserve including for example, the boundary of a road vested in a province through a First Nation Reserve. Generally, surveys of jurisdictional boundaries will be contracted to private sector land surveyors by the Surveyor General Branch or by provincial departments.

9) For internal parcels where the interest is of an exclusive nature, for example for certificates of possession or occupation or for long term leases, a monumented survey is required and the plan will be approved, not confirmed.

10) Internal parcels for short term or limited rights such as easements and permits may be described using explanatory plans.
11) Land surveyors engaged by First Nations, or by third parties seeking land rights on First Nation Reserves, to conduct surveys on First Nation Reserves are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. An exception are surveys under the Indian Oil and Gas Regulations where specific survey instructions are not required. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Proposed 2013 Interdepartmental Letter of Agreement
Links to pertinent survey standards and specimen plans

OIL AND GAS RIGHTS

Land Administration

12) Oil and gas subsurface rights and the associated surface rights required for the exploitation of oil and gas on reserves, designated lands or surrendered lands are administered under the Indian Oil and Gas Regulations by Indian Oil and Gas Canada (IOGC) located in Calgary, Alberta.

13) The Indian Lands Registry includes land interest documents for oil and gas rights for Reserve lands. It is accessible online through the on-line Indian Lands Registry System (ILRS).

Survey Requirements

14) Before commencing a survey for surface rights associated with oil and gas it must be determined whether the surface rights are being disposed of under the Indian Oil and Gas Regulations or the Indian Act.

   a) The Indian Oil and Gas Regulations apply to surface rights for well sites and other facilities related to drilling and production operations, such as tanks, flow lines and access roads where the facility services resource development in a Reserve. Surveys for surface rights under the Indian Oil and Gas Regulations are carried out under general instructions and specific instructions are not required.

   b) If a pipeline or other facility crosses a reserve and that pipeline or facility does not service development on the reserve, then rights are granted under the Indian Act and specific survey instructions are required. Surveys for surface rights under the Indian Act require specific survey instructions. See Part 2.1 First Nation Reserves.

15) Surveys under the Indian Oil and Gas Regulations are required for a surface lease if an exclusive right to use or occupy the surface of the lands is required such as for a well site and for easements or right-of-ways to cross over land such as required for pipelines, flow lines or access roads.

16) Well site surveys are also required for applications to provincial authorities for well licences which are needed before wells can be drilled.
17) Land surveyors engaged to survey well sites and other facilities under the *Indian Oil and Gas Regulations* are required to open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MYCLSS.

*Links to pertinent survey standards and specimen plans*

**MINING RIGHTS**

**Land Administration**

18) Mineral rights and the associated surface rights required for the exploitation of minerals on reserves, designated lands or surrendered lands are administered by the Lands Branch, AANDC. The rights are issued in accordance with the *Indian Mining Regulations*, with the exception of the provinces of Quebec, Prince Edward Island and British Columbia. In Quebec and Prince Edward Island, no agreements were ever reached with Canada regarding disposal of minerals on First Nation Reserves. In British Columbia an agreement with Canada subjects minerals on First Nation Reserves to Provincial legislative control.

19) The Indian Lands Registry includes land interest documents for mineral rights for Reserve lands. It is accessible online through the on-line Indian Lands Registry System (ILRS).

**Survey Requirements**

20) A survey of a lease for mineral rights may be determined necessary by AANDC under the *Indian Mining Regulations* in which case specific survey instructions are required.

21) The survey requirements should be similar to that for similar interests for First Nation Reserves.

*Links to pertinent survey standards and specimen plans*

**2.2 FIRST NATION SELF GOVERNMENT AGREEMENTS (SOUTH OF 60)**

1) The following lands, south of latitude 60°, administered under self government agreements, are Canada Lands (Lands administered under self government agreements north of 60° are dealt with in chapters 4, 5 and 6):
   a) Category IA land or Category IA-N land, as defined in the *Cree-Naskapi (of Quebec) Act*, chapter 18 of the Statutes of Canada, 1984,

   b) Sechelt lands, as defined in the *Sechelt Indian Band Self-Government Act*, chapter 27 of the Statutes of Canada, 1986,

   c) Lands in the Kanesatake Mohawk interim land base, as defined in the *Kanesatake Interim Land Base Governance Act*, other than the lands known as Doncaster Reserve No. 17

   d) Westbank First Nation Lands, although remaining First Nation Reserves, are administered under the *Westbank First Nation Self-Government Act*. 
Land Administration

2) These First Nations have administration, management and control of their lands and at least two, Cree-Naskapi and Westbank, have land registry regulations which specifies survey requirements.

3) Instruments registered/recorded in a First Nation's Land Registry, established according to its specific Self Government Land Management Act, are available through the on-line Indian Lands Registry System. The database for searching is the Self Government First Nation Land Registration System (SGFNLRS).

Survey Requirements

4) These First Nations have opted to require surveys pursuant to the Canada Lands Surveys Act.

5) The survey requirements are generally similar to that for similar interests for First Nation reserves.

6) Documentation requirements for specific instructions for surveys on lands held under self government agreements are the same as for surveys of First Nation reserves managed under the Indian Act, except that authorization to carry out the survey is provided by the First Nation, not AANDC.

2.3 FIRST NATIONS LANDS MANAGEMENT ACT

1) The 1999 First Nations Lands Management Act (FNLMA) ratified and brought into effect the Framework Agreement on First Nation Land Management. Under the Agreement First Nations opting to come under the Act adopt a land code which replaces the land management provisions of the Indian Act.

2) Reserves managed by First Nations under a land code, continue to be vested in Canada for the use and benefit of the First Nation for which it was set apart (Framework Agreement on First Nation Land Management, 2002, p.8). Therefore they continue to be Canada lands as defined by the Canada Lands Surveys Act.

Land Administration

3) The First Nation manages its reserve under its land code. Land Codes are available on the First Nations Land Advisory Board website.

4) Instruments registered in the Indian Lands Registry relating to Reserve Lands under the First Nation Land Management Act are available through the on-line Indian Lands Registry System. The database for searching is the First Nation Land Registration System (FNLRS).

Survey Requirements

5) Surveyors working on FNLMA lands should consult the First Nation about their survey requirements and familiarize themselves with the First Nation’s land code. As of late 2013 three land codes state that surveys may be made in accordance with the Canada Lands
Surveys Act and four have a specific provision in their land codes stating their councils may make laws in relation to the conduct of surveys. The remaining had no specific provision although it would appear that their law making powers are broad enough to include making laws in relation to the conduct of surveys.

6) Each First Nation may have unique requirements regarding the conduct of surveys and registration in their own lands registry; however if the interests are registered in the FNLRS survey (and plan) types are the same as for surveys of First Nation reserves managed under the Indian Act.

7) Documentation requirements for specific instructions for surveys on FNLMA lands are the same as for surveys of First Nation Reserves managed under the Indian Act, except that authorization to carry out the survey is provided by the First Nation, not AANDC.

2.4 OTHER LANDS UNDER THE ADMINISTRATION OF AANDC

1) Federal real property (non Canada lands) may be administered by AANDC for First Nation communities that are not First Nation Reserves, designated lands or surrendered lands.

2) Under section 47. (1) of the Canada Lands Surveys Act the Minister of Natural Resources Canada “may, if in his opinion a survey thereof under the management of the Surveyor General is required, cause a survey to be made of any lands belonging to Her Majesty in right of Canada or of which the Government of Canada has power to dispose . . . . .”

3) Nevertheless surveys of these lands are normally carried out under provincial legislation.
## PROPOSED 2013

**For Discussion Purposes Only**

Interdepartmental Letter of Agreement - CHART A

**ILR, FNLR and SGFNLR GUIDELINE FOR MINIMUM LAND DESCRIPTION REQUIREMENTS**

Standards for these products are set out in the General Instructions for Surveys of Canada Lands, e-edition.

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<td></td>
</tr>
<tr>
<td>IV FIRST NATION PURPOSES</td>
<td></td>
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<tr>
<td>Designation Vote Sec 38(2) and accepting OIC</td>
<td>See Note 3</td>
<td>Yes</td>
<td>Optional</td>
<td>No</td>
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<tr>
<td>Welfare of First Nation (Sec.18(2))</td>
<td>See Note 4</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>V LAWFUL POSSESSION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allotment Sec 20</td>
<td>See Note 1</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Transfers Sec 24, 43, 49</td>
<td>See Note 4</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
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<td>Access Agreements</td>
<td>See Note 4</td>
<td>Yes</td>
<td>Optional</td>
<td>No</td>
</tr>
<tr>
<td>VI LEASES Sec. 53, 58 (including subleases)</td>
<td>See Note 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 10 years or more</td>
<td>See Note 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- land</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- building unit with interest in land</td>
<td>Strata Survey</td>
<td>Yes for land</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- building unit only</td>
<td>Strata Survey</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- less than 10 years</td>
<td>See Note 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- land</td>
<td>Optional</td>
<td>Optional</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- building unit only</td>
<td>Optional</td>
<td>Strata Survey</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>VII PERMITS Sec. 28(2)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- 10 years or more</td>
<td>See Note 5</td>
<td>Yes (Note 2)</td>
<td>Optional</td>
<td>No</td>
</tr>
<tr>
<td>- less than 10 years</td>
<td>See Note 4</td>
<td>Optional</td>
<td>Optional</td>
<td>No</td>
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<tr>
<td>- Utilities distribution (Blanket Permit)</td>
<td>See Note 4</td>
<td>Optional</td>
<td>No</td>
<td>No</td>
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<td>VIII EXCLUDED LANDS Section 7 (FNLM)</td>
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<tr>
<td>- Internal Parcel</td>
<td>See Note 6</td>
<td>No</td>
<td>Yes</td>
<td>Optional</td>
</tr>
<tr>
<td>- Parcel adjoining a jurisdictional boundary</td>
<td>See Note 7</td>
<td>No</td>
<td>Yes</td>
<td>Optional</td>
</tr>
</tbody>
</table>
Chart A – Notes and Definitions

O.I.C = Order-in-Council
FNLMA = First Nation Land Management Act

NOTES:

1. Specific circumstances may require a higher quality product.
2. The plan will create no new lots. The plan will create a right-of-way or may be used to create an easement.
3. Not required if the parcel can be fully described by reference to existing plans recorded in the CLSR.
4. The minimum description required by the ILR and the FNLR for these transactions is a textual description. The guidelines for textual descriptions are set out in the Indian Lands Registry Manual. A Land Use Area Plan (LUA) prepared under the instructions of the Surveyor General may be used as the basis of a textual description prepared for an agricultural permit.
5. The term of leases and permits include any renewal and extension provisions.
6. A registration plan with survey is usually used to exclude lands located within a Reserve, i.e. when none of its boundaries adjoins a jurisdictional boundary.
7. An official plan may be used to exclude reserve lands. However, an official plan must be used whenever the parcel adjoins a jurisdictional boundary.

References to Sections 29 and 31 in Chart A are to the Canada Lands Surveys Act; all other Section references are to the Indian Act, except Section VIII which refers to the First Nations Land Management Act.

Subsection 18(2) land in a reserve may be taken for the general welfare of the Band (e.g. schools, Band roads, churches, etc.).

Subsection 20(1) possession of land can be allotted by a Band Council.

Section 24 the right to possession of land may be transferred.

Subsection 28(2) permits may be issued on reserve lands.

Section 35 land in a reserve may be taken for public purposes.

Subsection 38(1) a Band may absolutely surrender all of its rights in land to Her Majesty in Right of Canada.

Subsection 38(2) a Band may designate (by way of a surrender that is not absolute) any right for the purpose of leasing or granting the right.

Sections 43 & 49 the administration of property of deceased Indians.

Sections 53 & 58 Surrendered, designated or reserve lands may be leased.
Chapter 3 - NATIONAL PARKS

3.1 NATIONAL PARKS OF CANADA

1) National parks are established under the Canada National Parks Act for conservation and for the benefit, education and enjoyment of Canadians. The boundaries of national parks are described in Schedule I of the Act. These lands are vested in Her Majesty in right of Canada and are Canada Lands.

Land Administration

2) National parks are administered by the Realty Services Section, Infrastructure and Real Property Directorate, of the Parks Canada Agency at Environment Canada in Gatineau, Quebec and by realty staff in 4 service centres and in several field units.

3) The four service centres are: the Atlantic Service Centre in Halifax, NS; the Quebec Service Centre in Quebec, QC; the Ontario Service Centre in Cornwall, ON; and the Western and Northern Canada Service Centre in Calgary, AB.

4) In nearly all cases, where surveyors are engaged by third parties (by other than the Surveyor General Branch to conduct surveys in national parks, the surveys are in the towns of Banff and Jasper. As well, occasionally some surveys may be carried out in visitor centres such as Waterton in Waterton Lakes National Park, Wasagaming in Riding Mountain National Park, Waskesiu in Prince Albert National Park, Lake Louise in Banff National Park and in Field in Yoho National Park. For surveys in these areas the contacts for surveys may also be:

<table>
<thead>
<tr>
<th>Field Unit Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banff National Park Field Unit</td>
<td>Banff, AB</td>
</tr>
<tr>
<td>Jasper National Park Field Unit</td>
<td>Jasper, AB</td>
</tr>
<tr>
<td>Lake Louise, Kootenay and Yoho National Parks Field Unit</td>
<td>Lake Louise, AB</td>
</tr>
<tr>
<td>Waterton Lakes National Park Field Unit</td>
<td>Waterton, AB</td>
</tr>
<tr>
<td>Prince Albert National Park Field Unit</td>
<td>Waskesiu Lake, SK</td>
</tr>
<tr>
<td>Riding Mountain National Park Field Unit</td>
<td>Wasagaming, MB</td>
</tr>
</tbody>
</table>

5) Realty Services maintains a land registry in Gatineau, Quebec. The registry contains documents for all lands administered by Parks Canada in which Her Majesty in right of Canada has title to or an interest in. Copies of documents may be obtained from the registry.

6) For leasehold titles in Banff, Jasper and Waterton National Parks in Alberta, title information may be obtained from the Alberta land titles offices.

Survey Requirements

General

7) The type of surveys and types of plan for various land transactions are provided for in:

   a) National Parks Act (ss. 15(1), 16(1)(l));

   b) National Parks of Canada Lease and Licence of Occupation Regulation( ss. 3(2), 18(1)); and in
c) Interdepartmental Agreement re Description of Canada Lands, 1955 (Excluding Indian Lands)

8) The types of surveys and plans currently used for the various types of land transactions in national parks are outlined below:

New National Parks or Additions to National Parks

9) A national park is established by adding the name and a description of the park to Schedule 1 of the Canada National Parks Act by order-in-council. Many national parks are defined by reference to surveyed boundaries and natural boundaries. However there is no specific requirement that the boundaries be defined by an official survey under the Canada Lands Surveys Act or of any other Act. If the land is Crown Land the land is often defined without the benefit of a survey.

10) If the land is titled land in the provinces, a survey carried out under provincial Acts and Regulations accepted by the Surveyor General Branch for recording in the Canada Lands Survey Records is required.

11) Generally surveys of jurisdictional boundaries will be contracted out to private land surveyors by the Surveyor General Branch. Survey instructions and an opened project in MyCLSS are required. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Rights-of-Way for Public Purposes

12) These include leases of, and easements or servitudes over, public lands in a park that are used for rights-of-way of existing railway lines, oil and gas pipelines, telecommunication or electrical transmission lines and for related facilities. Rights-of-way for public purposes require an official survey in accordance with the Canada Lands Surveys Act. For some purposes; for example easements in a subdivision, an explanatory plan is used.

13) Land surveyors engaged to survey rights-of-way for public purposes are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Leases

14) Private land tenure in the national parks is almost exclusively by lease in the towns Banff and Jasper and occasionally in visitor centres. Unless the Minister of Environment directs otherwise, leases require an official survey in accordance with the Canada Lands Surveys Act. See National Parks of Canada Lease and Licence of Occupation Regulation, s. 3(2).

15) Land surveyors engaged to conduct surveys for leases are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans
Easements In Townsites

16) An explanatory plan is used for easements for utilities in a townsite.

17) Land surveyors engaged to conduct surveys for leases are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Condominiums

18) The only national parks in which condominiums are recognized in the National Parks of Canada Lease and Licence of Occupation Regulations are in Alberta. See National Parks of Canada Lease and Licence of Occupation Regulations, s. 2(1).

19) For the purpose of surveying condominium subdivisions in Alberta, Alberta Condominium legislation is used insofar as it can apply for leasehold interests in national parks in Alberta. See:
   a) Condominium Property Act (AB), ss. 8,10.
   b) Condominium Property Regulations (AB)
   c) Alberta Land Titles Procedures Manual: SUR-4, Surveys - Examination of Condominium Plans

20) Condominium plans for national parks lands are registered in the Alberta Land Titles Office and leasehold titles to the units are issued under the Land Titles Act (AB), ss. 30, 87(1).

21) Land surveyors engaged to conduct surveys for condominiums are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Licenses of Occupation

22) Licences of occupation are generally used for such purposes as administrative space in buildings or in areas outside of towns and visitor centres for purposes such as visitor accommodations, trails, corrals and alpine huts where land conflicts are unlikely to occur and where exclusive use of the land is not required. Surveys are not normally required for licences of occupation. The land is usually described by sketch, site plan or in remote areas reference to a topographic map.

Zoning

23) Administrative Plans under s.31 of the Canada Lands Surveys Act are used to describe Parks Canada Administrative Areas such as Wilderness Areas.

Links to pertinent survey standards and specimen plans

3.2 NATIONAL PARK RESERVES

1) These are lands set aside for national parks where an area or a portion of an area proposed for a park is subject to a claim in respect of aboriginal rights that has been accepted for
negotiation by the Government of Canada. See *Canada National Parks Act*, s. 4(2). They are described in Schedule 2 of the *Canada National Parks Act*. They do not become Canada Lands upon being set apart as a national park preserve. However the *Canada Lands Surveys Act* applies to national park reserves as if they were Canada Lands. See *Canada National Parks Act*, s. 39.

**Land Administration**

2) National parks reserves are administered by the Realty Services Section, Infrastructure and Real Property Directorate, of the Parks Canada Agency.

**Survey Requirements**

3) Survey requirements for national parks reserves are generally the same as those for national parks. There are very few internal tenure interests requiring surveys.

