

INSTRUCTIONS
GOVERNING ONTARIO CROWN LAND SURVEYS AND
PLANS

SHORT TITLE

“ONTARIO CROWN SURVEY INSTRUCTIONS”

ISSUED BY THE

SURVEYOR GENERAL FOR THE PROVINCE OF ONTARIO

MINISTRY OF NATURAL RESOURCES AND FORESTRY

PETERBOROUGH

ONTARIO

NOVEMBER 2017

NOTES

Some of the information in this document is nonconvertible or has not yet been made accessible and may not be compatible with assistive technologies. If you need any of the information in an alternate format, please contact Crown Land Surveys, Office of the Surveyor General by email surveyrecords@ontario.ca or phone 705-755-2100.

Cette publication hautement spécialisée <<Ontario Crown Survey Instructions >> n'est disponible qu'en anglais conformément au Règlement 671/92, selon lequel il n'est pas obligatoire de la traduire en vertu de la Loi sur les services en français. Pour obtenir des renseignements en français, veuillez communiquer avec le ministère des Richesses naturelles et des Forêts au Bureau de l'arpenteur general, Levés des terres de la Couronne par courriel surveyrecords@ontario.ca ou téléphone 705-755-2100.

CONTENTS

1. General Instructions.....	5
1.1. Introduction.....	5
1.2. Legal Survey Consultant Services.....	5
1.3. Preliminary Procedures	5
2. Survey Standards.....	6
2.1. Measurements.....	6
2.2. Bench Marks and Elevations	6
2.3. Monumentation.....	6
2.4. Connections to Underlying Survey Fabric.....	7
2.5. Boundaries of New Units	7
2.6. Integrated Surveys	9
2.7. Digital Photographs/Videos	9
3. Plan Standards	10
3.1. Dimensions, Areas and Coordinates.....	10
3.2. Road Allowances.....	11
3.3. Key Plan.....	11
3.4. Title Block.....	11
3.5. Forms and Certificates.....	11
3.6. Bench Mark and Elevation Notes.....	12
4. Notes for Water Boundaries	13
4.1. Fixed Boundaries Referenced to Water Body Limits.....	13
4.2. Natural Water Body Limits	13
4.3. Artificially Altered Water Body Limits.....	14
5. Specific Instructions.....	15
5.1. Crown Location Surveys	15
5.2. Combined Crown Location and Private Land Plans.....	15
5.3. Crown Plans of Subdivision	16
5.4. Crown Retracement Surveys.....	16
5.5. Crown Retracement Supporting Plan	16
5.6. Mining Claim Surveys.....	17
5.7. Percent Road Reservation Surveys.....	18

5.8.	Surveys for Corrected Letters Patent.....	19
5.9.	Other Surveys.....	19
6.	Plan Submission, Approval and Deposit.....	19
6.1.	Where to Make a Submission.....	19
6.2.	What to Include in a Submission	19
6.3.	Field Office Approval of a Submission	21
6.4.	Survey and Plan Submission Analysis	21
6.5.	Final Deliverables	23
7.	Exceptions and Reservations	24
7.1.	Exceptions/Reservations along Shores of Lakes and Rivers	24
7.2.	Reservations Abutting Registered Plans of Subdivision	24
8.	APPENDICES	25
A.	Requirements for Crown Land Survey.....	25
B.	Provincial Requirements and Consent to Survey Mining Claims.....	25
C.	Crown Land Plan Submission Analysis	25
D.	Sample CAD drawing.....	25
E.	Provincial Grid Specifications.....	25

1. General Instructions

1.1. Introduction

- 1.1.1. For the purposes of these *Instructions Governing Ontario Crown Land Surveys and Plans* (short title: *Ontario Crown Survey Instructions*), “Crown land” refers to unpatented Crown land in accordance with the *Public Lands Act* and the *Mining Act*.
- 1.1.2. The requirement to survey Crown land for the purpose of disposition is given to the Minister of Natural Resources and Forestry under the provisions of the *Public Lands Act*. The Minister has delegated this authority to the Surveyor General under the provisions of the *Ministry of Natural Resources Act*.
- 1.1.3. The requirement to survey mining lands is given to the Minister of Northern Development and Mines under the provisions of the *Mining Act*.
- 1.1.4. The *Ontario Crown Survey Instructions* are provided for the guidance and direction of Ontario Land Surveyors retained to survey Crown lands.

Note - Surveys and plans prepared for the transfer of jurisdiction and control of Crown land for highway purposes under the *Public Transportation and Highway Improvement Act* (Type E Plans) shall adhere to Ministry of Transportation of Ontario (MTO) instructions.

- 1.1.5. All Crown surveys and plans must adhere to Ontario statutes, regulations and associated guidelines respecting surveys and plans. These instructions are in addition to the aforementioned requirements and are not intended to duplicate them.
- 1.1.6. The Surveyor General may issue additional or special instructions for the survey of Crown land on a project specific basis.

1.2. Legal Survey Consultant Services

All Ontario Land Surveyors, licensed to practice cadastral surveying as defined under the provisions of the *Surveyors Act* and in good standing with the Association of Ontario Land Surveyors, shall be deemed to be approved vendors for the procurement of professional land surveying services by the Ministry of Natural Resources and Forestry and the Ministry of Northern Development and Mines.

1.3. Preliminary Procedures

Before commencing a survey of Crown land, consent is required;

- a. in the case of land dealt with under the *Public Lands Act*, contact the Ministry of Natural Resources and Forestry District Office to obtain a **signed** *Requirements for Crown Land Survey* form (refer to Appendix A), or

- b. in the case of land being dealt with under the *Mining Act*, contact the Provincial Mining Recorder to obtain a **signed** *Provincial Requirements and Consent to Survey Mining Claims* form (refer to Appendix B).

A copy of the signed consent form must be included with the survey submission to the Ministry.

2. Survey Standards

2.1. Measurements

Measurement standards for Crown land surveys are those adopted by the Association of Ontario Land Surveyors.

2.2. Bench Marks and Elevations

2.2.1. Elevations will be referred to the Canadian Geodetic Vertical Datum 1928 (CGVD28).

2.2.2. Where a permanent bench mark has not been established or is not shown on a Plan of Survey of record in a Land Registry Office or in the Office of the Surveyor General, establish a permanent bench mark, such as a clearly identifiable point on the sill or wing wall of a concrete dam, or other permanent structure or monument, and indicate the elevation of the bench mark on the plan.

2.2.3. Elevations may be established using Global Positioning System methodology or by transferring elevations from a known bench mark.

2.2.4. Where elevations are transferred from a known bench mark regardless of the methodology, the error of closure shall not exceed $5 \text{ cm} \times \sqrt{k}$, where k is the number of kilometres in the loop. A water transfer may be used if the specified accuracy can be achieved.

2.2.5. Refer to paragraph 3.6.3 for required notes to be shown on the plan.

2.3. Monumentation

2.3.1. Notwithstanding the requirements of O. Reg. 525/91 under the *Surveyors Act*, cut crosses, concrete pins or plastic bars are not to be used as survey monuments on Crown land surveys.

2.3.2. Each township lot or section corner, mile post or other original Crown survey point found or used in connection with a Crown land survey must, if in a deteriorated condition, be restored with a Standard Iron Bar, Rock Bar, Rock Post or Rock Plug.

2.3.3. When it is impractical to use a Standard Iron Bar, a Short Standard Iron Bar may be used.

2.3.4. The fronts of lots, parcel, etc. along natural or non-rectilinear boundaries must be monumented with sufficient ties shown to the non-rectilinear boundary to permit future retracement of the limit.

- 2.3.5. Where site conditions are such that the monumentation planted may not be permanent and stable, every Crown survey shall include at least two additional monuments established on or near the survey in locations which are stable and permanent.
- 2.3.6. On every Crown land survey,
- a) Rectilinear boundaries shall be monumented at intervals no greater than 400 metres.
 - b) Non-rectilinear boundaries, such as water's edge, contours of elevation or the inner limit of a shore road allowance, shall be monumented at intervals no greater than 1 kilometre and contain sufficient ties to permit future retracement.
 - c) That is a survey of Mining Claim\,s, all unique cell corners of the provincial grid along the perimeter of the lands under survey shall be monumented.

