

BYLAW NO. 954-14

**BEING A BYLAW OF
MACKENZIE COUNTY
IN THE PROVINCE OF ALBERTA**

**TO ADOPT THE MACKENZIE COUNTY
AIRPORT VICINITY PROTECTION AREA**

WHEREAS, Mackenzie County has a Municipal Development Plan adopted in 2009, and

WHEREAS, Mackenzie County has adopted the Mackenzie County Land Use Bylaw in 2011, and

WHEREAS, the Council of Mackenzie County, in the Province of Alberta, has deemed it desirable to create the Mackenzie County Airport Vicinity Protection Area to supplement the Land Use Bylaw to manage growth around each of the municipal airports within the County,

NOW THEREFORE, THE COUNCIL OF MACKENZIE COUNTY, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, HEREBY ENACTS AS FOLLOWS:

1. That the Mackenzie County Airport Vicinity Protection Area be adopted as attached.

READ a first time this 28th day of April, 2014.

PUBLIC HEARING held this 14th day of July, 2014

READ a second time this 14th day of July, 2014.

READ a third time and finally passed this 14th day of July, 2014.

(original signed)

Bill Neufeld
Reeve

(original signed)

Joulia Whittleton
Chief Administrative Officer

Mackenzie County
Airport Vicinity Protection Area



April 2014

Mackenzie County
Airport Vicinity Protection Area

INDEX

Part Subject	Page
1. <u>Definitions</u>	1
2. <u>Main Building per Lot</u>	2
3. <u>Airport Land Use District</u>	3
3.1. Airports District	3
3.2. General Standards and Regulations for Airports	3
3.3. Development Near Airports	4
3.4. Establishment Of Protection Area	5
3.5. Height Limitations	5
3.6. Electronic Facilities	5
3.7. Land Use in Relation To Noise Exposure Forecast Areas	7
3.8. Land Use Conditions	9
3.9. Land Use In Relation To Bird Hazard Areas	9
4. <u>High Level Vicinity Protection Area</u>	10
Schedule 1- High Level AVPA Regulations	10
Schedule 2- High Level AVPA Regulations- Land Use District Map	11
Schedule 3- Height Limitations - High Level AVPA	12
Schedule 4- Height Limitations Map- High Level AVPA	13
Schedule 5- High Level AVPA- Electronic Facilities Map	14
Schedule 6- High Level AVPA- Bird Hazard Zone Map	15
5. <u>Fort Vermilion Vicinity Protection Area</u>	16
Schedule 7- Fort Vermilion AVPA Regulations	16
Schedule 8- Fort Vermilion AVPA Regulations- Land Use District Map	17
Schedule 9- Height Limitations - Fort Vermilion AVPA	18
Schedule 10- Height Limitations Map- Fort Vermilion AVPA	19
Schedule 11- Fort Vermilion AVPA- Bird Hazard Zone Map	20

6. <u>Fort Vermilion Vicinity Protection Area</u>	21
Schedule 12- La Crete AVPA Regulations	21
Schedule 13- La Crete AVPA Regulations- Land Use District Map	22
Schedule 14- Height Limitations – La Crete AVPA	23
Schedule 15- Height Limitations Map- La Crete AVPA	24
Schedule 16- La Crete AVPA- Bird Hazard Zone Map	25
7. <u>Rainbow Lake Vicinity Protection Area</u>	26
Schedule 17- Rainbow Lake AVPA Regulations	26
Schedule 18- Rainbow Lake AVPA Regulations- Land Use District Map	27
Schedule 19- Height Limitations- Rainbow Lake AVPA	28
Schedule 20- Height Limitations Map- Rainbow Lake AVPA	29
Schedule 21- Rainbow Lake AVPA- Bird Hazard Zone Map	30

1. DEFINITIONS

"**AIRPORT**" means an area of land, water, ice or other surface intended to be used for landing, take-off or servicing aircraft, including all related buildings.

"**AIRSTRIP AIRPORT RUNWAY**" means an area of land associated with an airport runway used or intended to be used, for take-off and landing aircraft, excluding related buildings.

"**AIRPORT ZONING REFERENCE POINT ELEVATION**" means the lowest threshold elevation point of the runway as shown in the Airport Vicinity Protection Area Height Limitation Schedules, 4, 10, 15, and 20 for a specific airport.

"**APPROVED HELIPORT SITES**" means helicopter landing sites approved by the County.

"**BASIC STRIP**" means a basic strip as described:

***Fort Vermilion** - The basic strip associated with this airport runway is an area 91.4 meters in width and 1339.5 meters in length, the location of which is shown on the map in Schedule 9*

***High Level** - The basic strip associated with this airport runway is an area 304.8 meters in width and 1645.9 meters in length, the location of which is shown on the map in Schedule 3.*

***La Crete** - The basic strip associated with this airport runway is an area 150.0 meters in width and 1462 meters in length, the location of which is shown on the map in Schedule 15.*

***Rainbow Lake** - The basic strip associated with this airport runway is an area 91.4 meters in width and 1493.5 meters in length, the location of which is shown on the map in Schedule 21.*

"**DEPARTMENT**" means the Development Officer for Mackenzie County.

"**LAND USE BYLAW**" means the Land Use Bylaw for Mackenzie County as amended from time to time.

"**MUNICIPAL AIRPORT**" means the airport facilities known as the High Level Airport, Fort Vermilion Airport, La Crete Airport and Rainbow Lake Airport.

"**MUNICIPALITY**" means Mackenzie County

"**NEF CONTOUR**" means the Noise Exposure Forecast Contour lines that divide and show the areas having different levels of noise exposure to an airport, as shown on the map in Schedule 2, 8, 13, 18.

"NOISE EXPOSURE FORECAST AREA" or "NEF AREA" means the areas that are enclosed by Noise Exposure Forecast Contour lines, having different levels of noise exposure in an Airport Vicinity Protection Area that:

- 1) Is enclosed by the 40 NEF Contour, or
- 2) Lies between 2 NEF Contours, or
- 3) Lies between the 25 NEF Contour and the boundary of the Protection Area, as shown on the map in Schedule 2, 8, 13, 18.
- 4) "NEF Contour" means a numbered contour as shown on the map in Schedule 2, 8, 13, 18.

"PROTECTION AREA" means the Fort Vermilion, High Level, La Crete and Rainbow Lake Airport Vicinity Protection Areas described in Schedule 1,7,12 and 17.

"OUTER SURFACE" means an imaginary surface consisting of a common plane established at a constant elevation of 45 meters above the airport zoning reference point elevation and extending to the outer limits of the Airport Vicinity Protection Area, as described below in **TAKE-OFF AND APPROACH SURFACE, TRANSITIONAL SURFACE.**

"TAKE-OFF AND APPROACH SURFACE" means an imaginary, inclined plane, associated with each end of the Basic Strip, that:

- 1) commences at, and abuts the end of the Basic Strip,
- 2) rises at a slope ratio of 1:40 measured from the end of the Basic Strip,
- 3) diverges outward on each side as it rises, at a slope ratio of 1:10 (1:15 High Levels and La Crete's) measured from the respective projected lateral limits of the Basic Strip, and
- 4) ends at its intersection with the Outer Surface. Ends 15,000 m from end of the Basic Strip for High level.

"TRANSITIONAL SURFACE" means an imaginary surface consisting of an inclined plane that:

- 1) commences at, and abuts the lateral limit of the Basic Strip,
- 2) rises at a slope ratio of 1:7 measured from the lateral limit of the Basic Strip, and
- 3) ends at its intersection with the Outer Surface or Take-Off/Approach Surface

Land use definitions are referenced to the Mackenzie County Land Use Bylaw.

2. MAIN BUILDING PER LOT

More than one main building may be placed on a lot for an airport if the use complies to those uses listed under the subject land use district included in the Mackenzie County Land Use Bylaw.

3. AIRPORT LAND USE DISTRICT

3.1. AIRPORTS DISTRICT

This District is set up to address the developmental issues, standards and regulations of four (4) municipal airports: High Level, Fort Vermillion, La Crete and Rainbow Lake. In addition to the general standards and regulations applicable to all of these airports, specific requirements and restrictions, supported by Schedules 1-21, for the development of land in the vicinity of each individual airport are also stipulated in this section of the Bylaw. This section applies to the development located within the boundary of the Airport Vicinity Protection Areas as shown in Schedules 1-21.

3.2. GENERAL STANDARDS AND REGULATIONS FOR AIRPORTS

- 1) All developments situated within the Airport Vicinity Protection Areas - shall conform to the conditions stipulated below, and will require a development permit, except for the developments that do not exceed five (5) meters above the Airport Reference Elevation or that are listed as follows:
 - a) The maintenance or repair of any building without structural alteration or major renovation.
 - b) The completion of a building that was lawfully under construction at the date of the adoption of this Bylaw if:
 - i. The building is completed in accordance with the terms and conditions under which the development permit was issued, and
 - ii. The building, for which whether or not a permit was granted, is completed within 12 months from the first date on which an official notice for this Bylaw is given.
 - c) The use of any building, as referred to in this section, for which the construction was commenced prior to the adoption of this Bylaw.
 - d) The erection or construction of gates, fences, walls or other means of enclosure less than 1.8 meters (6.0 feet) in height, and the maintenance, improvement and other alternations of them.
 - e) A temporary building, the sole purpose of which is incidental to the erection or alteration of a permanent building, for which a Permit has been issued under the Land Use Bylaw.
 - f) The maintenance or repair of public works, services, and utilities carried out by or on behalf of federal, provincial, and municipal public authorities on land, which is publicly owned or controlled.
 - g) Construction, excavation, or other operations requisite for the continued agricultural use of a parcel in excess of 4 hectares (10 acres) that may be

assessed as farmland and used for Extensive Agricultural Operations as defined in the Land Use Bylaw.

- 2) Notwithstanding subsection (1), any development exceeding 5 meters above the airport reference elevation requires a development permit.
- 3) This Bylaw shall be administered by the Development Officer and the Subdivision and Development Appeal Board and they shall be deemed to have the same powers as provided within the appropriate Land Use Bylaw and the Municipal Government Act except that the Subdivision and Development Appeal Board shall not delete or alter any condition of approval for land uses identified in Table 1 and this bylaw
- 4) The Development Officer is not precluded by this Bylaw from attaching any other conditions in accordance with the Land Use Bylaw to a development permit.
- 5) A development permit for a development within the Airport Vicinity Protection Area may only be issued if the proposed development conforms to this Bylaw and the Land Use Bylaw.

3.3. DEVELOPMENT NEAR AIRPORTS

- 1) Development near municipal airports will be required to conform to the Airport Vicinity Protection Areas Bylaw or other established regulation.
- 2) Commercial airport related development shall not be permitted unless it is located at an approved airstrip site.
- 3) No private airstrips shall be permitted to locate within the legal boundaries of any Hamlet in the County
- 4) No private airstrips shall locate within any Airport Vicinity Protection Area.
- 5) Heliports shall not locate in any Hamlet unless they are for emergency medical services and/or approved sites.
- 6) All airport related development directly accessing the Town of - Rainbow Lake Municipal Airport shall be encouraged to locate within the Town of Rainbow Lake.
- 7) NO development shall take place within the Airport Vicinity Protection Area that would unduly affect the lives, amenities and general wellbeing of the surrounding residents, commercial and industrial activities, or those of the airport.
- 8) All applications for developments within the Rainbow Lake Protection Area, as identified in Schedule 17, shall be circulated to the Town of Rainbow Lake for their information.
- 9) All applications for developments within High Level Protection Area shall be approved by the Inter-Municipal Planning Commission, as per the Inter-municipal Development Plan between Mackenzie County and the Town of High Level.

3.4. ESTABLISHMENT OF PROTECTION AREA

- 1) The part of Alberta described and shown in Schedules 1, 7, 12 and 17 are established as Airport Vicinity Protection Areas under this bylaw.
- 2) If any discrepancy exists between the description of the Protection Areas in Schedule 1, 7, 12 and 17 and the location of the Protection Areas as shown on the map in Schedule's 1-21, the description in Schedules 1, 7, 12 and 17 prevails.

3.5. HEIGHT LIMITATIONS

- 1) A development permit shall not be issued for a development in the Protection Area if the highest point of the development will exceed in elevation at the location of that point any of the following surfaces that project immediately above the surface of the land at that location;
 - a) The take-off/approach surfaces of the runway of the airport;
 - b) The transitional surfaces of the runway of the airport;
 - c) The outer surface
- 2) For the purposes of this section;
 - a) If the proposed development is a railway, the highest point of the development shall be deemed to be 6 metres higher than the actual height of the rails, and
 - b) If the proposed development is a highway or roadway, the highest point of the development shall be deemed to be 4.3 meters higher than the actual height of the highest part of the travelled portion of the highway.