### 3.3 OTHER LANDS ADMINISTERED BY PARKS CANADA

1) Other lands for conservation and for the benefit, education and enjoyment of Canadians administered by Parks Canada include:

   a) National Historic Sites of Canada: There are more than 950 national historic sites, of these, 167 are administered by Parks Canada of which 52 have been set apart as National Historic Sites of Canada (*National Historic Sites of Canada Order*, Schedule) pursuant to Section 42 of the *Canada National Parks Act*. Title to the National Historic Sites of Canada must be vested in Her Majesty in right of Canada. They do not become Canada Lands upon being set apart as a National Historic Site of Canada.

   b) National Marine Conservation Areas: These are established through amendment to the *Canada National Marine Conservation Areas Act* in a process similar to that for establishing national parks. As a prerequisite Canada must have title to or an unencumbered right of ownership in the lands. However, unlike national parks, when they are established under the *Act*, they do not become Canada Lands. These lands are described in Schedule 1 of the *Canada National Marine Conservation Area Act*.

   c) National Marine Conservation Area Reserves: Similar to national park reserves, these are lands set aside as national marine conservation areas that are subject to a claim in respect of aboriginal rights that has been accepted for negotiation by the Government of Canada. These lands are described in Schedule 2 of the *Canada National Marine Conservation Area Act*. They do not become Canada Lands upon being set apart as a national marine conservation area reserve.

   d) Heritage canals, ordnance lands and admiralty lands. Title to these lands is vested in Her Majesty in right of Canada.

2) These other lands are Canada lands, as defined in the *Canada Lands Surveys Act*, only if they are in Yukon, the Northwest Territories, Nunavut or the offshore.
Land Administration

3) These lands are administered by the Realty Services Section, Infrastructure and Real Property Directorate, of the Parks Canada Agency at Environment Canada in Gatineau, Quebec and by realty staff in 4 service centres and in several field units.

Survey Requirements

4) If lands are within Canada Lands, they are Canada Lands and are surveyed under the Canada Lands Surveys Act.

5) If lands are within provincial jurisdiction they are generally surveyed under provincial legislation. Even though they may not be Canada Lands the Surveyor General Branch prepares land descriptions and arranges for surveys for land acquisitions and dispositions. For heritage canals the Surveyor General Branch researches encroachments and arranges for surveys which may result in land transfers or encroachment agreements.

6) Section 47 of the Canada Lands Surveys Act allows for a survey to be made of any lands belonging to the federal Crown (Canada) or of which Canada has power to dispose, however this section is rarely used.

7) Generally if research or surveys of these lands is carried out by private land surveyors the work will be contracted out by the Surveyor General Branch.
Chapter 4 - NORTHWEST TERRITORIES

This chapter will be revised when devolution, transfer of public land, water and resource management to the Northwest Territories, is completed. See http://devolution.gov.nt.ca/

4.1 TERRITORIAL (FEDERAL) LANDS

1) These lands are lands in the Northwest Territories that are vested in the Crown or of which the Government of Canada has power to dispose of. See Territorial Lands Act, s.2. They comprise the majority of the land area in the Northwest Territories and are Canada lands as defined in the Canada Lands Surveys Act.

SURFACE RIGHTS

Land Administration

2) The Land Administration Office of the Northwest Territories Regional Office of Aboriginal Affairs and Northern Development Canada (AANDC) in Yellowknife manages surface land activities on territorial lands that are under the administration of the Minister of AANDC. Disposition of interests in these territorial lands are made under the Territorial Lands Act and the Territorial Lands Regulations.

3) Disposition of interests in territorial lands under the control of ministers of other federal government departments is under the Federal Real Property and Federal Immovables Act and the Federal Real Property Regulations.

4) The Land Administration Office maintains a Land Administration Registry in Yellowknife which contains leases, permits and other instruments of territorial (federal) lands in the NT. A “Spatially Integrated Dataset,” called GEOViewer, accessible on-line, contains information on AANDC surface dispositions and permits.

Survey Requirements

Transfer of Lands to the Commissioner

5) Prior to the 1990’s, large tracts of territorial land (called Block Land Transfers) were transferred to the Commissioner (Government of the Northwest Territories) by order-in-council using written land descriptions. Now the lands transferred are for smaller parcels and surveys under the Canada Lands Surveys Act are required. See Surveys, Parcels and Tenure on Canada Lands, chapter 7, page 109.

6) Before land can be transferred to the Commissioner a confirmed plan of survey of the land, made in accordance with the specific survey instructions of the Surveyor General, is required to be filed in the land titles office.

7) Land surveyors engaged to survey land for transfer to the Commissioner are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MYCLSS.

Links to pertinent survey standards and specimen plans
Sales

8) Both the Territorial Lands Act and the Territorial Lands Regulations s.9 (1) (2) contain provisions regarding the sale of territorial lands. However the policy of AANDC is to lease, not sell, land.

Leases and Permits

9) There are no statutory requirements under the Territorial Lands Act or the Territorial Lands Regulations for leases or permits to be surveyed.

MINERAL CLAIMS

Land Administration

10) The Mining Recorder of AANDC in Yellowknife administers the majority of mineral rights of lands in the Northwest Territories. Exceptions include those settlement lands which include subsurface rights and national parks. Mines and minerals are administered under the Northwest Territories and Nunavut Mining Regulations.

11) The mining recorder is also responsible for issuing exploration licences and permits and leases for coal mining under the Territorial Coal Regulations and for issuing leases under the Territorial Dredging Regulations.

12) Documents pertaining to mineral rights are recorded in the office of the Mining Recorder in Yellowknife. A “Spatially Integrated Dataset,” called GEOViewer, accessible online, contains information on mineral tenure.

Survey Requirements

13) Under the Northwest Territories and Nunavut Mining Regulations, s. 58, a survey of a mineral claim must be recorded with the mining recorder before a lease can be granted.

14) Normally a mineral claim owner will engage a Canada Lands Surveyor to conduct the survey. Survey instructions are not required however lot numbers must be obtained from the Surveyor General Branch in Yellowknife and the surveyor will be required to open a project in MyCLSS.

15) There are no provisions for surveys in the Territorial Coal Regulations. The Territorial Dredging Regulations, s.8 require surveys to be carried out under the instructions of the Surveyor General when directed by the Minister. Specific survey instructions are required.

Links to pertinent survey standards and specimen plans

OIL AND GAS

Land Administration

16) The majority of oil and gas rights in the Northwest Territories are administered by the Northern Oil and Gas Branch, AANDC in Gatineau, Quebec. Exceptions include: settlement lands that include subsurface rights and national parks.

17) Copies of licenses and other documents pertaining to oil and gas for lands in the Northwest Territories are available from the Office of the Registrar, Northern Oil and Gas Branch in Gatineau, Quebec.
Survey Requirements

18) Under the Canada Oil and Gas Land Regulations, s. 20, 21, surveys approved by the Surveyor General are required on completion of an exploratory well and before drilling a development well. Specific survey instructions are not required, however it is recommended that surveyors open a project in MyCLSS and consult with the Surveyor General Branch.

19) Consultation with the Surveyor General Branch is needed to ensure that surveyors are aware of which grid areas have been fixed; and, if a grid area has been fixed, which survey fixed it. The first plan approved in a grid area fixes the positional information shown on the plan for all boundaries of the grid area for subsequent surveys.

20) Sections 4 to 9 of the Canada Oil and Gas Land Regulations describe the land division system (consisting of grid areas, sections, and units) used for referencing oil and gas interests and surveys.

Links to pertinent survey standards and specimen plans

FIRST NATION RESERVES

21) As of 2010 there were three First Nation Reserves in the Northwest Territories: Hay River Dene 1, Salt Plains 195 and Salt River No.195. They are administered by Indian and Inuit Services, Lands and Environment, Yellowknife. See First Nation Lands for requirements for surveys of First Nation Reserves in the NT.

NATIONAL PARKS

22) As of 2013 there were three national parks in the Northwest Territories: Aulavik, Tuktut Nogait and Wood Buffalo and two national park reserves: Nahanni and Nááts’ihch’oh. They are administered by Parks Canada. See National Parks, for requirements for surveys of national parks.

4.2 TERRITORIAL (COMMISSIONER’S) LANDS

1) The majority of these lands consist of large tracts of land (not including mines and minerals) in and adjacent to communities and roads, streets, lanes and trails on public land of which the administration and control has been transferred to the government of the Northwest Territories from the federal government. For a complete definition see the Commissioner’s Land Act, ss. 1 and 2.

2) They are Canada lands as defined in the Canada Lands Surveys Act as they remain vested in Her Majesty in right of Canada. See Northwest Territories Act, s. 44.1.

Land Administration

3) The Lands Administration Division, Department of Municipal and Community Affairs (MACA), Government of the Northwest Territories in Yellowknife administers Commissioner's land. Disposition of interests in Commissioner’s lands are made under the Commissioner’s Land Act (NT) and the Commissioner’s Land Regulations (NT).

4) Commissioner’s public airport lands are administered by the Northwest Territories Department of Transport. Dispositions are made under the Commissioner's Public Airport Lands Regulations (NT).

5) The Lands Administration Division maintains a registry that contains leases, permits and other instruments of Commissioner's land. Graphic and textual information about parcels of land
located within the boundaries of community governments can be accessed online through the Administration of the Territorial Land Acts System (ATLAS). Aerial and topographical mapping is also available from the Government of the Northwest Territories.

Survey Requirements

Sales

6) Under the Commissioner’s Land Act the Commissioner may sell Commissioner’s land. Before Commissioner’s land can be sold a plan of survey, made in accordance with the specific survey instructions of the Surveyor General, of the land must be filed in the land titles office.

7) Surveys of Commissioner’s land for transfer to a municipality or for sale are normally initiated by the Lands Administration Division, MACA, who will engage a land surveyor.

8) For these surveys, survey instructions are required and the surveyor will be required to open a project in MyCLSS. As well, a land administrator may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Leases

9) The Commissioner’s Land Regulations (NT) contain provisions for leases (including quarrying) and for hay permits. There are no requirements in the Commissioners Land Act or the Regulations for surveys for leases although for some longer term interests, exclusive rights may be surveyed and some non exclusive interests such as utility easements may be described by descriptive (explanatory) plans.

Links to pertinent survey standards and specimen plans

4.3 SETTLEMENT LANDS

1) These are lands identified as settlement lands of a Northwest Territories First Nation under their land claim agreement. Settlement Lands are held in fee simple title and the title is registered in the Land Titles Office. They are not Canada Lands, except for Tlicho lands which are included in the definition of Canada Lands in the Canada Surveys Act.

2) They include surface lands (approximately 10% of the area of the Northwest Territories) and lands comprising both surface and subsurface (approximately 4% of the area).

Land Administration

3) Each First Nation (See chart below) administers its own land and has its own requirements with regard to granting surface, mineral and oil and gas interests.

4) Each also maintains its own land records system. Specific interests in settlement lands may be registered in the land titles office and if it is must comply with the provisions of the Land Titles Act (NT).
Survey Requirements

5) Interests in settlement lands that are registered in the land titles office must comply with the survey provisions of the Land Titles Act (NT).

6) Tlicho lands (lands in which the fee simple interest is vested in the Tlicho government) are defined as Canada lands in the Canada Lands Surveys Act. As well under Chapter 7.4.2 of the Tlicho Agreement the Tlicho Government has the power to enact laws respecting the granting of interests in Tlicho lands. Therefore the Tlicho Government may include requirements for surveys to be carried out under provisions of the Canada Lands Surveys Act.

4.4 TITLED LANDS

1) These lands are lands for which a certificate of title has been issued under the Land Titles Act (NT) or the Condominium Act (NT).

Administration

2) The Northwest Territories Department of Justice administers the Land Titles Act (NT) and the Condominium Act (NU).

3) Records of titled land may be obtained from the Land Titles office in Yellowknife.

Survey Requirements

4) Surveys of titled land made by Canada Lands Surveyors must be executed in accordance with the Canada Lands Surveys Act, (See s. 22), the Land Titles Act, the Land Titles Plans Regulations, and the instructions of the Surveyor General. Surveys of condominiums are also executed in accordance to the Condominium Act.
Bringing Land under the *Land Titles Act*

5) The issuance of certificates of title, following receipt of letters patent in fee simple (carried out by notification to a registrar), require an official plan of survey prepared under the *Canada Lands Surveys Act* to be filed in the land titles office. See *Land Titles Act* (NT), s. 58.

*Links to pertinent survey standards and specimen plans*

Subdivisions or Consolidations of Titled Land

6) Under the *Land Titles Act* (NT), s.88 a plan of survey is used for the subdivision or consolidation of lots or other parcels created by a previously filed or registered plan of survey. There is also provision under s.80. (1) for the owner of an estate or interest in land that is less than a lot or other parcel to provide the Registrar with a plan of survey or a descriptive plan. In practice descriptive plans are normally only used for encumbrances such as easements; not for certificates of title.

7) A "plan of survey" is defined in the *Land Titles Act* (NT), s.1 as a plan in which the boundaries of the lots or other parcels created by the plan are defined by monuments, or monuments and natural features. Although it is not prepared under the *Canada Lands Surveys Act* it must comply with the instructions of the Surveyor General and the *Land Titles Plans Regulations* (NT).

8) Normally an owner will engage a Canada Lands Surveyor to conduct the survey. Survey instructions are not required (see next paragraph for an exception); however, lot numbers must be obtained from the Surveyor General Branch in Yellowknife and the surveyor will be required to open a project in MyCLSS.

9) If titled lands include territorial lands or Commissioners lands held by the Government of Canada or the Government of the Northwest Territories a survey under the *Canada Lands Surveys Act* which also complies with the *Land Titles Act* (NT) is required and specific survey instructions are required.

10) Under s. 10 of the *Land Titles Plans Regulations* (NT) a plan of survey may be compiled if permitted by instructions from the Surveyor General.

11) The Surveyor General Branch, prior to issuing instructions or lot numbers for a proposed consolidation or subdivision of titled lands, requires a sketch plan prepared in accordance with the *Land Titles Plans Regulations* (NT) approved by the Director, Lands Administration Division of the territorial Department of Municipal and Community Affairs which is the department responsible for the *Planning Act* (NT).

12) Under s. 9.(2) of the *Land Titles Plans Regulations* (NT) monumentation may be deferred for up to one year after the plan is registered if permitted by instructions from the Surveyor General.

*Links to pertinent survey standards and specimen plans*

Encumbrances (utility easements)

13) Descriptive plans are used for describing encumbrances when the encumbrance is for only a portion of a parcel shown on a plan of survey See *Land Titles Act* (NT) s. 96, 97.

14) A "descriptive plan" is defined in the *Land Titles Act* (NT), s.1 as a plan prepared from a plan of survey that has been filed or registered in a land titles office, property descriptions on a certificate of title, or any other information, in which some or all of the boundaries of the lots or other parcels created by the plan are not defined by monuments.
15) They are not prepared under the *Canada Lands Surveys Act* and instructions from, or endorsement, of the Surveyor General is not required, although in practice they are exactly the same as explanatory plans for utility easements and they are approved by the Surveyor General.

*Links to pertinent survey standards and specimen plans*

**Certificates of Title for Condominium Units**

16) Under the *Condominium Act* (NT) property may be divided into parts that are to be owned, or leased, individually, called units, and parts that are to be owned, or leased, in common.

17) Condominium Plans can be for building units (for example space such as in an apartment) or for bare land where the unit is defined by its horizontal boundaries. They are registered in the Land Titles Office and the registrar issues a certificate of title for each unit including its proportion of the common property.

18) Condominium plans are required to be certified by Canada Lands Surveyors. There is no requirement that they be approved by or be carried out in accordance with any instructions of the Surveyor General.

*Links to pertinent survey standards and specimen plans*
Chapter 5 - NUNAVUT

5.1 TERRITORIAL (FEDERAL) LANDS

1) These lands, commonly called federal lands, are lands in Nunavut that are vested in the Crown or of which the Government of Canada has power to dispose (Territorial Lands Act. s.2). They comprise the majority of the land area in Nunavut. They are Canada lands as defined in the Canada Lands Surveys Act.

SURFACE RIGHTS

Land Administration

2) The Land Administration Office of the Nunavut Regional Office of Aboriginal Affairs and Northern Development Canada (AANDC) in Iqaluit manages surface land activities on territorial lands that are under the administration of the Minister of AANDC. Disposition of interests in these territorial lands are made under the Territorial Lands Act and the Territorial Lands Regulations.

3) Disposition of interests in territorial lands under the control of ministers of other federal government departments is under the Federal Real Property and Federal Immovables Act and the Federal Real Property Regulations.

4) The Land Administration Office maintains the Land Administration Registry in Iqaluit for AANDC which contains leases, permits and other instruments of territorial lands in Nunavut. A “Spatially Integrated Dataset” called SID Viewer, accessible online, contains information on AANDC surface dispositions and permits.

Survey Requirements

Transfer of Lands to the Commissioner

5) Prior to the mid-90’s, large tracts of territorial land (called Block Land Transfers) were transferred to the Commissioner (Then the Government of the Northwest Territories) by order-in-council using written land descriptions. Now the lands transferred are for smaller parcels. (Surveys, Parcels and Tenure on Canada Lands, chapter 7, page 109).

6) Before the land can be transferred to the Commissioner a confirmed plan of survey of the land, made in accordance with the specific survey instructions of the Surveyor General, is required to be filed in the land titles office.

7) Land surveyors engaged to survey land for transfer to the Commissioner are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Sales

8) Both the Territorial Lands Act and the Territorial Lands Regulations s.9 (1) (2) contain provisions regarding the sale of territorial lands. However the policy of AANDC is to lease, not sell, land.
Leases and Permits

9) There are no statutory requirements under the *Territorial Lands Act* or the *Territorial Lands Regulations* for leases or permits to be surveyed.

MINERAL CLAIMS

Land Administration

10) The Mining Recorder of AANDC in Iqaluit administers the majority of mineral rights of lands in Nunavut. Exceptions include those Inuit owned lands which include subsurface rights, and national parks. Mines and minerals are administered under the *Northwest Territories and Nunavut Mining Regulations* (made pursuant to the *Territorial Lands Act*).

11) The mining recorder is also responsible for issuing exploration licences and permits and leases for coal mining under the *Territorial Coal Regulations* and for issuing leases under the *Territorial Dredging Regulations*.

12) Documents pertaining to mineral rights are recorded in the office of the Mining Recorder in Iqaluit. A “Spatially Integrated Dataset,” called SIDViewer, accessible online, contains information on mineral tenure.

Survey Requirements

13) Under the *Northwest Territories and Nunavut Mining Regulations*, s. 56, a survey of a mineral claim must be recorded with the mining recorder before a lease can be granted.

14) Normally a mineral claim owner will engage a Canada Lands Surveyor to conduct the survey. Survey instructions are not required however lot numbers must be obtained from the Surveyor General Branch in Iqaluit and the surveyor will be required to open a project in MyCLSS.

15) There are no provisions for surveys in the *Territorial Coal Regulations*. The *Territorial Dredging Regulations*, s.8 require surveys to be carried out under the instructions of the Surveyor General when directed by the Minister. Specific survey instructions are required.