2.4. Connections to Underlying Survey Fabric

- 2.4.1. A connection must be shown to a corner of the original Crown subdivision unit (township lot, section, mining location, etc.) in which it is situated. Where the surveyed lands comprise part of the bed of a water body lying in front of an original Crown subdivision unit the survey must be connected to a corner of the upland, original Crown subdivision unit.
- 2.4.2. This connection may be derived from existing surveys, and it does not have to be re-measured. However, if the connection has been derived from earlier surveys, include a note indicating that the connection has been derived from an earlier plan, or plans, and has not been verified.
- 2.4.3. A survey connection to an adjacent nearby Crown plan of subdivision may be considered an acceptable alternative to a "lot corner tie".
- 2.4.4. A survey connection to a private plan of subdivision (i.e. not Crown) is **not** an acceptable alternative to a "lot corner tie" as private plans of subdivisions are not retained in Crown Survey Records.
- 2.4.5. Where a surveyed unit is part of an un-subdivided or annulled portion of a township or part of un-surveyed territory, it must be connected by survey to a previously surveyed line (township boundary, Crown Location boundary, base line, meridian line, etc.), if such a previously surveyed line exists and is situated within 150 metres of the surveyed unit.

2.5. Boundaries of New Units

2.5.1. Prolongation of Side Lines

Where a new boundary is intended to be the prolongation of an existing boundary, the location of the existing boundary must be determined based on the best available evidence of the boundary and shown on the face of the plan.

2.5.2. Shoreline Boundaries

Before commencing the survey of Crown land fronting on a water body, consult with the Ministry of Natural Resources and Forestry District Office to determine if the Crown survey is to be Riparian or Non-Riparian.

2.5.2.1. Riparian Requirement

Where it is the intention of the Ministry of Natural Resources and Forestry District Office to establish the Crown survey as riparian lands, the limit of the survey shall be the water's edge. The water's edge must be determined by sufficient measurements at such intervals as its complexity demands and to such extent as will enable its relocation.

2.5.2.2. Non-Riparian Requirement

Where it is the intention of the Ministry of Natural Resources and Forestry District Office to make the new Crown land survey a non-riparian property, the boundary closest to the water's edge will be;

- a) A series of monumented straight lines approximating a physical feature, (i.e. top of bank), or
- b) A contour of elevation, such as the maximum regulated water level or a flooding contour determined by sufficient measurements at such intervals as its complexity demands and to such extent as will enable its relocation.

2.5.3. Photogrammetric or Remote Sensing Survey Methods

Where the contour or natural boundary has been established by photogrammetric or other remote sensing techniques, the established limit as derived from that method shall be ground-truthed using an alternative technology at monumented points, at intervals no greater than 1 kilometre to ensure a vertical accuracy of 30 cm. relative to vertical control. A diagram or sketch shall be prepared showing the comparison between physically measured distances to the digitally derived distance. The plan submission shall label the governing feature that defines the boundary as "Water's Edge" or "Contour of Elevation xxx.xx m. (CGVD28)", and the established limit shall be determined by sufficient measurements at such intervals as its complexity demands and to such extent as will enable its relocation. Include the following note on the plan:

The limit of [*official name of water body/contour of elevation*] as shown on this plan has been derived from [*digital survey method used to plot the boundary including date and manufacturer of data*] and has been verified on the ground as a true position by [*method of ground survey*].

2.6. Integrated Surveys

2.6.1. Every Crown land survey must be projected in the Universal Transverse Mercator Grid System.

Note: Crown Surveys and Plans prepared for the Ministry of Transportation of Ontario (MTO) shall follow MTO instructions and requirements with respect to the projection and datum to be used.

2.6.2. There are various points required to integrate a survey. These points are not mutually exclusive and may be used in conjunction with each other.

1) Observed Reference Point

- a) Means an occupied station from which observations were made to establish the coordinates for the integration of the survey.
- b) The Observed Reference points need not be monumented where conditions exist that do not allow for permanent and stable monuments.

2) Specified Control Point

- a) Means a monument with coordinate values that are of record and are stored and made available by a control survey authority.

3) Permanent Onsite Point

- a) Means an established point located on or in the vicinity of the survey
- b) The Permanent Onsite point must be established using permanent and stable monuments to the same standards in paragraph 2.3.1., with a direct connection to Part limits.
- c) One or more of the Permanent Onsite points can be an Observed Reference point but must be monumented as in paragraph 2.3.1.

2.6.3. Where there are no existing horizontal control survey monuments within 1 km of the site of the survey, the surveyor must establish coordinates on three Permanent Onsite points to the accuracy set out in Section 14(2), O. Reg. 216/10 under the *Surveyors Act*.

2.6.4. All coordinates used to integrate the survey are to be shown in the North American Datum 1983 (Canadian Spatial Reference System), also known as NAD83 (CSRS). A note indicating the source of the CSRS values is to be shown on the plan.

2.7. Digital Photographs/Videos

2.7.1. Ministry of Natural Resources and Forestry staff may or may not conduct a field inspection of a site proposed for disposition or survey. As such, the surveyor is expected to act as the Crown's "eyes" and report what is on the ground that may be of importance to the Crown.

- 2.7.2. Digital photographs or digital videos shall be taken along all surveyed boundaries and shorelines giving particular attention to encroachments, potential third party interests, areas of concern, filled lands, etc. with a descriptive report. All photographs or videos taken are to be numbered, indexed and referenced on a diagram or plan showing the camera location and direction.

3. Plan Standards

3.1. Dimensions, Areas and Coordinates

- 3.1.1. Linear dimensions shall be ground distances and shown in metres, to a minimum of two decimal places. All sinuous distances along non-rectilinear boundaries shall be shown on the plan in metres as “±” to a minimum of one decimal place.
- 3.1.2. Areas shall be shown in hectares to a minimum of three decimal places per paragraph 3.5.2. When Parts are smaller than 5 square metres, increase the number of decimal places so that the area shown is not 0.000 hectares. The total area of all the Crown Parts must be shown.
- 3.1.3. Lettering shall be in solid black font and shall be no smaller than 2.0 mm in height.
- 3.1.4. Sec. 18. (1)(i)(i), O. Reg. 216/10 under the *Surveyors Act*, requires “a table containing the coordinates of at least two monumented points related to the survey”. All Crown land survey plans shall show a table with the coordinates of at least three monumented points, which will be Permanent Onsite Points (refer to paragraph 2.6.2). These coordinates will be shown to a minimum of two decimal places:

Note: Sample Integration Coordinate Table

<p>COORDINATES BELOW ARE DERIVED FROM [state methodology] AND ARE REFERRED TO UTM ZONE 17, NAD83 (CSRS) (2010.0).</p> <p>COORDINATES COMPLY WITH THE [urban/rural/remote] ABSOLUTE ACCURACY PER SEC. 14(2) OF O.REG. 216/10</p>		
POINT ID	NORTHING	EASTING
A	5528411.10	396557.12
B	5528135.46	396489.51
C	5528377.36	396921.09
<p>COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.</p>		

Absolute accuracy (network) is the accuracy of the position of the survey within a given reference system. Relative accuracy (local) is the accuracy of the position of a point in a survey relative to other points in the same survey.

For example, in a remote area, your absolute accuracy is 1 metre, while your relative accuracy is still 1:5000.

3.2. Road Allowances

Surveyed land, which is part of a road allowance or other public road, shall be shown as a separate Part where necessary.

3.3. Key Plan

Include a key plan illustrating the geographic location of the survey, drawn at a scale sufficient to enable the user to locate the parcel and which clearly indicates the parcel's relationship to adjoining cadastral fabric.

3.4. Title Block

3.4.1. Crown plans shall be entitled "Plan of Survey of ___".

3.4.2. Crown Location Plans shall be entitled "Plan of Survey of Location CL ___". The Ministry will assign a location number. The location number consists of the letters "CL" followed by one space and a five-digit number. **Do not** put a dash, hyphen or underscore between "CL" and the assigned number.

3.4.3. Avoid the use of Roman numerals on Crown land plans. Although many original township plans have concessions labeled with Roman numerals, the Arabic number equivalent is to be used whenever possible.

3.4.4. In addition to the requirements of the Regulations under the *Surveyors Act*, the title block shall contain the name of the geographic township in which the surveyed land is situate, regardless of whether or not the land is within a registered plan of subdivision.

3.5. Forms and Certificates

3.5.1. Permission to Deposit

Show the following note below or beside the requisition for deposit block:

PERMISSION TO DEPOSIT THIS PLAN OF SURVEY OF CROWN LAND WAS GIVEN BY THE SURVEYOR GENERAL OF ONTARIO ON THE ____ DAY OF _____, 20__

3.5.2. Schedule

The schedule as prescribed by O. Reg. 434/11 under the *Registry Act* shall include additional columns, as needed to show the following:

- 1) Surveyed mining claims lying within each part.

- 2) Where surface or mineral rights have been previously alienated, the available rights to be transferred (i.e. surface rights or mineral rights).
- 3) Remarks including such things as unsurveyed mining claims.

