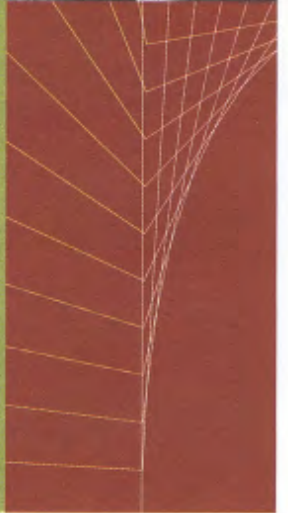


TRANSPORTATION MUNICIPAL/ENVIRONMENTAL STRUCTURAL  
LAND DEVELOPMENT LANDSCAPE ARCHITECTURE  
PLANNING/COMMUNICATIONS GIS/MAPPING



Exceptional people. Shared success.

## County of Grande Prairie No. 1

Final Report

### Emerson Trail Area Structure Plan

Approved: March 2, 2009

**BY-LAW NO. 2857 OF THE  
COUNTY OF GRANDE PRAIRIE NO. 1**

A by-law of the County of Grande Prairie No. 1 in the  
Province of Alberta, to adopt the attached Emerson Trail  
Area Structure Plan for Sections 10, 11, W ½ 12, S ½ 14,  
15, W ½ 13 & Pt. NE 13-73-6-W6

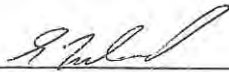
**WHEREAS** the Municipal Government Act, Statutes of Alberta, 2000, Chapter M-26. and amendments thereto, authorizes a Council to provide a framework for the subdivision and development of an area of land within the Municipality; and

**WHEREAS** the Council of the County of Grande Prairie No. 1 has properly notified the owners of land within the development area, pursuant to provisions of the Municipal Government Act, Statutes of Alberta, 2000, Chapter M-26, and amendments thereto.

**NOW THEREFORE** the Council of the County of Grande Prairie No. 1 duly assembled, hereby enacts as follows:

1. That this By-law shall be known as the **"EMERSON TRAIL AREA STRUCTURE PLAN BY-LAW"**.
2. That the Emerson Trail Area Structure Plan document is attached to this by-law as an appendix and forms part of this by-law.
3. That this by-law shall take effect on the date of its final passage by Council.

READ A FIRST AND SECOND TIME THIS 17th DAY OF November,  
A.D. 2008.

  
\_\_\_\_\_  
REEVE

  
\_\_\_\_\_  
COUNTY ADMINISTRATOR

READ A THIRD AND FINAL TIME AND FINALLY PASSED THIS 2nd DAY OF  
MARCH A.D. 2009.

  
\_\_\_\_\_  
REEVE

  
\_\_\_\_\_  
COUNTY ADMINISTRATOR

RECEIVED  
JAN 06 2009

Office of Tim Hawnt  
Assistant Deputy Minister  
Transportation and Civil Engineering Division

2<sup>nd</sup> Floor, 4999 – 98 Avenue  
Edmonton AB T6B 2X3  
Phone: (780) 427-3642  
Fax: (780) 415-1268

December 15, 2008

Mr. Everett McDonald  
Reeve  
County of Grande Prairie No. 1  
RR #1, Site 4, Box 5  
Grande Prairie, AB T8V 2Z8

**Re: EMERSON TRAIL AREA STRUCTURE PLAN**

Alberta Transportation has reviewed the Emerson Trail Area Structure Plan (ASP), regarding the future development located adjacent to Highway 2 and Emerson Trail/Highway 672. The ASP addresses the department's concerns and is approved to meet the requirements of Section 14 of the Subdivision and Development Regulation.

Please forward a copy of the ASP once it has received third reading and the approval of council to our Operations Manager in Grande Prairie, Mr. Tom Williams, at the following address:

Alberta Transportation  
Main Floor 10320 - 99 Street  
Provincial Building & Courthouse  
Grande Prairie AB, T8V 6J4

The department supports continued co-operation on planning matters between the County of Grande Prairie No. 1 and Alberta Transportation.

Sincerely,



Tim Hawnt  
Assistant Deputy Minister

cc: Tom Williams



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## **1.0 Introduction**

### **1.1 Purpose of the Plan**

The Emerson Trail Area Structure Plan has been prepared to provide a framework for future development of approximately 16 quarter sections of land in the County of Grande Prairie No. 1 south of the Town of Sexsmith and north of the Hamlet of Clairmont.