*Links to pertinent survey standards and specimen plans*

OIL AND GAS

Land Administration

16) The majority of oil and gas rights in Nunavut are administered by the Northern Oil and Gas Branch, AANDC in Gatineau, Quebec. Exceptions include: those Inuit owed lands which include subsurface rights, and national parks.

17) Copies of licenses and other documents pertaining to oil and gas for lands in Nunavut are available from the Office of the Registrar, Northern Oil and Gas Branch in Gatineau, Quebec.

Survey Requirements

18) Under the *Canada Oil and Gas Land Regulations*, s. 20, 21, Legal surveys approved by the Surveyor General are required on completion of an exploratory well and before drilling a development well. Specific survey instructions are not required, however it is recommended that surveyors open a project in MyCLSS and consult with the Surveyor General Branch.
19) Consultation with the Surveyor General Branch is needed to ensure that surveyors are aware of which grid areas that have been fixed; and, if a grid area has been fixed, which survey fixed it. The first plan approved in a grid area fixes the positional information shown on the plan for all boundaries of the grid area for subsequent surveys.

20) Sections 4 to 9 of the Canada Oil and Gas Land Regulations (made pursuant to the Territorial Lands Act) describe the land division system (consisting of grid areas, sections, and units) used for referencing oil and gas interests and surveys.

Links to pertinent survey standards and specimen plans

FIRST NATION RESERVES

21) There are no First Nation Reserves in Nunavut.

NATIONAL PARKS

22) As of 2013 there were four national parks in Nunavut: Auyuittuq, Quttinirpaaq, Sirmilik and Ukkusiksalik. They are administered by Parks Canada. See chapter 3 for requirements for surveys of national parks.

5.2 TERRITORIAL (COMMISSIONER’S) LANDS

1) The majority of these lands consist of large tracts of land (not including mines and minerals) in and adjacent to communities and roads, streets, lanes and trails on public land. For a complete definition see the Commissioners Land Act (NU), ss 1 and 2. The beneficial use or the proceeds of these lands were appropriated to the Commissioner of Nunavut pursuant to the Nunavut Act.

2) They are Canada Lands as defined in the Canada Lands Surveys Act as they have remained vested in Her Majesty in right of Canada.

Land Administration

3) The Community Planning and Lands Section of the Department of Community and Government Services in Kugluktuk administers Commissioner's land. Dispositions of interests in Commissioner’s land are made under the Commissioner’s Land Act (NU) and the Commissioner’s Land Regulations (NU).

4) Commissioner’s airport lands are administered by the Nunavut Department of Economic Development and Transport. Dispositions are made under the Commissioner’s Airport Lands Regulations (Nunavut) pursuant to the Commissioner’s Land Act (Nunavut).

5) The Community Planning and Lands Section also maintains a land registry that contains leases, permits and other instruments of Commissioner's land.

Survey Requirements

Sales

6) Under the Commissioner's Land Act the Commissioner may sell Commissioner’s land. However the practice is to first transfer the land to a municipal corporation and the corporation will arrange for disposal of the land. A plan of survey, made in accordance with the specific survey instructions of the Surveyor General, of the land must be filed in the land titles office before the land can be transferred.
7) Surveys of Commissioner’s land for sale are normally initiated by the Community Planning and Lands Section who will engage a land surveyor if further survey work is required.

8) For these surveys, survey instructions are required and the surveyor will be required to open a project in MyCLSS. As well, a land administrator may track the progress of the survey and approve plans through MyCLSS.

*Links to pertinent survey standards and specimen plans*

**Leases**

9) The *Commissioner’s Land Regulations* (NU) contain provisions for leases (including quarrying) and for hay permits. There are no requirements in the *Commissioner’s Land Act* or the *Regulations* for surveys for leases although for some longer term interests, exclusive rights may be surveyed and some non exclusive interests such as utility easements may be described by descriptive (explanatory) plans.

*Links to pertinent survey standards and specimen plans*

**5.3 INUIT OWNED LANDS**

1) These are lands that the Inuit people obtained fee simple title to under the *Nunavut Land Claims Agreement* or the *Nunavik Inuit Land Claims Agreement*. The title is registered in the Nunavut Land Titles Office in Iqaluit. They are not Canada Lands.

**Land Administration**

2) Inuit Owned Lands (IOL) are held in fee simple and registered in the land titles office. They include lands with surface rights only (approximately 16% of the area of Nunavut) and lands with surface and sub-surface rights (approximately 2% of the area of Nunavut).

3) Inuit Owned Lands are administered by the Nunavut Tunngavik Incorporation (NTI) located in Cambridge Bay and three Regional Inuit Associations (RIAs). NTI has designated the three RIAs to become title holders of the surface IOL in each of their regions. Each RIA has policies and procedures for the disposition of surface land rights.

4) Sub-surface rights for IOL are held and administered by NTI. NTI grants a mineral exploration agreement and a mineral production lease through its own mineral tenure regime. NTI also holds and administers oil and gas rights.

5) The following chart contains contact and other information for IOL. Included also is contact information for the *Nunavik Inuit Land Claims Agreement* covering joint ownership of certain islands in Hudson Strait and Hudson Bay between the Inuit of Nunavut and the Inuit of Northern Quebec.
Survey Requirements

6) Any interests in IOL that are to be registered in the land titles office must comply with the provisions of the Land Titles Act (NU) with regard to surveys.

5.4 TITLED LANDS

1) These lands are lands for which a certificate of title has been issued under the Land Titles Act (NU) or the Condominium Act (NU) or, prior to 1999, under the Land Titles Act (NT) or the Condominium Act (NT) or the Land Titles Act (Canada).

Administration

2) The Department of Justice (NU) administers the Land Titles Act (NU) and the Condominium Act (NU). The Act provides for the system of registration of title. Titles are issued under the Land Titles Act (NU) and the Condominium Act (NU).

3) On line, real time, registration and search capabilities of land titles information is available through the POLAR (Parcelized On-Line Land Registration) system

Survey Requirements

4) Surveys of titled land made by Canada Lands Surveyors must be executed in accordance with the Canada Lands Surveys Act, (See s. 22), the Land Titles Act, the Land Titles Plans
Regulations, and the instructions of the Surveyor General. Surveys of condominiums are also executed in accordance to the Condominium Act.

Bringing Land under the Land Titles Act

5) The issuance of certificates of title, following receipt of letters patent in fee simple (carried out by notification to a registrar), require an official plan of survey prepared under the Canada Lands Surveys Act to be filed in the land titles office. See Land Titles Act (NU), s. 58.

Links to pertinent survey standards and specimen plans

Subdivisions or Consolidations of Titled Land

6) Under the Land Titles Act (NU), s.88 a plan of survey is used for the subdivision or consolidation of lots or other parcels created by a previously filed or registered plan of survey. There is also provision under s.80. (1) for the owner of an estate or interest in land that is less than a lot or other parcel to provide the Registrar with a plan of survey or a descriptive plan. In practice descriptive plans are normally only used for encumbrances such as easements (See below); not for certificates of title.

7) A "plan of survey" is defined in the Land Titles Act (NU), s.1 as a plan in which the boundaries of the lots or other parcels created by the plan are defined by monuments, or monuments and natural features. Although it is not prepared under the Canada Lands Surveys Act it must comply with the instructions of the Surveyor General and the Land Titles Plans Regulations.

8) Normally an owner will engage a Canada Lands Surveyor to conduct the survey. Survey instructions are not required (See next paragraph for an exception); however, lot numbers must be obtained from the Surveyor General Branch in Iqaluit and the surveyor will be required to open a project in MyCLSS.

9) If titled lands include territorial lands or Commissioners lands held by the Government of Canada or the Government of the Northwest Territories a survey under the Canada Lands Surveys Act which also complies with the Land Titles Act (NU), is required and specific survey instructions are required.

10) Under s. 10 of the Land Titles Plans Regulations (NU), a plan of survey may be compiled if permitted by instructions from the Surveyor General.

11) The Surveyor General Branch, prior to issuing instructions or lot numbers for a proposed subdivision of titled lands, requires a sketch plan prepared in accordance with the Land Titles Plans Regulations (NU) approved by the Director of Planning, who is appointed by the Minister responsible for the Planning Act (NU).

12) Under s. 9.(2) of the Land Titles Plans Regulations (NU), monumentation may be deferred for up to one year after the plan is registered if permitted by instructions from the Surveyor General.

Links to pertinent survey standards and specimen plans

Encumbrances (utility easements)

13) Descriptive plans are used for describing encumbrances when the encumbrance is for only a portion of a parcel shown on a plan of survey (Land Titles Act (NU), ss. 96, 97).

14) A "descriptive plan" is defined in the Land Titles Act, s.1 as a plan prepared from a plan of survey that has been filed or registered in a land titles office, property descriptions on a
certificate of title, or any other information, in which some or all of the boundaries of the lots or other parcels created by the plan are not defined by monuments.

15) They are not prepared under the *Canada Lands Surveys Act* and instructions from, or endorsement, of the Surveyor General is not required, although in practice they are exactly the same as explanatory plans for utility easements and they are approved by the Surveyor General.

*Links to pertinent survey standards and specimen plans*

**Certificates of Title for Condominium Units**

16) Under the *Condominium Act* (NT) property may be divided into parts that are to be owned, or leased, individually, called units, and parts that are to be owned, or leased, in common.

17) Condominium Plans can be for building units (for example space such as in an apartment) or for bare land where the unit is defined by its horizontal boundaries. They are registered in the Land Titles Office and the registrar issues a certificate of title for each unit including its proportion of the common property.

18) Condominium plans are required to be certified by Canada Lands Surveyors. There is no requirement that they be approved by or be carried out in accordance with any instructions of the Surveyor General.

*Links to pertinent survey standards and specimen plans*
Chapter 6 - YUKON

6.1 YUKON LANDS

1) These lands include Yukon lands as defined in the *Lands Act (YT)* that were previously known as Commissioner's lands prior to April 1, 2003, and territorial lands as defined in the *Territorial Lands (Yukon) Act*, commonly known as Crown lands, that were transferred to Yukon on or after April 1, 2003 by the *Yukon Act*.

2) They are under the administration and control of the Commissioner of the Yukon (Yukon Government) and they comprise the majority of the land area in the Yukon. They are Canada Lands as defined in the *Canada Lands Surveys Act* as they have remained vested in Her Majesty in right of Canada. See *Yukon Act*, s.2.

SURFACE RIGHTS

Land Administration

3) The Lands Branch of the Yukon Department of Energy, Mines and Resources administers surface rights on Yukon Lands. Interests in Yukon Lands are disposed of either under the *Lands Act (YT)* and the *Lands Regulations* or the *Territorial Lands Act (YT)* and the *Territorial Lands Regulation*.

4) The Lands Branch of Department of Energy, Mines and Resources maintain records of transactions affecting Yukon Lands.

Survey Requirements

Sales

5) For Yukon Lands the above mentioned Acts and Regulations have provisions regarding the sale of Yukon Lands. Grants (by notification) for Yukon Lands are not issued until a plan of survey of the land has been confirmed by the Surveyor General and filed in the Land Titles Office. See *Territorial Lands Regulations (YT)*, s.8.

6) Land surveyors engaged to survey Yukon land dispositions are required to obtain survey instructions from the Surveyor General Branch and open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MYCLSS.

*Links to pertinent survey standards and specimen plans*

Leases

7) There are no statutory requirements for leases or permits on Yukon Lands to be surveyed.

Rights-ways and Easements

8) There are no statutory requirements for rights-of-way or easements on Yukon Lands to be surveyed: however, many road and power line rights-of-way are surveyed.

MINERAL CLAIMS

Land Administration
9) The Mineral Resources Branch of the Yukon Department of Energy, Mines and Resources in Whitehorse administers the majority of mineral rights of lands in Yukon. Exceptions include Category A settlement lands and national parks.

10) Mines and minerals are administered under two Acts: the Placer Mining Act (YT) and the Quartz Mining Act (YT).

11) Yukon is divided into four mining districts: Watson Lake, Whitehorse, Mayo and Dawson City. A mining recorder, who reports to the Director of Mineral Resources in Whitehorse, heads each district office.

12) The mining recorders are also responsible for issuing leases under the Dredging Regulation (YT).

13) Documents pertaining to mineral rights are recorded in each of the district offices.

Survey Requirements

Quartz and Placer Mineral Claim Surveys

14) Surveys of quartz mineral claims are normally done to verify the boundaries of the claims, to acquire any open ground and to obtain a 21 year lease. Typically, companies contemplating production will take their claims to lease which provides secure title and relieves them from their annual work requirement.

15) Surveys of placer claims, which are rare, are done to settle disputes and verify the boundaries of the claims

16) Specific instructions are required for the survey of mineral claims and the surveyor must open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Placer Base Lines

17) Surveys of base lines are made under the Placer Mining Act (YT) s. 40. The Minister may authorise and direct in accordance with such general instructions as may be issued by the Surveyor General (Canada). A base line of a creek or river is a surveyed line following the general direction of the centre bottom lands of a valley of a creek or river, established to control and reference the location of placer mining claims.

18) Specific survey instructions are required and the surveyor must open a project in MyCLSS. Land administrators may track the progress of the survey and approve plans through MyCLSS.

Links to pertinent survey standards and specimen plans

Dredging Leases

19) The Dredging Regulation s.7 requires surveys to be carried out under the instructions of the Surveyor General when directed by the Minister.

OIL AND GAS

Land Administration
20) Most rights to oil and gas in Yukon are administered by the Oil and Gas Management Branch of the Department of Energy, Mines and Resources in Whitehorse under the *Oil and Gas Act* (YT) and related regulations. The Branch does not administer oil and gas on Category A settlement lands and national parks.

21) Copies of documents pertaining to oil and gas in rights in Yukon are available from the Oil and Gas Management Branch in Whitehorse.

**Survey Requirements**

22) Under the *Oil and Gas Drilling and Production Regulations* (YT) s.17, a survey is required to confirm the surface location of every well and to define the surface area of land required for the site of a field facility. Surveys made to determine the position or boundaries of a well or other oil and gas facility must be made by a CLS in accordance with the instructions of the Surveyor General. See *Oil and Gas Licence Administration Regulations* (YT) ss. 32 to 34.

23) Until general instructions are available, specific survey instructions from the Surveyor General Branch in Whitehorse are required.

*Links to pertinent survey standards and specimen plans*

### 6.2 FEDERAL LANDS

1) These are lands that remained under the administration of various departments of the government of Canada when the Yukon Government obtained administration and control of public land in Yukon in 2003. They are Canada Lands as defined in the *Canada Lands Surveys Act*.

**Land Management**

2) These lands, over 300 parcels used mainly for government operations, are administered by various departments of the Government of Canada.

**Survey Requirements**

3) Specific survey instructions are required for surveys of federal lands.

*Links to pertinent survey standards and specimen plans*

### National Parks

4) As of 2013 there were three national parks in Yukon: Kluane, Ivavvik and Vuntut and one national park reserve: Kluane. They are administered by Parks Canada. See chapter 3 for requirements for surveys of National Parks.

### First Nation Reserves

5) There are no First Nation Reserves in Yukon.

### 6.3 SETTLEMENT LANDS

1) These are lands received by a Yukon First Nation (YFN) under their land claim final agreements.
2) Settlement lands include Category A lands comprising surface and subsurface (approximately 5.5% of the area of Yukon) and Category B comprising surface lands only (approximately 3% of the area).

3) YFNs have aboriginal title to their settlement lands (An exception is fee simple lands for which there was already a certificate of title on the effective date of the YFN final agreement). Title is not registered in the land titles office for Category A and B lands, whereas for fee simple lands title shall be registered.

4) They are Canada lands as defined in the Canada Lands Surveys Act.

Land Management

5) Each First Nation (See chart below) administers its own land and may enact laws and regulations for the use of and occupation of its settlement lands and is required to establish a system to record interests.

6) The following chart contains contact and other information for Yukon First Nations responsible for the administration of Settlement Lands.

<table>
<thead>
<tr>
<th>Enabling Legislation</th>
<th>Yukon First Nation administering the lands</th>
<th>Office Location</th>
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<td><em>Yukon First Nations Land Claim Settlement Act</em> (S. C. 1994, c. 34) and</td>
<td>Champagne and Aishihik</td>
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<td>Carcross / Tagish</td>
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Survey Requirements

7) Settlement lands are Canada lands as defined in the Canada Lands Surveys Act. Therefore, YFNs may include in their laws a requirement for surveys to be carried out under provisions in the Act.
6.4 TITLED LANDS

1) These are lands for which a certificate of title has been issued under the Land Titles Act (YT) or the Condominium Act (YT).

Administration

2) Records of titled lands are regulated and administered under the Land Titles Act (YT) by the Yukon Department of Justice.

3) Records of titled land may be obtained from the land titles office in Whitehorse.

Survey Requirements

4) Surveys of titled land made by Canada Lands Surveyors must be executed in accordance with the Canada Lands Surveys Act, (See s. 22), the Land Titles Act, the Land Titles Plans Regulations, and the instructions of the Surveyor General. Surveys of condominiums are also executed in accordance to the Condominium Act.

Bringing Land under the Land Titles Act

5) The issuance of certificates of title, following receipt of a grant of Yukon Lands (carried out by notification to a registrar), require an official plan of survey prepared under the Canada Lands Surveys Act to be filed in the land titles office. See Land Titles Act (YT): ss.41, 47(4).

Links to pertinent survey standards and specimen plans

Subdivisions and other surveys of Titled Land

6) Under the Land Titles Act, s. 77 the registrar may require the owner of land, who wishes to transfer or otherwise deal with land to provide a plan of the land, certified by a Canada Lands Surveyor.

7) The Surveyor General Branch prior to issuing survey instructions for a proposed subdivision or other survey of titled lands requires an approved sketch plan:

   a) For proposed subdivisions outside of Whitehorse and Dawson a sketch plan prepared in accordance with the Subdivision Regulations (YT) approved by an approving officer appointed under the Subdivision Act (YT) is required. The Land Planning Branch of the Department of Energy, Mines and Resources is responsible for subdivision approvals.

   b) For proposed subdivisions in Whitehorse and Dawson, a sketch plan must be prepared and approved under their respective subdivision control bylaw under the Municipal Act (YT).

8) Before any plan of survey can be registered it must be approved by the Commissioner. Before the Commissioner approves the plan, the plan and field notes shall be examined by the Surveyor General and the Commissioner shall be advised that the plan and field notes have been carried out in accordance with both the practice prescribed for Canada Land Surveyors and the approved sketch plan.

9) Compiled plans of consolidation of lots or parcels shown on prior plans may be used where an owner of several lots each having separate certificates of title wishes to consolidate them.
into one. Before it can be registered it must be examined by the Surveyor General and
approved by the Commissioner.