The word "Crown" will generally take the place of a PIN in the PIN/Inst./Crown column opposite each Part describing unpatented Crown land.

Note: Sample Schedule for all survey plans.

SCHEDULE							
PART	MINING CLAIM *	LOT OR BLOCK	CON./ PLAN	AREA (ha.)	PIN/ INST./CROWN	RIGHTS AVAILABLE **	REMARKS ***
1							
2							
3							
TOTAL AREA							
(Name of Geographic Township or Area Map sheet)							

* use this column for underlying surveyed mining claims only

** use this column for rights available for disposition only if Mining or Surface rights have previously been alienated by the Crown

*** use this column for such things as existing unsurveyed staked mining claims, water power lease agreements, etc.

3.6. Bench Mark and Elevation Notes

- 3.6.1. Where a local datum has been established by previous survey and is referenced by a permanent bench mark which is shown on a Plan of Survey of record in a Land Registry Office or in the Office of the Surveyor General, include a note to indicate the location and nature of the benchmark and indicating the conversion of the local datum to CGVD28.
- 3.6.2. Where a permanent bench mark has been established in accordance with Section 2.2.2, a note shall be included to indicate the location and nature of the bench mark and the elevation of the bench mark referred to CGVD28.
- 3.6.3. Where an elevation or a contour of elevation is shown on a plan, include the following notes as applicable.
 - 1) Elevations shown hereon are referred to [*identify bench mark*], having an elevation of [*elevation*], CGVD28.
 - 2) Lake [*official name of water body*] is regulated by a dam at [*location of dam*].

3) Flooding rights have been granted to elevation [*elevation*], CGVD28, under Crown Lease No. [*number*]. (or under License of Occupation No. [*number*], or under [*identify appropriate instrument*]).

4. Notes for Water Boundaries

Waterfront boundaries in the disposition of Crown lands will generally be along the water's edge, highest regulated water level or flood contour. Straight line frontage will generally not be used when disposing of waterfront lands. In all circumstances, the current water's edge shall be shown on the plan.

4.1. Fixed Boundaries Referenced to Water Body Limits

When Crown lands were surveyed into townships or other Crown subdivisions, the fronts of the lots, blocks, mining locations, etc., were often established along an inland line set some distance back from the edge of a lake or river. Since monuments were not always set at the fronts of these lots, etc., at the time of the original survey or patent, it may be necessary to re-establish the position of these limits from the edge of the lake or river. In order to relocate these fronts in their original position, the distance must be set from the best available evidence of the position of the edge of the lake or river as it existed at the time of the original survey or patent. In the situation described above, include the following note on the plan:

[*Evidence used*] as established by survey and shown on this plan has been accepted as being the best available evidence of the limit of [*official name of water body*] as it existed at the time of the original survey (patent) of [*identify the plan or patent, as the case may be.*]

4.2. Natural Water Body Limits

When a boundary is identified as being the water's edge, the Ministry, in order to recognize the boundaries ambulatory nature, requires that it not be qualified by a date or any other qualifiers on the face of the plan. The date on which the water boundary was surveyed may be indicated in the notes of the plan. If there are no artificial structures which affect the water body and the water body is in its natural state, include the following note on the plan:

[*Official name of water body*] is not regulated by an artificial control structure. The waterside limit of Part [x] is the ambulatory limit of [*official name the water body*].

4.2.1. Accretion and Erosion

The location of the present limit of a water body may differ from the location shown on a previous plan. Where it is the surveyor's professional opinion that this difference is the

result of natural accretion or erosion, and not from artificial alterations, or the sudden movement of the limit, include the following note on the plan:

The limit of [*official name of water body / river / Block/lot, Registered Plan*] as shown on this plan has been established by survey and by identifying [*evidence used*] as being the best available evidence of this limit. Any change in the position of this limit as shown on [*previous plan / Registered Plan / limits as they existed at the date of the original survey*] appears to be the result of normal and gradual fluctuations in this limit.

4.2.2. Limits Not Affected by Existing Dams/Weirs

In situations where it is the surveyor's professional opinion that the construction of a dam/weir on, or in the vicinity of a lake or river has not altered the water's edge from its natural state, (i.e. the upland property is far removed from the dam/weir outlet or the dam/weir only has the physical effect of holding the water to its original elevation), include the following notes on the plan:

[*Official name of water body*] is regulated by a [*dam/weir*] at [*location of dam/weir*], however the [*dam/weir*] does not affect the water level at the location of this survey. The present water's edge is considered to be the best evidence of [*describe limit being retraced or established*].

The waterside limit of Part [x] is the ambulatory limit of [*official name of water body*].

4.3. Artificially Altered Water Body Limits

Where the Crown intends to patent or lease a portion of the bed of a water body (for example, in the case of a two-storey boathouse), to ensure that no gaps or overlaps in title will exist, it is necessary to re-establish the limit of the upland, privately-held parcel. If the upland parcel was riparian and the level of the water body has been artificially altered, the upland parcel limit may be under water. To avoid ambiguity, the parcel limit, as re-established shall be annotated as: "Limit of PIN xxxxx-xxxx", or identified with the use of leaders. Include the following note on the plan:

[*Evidence used*] as established by survey and shown on this plan has been accepted as the best available evidence of the limit of the parcel now known as PIN xxxxx-xxxx which became a fixed limit at the time of [*cause of alteration*].

4.3.1. Filling, Dredging or Sudden Movement of Limits

4.3.1.1. Where the position of the water's edge differs substantially from its position shown on a previous plan and it is the surveyor's professional opinion that the difference is a result of filling, dredging or sudden movement of the limit, include the following note on the plan:

The limit of [official name of water body] has been artificially altered by [cause of alteration]. [Evidence used] is the best available evidence of the position of this limit prior to the alteration.

- 4.3.1.2. Where part of the surveyed land is a filled area of the bed of a water body, label the area "FILL". When the filled area of the bed is situated within an artificially altered water body, the disposition of the filled area shall be defined by a disposition contour. When the filled area of the bed is situated within an unaltered water body, the intent is to retain a riparian boundary, therefore, the disposition of the filled area shall be defined by the water's edge.

5. Specific Instructions

5.1. Crown Location Surveys

- 5.1.1. A Crown Location Plan is a plan of survey of Crown land, prepared in accordance with the *Ontario Crown Survey Instructions* and the Regulations regarding surveys in Ontario, for use in the disposition of interests in Crown land.
- 5.1.2. A Crown Location Plan will ordinarily be deposited as a reference plan in the appropriate land registry office under the *Land Titles Act*.

5.2. Combined Crown Location and Private Land Plans

- 5.2.1. Combined Crown Location and private land plans are generally **not** acceptable.
- 5.2.2. The Surveyor General may consent to the use of a combined plan where, in the opinion of the Surveyor General, such a combined plan would be of benefit to the Crown or other government body. (An example could be where the Crown and municipal lands share a common boundary that is a sinuous line, such as when a municipally owned shore road allowance abuts a Crown owned shore reservation.) Combined plans are the exception and are not intended to do away with the general requirement for a separate Crown Location Plan when both private and Crown lands happen to be surveyed together at the same time.
- 5.2.3. Combined plans will not be accepted for review unless the surveyor has obtained prior written consent from the Surveyor General to use a combined plan. A copy of the consent must be included with the submission.

5.2.3.1. EXCEPTION

Where a municipality has authorized the sale of the flooded portion of the shore road allowance adjacent to a two storey boathouse Crown parcel, the Office of the Surveyor General will accept a combined plan, showing both the Crown parcel and the municipal shore road allowance parcel, without previous consent.

Note: Notwithstanding the above general consent for a combined plan, the Office of the Surveyor General reserves the right to require a separate Crown Reference Plan if, after

reviewing the combined plan, the Surveyor General is of the opinion that a Crown Location Reference plan is warranted.

- 5.2.4. The title block of a combined plan must consist of two distinct titles joined by the word "and":

Plan of Survey of Location CL [*number*]
Being Part of etc.
Geographic Township of
and
Plan of Survey of [*describe the private lands*]

- 5.2.5. The initial parts of the plan shall be used to identify the Crown portion and a note shall be added under the Schedule indicating which parts form the Crown Location, such as;

CL xxxxx is comprised of PARTS 1, 2 and 3 only

5.3. Crown Plans of Subdivision

Crown subdivision surveys are carried out under special instructions issued by the Surveyor General.

5.4. Crown Retracement Surveys

Crown retracement and restoration surveys are carried out under special instructions issued by the Surveyor General.