The primary objective of this Plan is to provide a framework for the future development of the subject lands in a manner that is consistent with the goals, objectives and policies of the County of Grande Prairie No. 1. In addition, as the site is located at the intersection of a major arterial highway (Highway 2) and minor arterial highway (Highway 672 – Emerson Trail), the requirements of Alberta Transportation also need to be accommodated pursuant to Section 14 of the Subdivision and Development Regulation. The Plan establishes the future land use and circulation pattern proposed for the site, and provides details respecting proposed servicing for the area.

This Area Structure Plan has been prepared in accordance with the Municipal Government Act, the Subdivision and Development Regulation, and the County's Municipal Development Plan.

### **1.2 Plan Area**

As illustrated in Map 1, the Area Structure Plan consists of approximately 16 quarter sections of land in the amount of 1,050 ha. The Plan area is anchored by the intersection of Highway 2 and Highway 672 (Emerson Trail), which is approximately 2.5 km south of Sexsmith. The composition of the Plan area is outlined in Table 1.

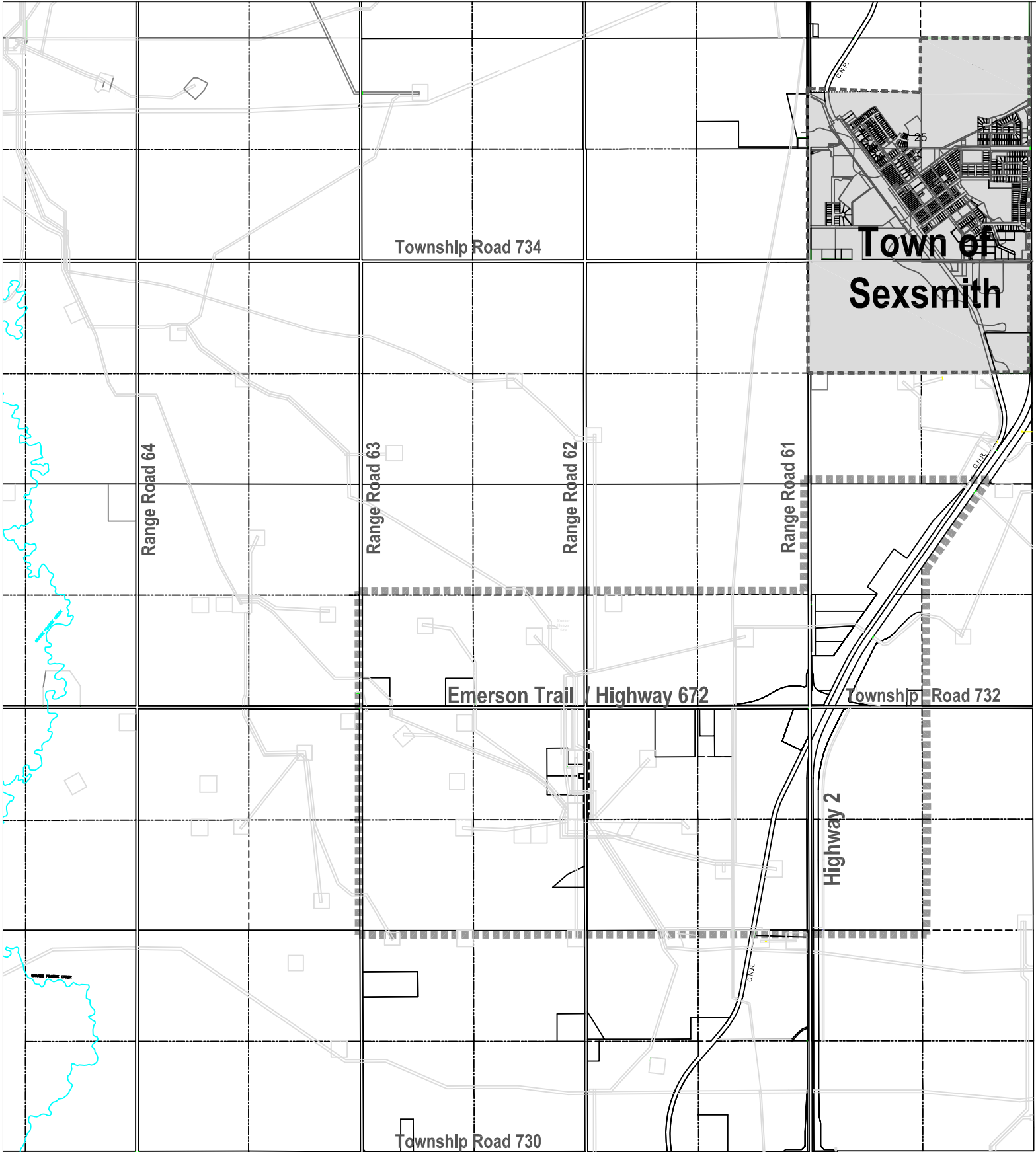
### **1.3 Existing Conditions**

Those lands west of Highway 2 generally slope from north to south as illustrated in Map 2. Elevations generally decrease by 50 m from 735 m to 685 m, with the steepest slopes present in the southwest corner of the Plan area. Seasonal ponding areas and intermittent water courses exist in the western portion of the Plan area. Those lands east of Highway 2 slope east to west, with an elevation change of approximately 15 m.

The Plan consists of 34 parcels of which approximately half of them were created through past subdivision activity. Several of the previously subdivided lots remain undeveloped.

Development in the Plan area consists of 11 residences and six industrial/commercial operations including a truss shop, trucking operations, an ammonia depot, a gas processing plant and a cemetery, as illustrated in Map 3. The balance of the Plan area is in agricultural production.

The agricultural lands in the Plan area are predominantly rated as 80% 2c 20% 3t, excepting a pocket of land on the SW 13 rated at 100% 4w.