**Links to pertinent survey standards and specimen plans**

**Encumbrances (utility easements)**

10) Explanatory plans are used for describing encumbrances such as utility easements, where the
encumbrance is less than a full surveyed parcel.

11) Before they are filed in the land titles office they must be examined by the Surveyor General
and approved by the Commissioner.

**Links to pertinent survey standards and specimen plans**

**Certificates of Title for Condominium Units**

12) Under the *Condominium Act* property may be divided into parts that are to be owned or leased
individually, called units, and parts that are to be owned or leased in common. Condominium
Plans can be for building units (for example space such as in an apartment) or for bare land
where the unit is defined by its horizontal boundaries.

13) They are registered in the Land Titles Office and the registrar issues certificates of title for
each unit including its proportion of the common property.

14) Condominium plans are required to be certified by Canada Lands Surveyors and prior to
registration must be approved by the Surveyor General of Canada or the Surveyor General’s
designate. See *Condominium Act* (YT) ss. 6 (1)(d), (4).

**Links to pertinent survey standards and specimen plans**
Chapter 7 - OFFSHORE

7.1 CANADA LANDS IN THE OFFSHORE

1) In the offshore, the Canada Lands Surveys Act applies to lands under water belonging to Her Majesty in right of Canada or in respect of any rights in which the Government of Canada has the power to dispose of.

2) For an explanation of the offshore lands that Canada has sovereign rights to the natural resources refer to the Oceans Act. As well Surveys, Parcels and Tenure on Canada Lands, c.10 has additional information offshore lands that Canada has sovereign rights to; including, overlaps of offshore land areas with other countries and what offshore lands in the internal waters of Canada are Canada lands.

7.2 OIL AND GAS

Administration of Interests

1) The Canada Petroleum Resources Act regulates interests in oil and gas in frontier lands. Frontier lands as defined in the Act means:

- lands that belong to Her Majesty in right of Canada, or in respect of which Her Majesty in right of Canada has the right to dispose of or exploit the natural resources, and that are situated in
- the Northwest Territories, Nunavut or Sable Island, or
- submarine areas, not within a province, in the internal waters of Canada, the territorial sea of Canada or the continental shelf of Canada,

- but does not include the adjoining area, as defined in section 2 of the Yukon Act.

2) When devolution of the Northwest Territories occurs, scheduled for March 31, 2014, the Northwest Territories will no longer be subject to the Canada Petroleum Resources Act. As of July 12, 2013 the exact area over which the GNWT will assume jurisdiction for oil and gas is in the process of being determined. (Northwest Territories Lands and Resources Devolution Agreement, ss. 10.2.1 and 10.3.1.)

Line of Administrative Convenience

3) Under the Canada Petroleum Resources Act, administrative responsibility for oil and gas and minerals in the offshore is divided between two departments of the federal government. For administrative convenience, a line is used to separate the area of jurisdiction of each department. This line is described in Schedule VI of the Canada Oil and Gas Land Regulations and amended as a result of the Yukon devolution agreement. It is generally the 60th parallel north of latitude and the north shores of Hudson Bay and Hudson Strait (see figure 7-1).
Administration North of the Line

4) The Northern Oil and Gas Branch of the Department of Aboriginal Affairs and Northern Development Canada (AANDC) in Gatineau (Quebec), administers oil and gas in the offshore, north of the line of administrative convenience.

Administration South of the Line

5) The Frontier Lands Management Division, Petroleum Resources Branch, Energy Sector, of the Department of Natural Resources Canada (NRCan) in Ottawa is responsible for oil and gas rights in the offshore south of the line of administrative convenience, except for the accord areas referred to in paragraphs 15 and 16.

Rights Registration

6) Copies of documents pertaining to oil and gas rights in frontier lands for lands in the offshore administered by the Northern Oil and Gas Branch and by the Frontier Lands Management Division are available from the office of the Registrar, Northern Oil and Gas Branch in Gatineau, Quebec.

The Accord Areas

7) The Canada - Newfoundland and Labrador Offshore Petroleum Board administers interests in petroleum resources in the Newfoundland and Labrador offshore areas (See figure 7-1). The Board is located in St. John's, Newfoundland. Interests in petroleum resources within the accord area are issued by the Board under the Canada - Newfoundland Atlantic Accord Implementation Act. Copies of licenses and other documents are available from the Board.
8) The Canada-Nova Scotia Offshore Petroleum Board administers interests in petroleum resources in the Nova Scotia offshore areas (See figure 7-1). The Board is located in Halifax, Nova Scotia. Interests in petroleum resources are issued by the Board under the Canada - Nova Scotia Offshore Petroleum Resources Accord Implementation Act. Copies of licenses and other documents are available from the Board.

The West Coast

9) Oil and gas exploration on Canada’s west coast is on hold subject to a federal moratorium on oil and gas activities offshore of British Columbia.

Oil and Gas Operations

10) The Canada Oil and Gas Operations Act applies to oil and gas operations such as exploration, drilling, production, conservation, processing and transportation on frontier lands. This responsibility is carried out by the National Energy Board (NEB) (The NEB is accountable to Parliament through the Minister of Natural Resources Canada) located in Calgary. The NEB is not responsible for the accord areas.

11) Wellsite plans, attached to final well reports, are filed with the NEB.

Survey Requirements

12) The land division system used for describing the extent of oil and gas interests and to locate the position of wells located in the Northwest Territories, Nunavut or in Canada's offshore area is defined in the Canada Oil and Gas Land Regulations. This land division system consists of a grid system divided into Grid Areas, Sections, and Units – all referenced to the North American Datum of 1927 (NAD27). A grid converter tool is available on the SURVEYOR GENERAL BRANCH website which computes the NAD83 coordinates and surface areas for the corresponding NAD27 Grid Areas, Sections and Units.

13) Under the Canada Oil and Gas Drilling and Production Regulations and parallel regulations of the Canada - Newfoundland and Labrador Offshore Petroleum Board and the Canada-Nova Scotia Offshore Petroleum Board a survey, certified by a person licensed under the Canada Lands Surveyors Act, is required to confirm the location of a well on the seafloor. Other survey requirements are outlined in the Canada Oil and Gas Land Regulations.

14) General instructions for oil and gas surveys are given in Chapter D7; however, they are outdated (1981) and apply only in so far as they are consistent with the current legislation or other policies.

15) Specific survey instructions are not required, however it is recommended that surveyors open a project on MyCLSS website and consult with the Surveyor General Branch in Yellowknife NT for surveys north of the line of administrative convenience, and with the Surveyor General Branch in Amherst NS for surveys south of the line of administrative convenience prior to conducting the survey.

16) Consultation with the Surveyor General Branch is needed to ensure that surveyors are aware that the extent of some grid areas may have been fixed by survey and, if a grid area has been fixed, which survey fixed it.

Oil and Gas Grid Converter
Links to pertinent survey standards and specimen plans
7.3 OTHER RIGHTS

Administration

1) To date there has been little or no mineral right or surface right activity for submerged lands in the offshore. As a result the regulatory regime is not clearly defined.

2) Anyone seeking or requesting information on such rights may contact:
   - The Department of Aboriginal Affairs and Northern Development Canada regarding rights in the offshore north of the line of administrative convenience.
   - The Department of Natural Resources Canada regarding rights in the offshore south of the line of administrative convenience.

3) There is no specific legislation to deal with the disposition of mineral rights or the disposition of surface rights of submerged lands in the offshore. Disposition of these rights may come under the Federal Real Property and Federal Immovables Act however there are no specific provisions or regulations under the Act applying to the offshore.

Survey Requirements

4) While the Canada Lands Surveys Act clearly applies to the offshore, there are no general instructions (except for oil and gas) of the Surveyor General for surveys offshore. Surveyors asked to conduct surveys for mineral rights or surface rights of submerged lands in the offshore should contact the office of the Surveyor General Branch for the region or province that the offshore lands are adjacent to.
INSTRUCTIONS
(SURVEY STANDARDS)
Minimum National Survey Standards for Canada Lands

Survey plans in the Canada Lands Surveys System provide graphical representations of boundaries and parcels of land, be they for properties or rights over properties. Once given legal sanction through statutory and administrative processes they can be used to support land transactions and to protect land owners' rights. Legal sanction is provided by legislation such as the Canada Lands Surveys Act or the multiple pieces of federal and territorial legislation that contribute to the Canada Lands Surveys System. These processes require that Canada Land Surveyors certify that their work has been carried out in accordance with the instructions of the Surveyor General.

Why is this important?

The instructions of the Surveyor General form the base standards for legal surveys on Canada Lands. The instructions also provide a mechanism to ensure that all those with an interest in a property are involved in a transaction or boundary definition process.

The role of the Canada Lands Surveyor is to provide the professional services necessary to properly define boundaries, parcels and rights of way. The role of government is to ensure that the legal and administrative processes are in place to ensure the effective stewardship of the survey system.

All of this contributes to creating the secure and transparent property rights system that adds value to land and the certainty essential to economic and societal development.

Peter Sullivan
Surveyor General of Canada Lands
Chapter 1 - SURVEYS

1.01 WHAT SURVEYS DOES THIS CHAPTER APPLY TO?

1) This chapter applies to all surveys carried out under instructions of the Surveyor General of Canada Lands. Additional specific instructions may be given by the Surveyor General and additional general instructions are provided in chapters 2 to 11 for particular survey products.

2) If the boundary of the Canada Lands being surveyed is common to provincial lands then all applicable provincial laws and regulations pertaining to surveys must also be followed. If there is any conflict between federal and provincial survey requirements, consult the regional office of the Surveyor General Branch. Generally the requirements leading to the higher standard of survey are to be followed.

1.02 MONUMENTATION

Types of Monuments

1) For surveys situated in the territories, set CLS 77 posts (see Figure 1) at all corners unless otherwise specified in these general instructions or in any specific instructions.

![Figure 1 - CLS 77 Post](image)

2) For surveys of Canada Lands situated in the provinces, surveyors may use the same or approved similar monument type used in that province provided that the monument can be detected with metal locator equipment and is not less than:

   a) 75 cm in length and 1.5 cm square (or diameter) for surveys defining the jurisdictional boundaries; and

   b) 60 cm in length and 1.2 cm square (or diameter) for internal allotment including parcels that adjoin a jurisdictional boundary.
3) When bedrock or a large boulder is encountered less than 30 cm below the ground surface, cement a CLS standard rock post (see figure 2) in a hole drilled in the rock. Where a CLS standard rock post is not available a CLS 77 post, or provincial equivalent, may be cut down and cemented into the rock. The top of the rock shall be cleared of all earth at the monument location.

![Figure 2 - CLS Standard Rock Post](image)

4) Block corners, jurisdictional boundaries, and other principal corners which fall in concrete or asphalt shall be marked with monumentation specified in paragraphs 1 and 2 or approved alternatives. For other corners the following may also be used to mark or reference the corner:
   a) in concrete or similar surfaces a drill hole with a lead plug having a tack therein; or
   b) in asphalt an iron bar at least 30 cm long driven through the asphalt flush with the surface.

**Monument Markings**

5) Mark every monument placed in a survey as follows:
   a) with the letters "IR", for monuments on Indian Reserve boundaries, and "NP" for national park boundaries;
   b) on capped posts, with the year and a distinguishing letter or number;
   c) witness monuments shall be marked with the letters "WT" followed by the distance and the approximate direction from the monument to the witnessed corner (e.g. WT 15 N); and
   d) on CLS 77 posts situated in the territories:
      i. with the letters "R/ W" on the side of the monument facing the right-of-way, for monuments on right-of-way boundaries;
      ii. with the letter "R" on the side of the monument facing the road, for monuments on road boundaries;
      iii. with lot and block numbers, for monuments in subdivisions; and
      iv. with a distinguishing number for monuments marking parcels and right-of-ways in rural and remote areas such as:"1L1000, 2L1000..., R25, R27, R28, etc."
6) In addition to, or as an alternative to paragraph 5 above, in the provinces when using provincial monumentation, monuments should be marked in accordance with the provincial practice. This includes using provincial markings for section and quarter section corners.

Ancillary Monumentation

7) Ancillary monumentation shall accompany each placed monument unless conditions make it impractical. The main purpose of ancillary monumentation is to protect monuments from destruction and make them easier to find. Ancillary monumentation may consist of:
   a) At each monument a wooden stake 5 cm square, 60 cm long placed approximately 0.3 m from the monument. This is suitable for townsites and subdivisions. Its position does not need to be recorded.
   b) At each monument at critical corners where public visibility is required a flexible fiberglass reinforced composite marker about 1.5 m long firmly driven into the ground or cemented into a drilled hole in rock. It shall be placed, if possible, 0.3 m from the monument. A decal with suitable markings shall be applied to the marker. The decal should face the monument. Record the markers position relative to the monument.
   c) Other types of ancillary monumentation may be used (for example: stone mounds, triangular reference posts as used in British Columbia) considering the nature of the ground, the terrain, safety and local custom.

8) If markers are placed to help locate the position of boundaries they shall be placed on the boundaries at intervals of approximately 300 metres, or other distance as specified in the specific survey instructions, and may consist of the following:
   a) Flexible fiberglass reinforced composite markers about 1.5 m long firmly driven into the ground or cemented into a drilled hole in rock.
   b) Any other object acceptable to the Surveyor General Branch.

9) Markers on First Nation Reserve or national park boundaries may be augmented with an identification decal applied to them. The decal shall be inscribed with suitable wording such as "First Nation Reserve Boundary" or "National Park Boundary".

Placing of Monuments

10) Place monuments on all artificial boundaries being surveyed:
    a) at each change of direction of straight line boundaries;
    b) at the beginning and end of curves, at points of changes of curvature and at points where straight line boundaries intersect curves;
    c) at intervals not exceeding one kilometre for straight line boundaries; and
    d) at points of intersection with previously surveyed boundaries, except in the cases outlined in paragraphs 11 and 12.

11) Placing monuments at points of intersection with previously surveyed boundaries is not required in the following situations:
a) where an existing parcel or subdivision is not being used, or is not likely to be used, for any purpose, providing:
   i. the boundary of the parcel or subdivision is not part of a main survey fabric, such as a section line or concession line;
   ii. there are no existing rights based on the parcel or subdivision; and
   iii. sufficient connections are made to the parcel or subdivision to illustrate the relationship on the plan of survey;

b) where in the resurvey of a jurisdictional boundary, such as the exterior boundary of an First Nation Reserve or national park, monuments defining boundaries of parcels adjacent to the boundary purporting to be on the jurisdictional boundary are found. However connections should be made to them to illustrate their relationship in the field notes to the jurisdictional boundary.

c) where the boundaries intersect surveyed sub-surface parcels such as mineral claims. However sufficient connections shall be made to the boundaries of the claim to illustrate the relationship on the plan of survey;

d) where the point of intersection has been previously monumented by an existing survey. However sufficient connections shall be made to illustrate the relationship to the jurisdictional boundary on the plan of survey;

e) where the boundaries intersect existing surveyed limited interests that have been connected to the survey fabric in the close vicinity of the survey; and

f) where the boundaries intersect existing boundaries of well sites and access roads surveyed under Chapter 6 (Oil and Gas Surveys for First Nations).

12) When surveying a right-of-way or road:
   a) only one limit of the right-of-way or road must be monumented unless the right-of-way or road is over 30 m in width, in which case both limits must be monumented. The requirement to monument both sides may be relaxed by specific survey instructions if the right-of-way or road crosses large areas of vacant crown land; and
   b) If a right-of-way for a limited interest, such as an access right-of-way or utility right-of-way, crosses a parcel or a series of adjoining lots, only the intersection with the first and last boundaries crossed, or with others as specified in the specific survey instructions, has to be monumented.

13) Where only one limit of a right-of-way is being monumented and a deflection point on that limit cannot be monumented or witnessed, monument the corresponding deflection point on the opposite limit. In addition, monument both limits at the next deflection point in at least one direction.

14) Monuments marking parcels being replaced by parcels of a new survey that may cause confusion to the layperson should be removed if they are of no value for future surveys. Make or ensure that there are sufficient ties to enable the position of the monument to be maintained.

15) If it is impossible, or inadvisable, to monument a point of deflection or a point of intersection, then place a witness monument as near as practical to the true location, preferably on one of the boundaries being surveyed. Do not place a witness monument if the corner is already defined by a witness monument. Record the distance and direction from the witness
monument to the point of deflection or intersection and the reason why the point could not be monumented.

16) Where an artificial boundary terminates at a natural boundary place a monument on the artificial boundary far enough from the natural feature so that it is reasonably safe from destruction. Measure and record to the nearest 0.1 m the distance, along the artificial boundary, from the monument to the natural boundary.

17) When placing a new monument on an existing monumented curve or straight line boundary, sufficient evidence on the boundary being retraced must be searched for and recorded. The new monument shall be placed on the line joining the two adjacent monuments marking the boundary. Should the adjacent monuments be obliterated, lost or disturbed, the closest best evidence that straddles the new monument shall be used. The distance and direction between the new monument and the existing monuments shall be measured and recorded.

Cutting out and Blazing Lines

18) There is no requirement to cut out and blaze boundary lines unless requested by a government administering the land, by a surveyor’s client or specifically instructed by the Surveyor General. If line cutting and/or blazing is requested or instructed the following instructions are required:

19) Before starting any line cutting work ensure that the requirements of any environmental assessment and review will be followed. In case of conflict with any survey standard, consult the regional office of the Surveyor General Branch.

20) For jurisdictional boundaries, in addition to the requirements in this part, all line cutting shall be done in accordance with provincial or territorial government requirements.

21) Subject to environmental assessment and review, any government requirement or any specific instruction:

   a) Cut out all boundary lines and blaze suitable trees to make the boundary recognizable as a cut line. Remove all fallen trees, logs, and brush from the cut line.

   b) If blazing is required, blaze suitable trees within 2 metres and on both sides of a boundary. Blaze the side of the tree facing the boundary line and each of the sides at right angles to this side. The blazed trees are not intended to mark the boundaries or the limits of the parcels. They are blazed to assist in finding the boundaries.

   c) Take all reasonable precautions to avoid causing damage to private property when cutting and blazing boundaries. Every effort must be made to inform each owner affected and to respect any concerns they may have.

   d) In the township system, where road allowances are adjacent to First Nation Reserves or national parks, the actual reserve or park boundary may not have been monumented or cut out in the original survey. Any new monumentation, boundary line cutting or blazing shall be done on the actual boundary.

   e) The cutting of merchantable timber should be avoided. If merchantable trees are left on the boundary, they should be blazed with 3 blazes placed vertically (one above the other) on each side of the tree where the boundary line intersects the tree. Record the size and type of the tree and the distance from the nearest monument to the blaze.
1.03 CALIBRATION OF MEASURING EQUIPMENT

1) All equipment used in the survey must be calibrated to a reliable measure of distance or position. The surveyor must keep records of calibration results and carry out sufficient analysis of the data to prove that the equipment is calibrated correctly and operating to the manufacturer's specifications.