3.6. ELECTRONIC FACILITIES

- 1) No objects taller than 1.2m are permitted in the area denoted Area "A" on the Electronic Facilities Protection Map in Schedule 5.
- 2) No metallic objects higher than 1.2m, no non-metallic objects higher than 2.5m are permitted in the area denoted Area "B" on the Electronic Facilities Protection Map in Schedule 5.
- 3) No metal-walled structure should subtend a total vertical angle greater than 0.8° , no structural steel work should subtend a total vertical angle greater than 1.6° and no non-metallic object (including trees) should subtend a total vertical angle greater than 2.4° from the base of the antenna located at the apex of the Area "C" on the Electronic Facilities Protection Map in Schedule 5.
- 4) No metallic fences, power lines, telephones lines, buildings, roads, or railroads permitted in the Areas "D", "E" and "F" on the Electronic Facilities Protection Map in Schedule 5.

- 5) Objects that may cause reflection of communication signals are not permitted in the Area “G” on the Electronic Facilities Protection map in Schedule 5.
- 6) Electrical noise generating sources such as engine ignitions, electric motors, electrical switching gear, high tension line leakage, diathermic and industrial heating generators and many household appliances are not permitted in the Area “H” on the Electronic Facilities Protection Map in Schedule 5.

3.7. LAND USE IN RELATION TO NOISE EXPOSURE FORECAST AREAS

- 1) In this Section
 - a) “C” followed by a number where it appears in one of the NEF Area (Noise exposure forecast area) columns in Table 1 opposite a particular land use means that the land use is permitted subject to the condition(s) set out in Table 2 bearing the same letter and number.
 - b) “NA” where it appears in one of the NEF columns in Table 1 opposite a particular land use, means that the land use is not allowed and prohibited in that NEF Area.
 - c) “P” where it appears in one of the NEF columns in Table 1 opposite a particular land use, means that the land use in that NEF Area is permitted by this regulation, thus, such a use is neither prohibited nor is a development permit for a development involving that use to be made subject to any condition under Table 2 of this Schedule in this regulation.
 - d) “NEF 25-Area” means the NEF Area that lies between the 25 NEF Contour and the boundary of the Protection Area;
 - e) “NEF 25-30 Area” means the NEF Area that lies between the 30 NEF Contour and the 35 NEF Contour;
 - f) “NEF 30-35 Area” means the NEF Area that lies between the 30 NEF Contour and the 35 NEF Contour;
 - g) “NEF 35-40 Area” means the NEF Area that lies between the 35 NEF Contour and the 40 NEF Contour;
 - h) “NEF 40+” Area means the NEF Area enclosed by the 40 NEF Contour;
 - i) “extensive agriculture” means the use of land or buildings for the raising or production of crops, livestock or poultry, but not restricting the generality of the foregoing does not include feedlots, intensive hog operations, bee keeping, intensive poultry or fowl operations, sod farms, plant nurseries, and landscaping, gardening and livestock yards on a small parcel of land.
 - j) “residential replacement or infilling unit” means any new residential development that:

- i. Will replace a residential development that has been demolished or destroyed, or
 - ii. Is to be built on a lot that is
 - (a) Registered under the Land Titles Act, and
 - (b) Zoned for residential development before the coming into force of this bylaw;
- 2) Developments existing before the passing of this regulation shall be deemed to comply with the second insulation requirements set out in this Schedule.
- 3) Schedules 2, 8, 13 and 18 depict the NEF Contours for each airport

Table 1
Land Use in Relation to Noise Exposure Forecast Areas

<u>Land Uses</u>	<u>Airport Clear District (A-CL)</u>				
	Noise Exposure Forecast Areas				
	NEF 25- Area	NEF 25- 30 Area	NEF 30- 35 Area	NEF 35- 40 Area	NEF 40+ Area
Airport Runway	P	P	P	P	P
Extensive Agriculture	P	P	P	P	P

<u>Land Uses</u>	<u>Airport Industrial District (A-M)</u>				
	Noise Exposure Forecast Areas				
	NEF 25- Area	NEF 25- 30 Area	NEF 30- 35 Area	NEF 35- 40 Area	NEF 40+ Area
Airport	P	P	P	P	P
Aircraft Hangers, Sales, Repairs	P	P	P	P	P
Airport Industries	P	P	P	P	P
Extensive Agriculture	P	P	P	P	P

<u>Land Uses</u>	<u>Airport Rural District (A-R)</u>				
	Noise Exposure Forecast Areas				
	NEF 25- Area	NEF 25- 30 Area	NEF 30- 35 Area	NEF 35- 40 Area	NEF 40+ Area
Single Family Residence	P	C ₁	NA	NA	NA
Abattoir	C	C	C	C	C
Tannery	C	C	C	C	C
Home Based Business	P	C ₁	C ₁	C ₁	C ₁
Golf Course	P	P	P	P	P
Agricultural Industry	P	P	P	P	P
Intensive Agriculture	C	C	C	C	NA

Hog Buying Station	C	C	C	C	NA
Livestock Sales Yard	C	C	C	C	NA
Community Centre (Hall)	P	P	P	NA	NA
Industrial Plant	C	C	C	C	C
Farm Subsidiary Occupation	P	C ₁	C ₁	C ₁	C ₁
Landfill Site	C	C	C	C	C
Gravel Pit	P	P	P	P	P
Sod Farm	P	P	P	P	P
Stripping of Topsoil	P	P	P	P	P
Veterinary Clinic	P	P	C _{1,2}	NA	NA
Public Utility Building	P	P	C ₁	C ₁	C ₁
Sewage Lagoon	C	C	C	C	C
Radio, Television Tower	P	P	P	P	P
Church	P	C ₁	C ₁	NA	NA
Kennel	P	P	C _{1,2}	NA	NA
Highway Maintenance Yard	P	P	P	P	P
Government Weigh Scale	P	P	P	P	P
School	P	C ₁	NA	NA	NA
Minor Recreational Facility	P	P	P	C _{2,3}	NA
Bulk Oil Supplies	P	P	C ₁	C ₁	C ₁
Agricultural Supply Depot	P	P	C ₁	C ₁	C ₁
Contractor's Business	P	P	C ₁	C ₁	C ₁
Auto Wrecker	P	P	P	P	P
Pipe and Equipment Storage	P	P	P	P	P
Agricultural Machinery, Sales, Service	P	P	C ₁	C ₁	C ₁
Gasoline, Service Station	P	P	C ₁	C ₁	C ₁
Post Office	P	P	C ₁	C ₁	C ₁
Retail Store	P	P	C ₁	C ₁	C ₁
Game Farm	P	P	P	P	NA
Ranger Cabin	P	C ₁	NA	NA	NA
Tradesman's Business	P	P	C ₁	C ₁	C ₁
Public Buildings	P	P	C ₁	C ₁	C ₁
Waetr Reservoir	P	P	C	C	C
Ancillary Buildings	AS PER PRIMARY USE				
Sawmills	P	C ₁	C ₁	C ₁	C ₁
Residential Replacement Infill Unit	P	C ₁	C ₁	C ₁	NA

3.8. LAND USE CONDITIONS

- C1 Construction shall conform to the exterior acoustic insulation requirements of Part 11 of the Alberta Building Code 2006 for those NEF Areas other than the NEF 25-Area unless otherwise stated in this regulation. Where this condition is specified, the Development Officer shall indicate on the Development Permit between which noise contours the proposed development site would be located for reference of the building inspector at the time of the building permit application.
- C2 The development shall be covered completely.
- C3 The development shall not include structures for the seating of spectators except as varied to allow for seating of a minor nature as specified in the condition.

3.9. LAND USE IN RELATION TO BIRD HAZARD AREAS

- 1) In this Section
 - a) Zone 1 means the area defined by a rectangle that fully encloses the runway and extends 3 km beyond the runway threshold in each direction and 2 km on either side of the runway centreline
 - b) Zone 2 means the area at each end of the runway bounded by a semicircle with its centre on the extended centreline 1 km from the runway threshold and a radius of 8 km, excluding the intersections with Zone 1
 - c) Zone 3 means the area enclosed by two semicircles, each with its centre on the extended centreline 1 km from opposing runway thresholds and a radius of 12 km, connected at their ends by two lines parallel to the runway centreline, excluding the intersections with Zone 1 and Zone 2.
- 2) Developments existing before the passing of this regulation shall be deemed to comply with the requirements set out in this Section.
- 3) No owner or lessee of any lands identified in Zone 1, Zone 2, or Zone 3, as identified in Schedules, 6, 11, 16, 21 shall modify or improve the lands or any part of them in a manner that increases their attractiveness to birds.
 - a) No new developments of the following types are permitted, unless specifically granted, in writing, by the County:
 - i. Sanitary Land Fill
 - ii. Food Garbage Disposal
 - iii. Abattoir
 - iv. Sewage Lagoon
 - v. Open Water Reservoir larger than 2.5 hectares
 - (a) Open water reservoirs of less than 2.5 ha, or where water will be held for a period of 48 hours or less, are permitted.

4. High Level Airport Vicinity Protection Area Regulation

Schedule 1

High Level Airport Vicinity Protection Area

The High Level Airport Vicinity Protection Area consists of the land described below:

In Township 111, Range 19, West of the Fifth Meridian.

Northwest Quarter, Section 19

Northeast Quarter, Section 19, lying west of the railway right of way

Southwest Quarter, Section 19

Southeast Quarter, Section 19

Southwest Quarter, Section 20

Northeast Quarter, Section 18

Southeast Quarter, Section 18

Section 17

Northeast Quarter, Section 7

Section 8

Northwest Quarter, Section 9

Southwest Quarter, Section 9

Southeast Quarter, Section 9

Section 4

Section 5

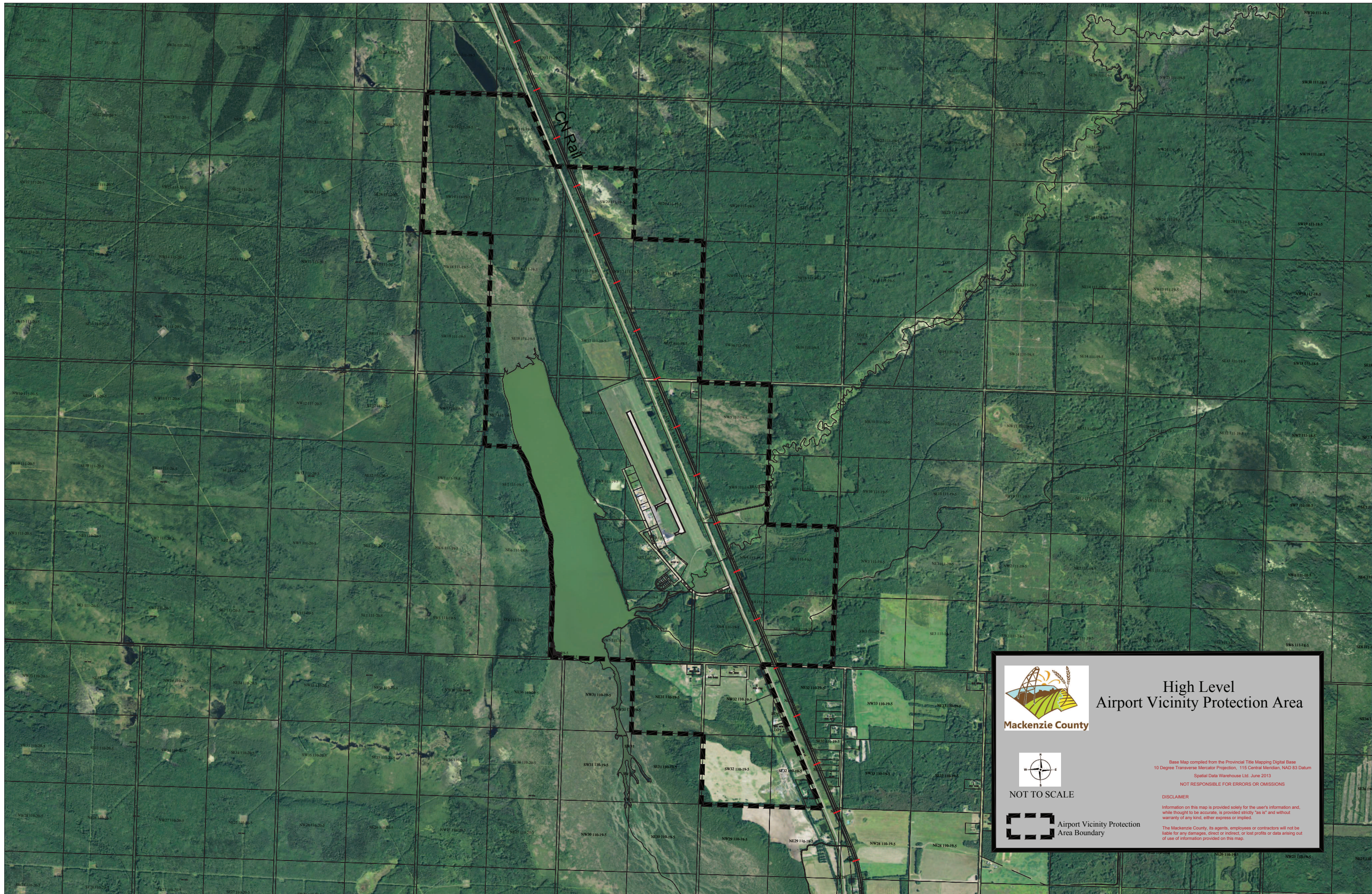
In Township 110, Range 19, West of the Fifth Meridian.