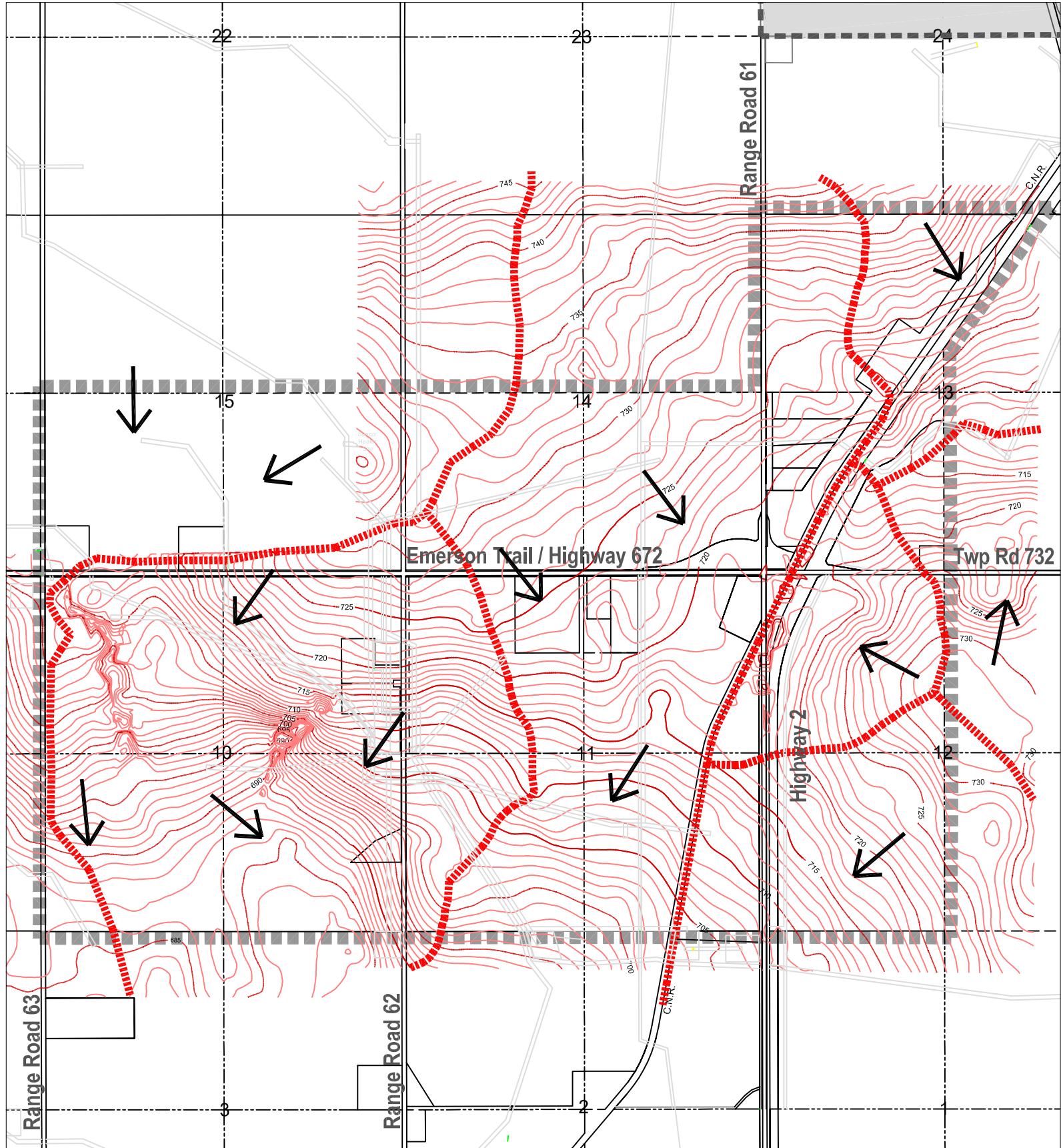


Plan Area



# County of Grande Prairie No. 1 EMERSON TRAIL AREA STRUCTURE PLAN

Scale: NTS  
November 2008



**Map 2 - Topography**



700 Elevation (m)  
 1 m Contour  
 5 m Contour

Direction of Flow  
 Catchment Area  
 Plan Boundary



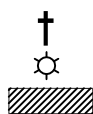
# County of Grande Prairie No. 1 **EMERSON TRAIL AREA STRUCTURE PLAN**

Scale: NTS  
 November 2008





**Map 3 - Existing Land Use**



Cemetery  
Well Site  
Setback



Plan Boundary  
Residence



Existing Industrial  
Pipeline  
Railway  
Highway



# County of Grande Prairie No. 1 **EMERSON TRAIL AREA STRUCTURE PLAN**

Scale: NTS  
November 2008



*Table 1: Plan Area Composition*

<b>Legal</b>	<b>Area (ha)</b>
SW 15-73-6-6	56.4
Pt. SW 15-73-6-6	3.9
LSD 4-15-73-6-6	3.9
SE 15-73-6-6	64.3
SW 14-73-6-6	64.3
SE 14-73-6-6	59.9
Pt. N $\frac{1}{2}$ 13-73-6-6	61.6
SW 13-73-6-6	22.3
Lot 2, Plan 9824038	1.2
Lot 3, 9825323	17.4
Lot 1, Block 1, Plan 0222313	4.9
Lot 2, Block 1, Plan 0222313	3.5