2) Records of calibration results and copies of any analysis carried out must be retained so that, if requested, they can be submitted as part of the returns of survey.

1.04 SURVEY METHODS

Boundaries

1) It is preferable that straight lines, rather than curved lines, be used for boundaries. New spiral curve boundaries shall not be created. If it is legally possible, circular curves shall be substituted for existing spiral curves.

2) A surveyor may adopt the boundary of a prior official survey without actual retracement only if the surveyor personally measured that boundary and provided that:
   a) the field notes of the previous survey are recorded in the Canada Lands Surveys Records (CLSR);
   b) the accuracy of the previous survey achieves the accuracy requirements specified in paragraph 13 of this part;
   c) the monuments marking the boundary are in good condition, are in their original position, and a report of their condition is included in the field notes for the new survey; and
   d) the field notes for the new survey indicate which measurements are adopted.

3) When a parcel is to be created contiguous to the boundary of an unsurveyed road or portion of road, the extension of the limit of the road contiguous to the parcel must be determined and additional monuments shall be placed on the road limit on both sides of the parcel to provide for any future parcels that are contiguous to the road boundary.

Bearings

4) Bearings may in order of preference be controlled by or be derived from:
   a) GNSS observations.
   b) federal or provincial control survey monuments;
   c) monuments established in a previous legal survey for which the plan is recorded in the CLSR. The distance between boundary monuments selected should be sufficient to enable legal survey accuracy standards to be met, and over 100 m, if possible; and
   d) astronomic observations for azimuth providing that the accuracy requirements for legal surveys are attained.
5) Where bearing are obtained from a closed traverse the maximum allowable angular misclosure is \(20\sqrt{n}\) seconds \((n=\text{number of angles measured in the traverse loop or between lines of bearing control})\).

**Geo-referencing**

6) Geo-reference means the determination of the horizontal coordinates for a monument, or point, with respect to the North American Datum 1983 (Canadian Spatial Reference System).

7) All surveys must geo-reference one or more monuments (or points which are related to monuments) which define or control the position of a boundary included in the survey, using one of the following methods:
   a) Single point positioning solutions derived from the Precise Point Positioning (PPP) service of Natural Resources Canada;
   b) Measurement to published control survey monuments including Global Navigation Satellite System (GNSS) measurement to Active Control stations and including measurement to control survey monuments in former Coordinate Survey Areas;
   c) GNSS positions derived from Real Time Network corrections;
   d) Measurement to previously geo-referenced monuments shown on plans recorded in the CLSR where the noted accuracy of these monuments as stated on the recorded plan meets these geo-referencing standards, or;
   e) Any other method approved in the Specific Survey Instructions which meets these geo-referencing standards.

8) All geo-referenced monuments on the survey must have an absolute accuracy (see definition: *accuracy, absolute* in the glossary) of 0.10 metres or better. Specific Survey Instructions may require a higher level of accuracy if the existing surveys in an area have been georeferenced to significantly higher level of accuracy.

9) If the surveyor cannot meet the absolute accuracy requirements of geo-referencing due to topographical constraints, they can request relief from this requirement through an amendment of the Specific Survey Instructions. The surveyor will still be required to show the estimated absolute accuracy obtained and include a note in the field notes explaining why the accuracy standard could not be achieved.

**Accuracy of Surveys**

10) The absolute accuracy of any monument, the position of which is determined from monuments geo-referenced under paragraph 7 above, must be 0.20 metres or better.

11) If the surveyor cannot meet the absolute accuracy requirements due to topographical constraints, they can request relief from this requirement through an amendment of the Specific Survey Instructions.

12) The minimum relative accuracy (see definition: *accuracy, relative* in the glossary) standard for surveys based upon the surveyor’s own work is +/-0.02 metres plus 80 parts per million (ppm), at a 95% confidence level.

13) The minimum relative accuracy standard for surveys based upon the surveyor’s own work or any recorded surveyor’s measurements, or a combination of the two, is +/- 0.02 metres plus 160 parts per million (ppm), at a 95% confidence level.
Connections

14) All surveys shall be connected to one, and preferably two, monuments of the closest existing survey provided a survey lies within 300 metres of the current survey. Connections are not required between the new survey and any nearby existing surveys if both the new survey and the nearby survey are accurately geo-referenced to NAD83CSRS, providing that the two geo-referenced surveys are of a sufficient distance apart and there is no risk of overlap.

15) Any structure, fence, hedge, or similar features which are close to a monument, or are close to or extend over a boundary being surveyed shall be tied in and related to the monument and/or boundary. The purpose of these connections is to show possible evidentiary information of the monument or boundary, to show encroachments and/or to provide ties that can be used to locate or assist in re-establishing the monument if it is obliterated or lost.

Location of Natural Boundaries

16) A natural boundary is a boundary defined by a natural feature such as a water boundary, a watershed line or a ridge line.

17) A water boundary is a boundary between an upland riparian parcel and a watercourse. It can be in any location desired by the grantor, if said location falls within the grantor’s parcel. In the absence of the grantor’s desire, then the boundary shall be located in keeping with the provincial custom, as confirmed by the Supreme Court of Canada:

   a) At the water’s edge: For a non-tidal watercourse, the edge of water under ordinary (non-freshet) conditions (e.g. as used in Ontario, PEI, New Brunswick and parts of Manitoba and Newfoundland Labrador).

   b) At the vegetation edge: For a non-tidal watercourse, the edge of terrestrial vegetation as caused by the presence of water (e.g. as used in BC, Alberta, Saskatchewan, Quebec and Nova Scotia).

   c) At mean high water mark (MHWM): The average of the high neap tides for a tidal watercourse as often reflected by a line of debris; often the boundary between the upland riparian parcel and provincial Crown land.

   d) At mean low water mark (MLWM): The average of the low neap tides for a tidal watercourse (e.g. as used for six National Parks); often the boundary between provincial Crown lands and Canada Lands.

   e) At ad medium filum (amf): The middle thread of a non-tidal watercourse (e.g. as used in New Brunswick and Ontario) and the middle thread of a non-navigable watercourse (e.g. as used in western Canada for First Nation Reserves).

18) The position of a natural boundary can be determined by any method, provided the boundary can be plotted at the final plan scale to an accuracy of 0.5 mm relative to other features on the plan.

19) If a boundary of a parcel being surveyed and monumented is the limit of a reservation that is measured from a natural boundary then the natural boundary shall be located to an accuracy of at least 0.5 of a metre for plan scales greater than 1: 1,000. Where a parcel of land being surveyed in the Yukon excludes a reservation along a body of water, such as the 30.48 metre reserve, locate the water boundary and survey and monument a series of artificial boundaries that excludes the reservation.
20) If the natural boundary is plotted from aerial photographs, maps, imagery or other information source that the surveyor has not prepared, the surveyor shall inspect the boundary on the ground:

   a) to verify (including if necessary taking sufficient measurements) that the plotting accuracy of 0.5 mm at the final plan scale (or the accuracy specified for the establishment of the limit of a reservation) can be achieved; and

   b) to clearly mark the position of the natural boundary on the photograph, map, imagery or other information source.

21) Take terrestrial photographs of visible natural boundaries, such as water’s edges, vegetation edges and mean high water marks and mark the boundaries position thereon.

22) Aerial photographs, maps, imagery, terrestrial photographs or other information source that have the position of natural boundaries marked on them under paragraphs 20 and 21 form part of the returns of survey and may be recorded by the Surveyor General Branch.

23) If natural boundaries are determined by a photogrammetric or mapping process the survey report shall include a description of the process used. It shall also list all control monuments or control points used and if they are not of public record include descriptions of them.

1.05 RESURVEYS, RE-ESTABLISHMENTS AND RESTORATIONS OF MONUMENTS

When are they required?

1) Most new surveys of boundaries and parcels involve resurvey work (determining the position of previously surveyed boundaries) and many resurveys are solely carried out to retrace or re-establish old boundaries whose position is unknown, in doubt or in dispute. As well, surveyors in the process of carrying out other surveys work (such as, construction surveys, site surveys, real property reports, etc…) may carry out resurvey work.

Methods

2) If the position of a lost or disturbed monument is re-established and used in the survey, new monumentation meeting current standards shall be placed at the position.

3) All obliterated monuments used in a survey shall be restored. Restoring an obliterated monument includes replacing the original monument with a similar monument or straightening the monument. The field notes must explain what was done to restore a monument.

4) If the nature of the terrain prohibits the re-establishment of a monument on a straight line boundary in its original position, and it is not necessary to place a witness monument because the position does not mark a parcel corner, then a new monument may be erected at a new location on the boundary as close as possible to the original position. Record the reason why the monument cannot be re-established in the original position.

5) Field notes in one of the prescribed forms in chapter 2 shall be prepared and submitted for recording for any monument re-established or restored. As well, if the resurvey is to replace a
former survey a plan shall be prepared for confirmation under s.33 (Resurveys) of the Canada Lands Surveys Act.

1.06 DEFERRED MONUMENTATION

Under development
Chapter 2 – FIELD NOTES

2.01 WHAT ARE OFFICIAL FIELD NOTES?

1) Official field notes are the field notes of survey prepared by the surveyor and submitted to the Surveyor General for filing in the Canada Lands Survey Records (CLSR) in accordance with s.18 of the Canada Lands Surveys Act.

2) Field records are the raw data collected in the field. They shall be held by the surveyor. Even though official field notes are filed in the CLSR, a surveyor may still be required to submit the field records or copies of the field records.

2.02 FORMS OF OFFICIAL FIELD NOTES

1) Official field notes may be prepared in whichever of the following forms is the most suitable for clarity and completeness:
   a) plan form;
   b) included in “Field Note Record of Reestablishment and/or Restoration of Monuments.” This is the preferred form for simple resurveys, reestablishments or restorations of one or two monuments.

2) Specimen field notes are for guidance in preparing field notes of surveys of Canada Lands.

2.03 FIELD NOTES IN PLAN FORM

Format

1) Field notes in plan form should be:
   a) well organized
   b) drawn to a scale sufficient to ensure clarity. Table 1 of Appendix B lists suggested scales
   c) Unless authorized otherwise in specific survey instructions, plans of field notes, including margins, shall not exceed 90 cm in width and 300 cm in length,
   d) A margin of 2 cm shall be left outside the borders of the plan.
   e) The diagram portion of the plan should be oriented so that North points towards the top of the plan.

Content

Title Block

2) Provide in the title of the plan of field notes:
   a) the name of the boundary or the parcel designators or other descriptive heading in cases where no parcel designator is assigned
   b) the section, township, and range or lot and concession in which the survey is located;
   c) the name of the Indian Reserve, National Park, etc..., as applicable;
d) the county, parish, or community and the province or territory in which the survey is located;

3) Provide the period in which the field work for the survey was carried out and the name and qualifications of the surveyor in the following form: "This survey was executed during the period of (date) to (date), by (surveyor's name) CLS”

4) Include a scale ratio and a bar scale

5) A legend comprising:
   a) a note of the version or realization of the NAD83(CSRS) datum used.
   b) a clear statement of whether grid bearings or astronomic bearings are shown. The following notation shall be added to the legend as appropriate:

   "Bearings are grid derived from [insert bearing derivation method] and are referred to the central meridian of UTM [or MTM] Zone [insert number] ".

   Or

   "Bearings are astronomic derived from [insert bearing derivation method] and are referred to the meridian through [insert point or station number on the plan].

   c) A clear statement of whether grid or ground level distances are shown. If grid distances are used on the plan of field notes it should be clear how the combined scale factor is applied to derive ground level distances. If ground level distances are shown on the plan of field notes, it should be clear how the combined scale factor is applied to derive grid distances. The elevation used for the combined scale factor value must be stated. The following notations shall be added to the legend as appropriate:

   "This plan shows horizontal ground level distances unless otherwise specified. To compute grid distances, multiply ground level distances by the average combined scale factor of [insert factor]."

   Or

   "This plan shows horizontal grid distances unless otherwise specified. To compute ground level distances, multiply grid distances by the average combined scale factor of [insert factor]."

   "The average combined scale factor has been determined based on an ellipsoidal elevation of [insert ellipsoidal elevation] metres;"

   d) Notwithstanding the previous section, large surveys with multiple geo-referenced points may show the combined scale factor at each geo-referenced point;

   e) the source of any derived data involved in the survey;

   f) the CLSR number of any plan or reference to aerial photographs, imageries or other data used to plot the position of any natural feature or boundary;

   g) an explanation of all symbols used, except for those shown in Appendix C;

   h) an explanation of all abbreviations used which are not listed in Appendix D;

   i) a statement to identify the unit of measurement used on the plan
6) The surveyor shall provide on the plan of field notes a statement of responsibility in accordance with section 38 of the Canada Lands Surveyors Regulations. If the statement of responsibility is not in the form of "Certified Correct", the surveyor shall consult the Surveyor General to determine if the statement meets the requirements of the Surveyor General under section 17 of the Canada Lands Surveys Act.

**Diagram**

**Geo-referencing**

7) The following geo-referencing information should be shown:

a) how the survey was geo-referenced;

b) the projected coordinates and estimated absolute accuracy for one or more geo-referenced monuments or points, referenced to NAD83 (CSRS) datum. Coordinates are projected to NAD83(CSRS)/UTM, NAD83(CSRS)/MTM or NAD83(CSRS)/Double Stereographic projection applicable to the area of survey, or alternate coordinate system as approved in the Specific Survey Instructions. Coordinates and estimated accuracies may be shown in table format so long as the monuments are clearly identified and related to the table;

c) a list of all published and adjusted coordinate values (e.g. UTM) of control survey markers used or established in the survey with a description of the marker. The list shall include a statement that specifies how the coordinates were derived;

d) the combined scale factor for each monument and control station unless one combined scaled factor for the entire survey is appropriate;

e) a sketch of the control network if it is not apparent in the diagram at plan scale;

**Boundaries and Dimensions**

8) distances should be expressed in metric units.

9) bearings should be expressed as full circle bearings in degrees, minutes, and seconds

10) bearings and distances of traverse courses and offset lines should be shown.

11) show distances and bearings along the boundary lines to monuments used to create or re-establish boundaries

12) for each circular curve boundary show the radius and arc length, and if necessary for clarity the chord distance and chord bearing. If the curve is non-tangential, show also the radial bearing at the beginning and end of curve;

13) show the width of each road, right-of-way or easement dealt with by the survey;

14) show all boundaries within the limits of and adjacent to the survey;

15) include the designation and plan number, of each previous lot, block, parcel, road, right-of-way or easement involved in and adjacent to the survey (according to recorded plans);

16) show names of features according to the Gazetteer of Canada, published government maps or local usage

17) if lots are subdivided or consolidated, include the designation of the underlying parent lots, the plan record numbers and lot boundaries in phantom. It is only necessary to show the last generation of underlying plans
18) show how survey work was carried out to verify measurements between monuments which differ from previous plans in an amount exceeding the accuracy requirements for legal surveys outlined in Chapter 1.

19) for clarity, diagram information such as distances, directions and monument descriptions may be shown using detail insets, not necessarily to scale, or tables.

Monuments

20) show all evidence searched for or placed indicating what was found, restored and placed;

21) show descriptions of the types, condition and the markings of all monuments used in the survey and ancillary monumentation;

22) show the type, position, and identification number of any monument or control survey marker to which a surveyed connection has been made.

Natural Boundaries

23) show the water boundary of all water bodies within or adjacent to the lands being surveyed for returns of survey in the territories;

24) where a Crown administered parcel of land being surveyed in the Northwest Territories or Nunavut borders on a body of water, plot and label a dashed line 30.48 metres from the ordinary high water mark within the parcel being surveyed.

Connections

25) show the surveyed connection to and descriptions of all significant natural and man made features which are close to or extend over the boundaries of the lands being surveyed. Connections to features such as a natural boundaries should be shown in a tabular format that lists either coordinates or bearings and distances.

26) if the location of a survey is not easily discernible from the diagram, add a key plan at a reduced scale depicting the general location of the survey relative to the exterior boundaries of the Indian Reserve, National Park, or other jurisdictional area and to surrounding topographic features.

Media

27) Media refers to that which is used to transmit, store and use the survey plan information. Hard copy media (on polyester film) is gradually being replaced by digital media which is created and stored in digital form and transmitted electronically. The standards below outline the requirements for both hard copy and digital media.

Hard Copy

28) Plans of field notes should be prepared on polyester film, matte both sides, 0.05 mm to 0.10 mm thick, or on tracing linen.

29) Black permanent ink shall be used.

30) The use of stick-on material to amend or add information to a plan is not permitted.

31) Except for signatures, information shown on a plan may be produced thereon by photographic techniques approved by the Surveyor General Branch.
32) Signatures must have the name and title of the person signing printed in the affidavit or certification, or below the signature.

Digital

Digital submission standards are in development

SPECIMEN FIELD NOTES

Plan of Field Notes of Survey - Jurisdictional boundaries
Plan of Field Notes of Survey – Parcels

2.04 FIELD NOTE RECORD OF REESTABLISHMENT AND/OR RESTORATION OF MONUMENTS

In development

SPECIMEN FIELD NOTES

Record of Field Notes of Reestabishment and/or of Restoration of Monuments
Chapter 3 - SURVEY PLANS

3.01 FUNCTION OF SURVEY PLANS

1) Survey Plans in the Canada Lands Survey System define boundaries and parcels of land used in the various property rights systems in the territories and other Canada Lands. They are confirmed under the Canada Lands Surveys Act or are approved. Then they are recorded in the Canada Lands Survey Records (CLSR). Once recorded they can be referred to in land descriptions. As a general rule, to have effect the boundaries or boundaries of parcels of land shown on the survey plan must be referred to in legislation or in a legal document such as an order in council, land transfer, certificate of title, deed, lease or easement.

What Does Confirmation Mean?

2) Under section 29(3) of the Canada Lands Surveys Act, the Surveyor General indicates confirmation on survey plans, if satisfied that the survey has been carried out in conformity with the Act and if the survey and plans are satisfactory to the minister of the department of the Government of Canada or the Commissioner administering the Canada Lands in respect of which the survey was made.

3) After confirmation by the Surveyor General a survey plan is deemed to be an official plan under the Canada Lands Surveys Act and boundary lines defined by the monuments shown on it become the true boundary lines (See sections 29 and 32 of the Act). As well, plans of Canada Lands that are resurveyed under Section 33 of the Act are substituted for all, or corresponding portions of all, former official plans of the lands after they are confirmed.

4) Confirmation is generally used for jurisdictional boundaries (see section 3.03) and when required by specific legislation; for example: bringing land under the Land Titles Act in NT, NU, YT, for leases under the National Parks of Canada Lease and Licence of Occupation Regulations, Cree-Naskapi Land Registry Regulations, Westbank First Nation Land Registry Regulations.