Northeast Quarter, Section 31

Northwest Quarter, Section 32


Southwest Quarter, Section 32


Southeast Quarter, Section 32, lying west of the railway right of way.




Mackenzie County

High Level Airport Vicinity Protection Area


NOT TO SCALE

 Airport Vicinity Protection Area Boundary

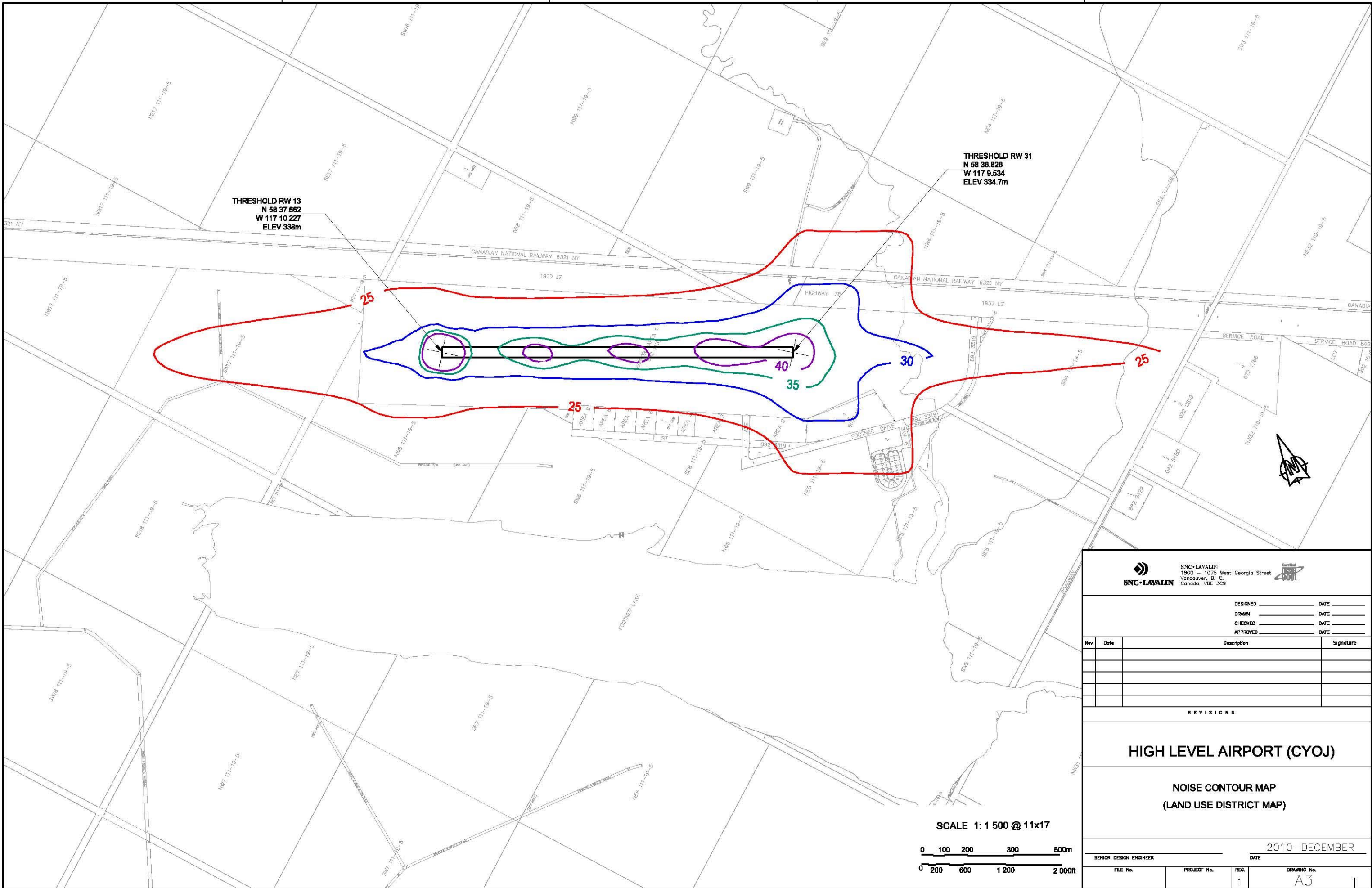
Base Map compiled from the Provincial Title Mapping Digital Base
10 Degree Transverse Mercator Projection, 115 Central Meridian, NAD 83 Datum
Spatial Data Warehouse Ltd. June 2013
NOT RESPONSIBLE FOR ERRORS OR OMISSIONS

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The Mackenzie County, its agents, employees or contractors will not be liable for any damages, direct or indirect, or lost profits or data arising out of use of information provided on this map.

Schedule 2

High Level Airport Vicinity Protection Area

Land Use District (Noise Restrictions) Map



SNC-LAVALIN
1800 - 1075 West Georgia Street
Vancouver, B. C.
Canada V6E 3C9

DESIGNED _____ DATE _____
DRAWN _____ DATE _____
CHECKED _____ DATE _____
APPROVED _____ DATE _____

Rev	Date	Description	Signature

REVISIONS

HIGH LEVEL AIRPORT (CYOJ)

**NOISE CONTOUR MAP
(LAND USE DISTRICT MAP)**

2010-DECEMBER

SENIOR DESIGN ENGINEER	DATE
FILE No.	PROJECT No.
1	A3

Schedule 3
Height Limitations
High Level Airport Vicinity Protection Area
Basic Strip

1. The basic strip associated with the airport runway is an area 304.8 metres in width and 1645.9 metres in length, the location of which is shown on the map in Schedule E.

Take-off/Approach Surfaces

2. There are take-off approach surfaces associated with each end of the basic strip and in each case the surface is imaginary and consists of an inclined plane that:
 - a. commences at and abuts the end of the basic strip,
 - b. rises at a slope ratio of 1:50 measured from the end of the basic strip.
 - c. diverges outward on each side as it rises, at a slope ratio of 1:15 measured from the respective projected lateral limits of the basic strip, and
 - d. ends at its intersection with the outer surface.

Transitional Surfaces

3. There is a transitional surface associated with each level limit of the basic strip, and in each case the transitional surface is an imaginary surface consisting of an inclined plane that:
 - a. commences at and abuts the lateral limit of the basic strip,
 - b. rises at a slope ratio of 1:7 measured from the lateral limit -of the basic strip, and
 - c. ends at its intersection with the outer surface or a take-off/approach surface.

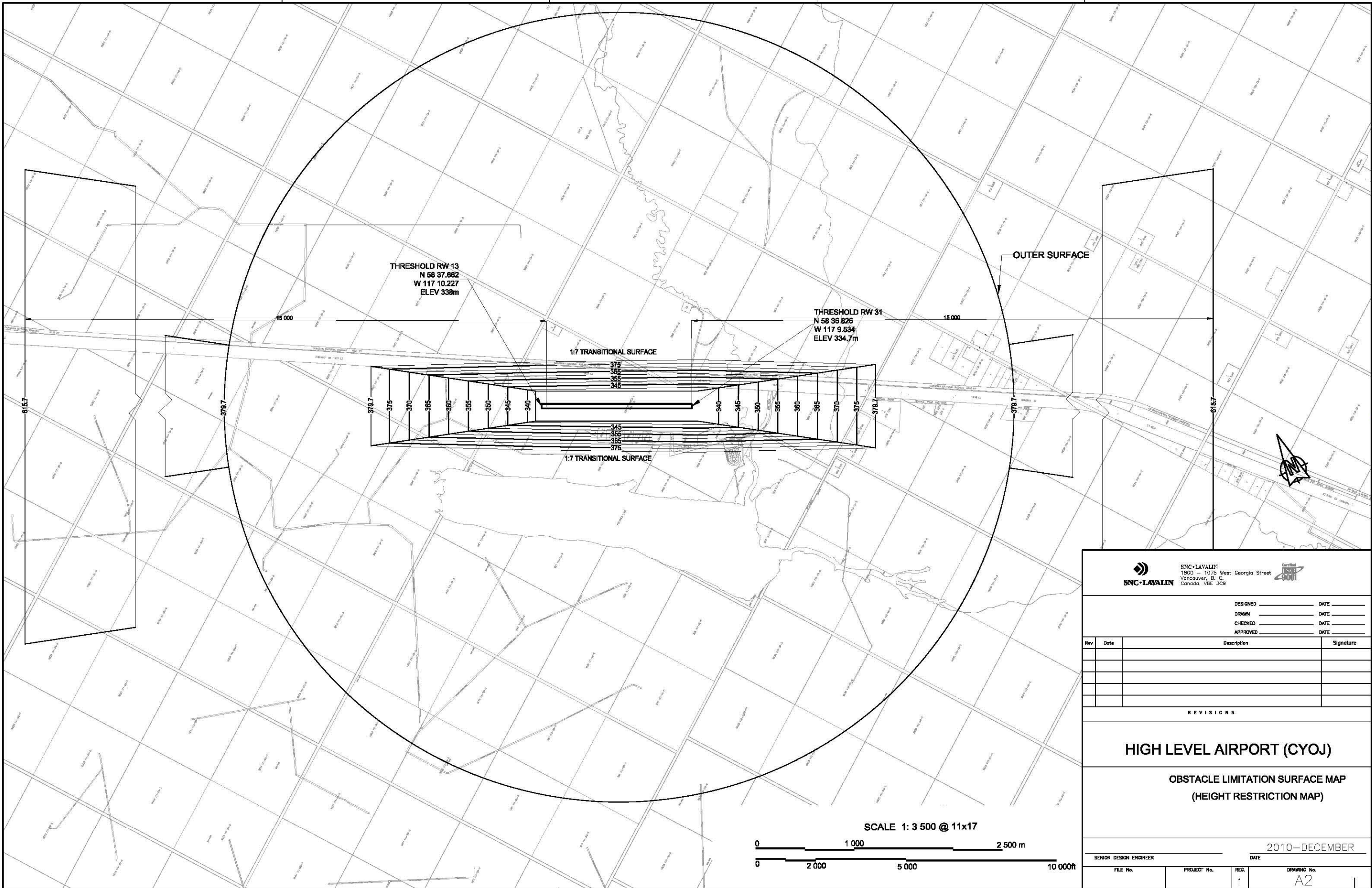
Outer Surface

4. The outer surface of the Protection Area is an imaginary surface consisting of a common plane established at a constant elevation of 45 metres above the airport reference point elevation and extending to the outer limits of the Protection Area.

General

5. The area location of the take-off/approach surfaces and traditional surfaces are represented on the map shown in Schedule 4, but, if any discrepancy exists between the description of the take-off/approach surfaces or transitional surfaces in this Schedule and their location on the map in Schedule 4, the description in this Schedule prevails.

Schedule 4
High Level Airport Vicinity Protection Area
Height Limitations Map



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 Canada V6E 3C9

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 APPROVED _____ DATE _____

Rev	Date	Description	Signature

REVISIONS

HIGH LEVEL AIRPORT (CYOJ)