5.5. Crown Retracement Supporting Plan

- 5.5.1. Where an extensive retracement survey, made to re-establish one or more township lot or section corners, is complicated by adjoining surveys and the particulars of the resurvey cannot be properly shown on the retracement survey returns, a separate supporting plan of survey may be submitted.
- 5.5.2. A supporting plan of survey is retained in the Crown Survey Records. It is not filed in a land registry office.
- 5.5.3. Include the following approval block at the upper right corner of the plan:

APPROVED

Date

[Name in print] Surveyor General

5.6. Surveys of Mining Claims

A survey of a Mining Claim means a Crown land survey in accordance with the *Mining Act*, and must be performed in accordance with these Crown Survey Instructions, the Mining Recorders Instructions and additional requirements of this section. For the purpose of this section, “Minister” means the Minister of Northern Development and Mines.

5.6.1. Mining Survey Standards

5.6.1.1. Mining Surveys shall comply with the “Provincial Grid” as outlined in O. Reg. 45/11, under the *Mining Act*. (See Appendix E for Provincial Grid configuration), and

- i. the limits of a “unique cell” (pursuant to the *Mining Act*), in the absence of evidence to suggest otherwise, is deemed to be and shall be delineated by a rectilinear line joining the corner vertices.
- ii. the limits of a “Legacy Claim” (as defined in the *Mining Act*), in the absence of evidence to suggest otherwise, is deemed to be and shall be delineated by a rectilinear line joining the corner vertices.

5.6.1.2. All set coordinates used for the establishment of a unique cell or a legacy claim shall achieve absolute accuracy at the 95 percent confidence level to 0.050 metre. (refer to subsection 3.1.4 for Absolute (network) accuracy definition).

5.6.1.3. Any ambiguities encountered during the survey are to be resolved through consultation with the Provincial Mining Recorders Office prior to the submission of the survey. Where necessary the surveyor shall obtain specific survey instructions and/or Mining Recorders Order on how to proceed.

5.6.2. Mining Plan Standards

5.6.2.1. Mining Surveys are not assigned “Crown Location” (CL) numbers.

5.6.2.2. For a single claim in unsurveyed territory (sec. 95 (1) of the *Mining Act*), the title shall read; “Plan of Survey of Mining Claim [space] [mining claim number as issued by MNDM]”

5.6.2.3. For multiple claims in unsurveyed territory (sec. 95 (3) of the *Mining Act*), the title shall read; “Plan of Survey of Perimeter Survey CLM [space] [perimeter survey number as issued by the Minister’s written instructions]”.

5.6.2.4. For a single claim or multiple claims in surveyed territory (sec. 96 of the *Mining Act*), the title shall read; “Plan of Survey of Mining Claim(s) [space] [mining claim number/s as issued by MNDM]”.

5.6.2.5. The plan shall show;

- i. The relative position of each mining claim within the survey and adjoining the lands under survey,

- ii. The relative position of the provincial grid,
- iii. The property identifiers related to the lands under survey (identify if surface or mineral rights) and where no mining claim exists or the adjoining lands or lands underwater are unpatented crown lands, identify such lands as “Crown”,
- iv. On the plan or within a table all coordinates used to establish the limits of the lands under survey, with a note stating: “Coordinates comply with an absolute accuracy at the 95% confidence level to 0.050 metre.”
- v. Separate parts for proposed “surface & mineral rights” lands, “surface rights only” lands and “mineral rights only” lands.

5.6.2.6. In surveyed territory, the geographic fabric must be unambiguously identified and related to the lands under survey.

5.7. Percent Road Reservation Surveys

5.7.1. Where the Crown wishes to exercise a percent road reservation reserved in a patent, a Crown Location Plan shall be required.

5.7.2. Plans of road reservation surveys shall be prepared as Crown Location Plans. The plan is to be titled:

Plan of Survey of Location CL [*number*]

5.7.3. The PIN/Instrument/Crown column of the Schedule shall not show the Parts as “Crown”, but show the Parts according to the appropriate PIN or Land Registry Instrument numbers, as the case may be.

5.7.4. Monumentation standards are set out under the Route Survey provisions of Regulation 525/91 under the *Surveyors Act*.

5.7.5. Area Notes for areas of Parts, broken down for each Crown patent within the survey, shall be shown in the following manner:

Crown Patent No. [<i>number</i>]	
Area in Patent	[<i>decimal number</i>] ha.
Area of Road Reserved in Patent ([<i>x</i>]%)	[<i>decimal number</i>] ha.
Area of Parts required for Road	[<i>decimal number</i>] ha.
Area previously exercised	[<i>decimal number</i>] ha.
Unused Balance of ([<i>x</i>]%) Reservation	[<i>decimal number</i>] ha.

5.7.6. In addition to these instructions, the Surveyor General may issue special instructions for road reservation surveys and plans.

5.8. Surveys for Corrected Letters Patent

5.8.1. Further to these instructions, the Surveyor General may issue special instructions for surveys for Corrected Letters Patent.

5.8.2. Plans for Corrected Letters Patent shall be prepared as Crown Location Plans.

5.8.3. Generally, there shall be one Part for each original patent.

5.8.4. The following note shall be shown immediately below the schedule:

“This Plan of Survey is prepared for the purpose of supporting Corrected Letters Patent to correct the descriptions contained in Patent Number(s) [*number*].”

5.8.5. The boundaries and designations of the current parcels comprising each Part shall be shown underlying the Part by light lines, which may be broken.

5.9. Other Surveys

The Ministry may require other Crown surveys such as Surveyor’s Real Property Report or Topographical Surveys for particular projects. All surveys and plans shall be carried out in accordance with these *Ontario Crown Survey Instructions* and the special instructions issued by the Surveyor General.

6. Plan Submission, Approval and Deposit

6.1. Where to Make a Submission

6.1.1. No submission for review of a Crown plan is to be made directly to the Office of the Surveyor General unless specifically requested.

6.1.2. A submission shall include one Crown survey only.

6.1.3. The submission is to be made to the appropriate government jurisdiction:

- 1) In the case of land under the *Public Lands Act*, the District Manager for the Ministry of Natural Resources and Forestry District in which the land is situate, or
- 2) In the case of land under the *Mining Act*, to the Provincial Recording Office, Ministry of Northern Development and Mines.

6.2. What to Include in a Submission

6.2.1. The submission for review of a Crown plan will consist of two separate packages;

- 1) A package addressed to the Office of the Surveyor General, and
- 2) A package submitted to the Ministry District Office or the Provincial Recording Office as appropriate.

6.2.2. The package to the Ministry District Office or the Provincial Recording Office shall include:

- 1) The package addressed to the Office of the Surveyor General, in a separate sealed package,
- 2) a copy of the signed Requirements for Crown Land Survey form, issued by the Ministry District office per paragraph 1.3, authorizing the survey of Crown land or a copy of the Provincial Requirements and Consent to Survey Mining Claims form of the Provincial Mining Recorder to survey the mining claim or mining claims as appropriate,
- 3) Two signed white prints of the Crown survey plan,
- 4) A CD, DVD or other media acceptable to the Surveyor General containing copies of the digital photographs or digital videos of the land for which the survey was made and the photograph or video index sketch and report (refer to paragraph 2.7).

6.2.3. The package addressed to the Office of the Surveyor General shall include, two signed white paper prints of the Crown land survey plan, and **preferably in digital format** but also acceptable in hard copies:

- 1) A copy of the signed Requirements for Crown Land Survey form, issued by the Ministry District office under paragraph 1.3, authorizing the survey of Crown land or a copy of the Provincial Requirements and Consent to Survey Mining Claims form by the Provincial Mining Recorder to survey the mining claim(s).
- 2) A copy of the diagram or sketch (if applicable) of ground-truthing points as required by paragraph 2.5.3.
- 3) A print of the appropriate portion of the current CLAIMaps, which may be obtained from the Ministry of Northern Development and Mines website,
- 4) Copies of the current registered instruments, Block maps and PIN sheets, for the subject and adjoining lands,
- 5) Copies of the registered patent together with attached sketches and plans when surveying Crown shore reservations/exceptions or strips of land in front of Crown surveys,
- 6) Copies of all survey plans, including Crown plans, relevant to the survey. This includes plans that portray survey evidence that has been used in the survey and shown on the plan being submitted for approval,
- 7) Proof of areas for all Parts and mathematical closure for all traverses shown on the plan or **preferably a draft CAD file** (.dwg format) showing the surveyed lands, traverses and part areas,
- 8) Any other documentary evidence that may be necessary to clarify or substantiate the plan,

9) A survey report, where the survey is complex or contentious, where substantial disagreement with previous surveys occurs, or where there are problems with evidence,

10) A CD, DVD or other media acceptable to the Surveyor General containing copies of the digital photographs or digital video of the land for which the survey was made and the photograph or video index sketch and report (refer to paragraph 2.7).