5) Confirmed plans are required to be sent to the registrar of deeds or of land titles of the county, district or other registration division in which the lands are situated for filing.

What Does Approval Mean?

6) Under section 31 of the Canada Lands Surveys Act, the Surveyor General may make plans for administrative purposes which do not require confirmation and do not need to be sent to registry or land titles offices. If the plan will be used for defining boundaries or parcels they are approved by the Surveyor General prior to recording in the CLSR (even though the Act does not require approval).

7) Several other Acts and Regulations have provisions for the Surveyor General to approve, review or advise on the suitability of survey plans; for example: Indian Oil and Gas Regulations, Land Titles Plans Regulations (NT, NU, YT), Condominium Act (YT, NT, NU). Northwest Territories and Nunavut Mining Regulations, Quartz Mining Act (YT), Canada Oil and Gas Land Regulations.
What About the Canada Lands Surveyors Responsibility?

8) Confirmation or approval of plans in no way diminishes a Canada Land Surveyor’s obligation with regard to any matter which the surveyor’s statement of responsibility on the plan applies. (See - Canada Lands Surveyors Regulations, section 38.)
3.02 GUIDELINES FOR THE PREPARATION OF ALL PLANS

General
1) The following guidelines apply to the preparation of all types of survey plans in so far as they are not inconsistent with any other general instruction or specific survey instruction.
2) Specimen plans are for guidance in preparing plans of Canada Lands. Requirements of various property rights systems or local custom may require departure from the specimens. Specific survey instructions may provide details where any digression from the specimen plans is required.
3) Other parts of the general instructions or specific instructions may outline additional requirements for a particular type of survey or plan, including endorsement and signature blocks.
4) A plan that defines boundaries or parcels must clearly document the nature and position of the boundaries dealt with.
5) Survey plan types may be combined if acceptable to the appropriate Registrar, (i.e. Land Titles), and the boundaries of the various parcel types are clearly defined on the combined product. For example, a parcel plan of lots may also include a right-of-way or a parcel for an easement such as would be shown on an explanatory plan. Details should be used, if needed, to clearly show various boundaries.

Format
6) The plan should be well organized and neatly drawn and should not bear signs of having been tampered with.
7) Plans shall be drawn to a scale sufficient to ensure clarity. Table 1 of Appendix B lists suggested scales.
8) Unless authorized otherwise in specific survey instructions, plans, including margins, shall not exceed 90 cm in width and:
   a) 300 cm in length; or
   b) 150 cm in length, for official plans in Quebec.
9) A margin of 2 cm shall be left outside the borders of the plan.
10) Lettering shall not be less than 2 mm in height.

Content

Title Block
11) The title block of the plan should include:
   A title comprising:
   a) the name of the boundary or the parcel designators
   b) the section, township, and range or lot and concession in which the survey is located;
   c) the name of the Indian Reserve, National Park, etc., as applicable;
d) the county, parish, or community and the province or territory in which the survey is located;

e) if a parcel(s) shown on a previous plan are to be replaced with parcel(s) shown on the new plan, then a prominent note should be added to the plan in the form: "Parcel(s) ....... dealt with by this plan replace(s) parcel(s) (or part(s) of parcel(s)) ........... dealt with by plan(s) ...........

f) the date of the field survey and the name and qualifications of the surveyor in the following form: "Surveyed by ............., CLS, in ........"

12) Include a scale ratio and a bar scale.

13) A legend comprising:
   a) a clear statement of whether grid bearings or astronomic bearings are shown. The following notation shall be added to the legend as appropriate:

   "Bearings are grid derived from [insert bearing derivation method] and are referred to the central meridian of UTM [or MTM] Zone [insert number] ".

   Or

   "Bearings are astronomic derived from [insert bearing derivation method] and are referred to the meridian through [insert point or station number on the plan]."

   b) a statement to identify the unit of measurement used on the plan.

   c) the CLSR number of any plan or reference to aerial photographs, imageries or other data used to plot the position of any natural feature or boundary shown in the official field notes

   d) an explanation of all symbols used, except for those shown in Appendix C;

   e) an explanation of all abbreviations used which are not listed in Appendix D;

   f) the CLSR number(s) of the field notes for the survey dealt with by the plan.

14) The certification of the surveyor, if applicable.

**Diagram**

15) Show in the diagram of the plan:

   a) a heavy black line, between 0.8 and 1.0 mm in width coinciding with the exterior boundaries of the lands dealt with by the survey or, in the case of a boundary survey, the boundary;

   b) the type and position of all monuments used in the survey;

   c) the designation of each new lot, block, parcel, road, or right-of-way dealt with by the plan;

   d) the width of each road, right-of-way or easement dealt with by the plan;

   e) the designation and plan number, of each previous lot, block, parcel, road, right-of-way or easement involved in and adjacent to the survey (according to recorded plans);
f) if lots are subdivided or consolidated, the designation of the underlying parent lots, the plan record numbers and lot boundaries in phantom. It is only necessary to show the last generation of underlying plans;

g) the nature and position of all significant natural and man-made features which are close to or extending over the boundaries of the lands being surveyed. Other features within or outside of the lands being surveyed may also be shown;

h) names of features according to the Gazetteer of Canada, published government maps or local usage;

i) the bearing and ground distance of each straight line boundary dealt with by the plan;

j) distances and bearings along the boundary lines to monuments used to create or re-establish boundaries dealt with by the plan;

k) for each circular curve boundary show the radius and arc length, and if necessary for clarity the chord distance and chord bearing. If the curve is non-tangential, show also the radial bearing at the beginning and end of curve;

l) the area of each surveyed lot, road or right-of-way, except for roads within subdivisions where only a total area is required;

m) the water boundary of all water bodies within or adjacent to the lands being surveyed for returns of survey in the territories; and

n) where a Crown administered parcel of land being surveyed in the Northwest Territories or Nunavut borders on a body of water, a dashed, labeled line 30.48 metres from the water boundary within the parcel being surveyed.

16) The diagram portion of the plan should be oriented so that North points towards the top of the plan.

17) Unless specified otherwise in specific survey instructions, areas and distances shall be expressed in metric units. Areas shall be quoted in accordance with the precision listed in Table 2 of Appendix B.

18) All bearings shall be expressed as full circle bearings in degrees, minutes, and seconds.

19) Where necessary for clarity, diagram information may be shown in tabular form, details or insets.

20) If the location of a survey is not easily discernible from the diagram of the plan, add a key plan at a reduced scale depicting the general location of the survey relative to the exterior boundaries of the Indian Reserve, National Park, or other jurisdictional area and to surrounding topographic features.

21) The key plan should be oriented in the same general direction as the diagram of the plan.

22) Where a lot is surveyed beside an unsurveyed road, only the lot should be dealt with on the plan and no reference to the road should be made in the title, however the survey of the road limit should be shown in the body of the plan.

Endorsements and Affidavits

23) Place the appropriate endorsement certificates in the spaces as indicated on the specimen plans.
24) MyCLSS will provide the wording and required signatories endorsement certificates and affidavits. In the territories, refer to the appropriate territorial legislation for the required owners’ and surveys’ affidavits.

**Media**

25) Media refers to that which is used to transmit, store and use the survey plan information. Hard copy media (on polyester film) for plans is gradually being replaced by digital media which is created and stored in digital form and transmitted electronically. The standards below outline the requirements for both hard copy and digital media.

**Hard Copy**

26) Plans should be prepared on polyester film, matte both sides, 0.05 mm to 0.10 mm thick.

27) Black permanent ink shall be used.

28) The use of stick-on material to amend or add information to a plan is not permitted.

29) Except for signatures, information shown on a plan may be produced thereon by photographic techniques.

30) Signatures must have the name and title of the person signing printed in the affidavit or certification, or below the signature.

**Digital**

Digital submission standards are in development
3.03  JURISDICTIONAL BOUNDARY SURVEY PLANS

What is a Jurisdictional Boundary?
1) A jurisdictional boundary is a boundary dividing the area of authority between two
governments or two levels of government. (e. g. the International Boundary, interprovincial
and municipal boundaries, the boundaries of an Indian Reserve or National Park and
boundaries of Settlement land in the Territories). The boundary of a road vested in a province
through an Indian Reserve (See 2.3 Right-of-Way Survey Plans) and the boundaries between
territorial (federal) land and Commissioners land in the NT and NU are also jurisdictional
boundaries.

Instructions for Plan Preparation
2) See 3.02 - Guidelines for the Preparation of all Plans

Title of Plan
3) The title for a plan of a boundary survey or boundary resurvey should be in the following
form:
   - Plan of Survey of (part of) the Exterior boundary of name of Canada Lands.

Specimen Plans

Plan of Survey of the Exterior Boundary of ________________
3.04 PARCEL SURVEY PLANS

What is a Parcel Survey?
1) A parcel survey refers to a survey of parcels or lots within a Canada Land.

2) This part (3.04) does not refer to all parcels; for example: instructions for plans of rights-of-way are included in 3.05 and condominium units in chapter 5.

Instructions for Preparation of Parcel Survey Plans
3) See 3.02 - Guidelines for the Preparation of all Plans.

Title of Plan
4) The title block for a plan of survey of parcels or lots usually lists the numbers or other designations of the parcels or lots. The term subdivision survey is not normally used unless required by territorial or other legislation applying to a land titles or land registry office in which the plan will be registered or recorded.

5) The title block for a plan of a parcel and/or lot survey should be in one the following forms:
   - Plan of Survey of Lots 1 to 77 and Road, Trout Creek Subdivision.
   - Plan of Survey of Parcel D, Trout Creek Subdivision

Specimen Plans

*Plan of Survey of of Lots #-# - (Combined CLSA-LTA in the Territories)*

*Plan of Survey of Lots #-# – (Bilingual)*
3.05 RIGHT-OF-WAY SURVEY PLANS

What is a Right-Of-Way?

1) A right-of-way is a corridor, or similar area of land, over which people, vehicles or other things such as pipelines and powerlines have a right to cross. A right-of-way may be owned as a limited interest in land, such as an easement, or it may be owned in fee simple or administered and controlled for exclusive use, such as a road.

When are Rights-of-Way Surveys required?

2) If the right-of-way is for exclusive use of the land a right-of-way survey is required. If the right-of-way does not cross or sever existing parcels, the survey may be prepared as a Parcel Survey under 3.04.

3) If the right-of-way is for non-exclusive use, such as an easement, access agreement or permit, which will not cause a severance of the lot or parcel in which it lies (For example for a utility easement within surveyed lots or parcels) an explanatory plan should be used. See 3.09 - Explanatory Plans.

When does a Right-of-Way Survey also define a Jurisdictional Boundary?

4) A right-of-way survey will define a jurisdictional boundary if the right-of-way will be transferred to another jurisdiction; for example: a road that will be vested in a province through an Indian Reserve.

Instructions for Preparation of Right-of-way Survey Plans

5) See 3.02 - Guidelines for the Preparation of all Plans.

6) The full extent of each of the underlying lots or parcels affected by the right-of-way shall be defined on the plan.

7) If the right-of-way is monumented on one side only, it is sufficient to dimension only the monumented side if the other side is parallel to the monumented side. Show the width of the right-of-way.

8) A table of reference as follows may be added to right-of-way plans to show areas of land affected from parent parcels of land.

<table>
<thead>
<tr>
<th>R/W Parcel</th>
<th>Area</th>
<th>Parent Lot</th>
<th>CLSR Plan</th>
<th>LTO Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>154.8 m²</td>
<td>101</td>
<td>64239</td>
<td>M 13521</td>
</tr>
<tr>
<td>2</td>
<td>2.97 ha</td>
<td>102</td>
<td>45675</td>
<td>M 8116</td>
</tr>
<tr>
<td>3</td>
<td>6.49 ha</td>
<td>102</td>
<td>45675</td>
<td>M 8116</td>
</tr>
<tr>
<td>4</td>
<td>154.8 m²</td>
<td>103</td>
<td>64239</td>
<td>M 13521</td>
</tr>
</tbody>
</table>
**Title of Plan**

9) If the plan is prepared for the sole purpose of defining the extent of a right-of-way, the title shall be in the following form:

- Plan of Survey of right-of-way through Lots 5, 6, and 7, 99999 CLSR.

10) If the official plan deals with other lots and/or parcels in addition to the right-of-way and the right-of-way is a separate parcel, the title shall be in the following form:

- Plan of Survey of LOTS 5, 6, and 7 and (Road, Pipeline, Power line) right-of-way.

11) It is not necessary to include the words ‘right-of-way’ if the survey is for a road:

- Plan of Survey of Road through Lots 5, 6, and 7.

**Specimen Plans**

*Plan of Survey of Right-of-way*
3.06 PLANS OF RESURVEYS

Plans of Resurvey may take the following forms:

1) Most new surveys of boundaries and parcels involve determining the position of previously surveyed boundaries which may require re-establishing or restoring lost, disturbed or obliterated monuments. In such cases the resurvey work is simply incorporated in the plan for the boundary or the parcel as a Plan of Survey.

2) Plans of Resurveys executed under section 33 of the Canada Lands Surveys Act are carried out to officially replace all or portions of all former official plans to correct errors or re-establish old boundaries whose positions are unknown, in doubt or in dispute.

3) As well surveyors, in the process of carrying out other surveys may have re-established or restored lost, disturbed or obliterated monuments used in the survey. In such cases, the surveyor shall file field notes in compliance with chapter 2.

Instructions for Preparation of Resurvey Plans

4) The resurvey in the form of 3.06(1) or 3.06(2) is to be shown on a Plan with separate field notes. Refer to chapter 2 - field notes and section 3.02 of this chapter – guidelines for the preparation of all plans.

Specimen Plan

Plan of Survey of the Exterior Boundary of ________________
3.07 COMPILED PLANS

What is a Compiled Plan?

1) A compiled plan is a plan composed from existing survey information or from a combination of new and existing survey information.

When may a Compiled Plan be used?

2) Compiled plans may be prepared for;
   - Creation of a new parcel or parcels where boundaries are dealt with on survey plans and field notes in the Canada Lands Survey Records;
   - Elimination of lot remainders by incorporating them into the "area dealt with" when surveying out smaller parcels from larger ones;
   - Consolidation of several surveys over a large area into one plan; and
   - Consolidation of two or more existing parcels into one.

Instructions for Preparation of Compiled Plans

3) See 3.03 - Guidelines for the Preparation of all Plans

4) If new survey work was carried out to define some of the boundaries for the compiled plan the field notes shall be filed separate from the plan. See Chapter 2 - Field Notes.

5) Information used to prepare compiled plans may include:
   - Field notes recorded in the CLSR;
   - Plans recorded in the Canada Lands Survey Records, if field notes do not exist; and
   - Plans of record in provincial land titles or land registry offices.

6) Boundaries to be dealt with on compiled plans must have been monumented to Canada Lands Survey standards, or have been previously confirmed or approved boundaries under the Canada Lands Surveys Act or approved under Territorial Land Titles Acts.

7) Information on the compiled plan should be obtained from the most recent official plans and/or field notes of survey in the Canada Lands Surveys Records (CLSR). Documents of record in provincial land titles or land registry offices may be used provided the source (i.e. LTO plan number) is noted on the plan.

8) No new boundaries can be created on a compiled plan by computing the bearing and/or distance between two points. The bearing and distance between the two points must have been measured or calculated previously.

9) Distances shown on the compiled plan must be in a common unit of measure (e.g. metres) and bearing must be referred to a common meridian.

10) A statement saying the plan is compiled shall be boldly displayed in the legend in the following form:

"The boundary information on this plan has been compiled from information as noted and no new field work was performed to verify the monuments, measurements or potential boundary encroachments"
11) Show in tabular form, in the title block/legend area of the plan the compilation information including: name of surveyor, type of commission, years when the survey was completed, field notes type and CLSR number (and other registry number if applicable) used for the preparation of the compiled plan in a manner similar to:

- R. Penteur, DLS, surveyed in 1945, Plan and Field Notes, 56789 CLSR, 4321 LTO
- Doug Deep, DLS, surveyed in 1955, Field Notes of Survey, 67890 CLSR
- Will Testify, DLS, surveyed in 1965, Plan and Field Notes, 78901 CLSR
- N. Croachment, CLS, surveyed in 1975, Field Notes of Survey, FB 34567 CLSR.

12) Field note ties and dimensions pertaining to improvements on the lands, such as buildings, etc. are not to be copied.

**Title of Plan**

13) The title for a plan that has been compiled shall be in the form:

- Plan of Parcels (lots) D to H, Trout Creek Subdivision
- Plan of Survey of the Exterior Boundary of _________

**Specimen Plans**

*Plan of Parcels (lots) D to H, Trout Creek Subdivision*
3.08 EXPLANATORY PLANS

What are Explanatory Plans?

1) Explanatory Plans, prepared under Section 31 of the Canada Land Surveys Act, are used for short term or limited rights; for example: utility easements, access roads, permits, First Nation surrender or designation votes and easements over private land in the Territories under the Land Titles Act. In the NT and NU, these plans are known as Descriptive Plans under the Land Titles Act and Regulations.

2) Explanatory Plans do not require monuments to define the boundaries of the parcel(s) dealt with; however, they must describe the boundaries clearly and unambiguously.

What if a Survey is Carried Out?

3) Prepare official field notes in accordance with chapter 2 when monuments are re-established or restored in the survey.

4) If a significant difference is found between a measurement made in the field and a dimension on an existing plan, then verify the measurement, show the measured dimension on the explanatory plan, and prepare official field notes, in accordance with chapter 2, showing the correct measurement.

Instructions for Plan Preparation

5) See 3.02 - Guidelines for the Preparation of all Plans.

6) For explanatory plans of right of ways -
   a) The boundaries of the right-of-way must be:
      • defined on existing plans, or
      • described in relationship to boundaries defined on existing plans, or
      • surveyed.
   b) Where the interest that the explanatory plan describes is in a parcel, the boundaries of the right-of-way should be shown by dashed lines so it is clear that a severance is not intended;
   c) The plan should clearly show the parcels that the right-of-way affects;
   d) the right-of-way should be labelled on the diagram of the plan as: utility right-of-way, utility easement, access road, etc…
   e) If an explanatory plan defines a right-of-way crossing a series of existing boundaries, then define the positions of the crossings at approximate intervals of 1.5 km and as follows:
      • on the first and last boundaries crossed in a series of lots in a block;
      • on the closest boundary to any deflections of the right-of-way; and
      • on additional crossings, if necessary, to make it clear which lots are affected by the right-of-way.