**OBSTACLE LIMITATION SURFACE MAP
(HEIGHT RESTRICTION MAP)**

SCALE 1: 3 500 @ 11x17

0 1 000 2 500 m
 0 2 000 5 000 10 000ft

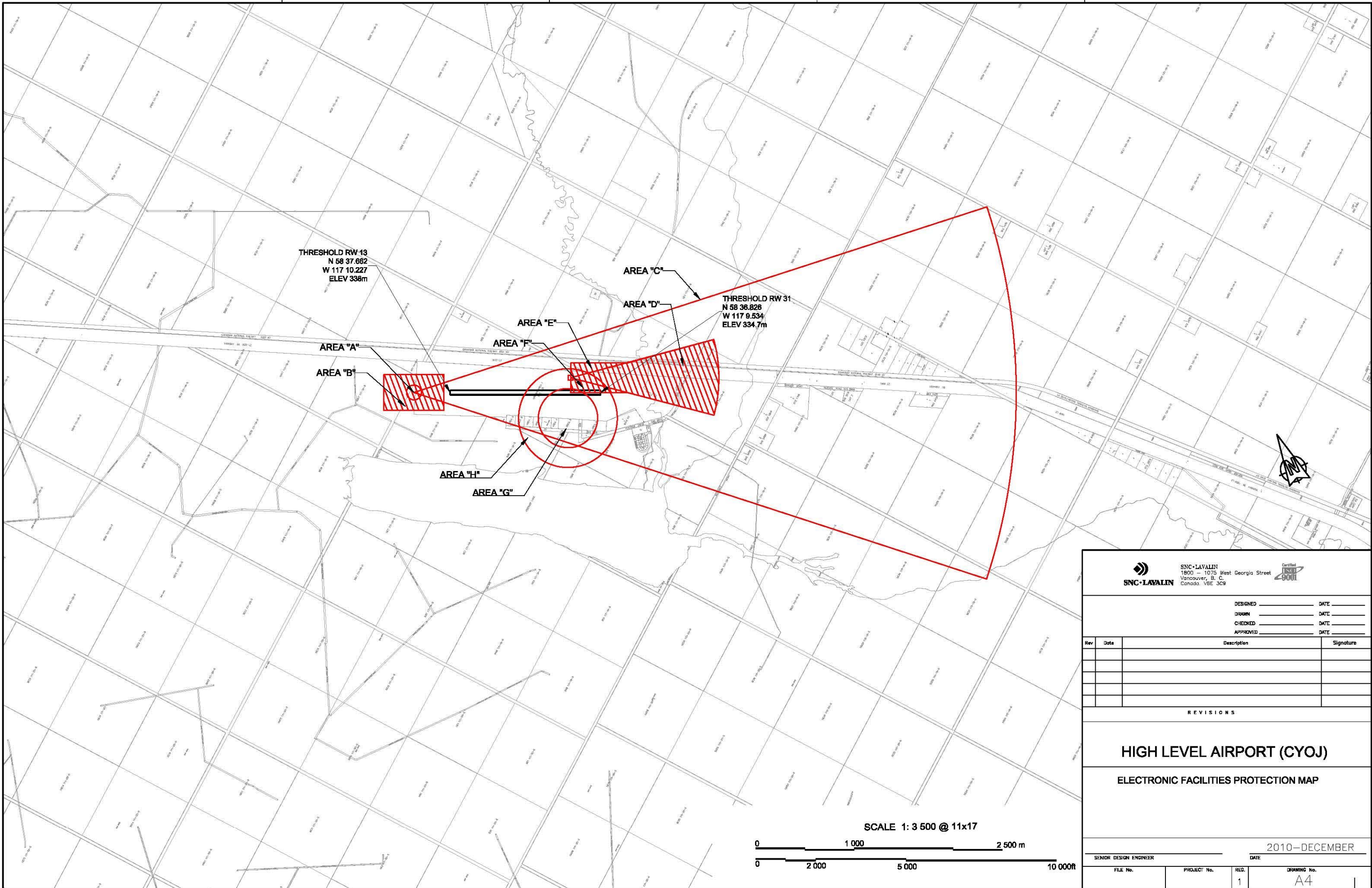
2010-DECEMBER


SENIOR DESIGN ENGINEER	DATE
FILE No.	PROJECT No.
REG. 1	DRAWING No. A2

Schedule 5

High Level Airport Vicinity Protection Area

Electronic Facilities Protection Map




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 Vancouver, B. C.
 Canada V6E 3C9

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 CHECKED _____ DATE _____
 APPROVED _____ DATE _____

Rev	Date	Description	Signature

REVISIONS

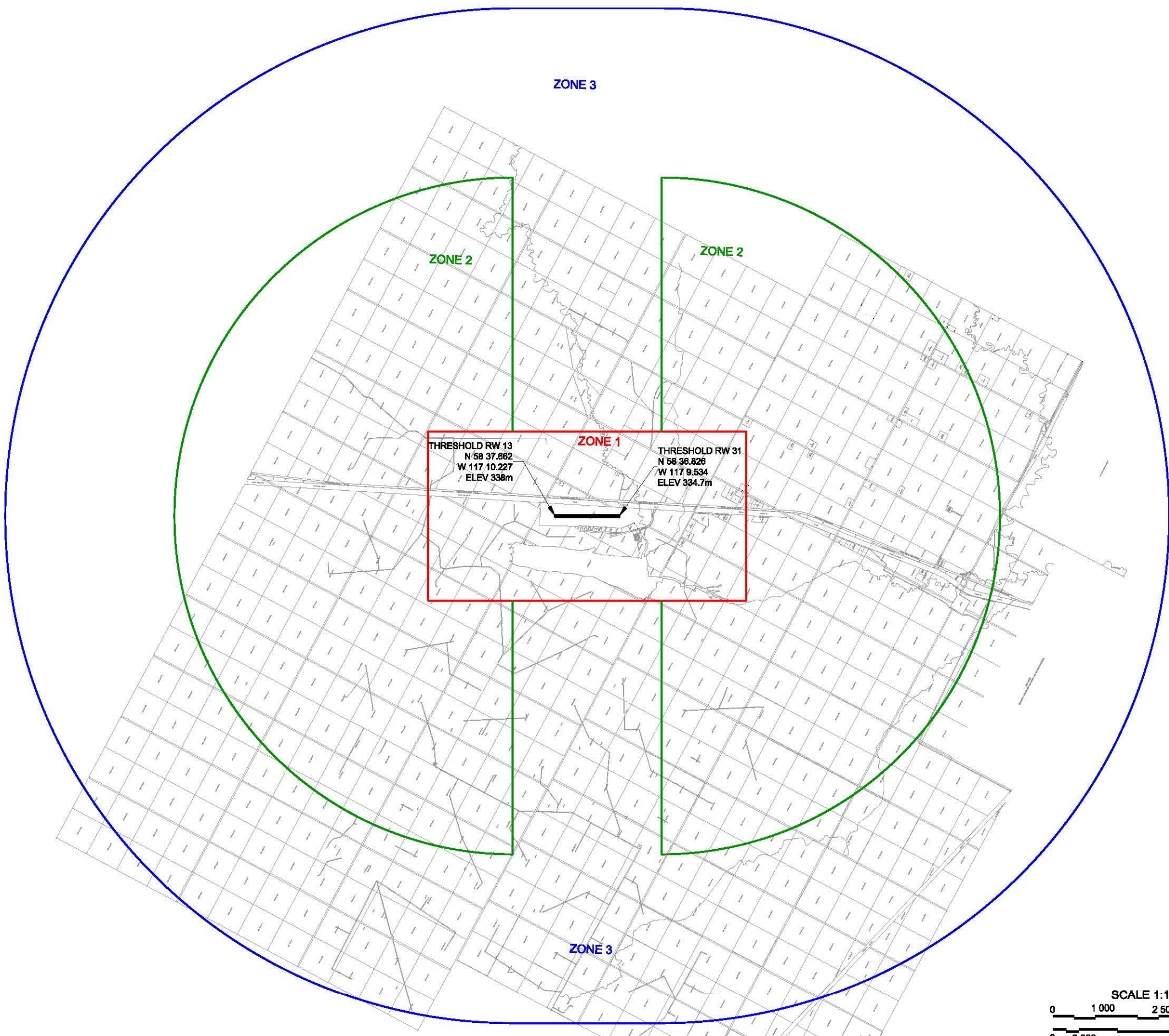
HIGH LEVEL AIRPORT (CYOJ)

ELECTRONIC FACILITIES PROTECTION MAP

2010-DECEMBER

SENIOR DESIGN ENGINEER		DATE	
FILE No.	PROJECT No.	REV.	DRAWING No.
		1	A4

Schedule 6
High Level Airport Vicinity Protection Area
Bird Hazard Zone Map



ZONE 1

THRESHOLD RW 13 N 58 37.662 W 117 10.227 ELEV 338m	THRESHOLD RW 31 N 58 36.826 W 117 9.534 ELEV 334.7m
---	--

Note:

Zone 1 means the area defined by a rectangle that fully encloses the runway and extends 3 km beyond the runway threshold in each direction and 2 km on either side of the runway centreline

Zone 2 means the area at each end of the runway bounded by a semicircle with its centre on the extended centreline 1 km from the runway threshold and a radius of 8km, excluding the intersections with Zone 1

Zone 3 means the area enclosed by two semicircles, each with its centre on the extended centreline 1 km from opposing runway thresholds and a radius of 12 km, connected at their ends by two lines parallel to the runway centreline, excluding the intersections with Zone 1 and Zone 2.

SNC-LAVALIN
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 Canada V6E 3C9

DESIGNED _____ DATE _____
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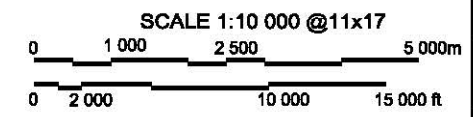
Rev	Date	Description	Signature

REVISIONS

HIGH LEVEL AIRPORT (CYOJ)

**BIRD HAZARD ZONE MAP
 (BIRD ATTRACTION RESTRICTION MAP)**

SENIOR DESIGN ENGINEER _____	DATE 2010-DECEMBER
FILE No. _____	PROJECT No. _____
REG. 1	DRAWING No. A1



5. Fort Vermilion Airport Vicinity Protection Area Regulation

Schedule 7

Fort Vermilion Airport Vicinity Protection Area

The Fort Vermilion Airport Vicinity Protection Area consists of the land described below:

In Township 108, Range 12, West of the Fifth Meridian.

Northeast Quarter, Section 30

Southeast Quarter, Section 30, north of south bank of the Peace River

Section 29, north of the south bank of the Peace River

Section 28

Southwest Quarter, Section 27

Southeast Quarter, Section 27

Northeast Quarter, Section 21

River Lot 1, Range 1, Fort Vermilion Settlement

River Lot 2, Range 1, Fort Vermilion Settlement

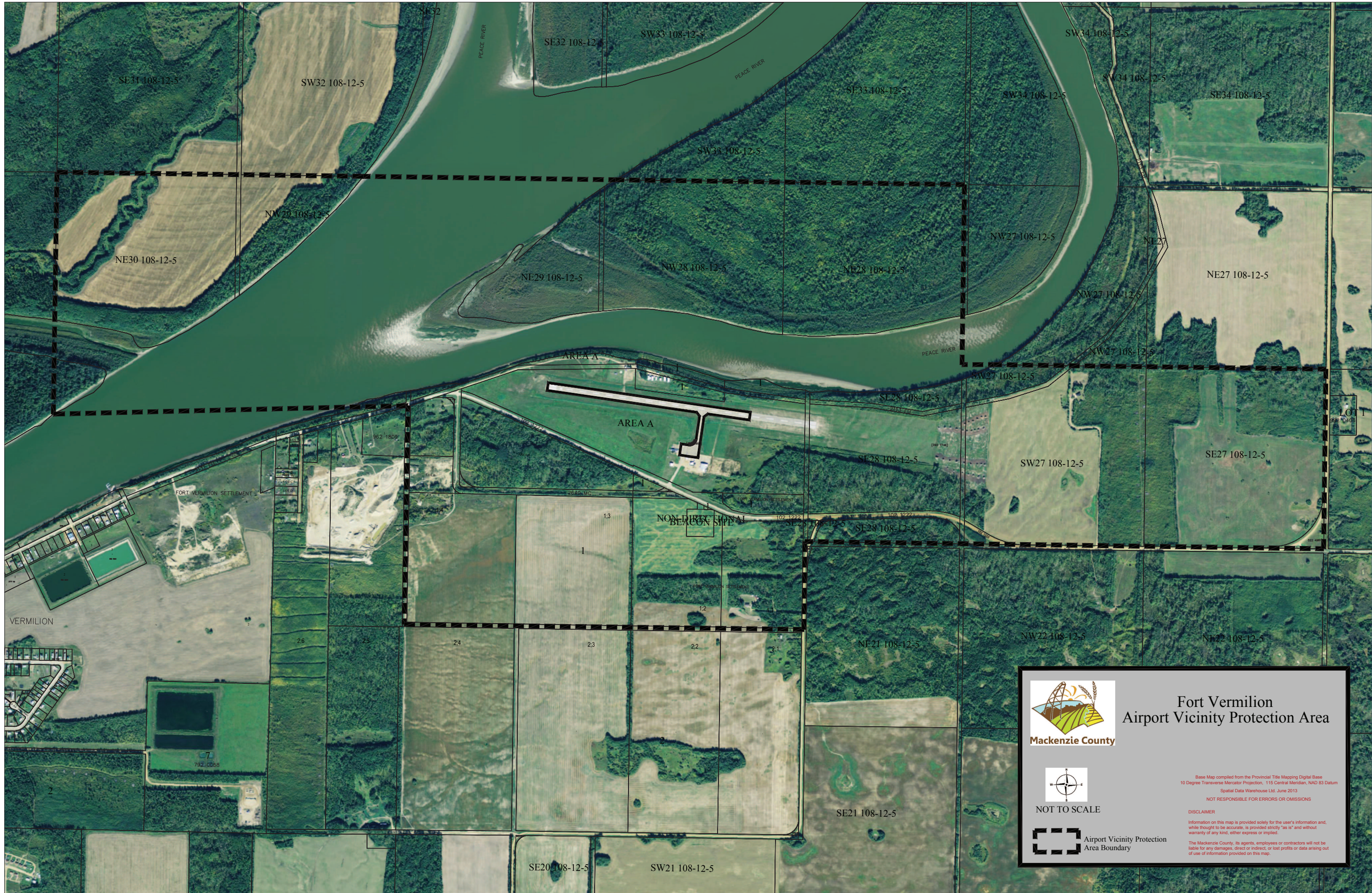
River Lot 3, Range 1, Fort Vermilion Settlement