Lot 3, Block 1, Plan 0222313	2.7
Lot 4, Block 1, Plan 0222313	1.7
Lot 5MR, Block 1, Plan 0222313	0.01
Lot 6MR, Block 1, Plan 0222313	0.07
NW 12-73-6-6	56.7
SW 12-73-6-6	60.7
Pt. NE 11-73-6-6	49.4
Pt. NE 11-73-6-6	4.2
Lot 1, Plan 8921619	2.1
Lot 2, Plan 8921619	2.2
Lot 3, Block 1, Plan 0220389	4.1
NW 11-73-6-6	54.3
Lot 1, Block 1, Plan 0621356	10.0
SW 11-73-6-6	64.7
SE 11-73-6-6	61.2
NE 10-73-6-6	56.7
Lot 1, Block 1, Plan 0721598	4.0
Lot 2, Block 1, Plan 0721598	3.1
NW 10-73-6-6	64.3
SW 10-73-6-6	64.7
SE 10-73-6-6	62.7
Lot 1, Plan 9522539	2.0
Miscellaneous Road Plans	38.6
Railway Plans	11.5
<b>Total</b>	<b>1,050.2</b>

Numerous sour gas pipelines and gas wells are present throughout the Plan area, belonging to a range of different companies. A level two Suncor sour gas pipeline traverses the Plan area in a northwest/southeast direction. A summary of oil and gas infrastructure is listed in Table 4 and is illustrated in Map 3. Policies for development adjacent to oil and gas infrastructure are presented in Appendix 1.