7) For explanatory plans of parcels, the boundaries of the parcels must be:
• defined on existing plans,
• defined in relationship to boundaries defined on existing plans,
• defined by natural features,
• defined by NAD83 CSRS coordinates where no risk of conflict with monumented parcels exist, or
• surveyed.

Title of Plan
8) The title block for an explanatory plan should follow one of the following formats:

• Explanatory Plan of (Power Line, Utility, Access Road) Right-of-Way through Lots 1 to 77 and Road, Trout Creek Subdivision.
• Explanatory Plan of for Gravel Permit in Section 24, Township 52, Range 23, W4th M, First Nation Indian Reserve, . . . ...
• Explanatory Plan of Parcel for Designation Vote in Section 24, Township 52, Range 23, W4th M, First Nation Indian Reserve, . . . ...

Specimen Plan

Explanatory Plan of Utility Right-of-Way

Explanatory Plan of Parcel
3.10 ADMINISTRATIVE AREA AND LAND USE AREA PLANS

When are they used?
1) These plans are commonly used for defining boundaries of administrative areas, defining land for agricultural permits, or for showing residential holdings.

Instructions for Plan Preparation
2) These plans are usually prepared under contract by the SGB and specific instruction will be issued at the time. Boundaries for these plans may be defined:
   - on existing plans,
   - in descriptions contained in legislation, order-in-councils or other official documents,
   - in relationship to boundaries defined on existing plans,
   - by natural or man made features,
   - by NAD83 CSRS coordinates, or
   - surveyed.
Appendix A - GLOSSARY

This glossary defines surveying and related terms used in the manual of Instructions for the Survey of Canada Lands. It is intended to clarify how these terms are used with respect to Canada Lands. It is not intended to standardize terminology for national usage.

accuracy
See: accuracy, absolute; accuracy, relative; and precision

accuracy, absolute
The degree of conformity of a measured or calculated position to its true (actual) position. For Canada Lands absolute accuracy means the horizontal accuracy of coordinates for a point with respect to the North American Datum 1983 (Canadian Spatial Reference System), at a 95% confidence level. The absolute accuracy of any point is dependent upon the absolute accuracy of the known point(s) used to derive the coordinates and the relative accuracy of the connecting measurement to the known point(s).

accuracy, relative
The degree of conformity of a measured or calculated position of a point relative to other points. For Canada Lands relative accuracy means the horizontal accuracy between any two points on the survey where those points define or control the position of a boundary included as part of the survey.

ad medium filum
The middle thread of a non-tidal watercourse (e.g. as used in New Brunswick and Ontario) and the middle thread of a non-navigable watercourse (e.g. as used in western Canada for IRs).

alienation
In real property law, usually means the transfer or conveyance of property to another. The transfer or conveyance of property is not required to alienate Canada Lands. Canada Lands may also be alienated when the trust responsibilities of the federal government have been removed. See also disposition.

approval (plan)
A declaration indicating that a plan is good, satisfactory or acceptable for a specific purpose. Approvals are usually in accordance with legislation, standards, and / or instructions. See also confirmation (plan).

artificial boundary
See boundary, artificial.

azimuth
The direction of a line through a point with respect to the meridian through the point expressed as the clockwise angle from north; except where the line is along a meridian, or the equator, the azimuth of a straight line changes as the point moves along the line.

balanced bearing
See: bearing, balanced.

bank
See: ordinary high water mark; bank, right or left.
bank, right or left  The right bank or left bank of a river or stream is that bank which is on the right or left side of the bed when the observer is looking downstream.

basemapping  Mapping showing physical features on which thematic information may be shown. Basemapping may be in the form of imagery, photomaps and linemaps.

bearing  The direction of a line with respect to a reference meridian expressed as the clockwise angle from north or as a quadrant angle from north or south. A straight line has the same bearing at all its points.

bearing, balanced  The bearing of a course in a closed traverse which has been adjusted to eliminate the error of closure.

bearing, calculated  A bearing derived by computation rather than by direct measurement in the field.

bed  The bed of a body of water is the land covered so long by water as to wrest it from vegetation, or as to mark a distinct character upon the vegetation where it extends into the water or upon the soil itself.

boundary  The line of division between two parcels of land. It delimits the extent of parcels in separate ownership or subject to different rights.

boundary, artificial  A boundary defined by a straight line, a circular curve of known radius or, in rare cases, a spiral curve.

boundary, jurisdictional  A boundary dividing the area of authority between two governments or two levels of government. (e.g. the International Boundary, interprovincial and municipal boundaries, the boundaries of an Indian Reserve or National Park).

boundary, natural  A boundary defined by a natural feature such as a water boundary, a watershed line or a ridge line. See boundary, water; mean high water mark; mean low water mark; ad medium filum.

boundary, water  A boundary between an upland riparian parcel and a watercourse. It can be the waters edge, the vegetation edge, the mean high water mark (MHWM), the mean low water mark (MLWM), ad medium filum (amf). See water’s edge, vegetation edge, mean high water mark (MHWM), mean low water mark (MLWM), ad medium filum (amf).
Canada Lands  See Lands, Canada.

closed traverse  See: traverse, closed.

Commissioner  The Commissioner of the Northwest Territories in the case of land situated in the Northwest Territories, the Commissioner of Nunavut in the case of land situated in Nunavut or the Commissioner of Yukon in the case of land situated in Yukon.

compiled plan  See: plan, compiled.

confirmation (plan)  A declaration indicating that a plan is good, satisfactory or acceptable for a specific purpose. The term is used exclusively in these General Instructions for a confirmation by the Surveyor General in accordance with Section 29 or Part III of the Canada Lands Surveys Act. A plan, once confirmed under section 29, is deemed to have official status and governs all boundaries of the lands affected. Plans confirmed under Part III have similar status on filing of the plan in the appropriate land titles office.

control survey monument  See: monument, control survey.

coordinated control monument  See: monument, control survey.

creation  With respect to a particular type of land, creation means the bringing of land under a particular jurisdiction or system.

disposition  With respect to property, means the transfer or alienation of rights and interests in property by any method, such as assignment, gift and sale. See also alienation.

distance, calculated  A distance derived by computation rather than by direct measurement in the field.

disturbed monument  See: monument, disturbed.

federal lands  See: Lands, Federal.

federal real property  Real property belonging to Her Majesty in right of Canada, including any real property of which Her Majesty in right of Canada has the power to dispose.

field notes, official  Any field notes recorded in the Canada Lands Surveys Records.

field records  The records made in the field during the course of the survey.

geo-referencing  To determine the coordinates for a monument or point with respect to the NAD83CSRS.
Indian Lands

See: Lands, Indian.

Instructions, survey

See: survey instructions.

Intervisible

When applied to two monuments, intervisible means that there is a clear line of sight between points 1.5 m above the ground at each monument.

Jurisdictional boundary

See: boundary, jurisdictional.

Land use area

A parcel of land depicting one specific use, such as agriculture, grazing or recreation. The parcel is created in accordance with the Interdepartmental Agreement with the Department of Indian Affairs and Northern Development respecting land transactions on Reserves Lands, 2003, an excerpt of which is included in Part B of this e-Edition.

Land Use Area Plan

See: Plan, Land Use Area.

Lands, Canada

Canada Lands are Canada Lands as defined in the Canada Lands Surveys Act. In general, these include National Parks, Indian Reserves, and all lands belonging to Her Majesty in right of Canada that are located in the Yukon Territory, the Northwest Territories, Nunavut and Canada's offshore.

Lands, Commissioners

Lands in Nunavut or the Northwest Territories that are vested in Her Majesty in right of Canada but the right to the beneficial use or to the proceeds of which is appropriated to the territorial government.

Lands, Federal

Federal Lands are territorial lands as defined in the Territorial Lands Act under the administration of a Minister of the federal government.

Lands, First Nation

First Nation Reserves, designated lands, surrendered lands, and any other lands held and administered by the Department of Indian Affairs and Northern Development for the use and benefit of Indians.

Lands, public

Any lands belonging to Her Majesty in right of Canada, including lands of which Her Majesty in right of Canada has power to dispose.

Lands, Territorial

When used in the context of the Territorial Lands Act, means lands situated in Nunavut or the Northwest Territories that are vested in Her Majesty in right of Canada or of which Her Majesty in right of Canada has power to dispose. When used in the context of special surveys under the Canada Lands Surveys Act.
Act, means any lands situated in Yukon, the Northwest Territories or Nunavut.

**Lands, Yukon**
Lands under the administration and control of the Commissioner of Yukon. Yukon Lands include territorial lands as defined in the Territorial Lands (Yukon) Act that were transferred by the Yukon Act, and Yukon lands as defined in the Lands Act (Yukon) that were previously known as Commissioner's Lands.

**left bank**
See: bank, right or left.

**legal survey**
See: survey

**lost monument**
See: monument, lost.

**lot**
The term lot is normally used for a series of parcels that comprise a subdivision (or part of a subdivision) of a townsite, or for a series of parcels within a block.

**marker**
A wooden, metal, plastic or similar type marker placed near monuments or on boundaries. Used to protect and help locate monuments and boundaries.

**mean high water mark**
The average of the high neap tides for a tidal watercourse as often reflected by a line of debris; often the boundary between the upland riparian parcel and provincial Crown land.

**mean low water mark**
The average of the low neap tides for a tidal watercourse (e.g. as used for six National Parks); often the boundary between provincial Crown lands and Canada Lands.

**middle thread**
The middle thread of a stream is the line midway between the banks.

**monument**
A monument as defined in section 2 of the Canada Lands Surveys Act. It is a general term for some device, object or thing marking a surveyed boundary of land.

**monument, control survey**
A monument forming part of a provincially or federally established survey control network. In a Coordinated Survey Area established in accordance with section 28 of the Canada Lands Surveys Act, control survey monuments are called Coordinated Control Monuments.

**monument, disturbed**
A monument that has somehow been moved other than by an authorized surveyor in the exercise of a professional duty, and
that can be proven beyond doubt to have been moved from its original position.

monument, lost

A "lost monument" is one whose position can be re-established only by measurements from some other monument or monuments to which it had previously been connected by survey.

Monument geo-referenced

A monument that has been geo-referenced to an absolute accuracy of 0.10 metre.

monument, obliterated

A monument which can be restored with confidence from traces remaining on the ground of the original monument or from other physical evidence of the position of the original monument.

monument, witness

A monument, placed on a boundary of a parcel, which witnesses the position of a point that cannot be monumented. The point is defined by the distance and direction from the witness monument. A point can have only one witness monument defining its position.

natural boundary

See: boundary, natural.

obiterated monument

See: monument, obliterated.

official field notes

See: field notes, official.

official plan

See: plan, official.

official survey

See: survey, official.

offset

The direction and distance of a single straight line from a point fixed by survey to another nearby point. Usually the offset is at right angle to the boundary or traverse line.

ordinary high water mark

Up to 2014 was defined in the General Instructions for the Survey of Canada Lands as the limit or edge of the bed of a body of water. See boundary, water.

parcel

A general term defining an area of land surveyed or otherwise defined. It includes, but is not limited to, lots, blocks, rights-of-way, land use areas, condominium units, sections, quarter sections, legal subdivisions and concessions.

plan, compiled

An official plan made under the direction of the Surveyor General from official field notes of one or more surveys.

plan, official

A plan of surveyed Canada Lands confirmed by the Surveyor General under Part II of the Canada Lands Surveys Act.
plan, land use area
A Land Use Area plan is a graphical depiction of the extent of certain interests in Indian Lands. Land Use Area plans may be used as the basis of a "textual reference" as defined in the Interdepartmental Agreement with the Department of Indian Affairs and Northern Development respecting land transactions on Reserves Lands, 2003.

plan, registration
Discontinued in 2014 it was a plan as defined in the Interdepartmental Agreement with the Department of Indian Affairs and Northern Development respecting land transactions on Reserves Lands. It was a graphical description of the boundaries of land prepared from information which included: existing land descriptions, field notes of survey, controlled aerial photographs or imagery, maps and information found in land transaction documents. The plans were prepared under section 31 of the Canada Lands Surveys Act.

post, marker
A wooden, metal, plastic or similar type post placed near monuments or on boundaries. Used to protect and help locate monuments and boundaries.

post, reference
A post placed near a monument or control survey marker which may be used to re-establish the position of the monument or to confirm the stability of the monument or control survey marker.

precision
the degree to which repeated measurements or calculations of the same quantity show the same or similar results. See also accuracy.

public lands
See: lands, public.

re-establish
To determine the position of a lost or disturbed monument.

reference post
See: post, reference.

registration plan
See: plan, registration.

restore
To refurbish an obliterated monument to its original or near original condition. It includes straightening the monument, re-digging the pits and mounds and replacing the original monument with a similar monument. The field notes must explain what was done to restore a monument.

resurvey
The survey of a previously surveyed boundary made for the purposes of correcting errors, re-establishing lost monuments, or placing additional monuments on the boundary.

retracement survey
See survey, retracement.

right bank
See bank, right or left.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>right-of-way</td>
<td>A corridor, or similar area of land, over which people, vehicles or other things such as pipelines and powerlines have a right to cross. A right-of-way may be owned as a limited interest in land, such as an easement, or it may be owned in fee simple or administered and controlled for exclusive use, such as a road.</td>
</tr>
<tr>
<td>supersede</td>
<td>With respect to parcels, supersede refers to the situation where the parcels dealt with on a new plan replace all or part of the parcels dealt with on a previous plan.</td>
</tr>
<tr>
<td>survey</td>
<td>In its general sense, the determination of the position of points permanently or temporarily marked on the ground including the keeping of records of all measurements used in the determination. In this manual the term survey means a survey made to define boundaries of parcels of land suitable for the transfer of rights. It includes the preparation of field notes and plans and any examination, approval or confirmation that may be required.</td>
</tr>
<tr>
<td>survey, control</td>
<td>A survey made to determine the position of control survey monuments.</td>
</tr>
<tr>
<td>survey instructions</td>
<td>Details on standards for surveys of Canada Lands issued by the Surveyor General pursuant to sections 24 and 36 of the Canada Lands Surveys Act. They are issued in two forms: general survey instructions which are in the e-Edition, and specific survey instructions which are issued for particular projects.</td>
</tr>
<tr>
<td>survey, official</td>
<td>A survey of Canada Lands for which a plan is confirmed under Section 29 of the Canada Lands Surveys Act.</td>
</tr>
<tr>
<td>survey, retracement</td>
<td>A survey of a previously surveyed boundary in order to determine the directions and distances between the monuments marking it.</td>
</tr>
<tr>
<td>surveyor</td>
<td>A Canada Lands Surveyor or a person holding a provincial land surveyor's commission and authorized by the Surveyor General to survey Canada Lands.</td>
</tr>
<tr>
<td>Surveyor General</td>
<td>Means the Surveyor General as defined in the Canada Lands Surveys Act.</td>
</tr>
<tr>
<td>Territorial Lands</td>
<td>See Lands, Territorial.</td>
</tr>
<tr>
<td>traverse, closed</td>
<td>A traverse which begins and ends at the same point (closed loop), or begins and ends at points whose relative positions have been determined by other surveys.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>unit</td>
<td>With respect to a condominium, a parcel of land or space in a condominium for which title may be issued.</td>
</tr>
<tr>
<td>unit factor</td>
<td>A factor assigned to each unit on a condominium plan so that condominium fees, levies, etc., can be apportioned in an equitable manner. It is based on the area or volume of the unit with respect to the total area or volume of all units in the condominium.</td>
</tr>
<tr>
<td>vegetation edge</td>
<td>For a non-tidal watercourse, the edge of terrestrial vegetation as caused by the presence of water (e.g. as used in BC, Alberta, Saskatchewan, Quebec and Nova Scotia).</td>
</tr>
<tr>
<td>vista</td>
<td>A lane cleared of overgrowth along a boundary to provide a clear view.</td>
</tr>
<tr>
<td>water’s edge</td>
<td>For a non-tidal watercourse, the edge of water under ordinary (non-freshet) conditions (e.g. as used in Ontario, PEI, and parts of Manitoba and NL).</td>
</tr>
<tr>
<td>water boundary</td>
<td>See boundary, water</td>
</tr>
<tr>
<td>witness monument</td>
<td>See monument, witness</td>
</tr>
</tbody>
</table>
Appendix B – RECOMMENDED SCALES AND AREAS

TABLE 1 – Suggested Scales

<table>
<thead>
<tr>
<th>Parcel Size</th>
<th>Suggested Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1 hectare</td>
<td>1: 1,000</td>
</tr>
<tr>
<td>1 to 2 hectares</td>
<td>1: 2,000</td>
</tr>
<tr>
<td>2 to 10 hectares</td>
<td>1: 5,000</td>
</tr>
<tr>
<td>Over 10 hectares</td>
<td>1: 10,000</td>
</tr>
</tbody>
</table>

1) Smaller scales (1: 20,000 or 1: 50,000) may be adequate for large simple parcels. Larger scale insets for detail may be used to permit smaller overall plan scales.

TABLE 2 – Parcel Area Units

<table>
<thead>
<tr>
<th>Area of the Parcel</th>
<th>quote to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 0.1 ha (1000 m $^2$)</td>
<td>1 m $^2$</td>
</tr>
<tr>
<td>Over 0.1 ha to 1.0 ha</td>
<td>0.001 ha</td>
</tr>
<tr>
<td>Over 1.0 ha to 10.0 ha</td>
<td>0.01 ha</td>
</tr>
<tr>
<td>Over 10.0 ha to 100.0 ha</td>
<td>0.1 ha</td>
</tr>
<tr>
<td>Over 100 ha</td>
<td>1 ha</td>
</tr>
</tbody>
</table>
Appendix C – RECOMMENDED SYMBOLOGY

### TABLE 1 - Recommended symbols

<table>
<thead>
<tr>
<th>Symbol Type</th>
<th>Placed</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLS or CLS standard post</td>
<td><img src="image" alt="Symbol" /></td>
<td><img src="image" alt="Symbol" /></td>
</tr>
<tr>
<td>DLS or CLS standard rock post</td>
<td><img src="image" alt="Symbol" /></td>
<td><img src="image" alt="Symbol" /></td>
</tr>
<tr>
<td>Old pattern iron posts</td>
<td><img src="image" alt="Symbol" /></td>
<td><img src="image" alt="Symbol" /></td>
</tr>
<tr>
<td>CLS 69 posts</td>
<td><img src="image" alt="Symbol" /></td>
<td><img src="image" alt="Symbol" /></td>
</tr>
<tr>
<td>CLS 77 posts</td>
<td><img src="image" alt="Symbol" /></td>
<td><img src="image" alt="Symbol" /></td>
</tr>
<tr>
<td>Control Survey Markers</td>
<td><img src="image" alt="Symbol" /></td>
<td><img src="image" alt="Symbol" /></td>
</tr>
</tbody>
</table>

1) The abbreviations shown adjacent to the symbols above may be deleted if not required to differentiate from one type of post to another.