6.2.4. If the supporting documents are to be returned, include a self-addressed envelope of appropriate size. If a self-addressed envelope is not included, this will indicate to the Office of the Surveyor General that the return of the supporting documents is not required and the documents will be disposed of.

6.3. Field Office Approval of a Submission

6.3.1. The Ministry of Natural Resources and Forestry District Manager or Provincial Mining Recorder, as applicable, will approve or reject the submission as to the extent and nature of the lands included in the survey.

6.3.2. If approval is given, the Ministry of Natural Resources and Forestry District Manager or Provincial Mining Recorder, as applicable, will forward the package to the Office of the Surveyor General for submission analysis and preparation of a legal description.

6.4. Survey and Plan Submission Analysis

6.4.1. All plans submitted for review are to be in final form, fully checked and **signed** by the surveyor.

6.4.2. The Office of the Surveyor General uses a submission analysis approach that emphasizes quality assurance rather than an in-depth examination of plan submissions. It concentrates mainly on matters that are of importance to the Crown. For technical matters, including adherence to the *Ontario Crown Survey Instructions* or any special instructions issued by the Surveyor General, the Crown will generally rely on the professional surveyor's certification that the plan is correct and in accordance with the statutes and regulations regarding surveys in Ontario.

6.4.3. Where a submission is found to have obvious serious deficiencies, it will be returned to the surveyor unprocessed.

6.4.4. The Office of the Surveyor General will assign a project number to each submission that is reviewed. This number, once assigned, must be cited in all related correspondence with the Ministry.

6.4.5. The staff of the Office of the Surveyor General will review the submission and complete an Ontario Crown Survey Submission Analysis (see Appendix C for a sample form).

6.4.6. Upon completion of the review, a completed copy of the Ontario Crown Survey Submission Analysis form will be sent to the surveyor setting out the following:

- 1) If the plan is acceptable, and no revisions are required, the Office of the Surveyor General will issue permission to deposit the plan, assigning a Crown Location number, and the surveyor will add the Crown Location number to the plan (refer to paragraph 3.4.2) and complete the permission to deposit note (refer to paragraph 3.5.1). The date shown on the Ontario Crown Survey Submission Analysis is the date that is to be shown in the permission to deposit note.
 - 2) If the plan requires only minor amendments to be acceptable:
 - a) The surveyor will be asked to make any minor amendments to the plan that may be required.
 - b) The Office of the Surveyor General will issue conditional permission to deposit the plan, assigning a Crown Location number, and the surveyor will add the Crown Location number to the plan (refer to paragraph 3.4.2) and complete the permission to deposit note (refer to paragraph 3.5.1). The date shown on the Ontario Crown Survey Submission Analysis is the date that is to be shown in the permission to deposit note.
 - 3) If the plan appears to require amendments or raises questions that appear to require further consideration by the surveyor:
 - a) The surveyor shall **not** deposit the plan until permission to deposit has been issued by the Office of the Surveyor General and Crown Location number has been assigned.
 - b) The surveyor will be asked to consider the amendments and questions.
 - c) The surveyor shall submit one paper print or scanned PDF of the amended plan, accompanied by a report if required, directly to the Office of the Surveyor General.
 - d) Staff of the Office of the Surveyor General will review the resubmission and complete a subsequent Ontario Crown Survey Submission Analysis form.
- 6.4.7. Other than amendments requested or authorized in writing by the Office of the Surveyor General, absolutely no changes are to be made to any plan once the permission to deposit has been issued by the Surveyor General.
- 6.4.8. Permission to deposit the plan and issuance of a Crown Location number is not to be considered a waiver of any of the surveyor's professional responsibilities. The surveyor is accountable to ensure that the survey and plan are correct and in accordance with all regulations and these instructions.
- 6.4.9. In the event that a significant error or omission is discovered after the plan has been deposited, the surveyor will be required, at his or her own expense, to deposit a corrected plan, or to make an application to the land registrar to correct the plan pursuant to the Regulations under the *Registry Act* or the *Land Titles Act* as applicable.

6.5. Final Deliverables

6.5.1. After depositing the approved plan, the surveyor shall forward to the Office of the Surveyor General:

- 1) **On a CD, DVD**, other media acceptable to the Ministry, or by e-mail to surveyrecords@ontario.ca, an integrated (geo-referenced) **closed polygon vector** file of the part boundaries shown on the Crown plan in Autodesk DWG format (refer to Appendix D for sample DWG drawing).
- 2) Three good quality white prints of the **original deposited plan, bearing the Land Registrar's original signature.**

6.5.2. The DWG file submitted in accordance with 6.5.1. shall,

- 1) Be named using the assigned CL number, ie. CL_54321.dwg (Note that the use of an underscore is required in the naming convention for the DWG file).
- 2) Have **only** three layers, other than layer "0".
 - i. "Parcel", being the linework showing the limits/boundaries of the Crown parcel(s). Each Crown part on the plan shall consist of a separate, closed, integrated polygon. There shall be no annotation on this layer.
 - ii. "Metadata", being the text to fully describe the parcel and shall include:
 1. the Crown Location number
 2. the geographic location of the parcel (Lot and Concession)
 3. the Geographic Township or Area
 4. the surveyor's name
 5. the date that the surveyor signed the Surveyor's Certificate
 6. the deposited reference plan number
 7. the UTM zone, datum and epoch
 - iii. "Points", being the points utilized as Observed Reference points and Permanent Onsite points. Each point shall include:
 1. the UTM coordinates of the point
 2. a node representing the respective point, not a "block".

7. Exceptions and Reservations

7.1. Exceptions/Reservations along Shores of Lakes and Rivers

Ministry of Natural Resources and Forestry Lands Policy PL.4.03.01 deals with the release and voidance of reservations and conditions in land grants. Subsection 4.5.1 of Lands Policy PL.4.03.01 provides direction on the treatment of one-chain-wide strips of shore land reserved in Crown Patents. Should a survey and Crown land plan be required to describe the area to be dealt with, the surveyor is to be guided by the Ministry positions set out in the policy.

Lands Policy PL 4.03.01 is available online at;

http://files.ontario.ca/environment-and-energy/crown-land/mnr_e000101.pdf

7.2. Reservations Abutting Registered Plans of Subdivision

The Ministry is reluctant to upset the position of the waterside boundaries on the lots and parcels shown on registered plans of subdivision where there has been a reservation in the patent. In most cases, provided that a registered plan of subdivision was surveyed in accordance with generally accepted surveying practices, the Ministry will accept the waterside limit of the subdivision lots shown on the registered plan as being the first running of the inland limit of the one chain strip reserved in the Crown patent. Surveyors are advised to show any Crown owned portions of these reserved strips commencing at the waterside limit of the subdivision lots as they are shown on the registered plans.

8. APPENDICES

A. Requirements for Crown Land Survey

Sample *Requirements for Crown Land Survey* form issued by MNRF, which sets out the Crown's requirements for a land survey and grants the surveyor authorization to proceed with a Crown land survey. A copy of this form must be included with the plan submission (refer to paragraph 1.3).

B. Provincial Requirements and Consent to Survey Mining Claims

C. Crown Land Plan Submission Analysis

Sample *Crown Land Plan Submission Analysis* form used in the submission analysis of Crown land survey returns.

D. Sample CAD drawing

Sample drawing illustrating the formatting of the required layer structure as per paragraph 6.5.2.

E. Provincial Grid Specifications

Typical breakdown of MNM's provincial grid and naming convention.



Appendix 'A'

Requirements for Crown Land Survey

Location Description: _____

as outlined in red in the attached sketch.

This Crown land is to be surveyed in accordance with the "Instructions Governing Ontario Crown Land Surveys and Plans, November 2017" as issued by the Office of the Surveyor General.

In addition to the above, the following instructions are also to be adhered to:

Waterfront boundary

If Riparian:

Water's edge

If Non-Riparian:

Contour of maximum regulated elevation if body of water is regulated (Surveyor to verify elevation with MNR District).

Monumented straight Line/s approximately one metre inland from water's edge at it's highest level or from the contour of maximum regulated elevation.

Monumented straight line/s approximating the top of bank, a flooding contour of _____ CGVD28 (GSC), or some other physical feature: _____.

Utility right-of-way to be surveyed: _____ metres in width

Road right-of-way to be surveyed: _____ metres in width

Other Location Specific Instructions: _____

To Ontario Land Surveyor: _____

Authorization is hereby granted to survey the above noted Crown Land.