River Lot 4, Range 1, Fort Vermilion Settlement

River Lot 5, Range 2, C. of T. 782293942 Fort Vermilion Settlement

Lot A, Plan No. 812-0388 Fort Vermilion Settlement


Lot B, Plan No. 812-0388 Fort Vermilion Settlement





**Fort Vermilion
Airport Vicinity Protection Area**

Mackenzie County




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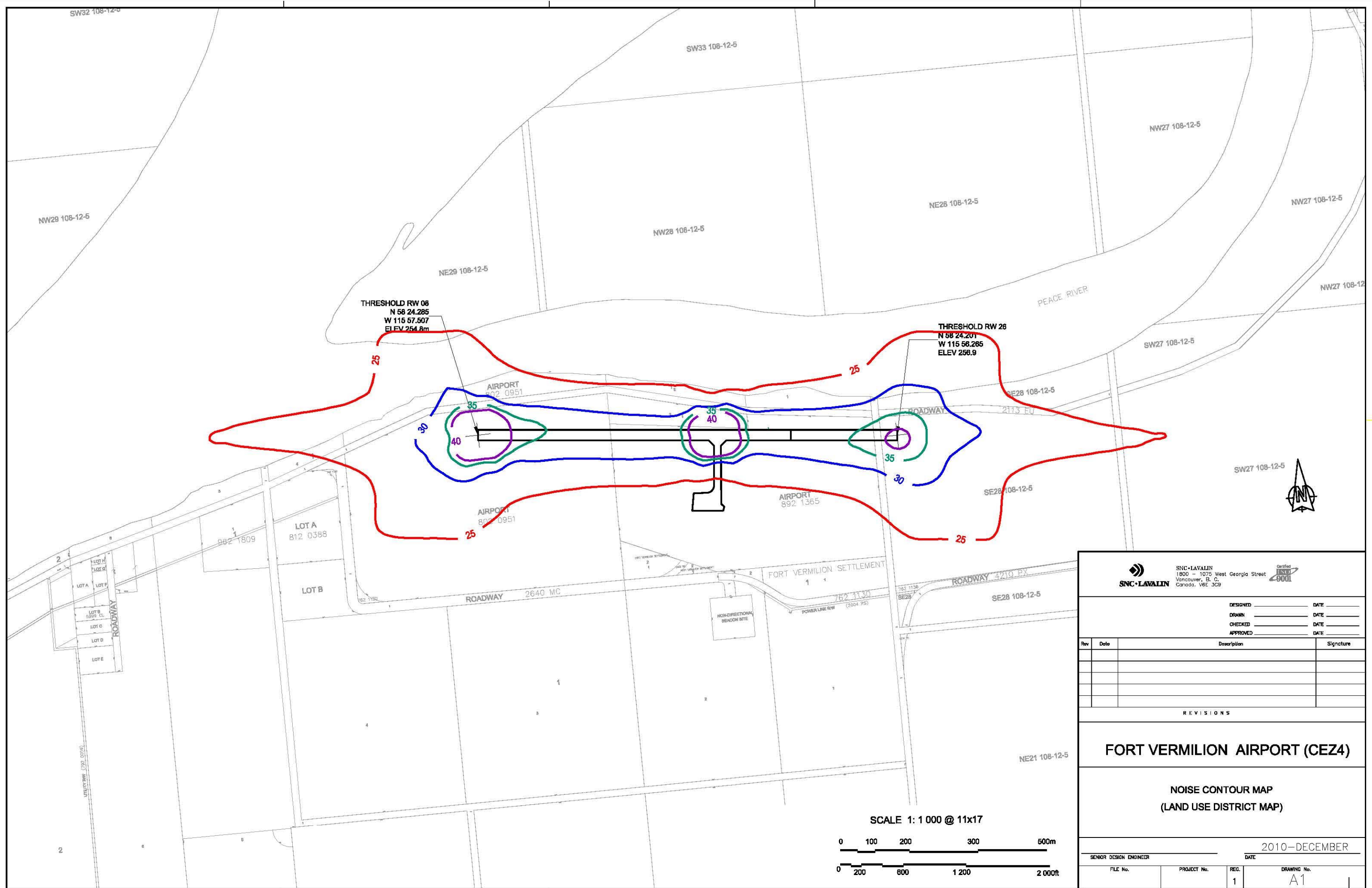


Airport Vicinity Protection Area Boundary

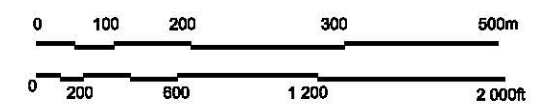
Schedule 8

Fort Vermilion Airport Vicinity Protection Area

Land Use District (Noise Restrictions) Map



SCALE 1: 1 000 @ 11x17



		SNC-LAVALIN 1800 - 1075 West Georgia Street Vancouver, B. C. Canada, V6E 3C9		
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REVISIONS				
FORT VERMILION AIRPORT (CEZ4)				
NOISE CONTOUR MAP (LAND USE DISTRICT MAP)				
SENIOR DESIGN ENGINEER _____		DATE 2010-DECEMBER		
FILE No.	PROJECT No.	REG.	DRAWING No.	
		1	A1	

Schedule 9
Height Limitations
Fort Vermilion Airport Vicinity Protection Area
Basic Strip

6. The basic strip associated with the airport runway is an area 91.4 metres in width and 1036.3 metres in length, the location of which is shown on the map in Schedule E.

Take-off/Approach Surfaces

7. There are take-off approach surfaces associated with each end of the basic strip and in each case the surface is imaginary and consists of an inclined plane that:
 - a. commences at and abuts the end of the basic strip,
 - b. rises at a slope ratio of 1:50 measured from the end of the basic strip.
 - c. diverges outward on each side as it rises, at a slope ratio of 1:15 measured from the respective projected lateral limits of the basic strip, and
 - d. ends at its intersection with the outer surface.

Transitional Surfaces

8. There is a transitional surface associated with each level limit of the basic strip, and in each case the transitional surface is an imaginary surface consisting of an inclined plane that:
 - a. commences at and abuts the lateral limit of the basic strip,
 - b. rises at a slope ratio of 1:7 measured from the lateral limit -of the basic strip, and
 - c. ends at its intersection with the outer surface or a take-off/approach surface.

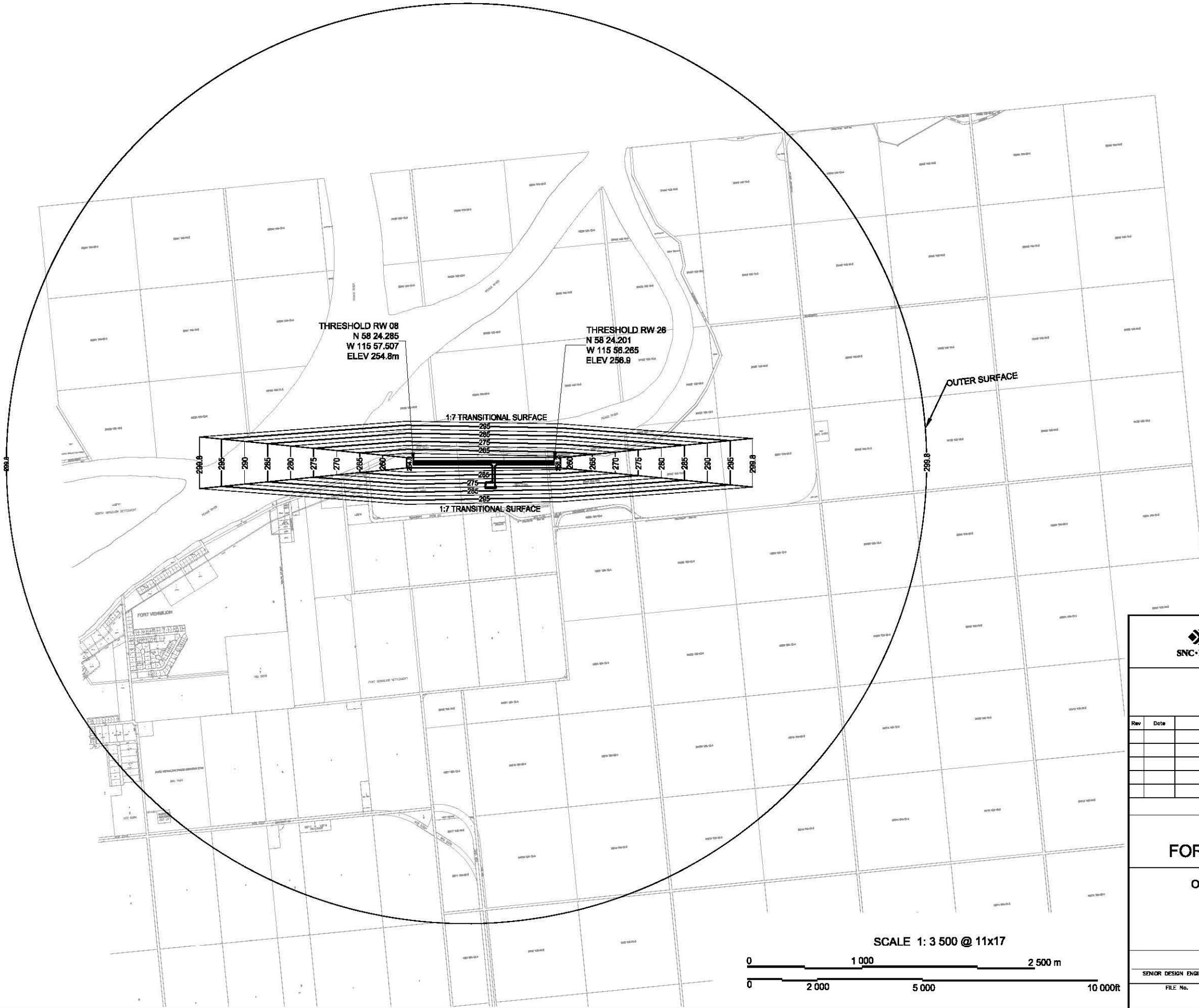
Outer Surface

9. The outer surface of the Protection Area is an imaginary surface consisting of a common plane established at a constant elevation of 45 metres above the airport reference point elevation and extending to the outer limits of the Protection Area.

General

10. The area location of the take-off/approach surfaces and traditional surfaces are represented on the map shown in Schedule 10, but, if any discrepancy exists between the description of the take-off/approach surfaces or transitional surfaces in this Schedule and their location on the map in Schedule 10, the description in this Schedule prevails.

Schedule 10
Fort Vermilion Airport Vicinity Protection Area
Height Limitations Map



THRESHOLD RW 08
N 58 24.285
W 115 57.507
ELEV 254.8m

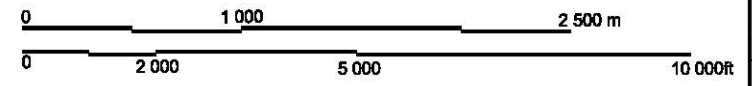
THRESHOLD RW 26
N 58 24.201
W 115 56.265
ELEV 256.9

1:7 TRANSITIONAL SURFACE

1:7 TRANSITIONAL SURFACE

OUTER SURFACE

SCALE 1: 3 500 @ 11x17



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FORT VERMILION AIRPORT (CEZ4)

OBSTACLE LIMITATION SURFACE MAP
(HEIGHT RESTRICTION MAP)