2) All symbols for survey posts must be explained in the legend. If required alternative symbols may be used.

### TABLE 2 - Line symbology (must be explained in legend)

<table>
<thead>
<tr>
<th>Line Type</th>
<th>Width (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lands (or boundaries) dealt with</td>
<td>(0.8 – 1.0 mm)</td>
</tr>
<tr>
<td>(Plans only)</td>
<td></td>
</tr>
<tr>
<td>Traverse lines and stations</td>
<td>(0.25 mm)</td>
</tr>
<tr>
<td>(Field Notes only)</td>
<td></td>
</tr>
</tbody>
</table>

1) The line symbology in Table 2 above shall be used in the legend.

### TABLE 3 - Line symbology (need not be explained in legend)

<table>
<thead>
<tr>
<th>Line Type</th>
<th>Width (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot or parcel boundaries within the lands dealt with and other measured boundaries</td>
<td>(0.35 mm)</td>
</tr>
<tr>
<td>Lot or parcel boundaries outside the lands dealt with</td>
<td>(0.35 mm)</td>
</tr>
<tr>
<td>Underlying lots or parcels</td>
<td>(0.35 mm)</td>
</tr>
</tbody>
</table>

1) The above line types should be used on plans and field notes and need not be explained in the legend.
# Appendix D - ABBREVIATIONS

Abbreviations that may be used without explanation on plans and field notes

<table>
<thead>
<tr>
<th>TERM</th>
<th>ENGLISH ABBREV.</th>
<th>FRENCH ABBREV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acre</td>
<td>A.</td>
<td>A.</td>
</tr>
<tr>
<td>approximately</td>
<td>approx</td>
<td>approx</td>
</tr>
<tr>
<td>azimuth</td>
<td>az.</td>
<td>az.</td>
</tr>
<tr>
<td>Block</td>
<td>Bk.</td>
<td>Bk.</td>
</tr>
<tr>
<td>boundary</td>
<td>bdy.</td>
<td>lim.</td>
</tr>
<tr>
<td>bearing tree</td>
<td>BT</td>
<td>AD</td>
</tr>
<tr>
<td>Chord</td>
<td>c.</td>
<td>c.</td>
</tr>
<tr>
<td>calculated</td>
<td>(c)</td>
<td>(c)</td>
</tr>
<tr>
<td>Chord bearing</td>
<td>c.b.</td>
<td>d.c.</td>
</tr>
<tr>
<td>check chained, or check measured</td>
<td>cc.</td>
<td>m.v.</td>
</tr>
<tr>
<td>coordinate control monument</td>
<td>CCM</td>
<td>CCM</td>
</tr>
<tr>
<td>Chain</td>
<td>ch.</td>
<td>ch.</td>
</tr>
<tr>
<td>centreline</td>
<td>ḋ</td>
<td>ḋ</td>
</tr>
<tr>
<td>Canada Lands Surveys</td>
<td>CLS</td>
<td>ATC</td>
</tr>
<tr>
<td>Canada Lands Surveyor</td>
<td>CLS a. f.</td>
<td></td>
</tr>
<tr>
<td>CLS capped iron post, 1969 pattern</td>
<td>CLS 69</td>
<td>ATC 69</td>
</tr>
<tr>
<td>CLS post, 1977 pattern</td>
<td>CLS 77</td>
<td>ATC 77</td>
</tr>
<tr>
<td>Canada Lands Survey Records</td>
<td>CLSR</td>
<td>CLSR</td>
</tr>
<tr>
<td>Certificate of Title</td>
<td>C. of T.</td>
<td>C. de T.</td>
</tr>
<tr>
<td>centimetre</td>
<td>cm</td>
<td>cm</td>
</tr>
<tr>
<td>post set in concrete</td>
<td>conc.</td>
<td>bét.</td>
</tr>
<tr>
<td>corner</td>
<td>cor.</td>
<td></td>
</tr>
<tr>
<td>Coordinated Survey Area</td>
<td>CSA</td>
<td>CSA</td>
</tr>
<tr>
<td>diameter</td>
<td>diam.</td>
<td>diam.</td>
</tr>
<tr>
<td>Dominion Land Surveyor, or Dominion Lands Survey</td>
<td>DLS</td>
<td>DLS</td>
</tr>
<tr>
<td>East</td>
<td>E.</td>
<td>E.</td>
</tr>
<tr>
<td>Found no evidence</td>
<td>FNE</td>
<td>r. tr.</td>
</tr>
<tr>
<td>Found</td>
<td>Fd.</td>
<td>tr.</td>
</tr>
<tr>
<td>foot or feet</td>
<td>ft. or ’</td>
<td>pi ou ’</td>
</tr>
<tr>
<td>fractional</td>
<td>Fr.</td>
<td>Fr.</td>
</tr>
<tr>
<td>Group</td>
<td>G.</td>
<td>G.</td>
</tr>
<tr>
<td>hectare</td>
<td>ha</td>
<td>ha</td>
</tr>
<tr>
<td>horizontal circle reading</td>
<td>HCR</td>
<td>MCA</td>
</tr>
<tr>
<td>highway</td>
<td>Hwy.</td>
<td>Rte</td>
</tr>
<tr>
<td>old pattern iron post</td>
<td>I.</td>
<td>I.</td>
</tr>
<tr>
<td>iron bar (specify size)</td>
<td>I. B.</td>
<td>R. f.</td>
</tr>
<tr>
<td>Indian Reserve</td>
<td>I. R.</td>
<td>RI</td>
</tr>
<tr>
<td>kilometre</td>
<td>km</td>
<td>km</td>
</tr>
<tr>
<td>Term</td>
<td>Abbreviation</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Length of curve</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Lot</td>
<td>L.</td>
<td></td>
</tr>
<tr>
<td>latitude</td>
<td>Lat.</td>
<td></td>
</tr>
<tr>
<td>Links</td>
<td>Lk.</td>
<td></td>
</tr>
<tr>
<td>longitude</td>
<td>Long.</td>
<td></td>
</tr>
<tr>
<td>Land Registry Office</td>
<td>LRO</td>
<td></td>
</tr>
<tr>
<td>Legal subdivision</td>
<td>L. S. s. o.</td>
<td></td>
</tr>
<tr>
<td>Land Titles Office</td>
<td>LTO</td>
<td></td>
</tr>
<tr>
<td>mound</td>
<td>M. b. t.</td>
<td></td>
</tr>
<tr>
<td>meridian</td>
<td>M.</td>
<td></td>
</tr>
<tr>
<td>Metre</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>square metre</td>
<td>m2</td>
<td></td>
</tr>
<tr>
<td>magnetic</td>
<td>mag.</td>
<td></td>
</tr>
<tr>
<td>mineral claim</td>
<td>M. C. CM</td>
<td></td>
</tr>
<tr>
<td>Made</td>
<td>Md.</td>
<td></td>
</tr>
<tr>
<td>marker post</td>
<td>Mkr.</td>
<td></td>
</tr>
<tr>
<td>marked (markings found or placed</td>
<td>Mkd.</td>
<td></td>
</tr>
<tr>
<td>placed posts may also be shown in</td>
<td>mar.</td>
<td></td>
</tr>
<tr>
<td>italics, e.g. &quot;16, R, 17&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>monument</td>
<td>Mon.</td>
<td></td>
</tr>
<tr>
<td>number</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>N.</td>
<td></td>
</tr>
<tr>
<td>National Historic Park</td>
<td>NHP</td>
<td></td>
</tr>
<tr>
<td>National historic Site</td>
<td>NHS LHN</td>
<td></td>
</tr>
<tr>
<td>National Park</td>
<td>NP PN</td>
<td></td>
</tr>
<tr>
<td>National Topographic System (map</td>
<td>NTS SNRC</td>
<td></td>
</tr>
<tr>
<td>sheet)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>obliterated</td>
<td>oblit.</td>
<td></td>
</tr>
<tr>
<td>observation</td>
<td>Obsn.</td>
<td></td>
</tr>
<tr>
<td>ordinary high water mark</td>
<td>OHWM LHEO</td>
<td></td>
</tr>
<tr>
<td>standard post (specify CLS, DLS, or</td>
<td>P. Rep. or</td>
<td></td>
</tr>
<tr>
<td>provincial type)</td>
<td>Bor.</td>
<td></td>
</tr>
<tr>
<td>point of curvature</td>
<td>PC</td>
<td></td>
</tr>
<tr>
<td>point of change of curvature</td>
<td>PCC</td>
<td></td>
</tr>
<tr>
<td>point of intersection</td>
<td>PI</td>
<td></td>
</tr>
<tr>
<td>4 pits</td>
<td>Pit. Fos.</td>
<td></td>
</tr>
<tr>
<td>placed</td>
<td>Pl. Pl.</td>
<td></td>
</tr>
<tr>
<td>polaris</td>
<td>Pol. Pol.</td>
<td></td>
</tr>
<tr>
<td>rock post (specify CLS, DLS, or</td>
<td>P. Rock R. c.</td>
<td></td>
</tr>
<tr>
<td>provincial type)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>R. Rg</td>
<td></td>
</tr>
<tr>
<td>Radius</td>
<td>R R</td>
<td></td>
</tr>
<tr>
<td>re-established</td>
<td>Re-est. rét.</td>
<td></td>
</tr>
<tr>
<td>remainder</td>
<td>Rem. RE</td>
<td></td>
</tr>
<tr>
<td>restored</td>
<td>Res. res.</td>
<td></td>
</tr>
<tr>
<td>reference object</td>
<td>RO</td>
<td></td>
</tr>
<tr>
<td>reference post</td>
<td>RP R. s.</td>
<td></td>
</tr>
<tr>
<td>Regional Surveyor Plan</td>
<td>RSP RSP</td>
<td></td>
</tr>
<tr>
<td>Right-of-way</td>
<td>R/ W</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>railway</td>
<td>Ry.</td>
<td>c. f.</td>
</tr>
<tr>
<td>south</td>
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Appendix E - DIGITAL SPATIAL FILE SPECIFICATIONS

General

1) These specifications require the surveyor to prepare:
   a) a digital spatial file;
   b) supplementary information contained in the survey report (chapter 11) or a separate report; and
   c) a main monuments coordinate file.

2) These specifications apply to all surveys submitted for review except for Oil and Gas wells site surveys in the Territories and offshore in cases where no parcel is surveyed.

3) Specimen digital spatial files included in chapter 1 are for guidance in preparing the digital spatial file.

4) The digital spatial file and the main monuments coordinate file shall be submitted via e-mail, Canada Lands Survey System (CLSS) On-Line or on a medium suitable to the Surveyor General Branch (SGB).

5) The digital spatial file format shall be DXF or DWG (acceptable versions).

6) The digital spatial file name must be composed of the following elements:
   a) the project number issued by the Surveyor General Branch;
      the 2 letters "SF";
   b) if required, a sequential number "1, 2, 3 ..." to distinguish multiple digital spatial files submitted for one project; and
   c) the file format extension (.DWG or .DXF).

Example:
[Project number][SF][Sequential number].[DXF | DWG]
200814003SF1.DWG

7) The main monuments coordinate file format shall be an ASCII text file.

8) The main monuments coordinate file name must be composed of the following elements:
   a) the project number issued by the Surveyor General Branch;
      the 2 letters "PT";
   b) if required, a sequential number "1, 2, 3 ..." to distinguish multiple main monuments coordinate files submitted for one project; and
   c) the file format extension (.TXT).

Example:
[Project number][PT].[TXT]
200814003PT1.TXT
Specifications

Geo-referencing

9) The digital spatial file shall be referred to NAD83CSRS projected coordinates (e.g. NAD83CSRS/UTM, NAD83CSRS/MTM or NAD83CSRS/Double Stereographic projection applicable to the area of survey) or other approved coordinate system (e.g. ATS77/MTM for Nova Scotia).

10) The coordinates of the digital spatial file must be the same as those shown on the plan and those contained in the main monuments coordinate file.

Spatial information

11) The digital spatial file must be spatially correct and must represent the geometry shown on the plan.

12) All spatial distances in the digital spatial file must be GRID distances. The distances shown on the plan are normally ground distances.

13) All spatial bearings in the digital spatial file must be GRID bearings referred to the central meridian of the projection, where applicable.

Layering

14) Table 1 below lists the layer names and the specific content for each layer. Additional information such as title, lot numbers, etc. is not mandatory but may be included in the digital spatial file. This additional information must be stored on other layers and the layer structure is left to the choice of the surveyor.

| Layer Name          | Description                                                                 | AutoCAD object |
|---------------------|-----------------------------------------------------------------------------|----------------|}
| CCCMBDRY            | all primary boundaries dealt with by the plan other than natural boundaries. | line or arc    | update dataset |
| CCCMSEC             | all secondary boundaries dealt with on the plan, other than natural boundaries. (i.e. easement). | line or arc    | update dataset |
| CCCMTIE             | all tie lines. (see paragraph 20.)                                          | line           | update dataset |
| CCCMBDREYINAT       | all primary natural boundaries dealt with by the plan.                      | polyline       | update dataset |
| CCCMSECNAT          | all secondary natural boundaries dealing with easements and rights-of-ways dealt with by the plan. | polyline       | update dataset |
CCCMCONDOx

All condo units with each floor placed on a different layer. Each floor layer shall be uniquely labelled CCCMCONDOx, where "x" is a unique value for each floor.

polyline

update dataset

Table 1

15) CCCMBDRY contains the primary boundaries dealt with by the plan. (i.e. if the purpose of the plan is to create new parcels, all boundaries except natural boundaries of the new parcels shall be present on this layer. Similarly, if the purpose of the plan is to create an easement only, all boundaries of the easement other than the natural boundaries shall be represented on CCCMBDRY layer.)

16) CCCMSEC contains all secondary boundaries dealt with by the plan. (i.e. if the purpose of the plan is to create parcels as well as easements, the parcel boundaries shall be represented on CCCMBDRY and the easement boundaries shall be represented on CCCMSEC in order to avoid conflicts between the line works.) Information on CCCMSEC layer should only exist if two or more types of boundaries are dealt with by the plan. Only non-natural boundaries shall be present on this layer.

17) CCCMBDRYNAT contains all primary natural boundaries dealt with by the plan. (i.e. if the purpose of the plan is to create new parcels, only the natural boundaries of these new parcels shall be represented on the CCCMBDRYNAT layer.) Only primary natural boundaries shall be present on this layer.

18) CCCMSECNAT contains all secondary natural boundaries dealt with by the plan such as natural boundaries of an easement. If the easement is bounded by a natural boundary that segment of the easement shall be on the CCCMSECNAT layer. Information on CCCMSECNAT should only exist if two or more types of natural boundaries are dealt with by the plan. Only secondary natural boundaries shall be present on this layer.

19) CCCMTIE contains all the other measured boundaries and connections to survey monuments and nearby control survey markers. All tie lines on CCCMTIE shall be shown in full length. (i.e. if a tie is made to a control point 2 kilometres away, the line on CCCMTIE will be completely shown at its true length, but may be shown as broken on the plan.) Other traverse lines shall not be shown on this layer.

20) CCCMCONDOx contains the boundaries of all condominium units. Each unit shall form a closed polygon and all unit boundaries shall be an accurate representation of the unit boundaries.
boundaries represented on the plan. Each unit shall be spatially oriented relative to the parent parcel. The parent parcel is to be shown on the CCCMBDRY layer. For multi-floor condominiums, each floor shall be placed on a separate layer in the digital file. Each floor layer shall be uniquely labelled CCCMCONDOx, where "x" is a unique value for each floor (e.g. "0" for basement, "1" for first floor, "2" for second floor, etc.). Common areas are not to be shown in the digital spatial file.

21) Line work in details shall not be placed on the CCCMBDRY, CCCMBDRYNAT, CCCMSEC, CCCMSECNAT, CCCMTIE or CCCMCONDOx layers. Line work on these layers shall represent the main body of the plan, even if not visible at plotting scale.

**Topology and Structure**

22) All dimensioned boundaries and ties must be represented by lines.

23) All lines must be topologically correct on the layer itself, but not between layers. (Note: Natural boundary layers such as CCCMBDRYNAT and CCCMSECNAT must be topologically correct with their corresponding CCCMBDRY or CCCMSEC layer.)

24) The following rules are to be followed for each layer (unless indicated otherwise) to ensure properly structured data:

   a) no duplicate lines within a particular layer;
   b) no overlapping lines within a particular layer;
   c) no crossing lines on CCCMBDRY and CCCMBDRYNAT;
   d) no undershoots and overshoots (see figures 2 and 3);
   e) at corners or intersections, all lines must converge to the same point. Situation where a small triangle, a small gap or a small line is created must be avoided and corrected (see figures 4, 5 and 6);
   f) the line types must be one of the following AutoCAD object:
      i. Straight lines are to be of type LINE;
      ii. Curved lines are to be of type ARC; and
      iii. Natural features and condominium units are to be of type POLYLINE.
   g) each line of the same nature shall be broken at monuments (no gaps), deflections and intersections. Lines shall not be broken at other points such as traverse hubs; and
   h) the data must be 2-dimensional (i.e., Z value = 0).
Figure 2

Undershoot
Corrected - Undershoot is removed by extending intersecting line.

Figure 3

Overshoot
Corrected - Overshoot is removed by intersecting and removing dangling line.

Figure 4

Small Triangle exists at single point.
Corrected - Only one point exists.

Figure 5

Small Gap exists at single point.
Corrected - Only one point exists.
Main monuments coordinate file

25) The coordinates of the main monuments and the control survey markers that appear on the plan to geo-reference the survey shall be provided in a text file along with the reports.

26) The format for this text file will be point ID, Northing, Easting, Ellipsoidal Height (if available) and Scale Factor (if available) with all text elements separated by a delimiter (Comma "," or pipe symbol "|") and with each point on a separate line.

Example:
[Point ID] [, or |] [Northing] [, or |] [Easting] [, or |] [Orthometric Height] [, or |] [Scale factor]
200,5183075.467,344077.656,265.54,0.999623
201,5183073.253,344241.115,265.40, ,
60,5183256.62,344434.93, ,

Note: The comma cannot be used as a delimiter when it is also used as the decimal placemark (International System of Units, French notation).

Report

27) If the digital spatial files and the main monuments coordinate file are submitted by means other than by CLSS On-Line submission form, the survey report shall include the following additional information on the spatial file (note: the On-Line submission form is being developed):

a) an outline of what was used to geo-reference the digital spatial file (see paragraphs 9 and 11 of this chapter);

b) the combined scale factor(s) (see paragraph 13 of this chapter);

c) the bearing correction between the plan and digital spatial file bearings (may be zero) (see paragraph 14 of this chapter); and

d) the estimated absolute accuracy of the survey at the 95% confidence level (see Glossary for definition).