Ministry Official: _____

Title: _____

Date: _____

Notes:

- 1. Do not proceed with survey until this form has been signed by an MNR official.**
- 2. A copy of this authorization must accompany the survey submission to the Ministry of Natural Resources district office.**
- 3. If this survey involves a Hydro One Networks Inc. or Bell Canada installation, then prior to the commencement of field work, Hydro One and/or Bell Canada, as the case may be, must be contacted in order to determine their requirements.**

Appendix 'B'

FORM B - Provincial Requirements & Consent to Survey Mining Claim Surveys

PROVINCIAL REQUIREMENTS AND CONSENT TO SURVEY MINING CLAIMS

Sec. 95(1) [...no survey of a mining claim, except a perimeter survey consented to by the Minister under subsection (3), shall be made without the written consent of the recorder.]

Sec. 96. Where, upon an application for a lease or licence of occupation of a mining claim in surveyed territory, the Minister is of opinion that a survey is necessary, he or she may direct that a survey thereof be made at the expense of the applicant, and the survey, unless otherwise ordered, shall comply with the same requirements as a survey of a mining claim or the perimeter survey of mining claims in unsurveyed territory.

A copy of this completed form is to be sent to the Surveyor General for comment prior to granting permission to survey.

Date: _____ PRO File #: _____ WGMC, B3-933 Ramsey Lake Rd. Sudbury

Mining Division:

Land Titles Division:

MNR District:

Township / Area:

G-Plan No. _____

Lot / Concession:

Mining Claim No(s):

Provincial Mining Recorder's Office (PRO) Requirements:

No. of attachments: _____

Office of the Surveyor General's (OSG) Requirements:

No. of attachments: _____

The survey must be in accordance with the following:

- 'Instructions Governing Ontario Crown Land Surveys and Plans, dated November, 2017, with supplementary notices;
- Special Instructions issued by the Surveyor General for surveying the subject Mining Claim(s), attached hereto;
- Contact the Office of the Surveyor General for any clarifications related to OSG's requirements.

NOTES

1. The Surveyor shall contact MNR District office for any work related restrictions and to inform them that they will be surveying mining claims in the area.
2. It remains the surveyor's responsibility to ensure that the survey and plan comply with all applicable legislation.

CONSENT TO SURVEY

To Ontario Land Surveyor: _____

Consent is hereby granted to survey the above noted Mining Claim(s).

PROVINCIAL MINING RECORDER _____, [print name]

DATE: _____

CONTACT PERSON: _____, Deputy Mining Recorder

E-MAIL ADDRESS: _____

TELEPHONE: 1-888-415-9845, Extension _____

FAX: 1-877-670-1444 (toll free)

1. **Do not proceed with the survey until this form has been signed by the PRO.**
2. A copy of this consent must accompany the survey submission to the Provincial Mining Recorder's Office and also be included in the submission package for the Office of the Surveyor General, MNR.

Appendix 'C'

**MINISTRY OF
NATURAL
RESOURCES AND
FORESTRY**

ONTARIO CROWN SURVEY SUBMISSION ANALYSIS

FOR ALL INQUIRIES PLEASE QUOTE PROJECT No.

Submission

Office of the Surveyor General, Crown Land Surveys, 2nd Floor North, 300 Water Street, P.O. Box 7000, Peterborough, Ontario, K9J 8M5 Ph: 705.755.2100 Fax: 705.755.2149

Surveyor	Surveyor's File	Date
Applicant	Township or Area Map Sheet	Reviewed by
MNR District	Location and/or Description	

NOTICE

All plans are to be in final form, fully checked and signed by the surveyor before being submitted to MNR or MNDM.

It is the signing surveyor's responsibility to ensure that the plan is correct. The submission analysis reflected on this form is not to be taken as an acceptance by the Ministry of the surveyor's responsibility for the correctness of the work, nor is the permission to deposit the plan to be considered a waiver of any requirements pertaining to the survey and plan.

The Ministry reserves the right to require corrections of any errors or deficiencies discovered after approval and deposit of the plan.

Section numbers are referred to the *Instructions Governing Ontario Crown Land Surveys and Plans*, dated November, 2017.

See Section 6.5 for instructions regarding deliverables after deposit of the plan.

This submission analysis emphasizes quality assurance rather than an in-depth examination of the plan submission. It concentrates mainly on matters that are of importance to the Crown. The Crown generally relies on the professional surveyor's certification that the plan is correct and in accordance with the statutes and regulations regarding surveys in Ontario, and the *Instructions Governing Ontario Crown Land Surveys and Plans*.

PERMISSION TO DEPOSIT

THE PLAN APPEARS TO MEET OUR REQUIREMENTS

You are hereby authorized to deposit the above noted plan of survey of Crown land in the Land Registry Office after you have added Location No. _____ to the title block and the key plan, and the date of this submission analysis to the PERMISSION TO DEPOSIT note. Other than amendments authorized by this office in writing, absolutely no changes are to be made to the plan prior to deposit.

CONDITIONAL PERMISSION TO DEPOSIT

**THE PLAN APPEARS THAT IT WILL MEET OUR REQUIREMENTS
WHEN THE REVISIONS REQUESTED BELOW ARE COMPLETED**

You are hereby authorized to deposit the above noted plan of survey of Crown land in the Land Registry Office after you have made the corrections and additions noted in the "COMMENTS" section below, added Location No. _____ to the title block and the key plan, and the date of this submission analysis to the PERMISSION TO DEPOSIT note. Other than the amendments requested below or authorized by this office in writing, absolutely no changes are to be made to the plan prior to deposit.

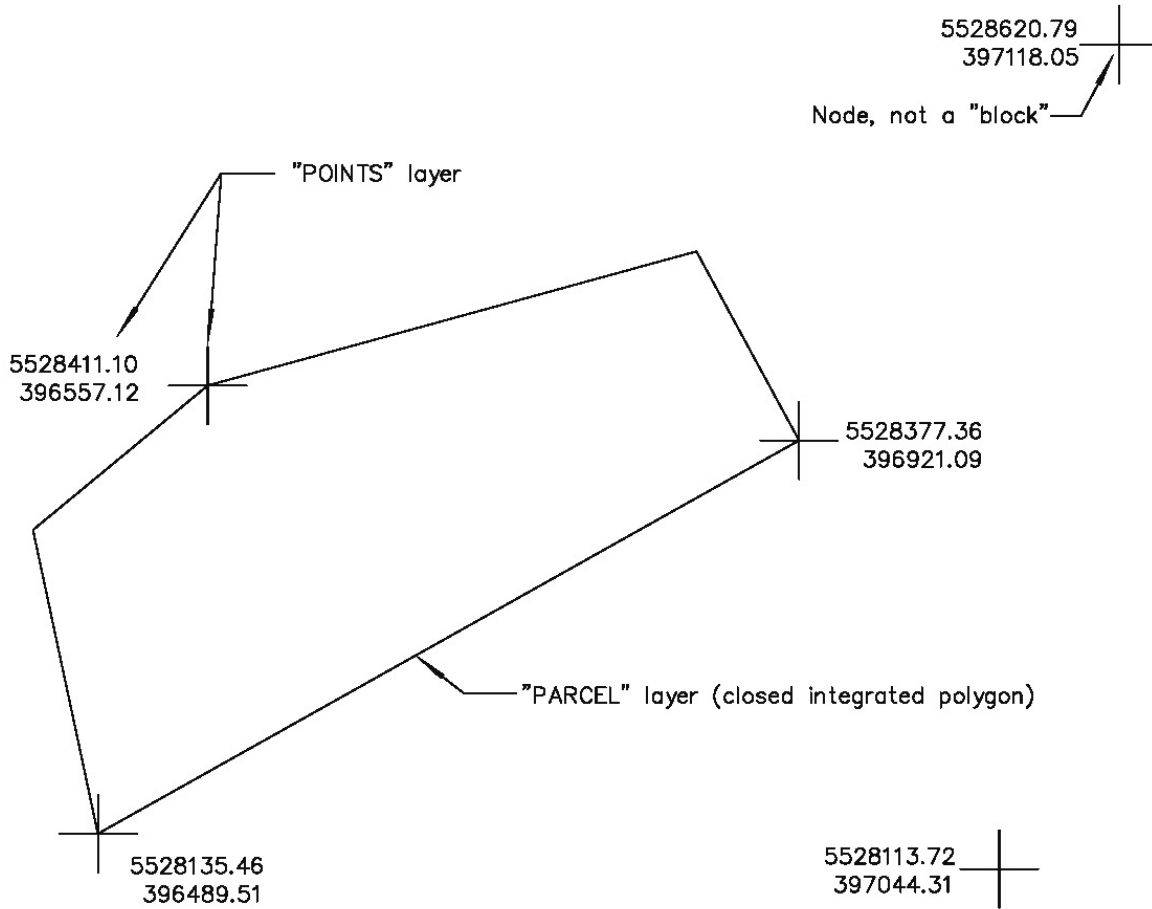
REVISIONS REQUIRED

**AMENDMENTS AND RESUBMISSION REQUIRED
DO NOT DEPOSIT YOUR PLAN AT THIS TIME**

Make any corrections and additions noted in the "COMMENTS" sections below and, citing the Project number above, send one print of your revised plan directly to this office for re-analysis. Alternatively, a copy of your plan in PDF format emailed directly to the reviewer may be acceptable.