SENIOR DESIGN ENGINEER _____

FILE No. _____ PROJECT No. _____ REG. _____

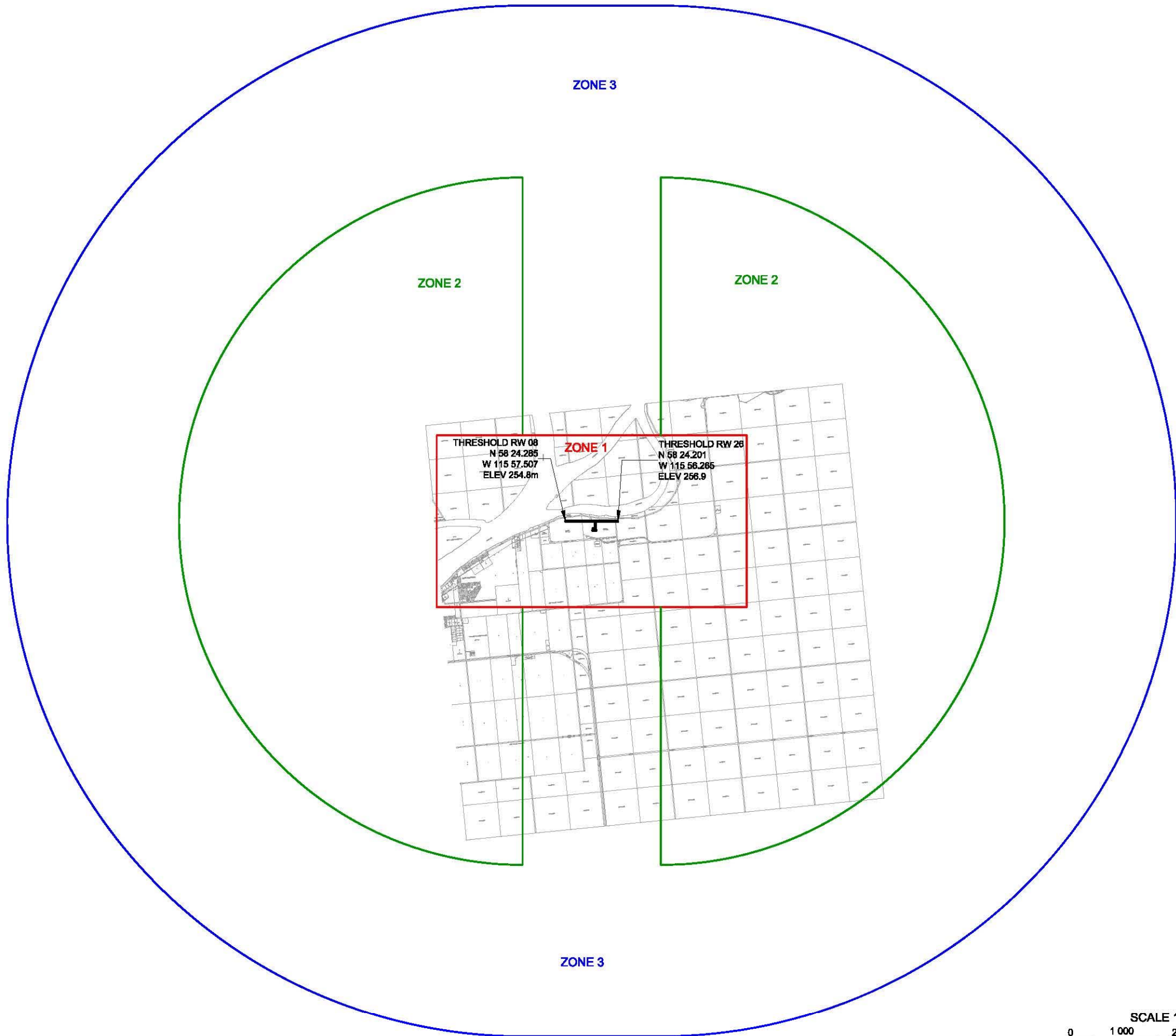
DATE 2010-DECEMBER _____

DRAWING No. A1

Schedule 11

Fort Vermilion Airport Vicinity Protection Area

Bird Hazard Zone Map



Note:

Zone 1 means the area defined by a rectangle that fully encloses the runway and extends 3 km beyond the runway threshold in each direction and 2 km on either side of the runway centreline

Zone 2 means the area at each end of the runway bounded by a semicircle with its centre on the extended centreline 1 km from the runway threshold and a radius of 8km, excluding the intersections with Zone 1

Zone 3 means the area enclosed by two semicircles, each with its centre on the extended centreline 1 km from opposing runway thresholds and a radius of 12 km, connected at their ends by two lines parallel to the runway centreline, excluding the intersections with Zone 1 and Zone 2.

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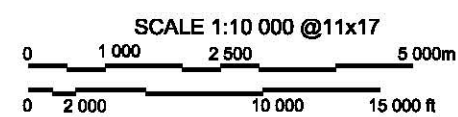
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REVISIONS

FORT VERMILION AIRPORT (CEZ4)

**BIRD HAZARD ZONE MAP
(BIRD ATTRACTION RESTRICTION MAP)**

SENIOR DESIGN ENGINEER _____		DATE 2010-DECEMBER	
FILE No.	PROJECT No.	REG.	DRAWING No.
		1	A1



6. La Crete Airport Vicinity Protection Area Regulation

Schedule 12

La Crete Airport Vicinity Protection Area

The La Crete Airport Vicinity Protection Area consists of the land described below:

In Township 106, Range 15, West of the 5th Meridian:

Northeast Quarter, Section 3

Southeast Quarter, Section 3,

Section 2,


Section 1

In Township 106, Range 14, West of the 5th Meridian: Section 6


Northwest Quarter, Section 5


Southwest Quarter, Section 5




Mackenzie County

**Hamlet of La Crete
Airport Vicinity Protection Area**


NOT TO SCALE

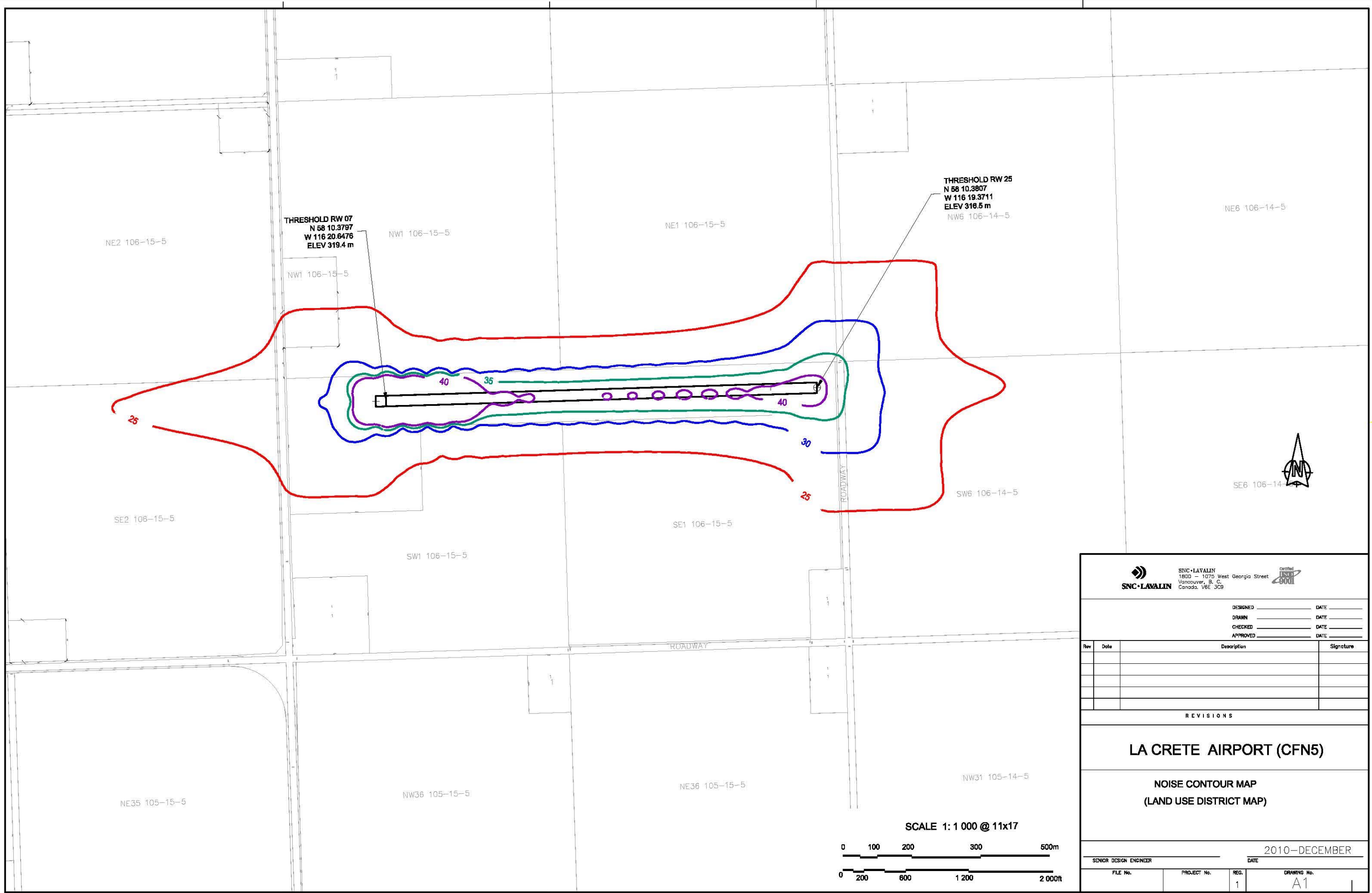
 Airport Vicinity Protection Area Boundary

Base Map compiled from the Provincial Title Mapping Digital Base
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Schedule 13

**La Crete Airport Vicinity Protection Area
Land Use District (Noise Restrictions) Map**



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LA CRETE AIRPORT (CFN5)

**NOISE CONTOUR MAP
(LAND USE DISTRICT MAP)**

2010-DECEMBER

SENIOR DESIGN ENGINEER	DATE
FILE No.	PROJECT No.
REG. 1	DRAWING No. A1

Schedule 14
Height Limitations
La Crete Airport Vicinity Protection Area
Basic Strip

11. The basic strip associated with the airport runway is an area 61.0 metres in width and 1021.1 metres in length, the location of which is shown on the map in Schedule E.

Take-off/Approach Surfaces

12. There are take-off approach surfaces associated with each end of the basic strip and in each case the surface is imaginary and consists of an inclined plane that:
- a. commences at and abuts the end of the basic strip,
 - b. rises at a slope ratio of 1:50 measured from the end of the basic strip.
 - c. diverges outward on each side as it rises, at a slope ratio of 1:15 measured from the respective projected lateral limits of the basic strip, and
 - d. ends at its intersection with the outer surface.

Transitional Surfaces

13. There is a transitional surface associated with each level limit of the basic strip, and in each case the transitional surface is an imaginary surface consisting of an inclined plane that:
- a. commences at and abuts the lateral limit of the basic strip,
 - b. rises at a slope ratio of 1:7 measured from the lateral limit -of the basic strip, and
 - c. ends at its intersection with the outer surface or a take-off/approach surface.

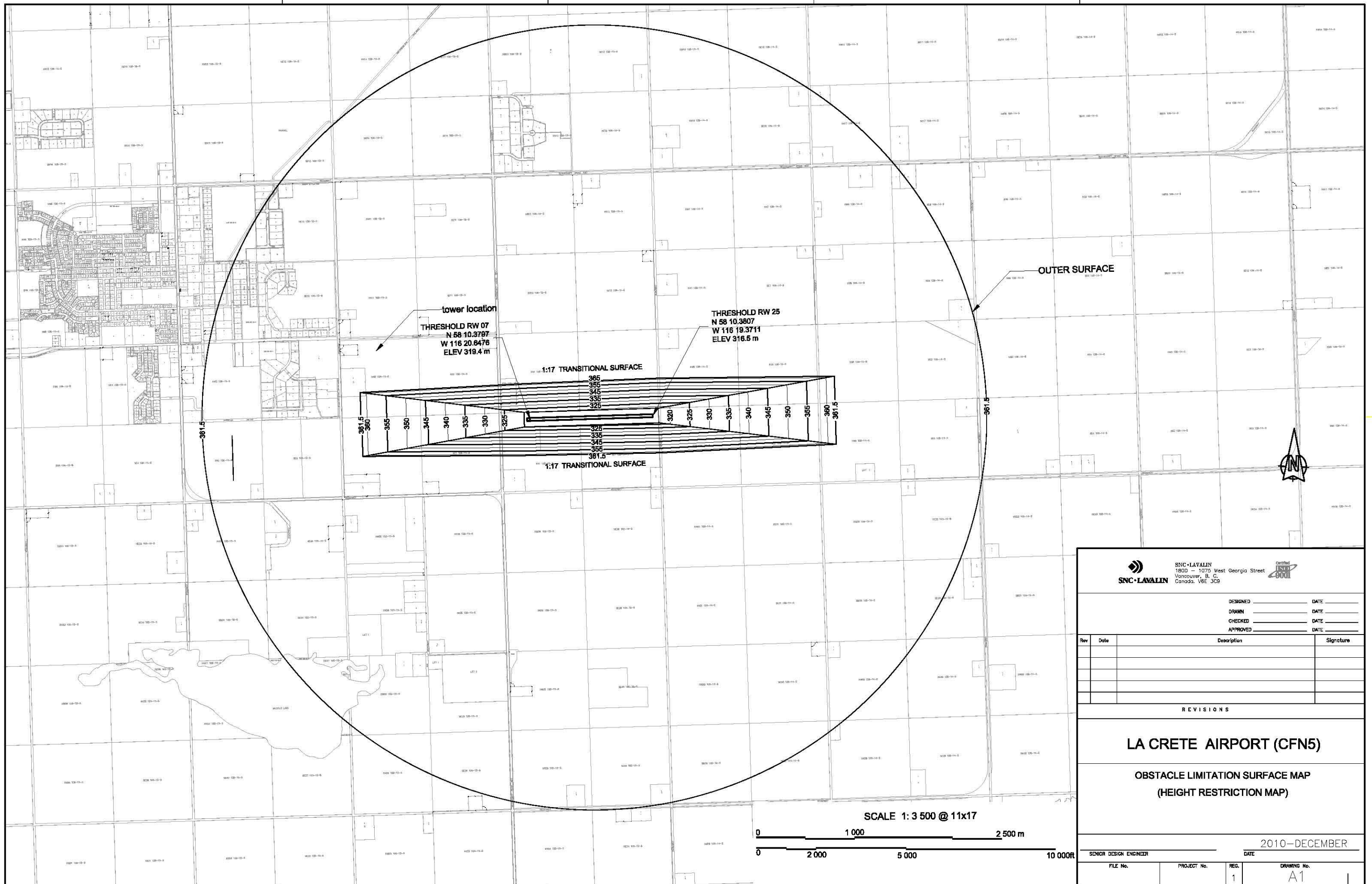
Outer Surface

14. The outer surface of the Protection Area is an imaginary surface consisting of a common plane established at a constant elevation of 45 metres above the airport reference point elevation and extending to the outer limits of the Protection Area.

General

15. The area location of the take-off/approach surfaces and traditional surfaces are represented on the map shown in Schedule 15, but, if any discrepancy exists between the description of the take-off/approach surfaces or transitional surfaces in this Schedule and their location on the map in Schedule 15, the description in this Schedule prevails.

Schedule 15
La Crete Airport Vicinity Protection Area
Height Limitations Map

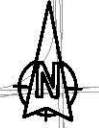
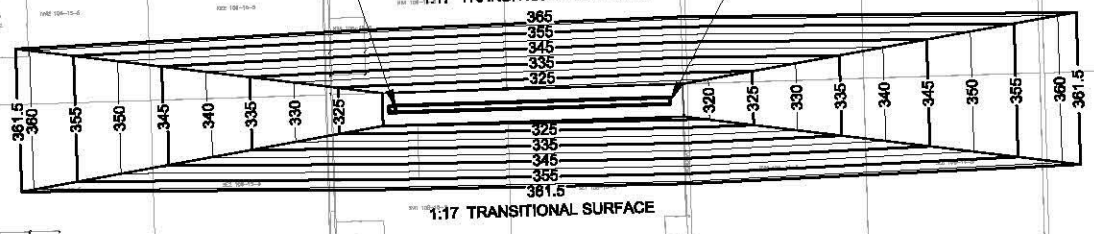


OUTER SURFACE

tower location
 THRESHOLD RW 07
 N 58 10.3797
 W 116 20.6476
 ELEV 319.4 m

THRESHOLD RW 25
 N 58 10.3807
 W 116 19.3711
 ELEV 316.5 m

1:17 TRANSITIONAL SURFACE



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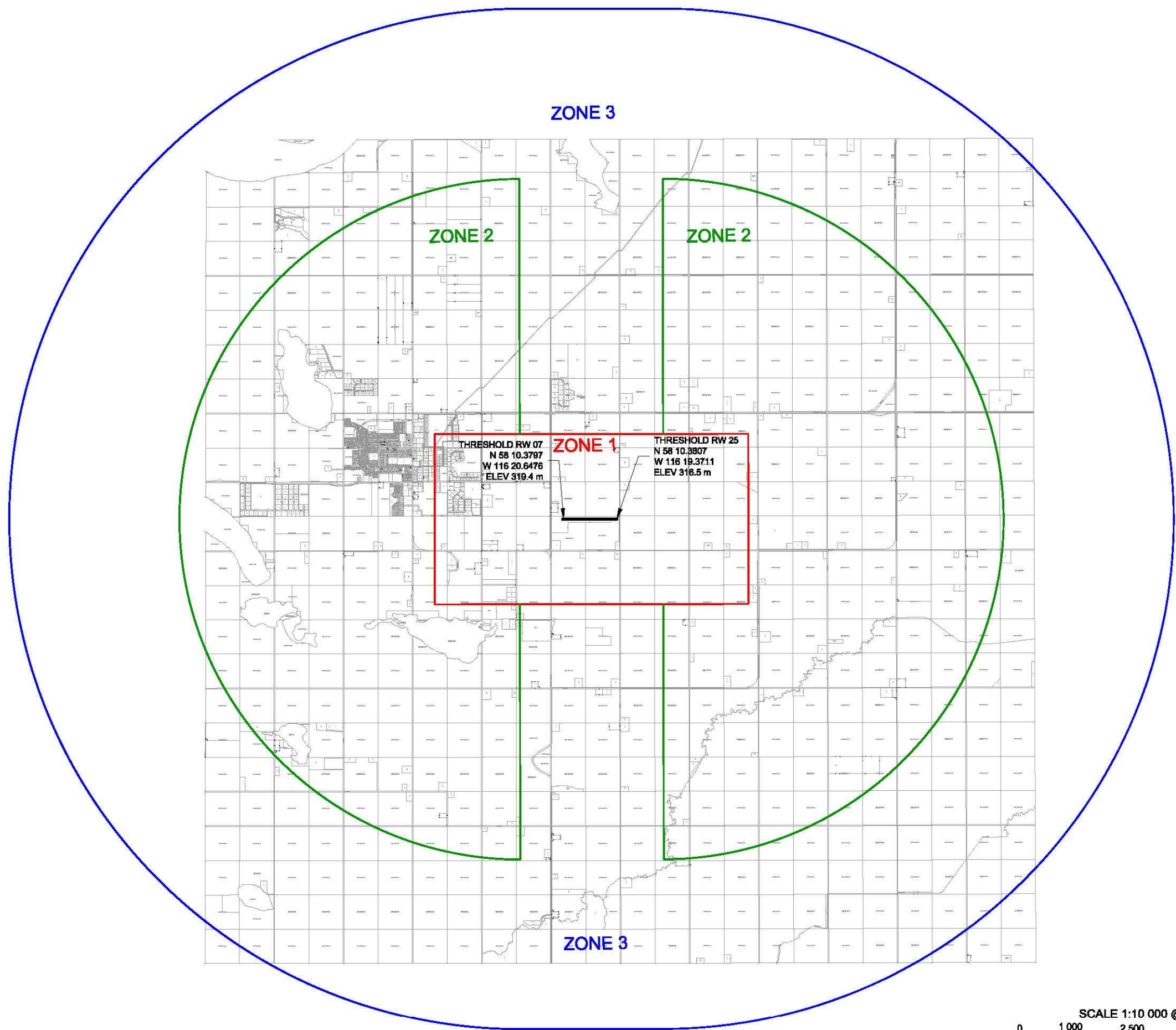
LA CRETE AIRPORT (CFN5)

**OBSTACLE LIMITATION SURFACE MAP
 (HEIGHT RESTRICTION MAP)**

SCALE 1: 3 500 @ 11x17
 0 1 000 2 500 5 000 10 000

2010-DECEMBER
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 FILE No. _____ PROJECT No. _____ REG. 1 DRAWING No. A1

Schedule 16
La Crete Airport Vicinity Protection Area
Bird Hazard Zone Map



Note:

Zone 1 means the area defined by a rectangle that fully encloses the runway and extends 3 km beyond the runway threshold in each direction and 2 km on either side of the runway centreline

Zone 2 means the area at each end of the runway bounded by a semicircle with its centre on the extended centreline 1 km from the runway threshold and a radius of 8km, excluding the intersections with Zone 1

Zone 3 means the area enclosed by two semicircles, each with its centre on the extended centreline 1 km from opposing runway thresholds and a radius of 12 km, connected at their ends by two lines parallel to the runway centreline, excluding the intersections with Zone 1 and Zone 2.

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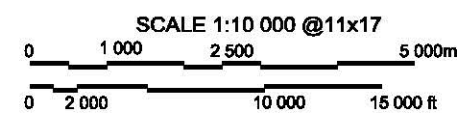
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LA CRETE AIRPORT (CFN5)

**BIRD HAZARD ZONE MAP
 (BIRD ATTRACTION RESTRICTION MAP)**

2010-DECEMBER

SENIOR DESIGN ENGINEER		DATE	
FILE No.	PROJECT No.	REG.	DRAWING No.
		1	A1



7. Rainbow Lake Airport Vicinity Protection Area Regulation

Schedule 17

Rainbow Lake Airport Vicinity Protection Area

The Rainbow Lake Airport Vicinity Protection Area consists of the land described below:

In Township 109, Range 9, West of the 6th Meridian:

Northeast Quarter, Section 22

North Half-Section, Section 23

Section 24

Southwest Quarter, Section 25

South Half-Section, Section 26

All of Plan 5445 within the Northwest Quarter of Section 26

Section 27

North Half-Section, Section 28

Southeast Quarter, Section 28

Northeast Quarter, Section 29

East Half-Section, Section 31

South Half-Section, Section 32

Northwest Quarter, Section 32

South Half-Section, Section 33

Southwest Quarter, Section 34

In Township 109, Range 8, West of the 6th Meridian

Southwest Quarter, Section 19

Town of
Rainbow Lake



Mackenzie County



NOT TO SCALE



Airport Vicinity Protection
Area Boundary

Rainbow Lake
Airport Vicinity Protection Area

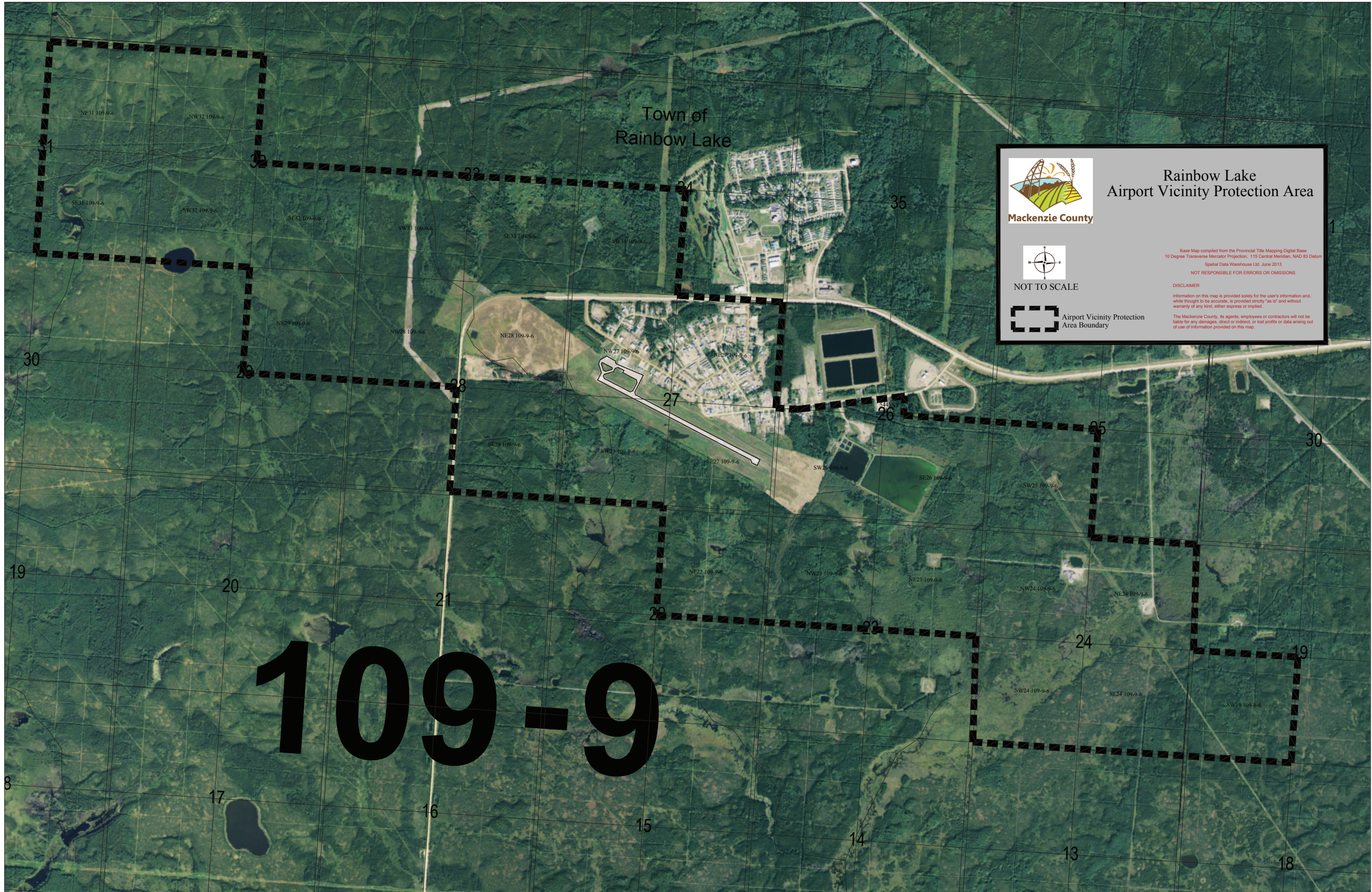
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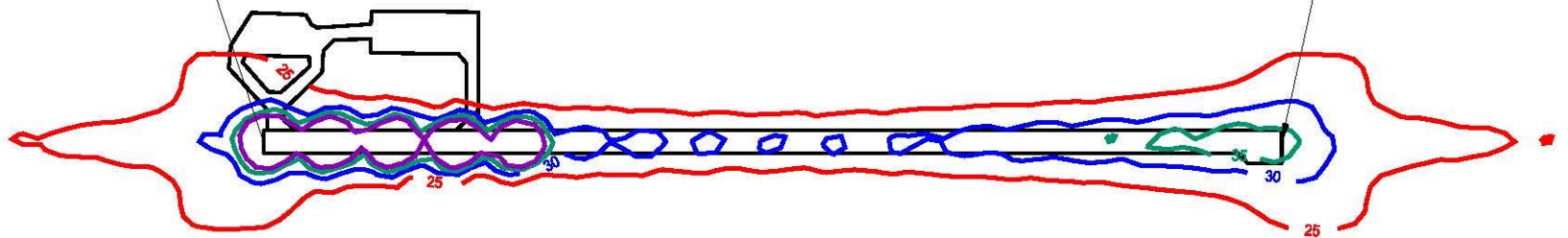
Schedule 18