COMMENTS

Appendix 'D'

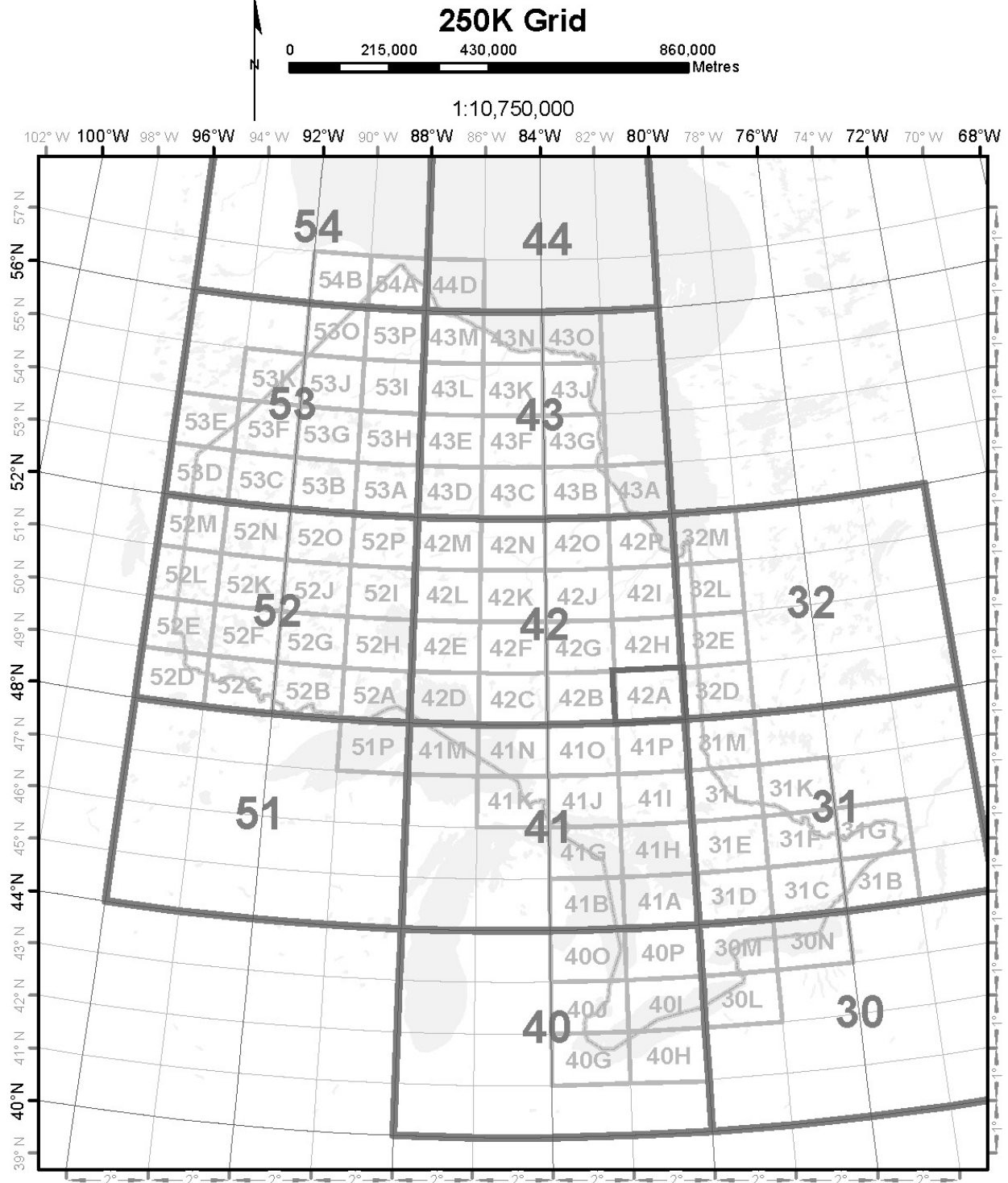


"METADATA" layer

CL xxxxx
Part of Lot 1, Concession 2
Geographic Township of Plumbob
County of Tripod
I.M. Surveyor, O.L.S.
November 1, 2017
1R-23456
UTM Zone 16, NAD 83 CSRS (2010.0)

Appendix 'E', 1 of 5

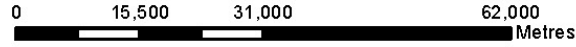
PROVINCIAL GRID SPECIFICATIONS



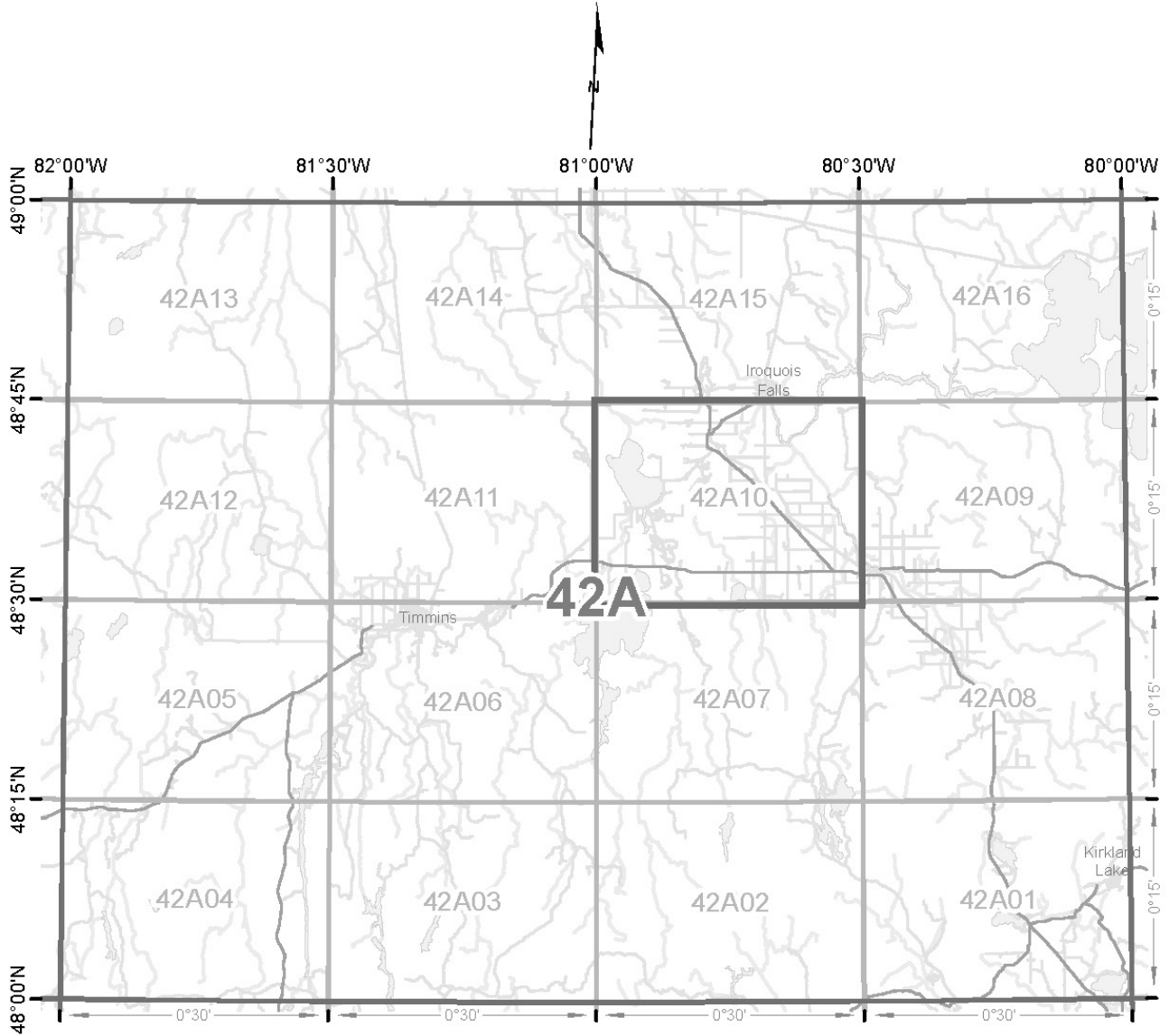
Appendix 'E', 2 of 5

PROVINCIAL GRID SPECIFICATIONS

50K Grid (Typical)



1:775,000



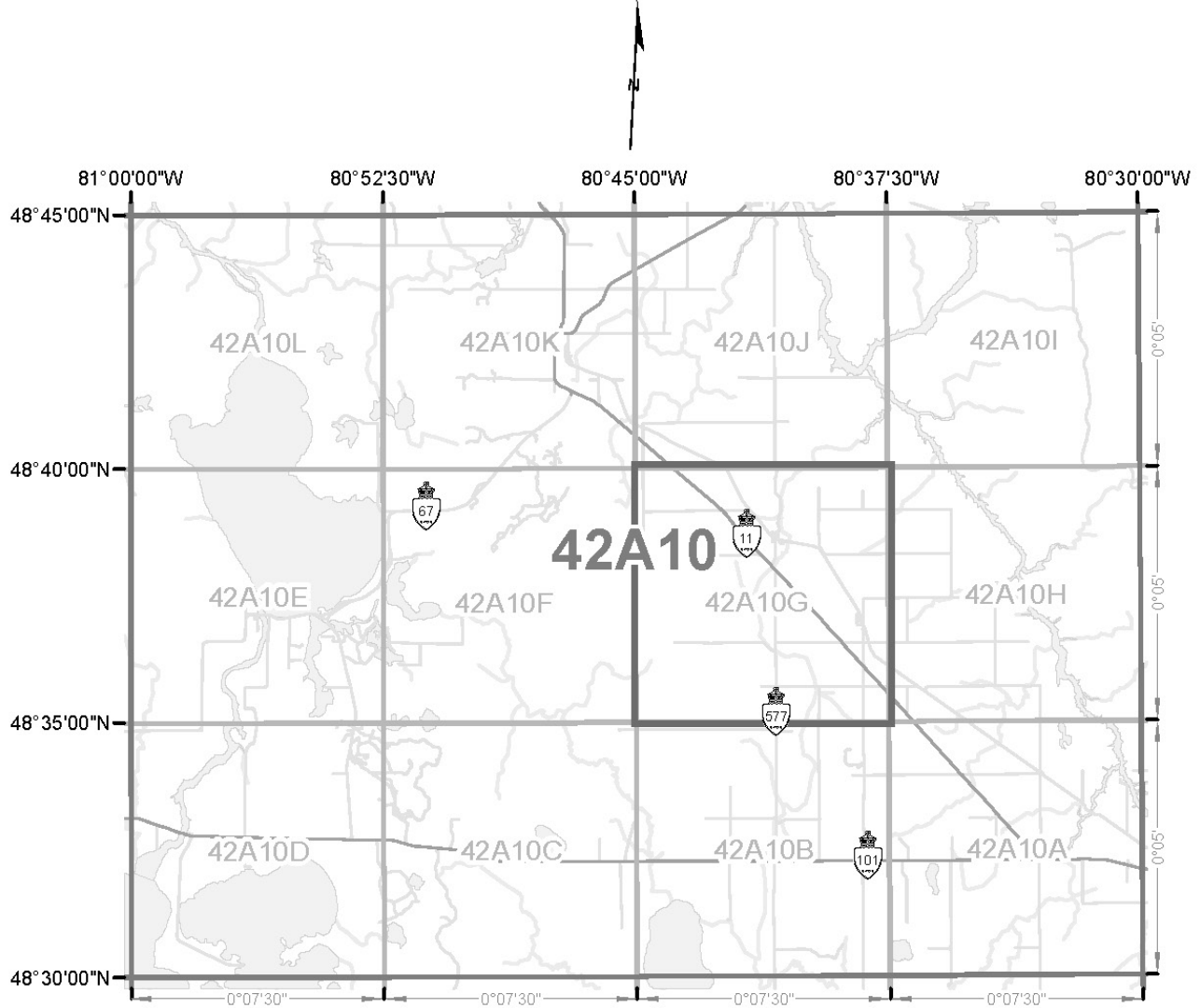
Appendix 'E', 3 of 5

PROVINCIAL GRID SPECIFICATIONS

Grid Group (Typical)



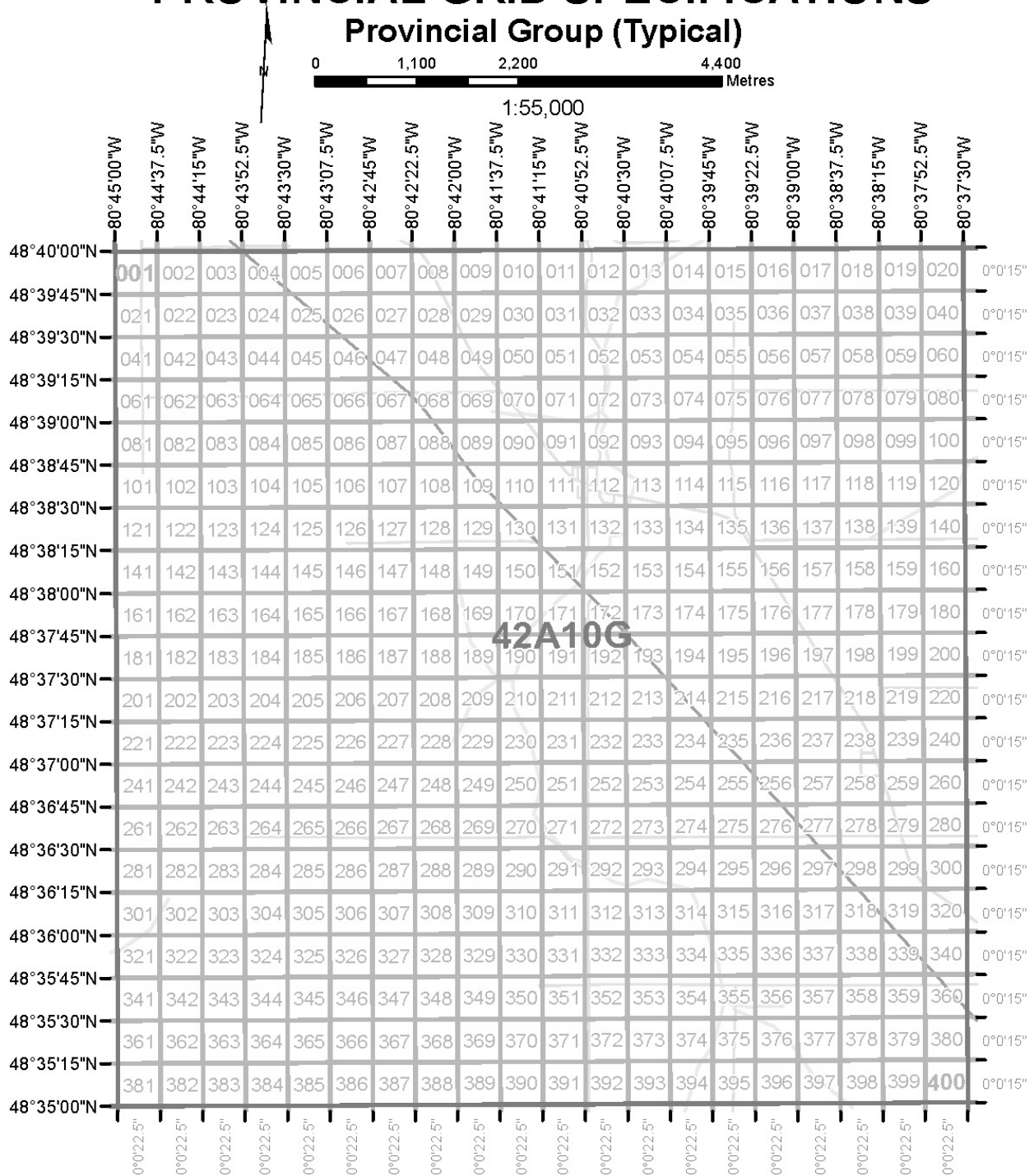
1:210,000



Appendix 'E', 4 of 5

PROVINCIAL GRID SPECIFICATIONS

Provincial Group (Typical)



Appendix 'E', 5 of 5

TYPICAL CELL NOT TO SCALE