Rainbow Lake Airport Vicinity Protection Area

Land Use District (Noise Restrictions) Map

THRESHOLD RW 09
 N 58 29.63
 W 119 25.12
 ELEV 535.2m

THRESHOLD RW 27
 N 58 29.33
 W 119 23.82
 ELEV 526.4 m



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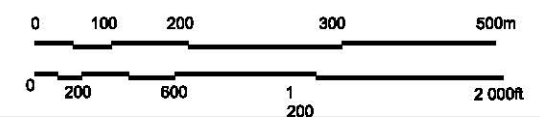
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RAINBOW LAKE AIRPORT (CYOP)

**NOISE CONTOUR MAP
 (LAND USE DISTRICT MAP)**

SCALE 1: 1 000 @ 11x17



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FILE No.	PROJECT No.	REG.	DRAWING No.
		1	A1

2010-DECEMBER

Schedule 19
Height Limitations
Rainbow Lake Airport Vicinity Protection Area
Basic Strip

16. The basic strip associated with the airport runway is an area 91.4 metres in width and 1493.5 metres in length, the location of which is shown on the map in Schedule E.

Take-off/Approach Surfaces

17. There are take-off approach surfaces associated with each end of the basic strip and in each case the surface is imaginary and consists of an inclined plane that:
- a. commences at and abuts the end of the basic strip,
 - b. rises at a slope ratio of 1:50 measured from the end of the basic strip.
 - c. diverges outward on each side as it rises, at a slope ratio of 1:15 measured from the respective projected lateral limits of the basic strip, and
 - d. ends at its intersection with the outer surface.

Transitional Surfaces

18. There is a transitional surface associated with each level limit of the basic strip, and in each case the transitional surface is an imaginary surface consisting of an inclined plane that:
- a. commences at and abuts the lateral limit of the basic strip,
 - b. rises at a slope ratio of 1:7 measured from the lateral limit -of the basic strip, and
 - c. ends at its intersection with the outer surface or a take-off/approach surface.

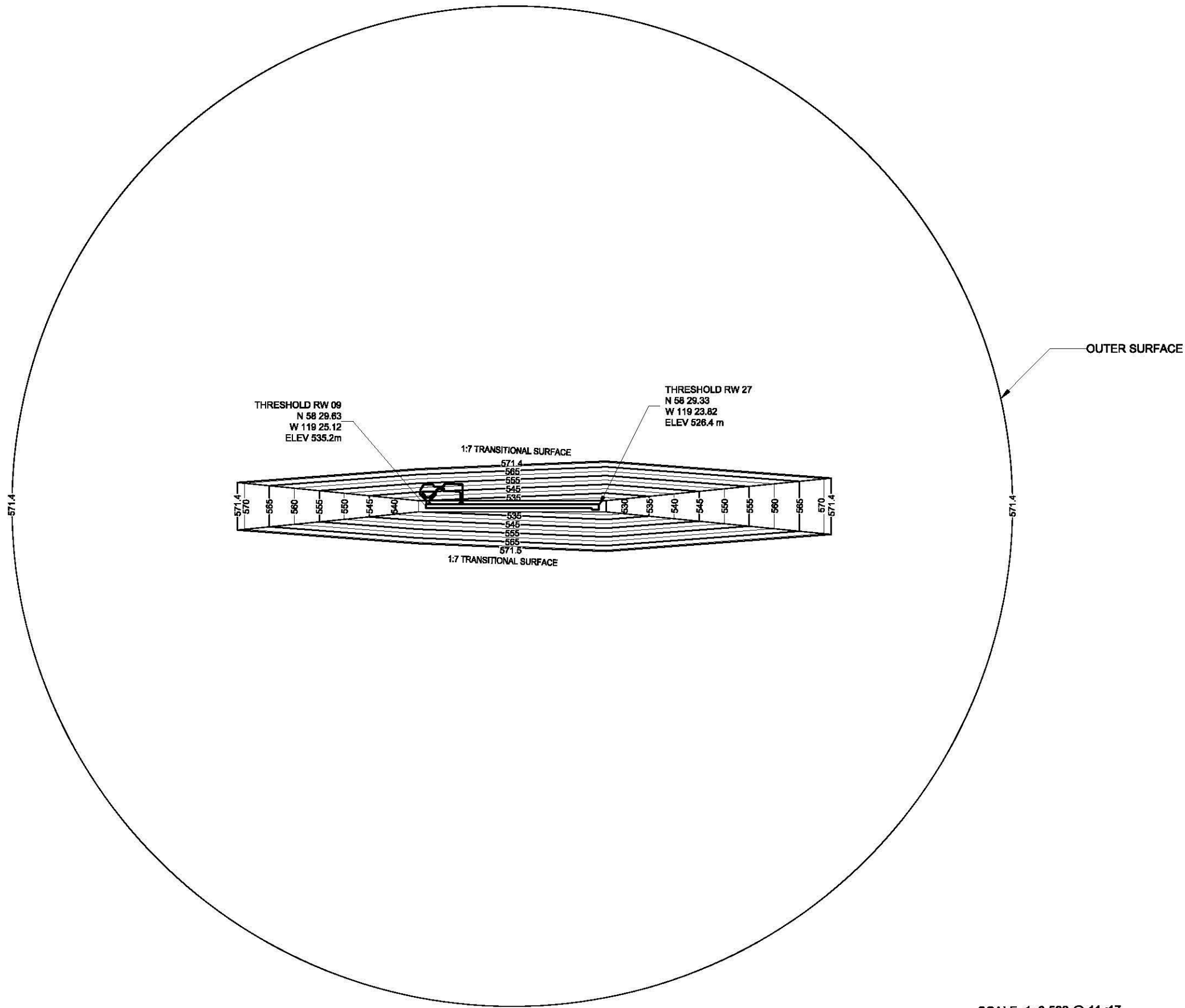
Outer Surface

19. The outer surface of the Protection Area is an imaginary surface consisting of a common plane established at a constant elevation of 45 metres above the airport reference point elevation and extending to the outer limits of the Protection Area.

General

20. The area location of the take-off/approach surfaces and traditional surfaces are represented on the map shown in Schedule 20, but, if any discrepancy exists between the description of the take-off/approach surfaces or transitional surfaces in this Schedule and their location on the map in Schedule 20, the description in this Schedule prevails.

Schedule 20
Rainbow Lake Airport Vicinity Protection Area
Height Limitations Map



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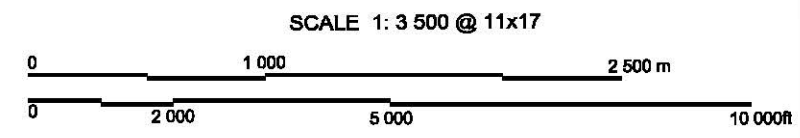
RAINBOW LAKE AIRPORT (CYOP)

**OBSTACLE LIMITATION SURFACE MAP
(HEIGHT RESTRICTION MAP)**

2010-DECEMBER

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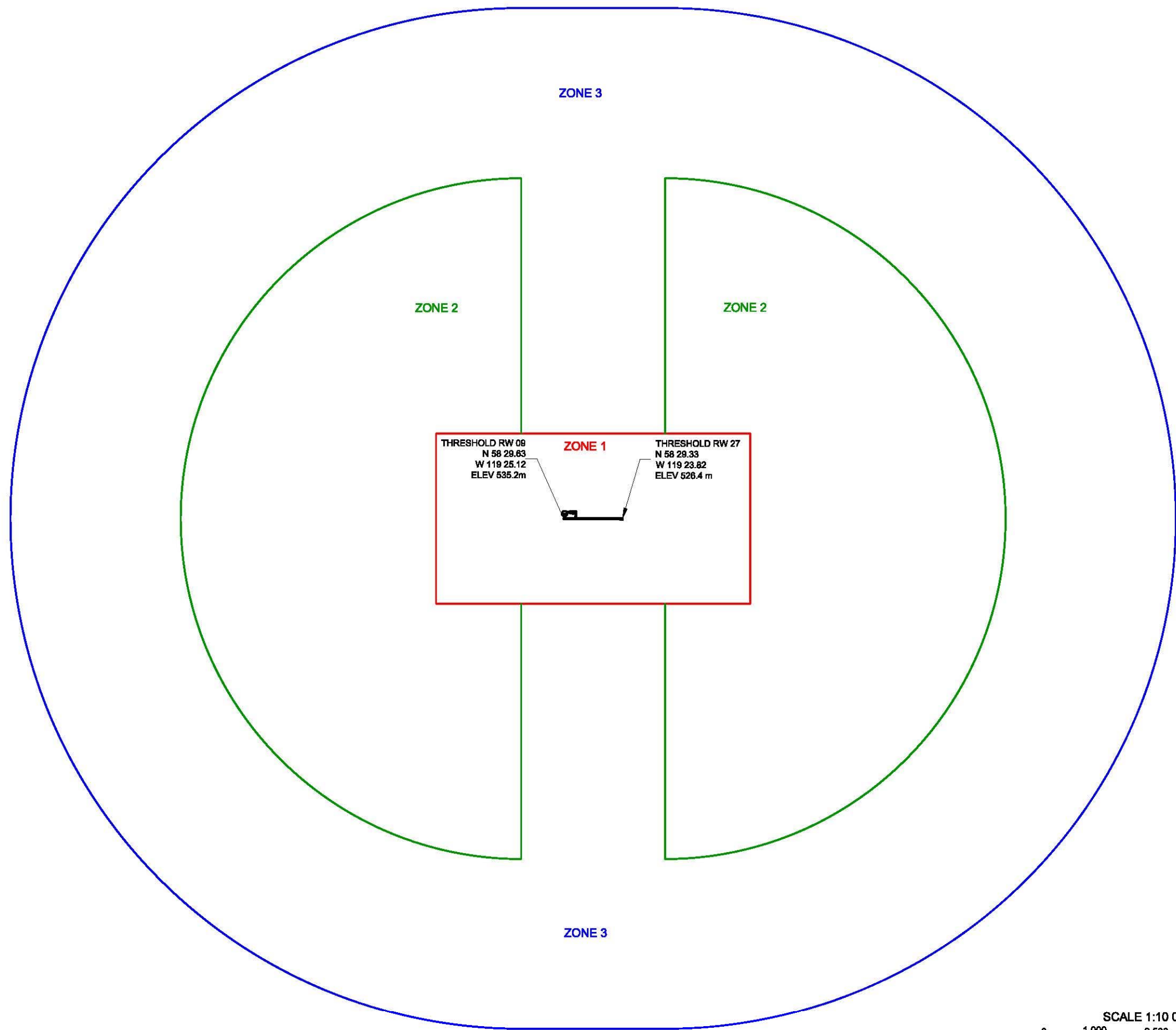
FILE No.	PROJECT No.	REQ.	DRAWING No.
		1	A1



Schedule 21

Rainbow Lake Airport Vicinity Protection Area

Bird Hazard Zone Map



ZONE 1

THRESHOLD RW 08 N 58 29.83 W 119 25.12 ELEV 535.2m		THRESHOLD RW 27 N 58 29.33 W 119 23.82 ELEV 526.4 m
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Note:

Zone 1 means the area defined by a rectangle that fully encloses the runway and extends 3 km beyond the runway threshold in each direction and 2 km on either side of the runway centreline

Zone 2 means the area at each end of the runway bounded by a semicircle with its centre on the extended centreline 1 km from the runway threshold and a radius of 8km, excluding the intersections with Zone 1

Zone 3 means the area enclosed by two semicircles, each with its centre on the extended centreline 1 km from opposing runway thresholds and a radius of 12 km, connected at their ends by two lines parallel to the runway centreline, excluding the intersections with Zone 1 and Zone 2.

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RAINBOW LAKE AIRPORT (CYOP)

BIRD HAZARD ZONE MAP
(BIRD ATTRACTION RESTRICTION MAP)

2010-DECEMBER

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FILE No. _____	PROJECT No. _____	1	A1

SCALE 1:10 000 @11x17

0 1 000 2 500 5 000m

0 2 000 10 000 15 000 ft