The west side of the Plan area is traversed by a high pressure gas line that runs parallel to Highway 2. In addition, a Canadian National (CN) rail line runs through the Plan area generally parallel to the west side of Highway 2.

## **1.4 Policy Framework**

### **1.4.1 Municipal Development Plan**

The County's Municipal Development Plan provides the general policy framework with which more detailed plans are required to be consistent. Section 13.5 of the Plan indicates that Area Structure Plans are required as a prerequisite for the development of industrial parks, hamlets, highway commercial subdivisions, "or any other major development where such a plan would assist the County of Grande Prairie No. 1 in making planning decisions". Section 8.4 also requires an Area Structure Plan in advance of industrial park development.

The County's Municipal Development Plan identifies the lands located within the Emerson Trail Area Structure Plan for future Rural Industrial use. The content of this ASP is consistent with this policy direction.

A portion of the Emerson Trail ASP is located within the area defined as the Town of Sexsmith Urban Fringe. Section 12.5 of the MDP requires that the County of Grande Prairie No. 1 refer all applications for amendments to the MDP, land-use bylaw amendments, and non-residential subdivisions and development permit applications for contentious uses to the appropriate municipality for comment.

### **1.4.2 Land Use Bylaw**

The majority of the parcels within the Plan area is currently zoned as Agricultural (AG) in the County's Land Use Bylaw. Of the remainder, several parcels are zoned for industrial use <sup>1</sup> and four parcels are zoned Country Residential (CR-5), all of which are developed. In addition, a cemetery located at the west end of the Plan area is zoned Limited Institutional and Recreation (L-IR).

In order to facilitate the development of the Plan area for rural industrial purposes, it is intended that the Plan area be rezoned to the appropriate districts as a prerequisite to subdivision.

### **1.4.3 Subdivision and Development Regulation**

Section 14 of the Subdivision and Development Regulation requires that an Area Structure Plan be prepared in advance of development on all lands that are located within 800 m of a highway. This Plan has been prepared in accordance with this provision of the Regulation.

Sections 3, 10 and 11 of the Regulation require that "sour gas facilities" and "gas and oil wells" be identified and, subject to specific requirements, that the County's Subdivision and Development Authorities provide notification of development applications to the Energy Resources Conservation Board (ERCB).

### **1.4.4 Highway 2 and 43 Access Management Study**

A draft Highway 2 and 43 Access Management Study prepared for Alberta Transportation identifies future intersection locations and access requirements along

---

<sup>1</sup> Zoning of the subject parcels includes Rural Light Industrial (RM-1), Rural Medium Industrial (RM-2), Rural Industrial (RM-DC), and Highway Industrial (RM-4).

the Highway 2 corridor north of Highway 43. This Area Structure Plan has been prepared in accordance with the recommendations contained in the Study.



## 2.0 Development Concept

### 2.1 Goals of the Plan

The Emerson Trail Area Structure Plan has been prepared in accordance with the following goals and objectives.

1. To provide a sound planning framework for the future development of the Plan area that is consistent with the goals of the County of Grande Prairie No. 1.
2. To contribute to the continued economic development of the County of Grande Prairie No. 1 through the development of the Plan area for rural industrial purposes.
3. To protect and maintain the operational safety of the Highway 2 and Highway 672 corridors.
4. To establish an efficient and economical development concept for the Plan area.

### 2.2 Land Use Concept

A detailed breakdown of land uses proposed for the Plan area is provided in Tables 2 and 3. The future land use concept proposed for the Plan area is illustrated in Map 4. The intent of this concept is to provide a generalized land use plan with a conceptual lot layout that will be subject to further refinement at the subdivision stage.

Table 2: Land Use Area Estimates

Land Use Category	Area	Percent
<b>Gross Developable Area</b>	<b>1050.2</b>	<b>n/a</b>
➤ Less Railway	11.5	n/a
➤ Less Road Widening	40.9	n/a
➤ Less Environmental Reserve	74.5	n/a
➤ Less Cemetery	3.9	n/a
<b>Net Developable Area</b>	<b>919.4</b>	<b>100.0</b>
<b>Industrial</b>	<b>735.8</b>	<b>80.0</b>
➤ Highway Industrial	190.1	20.7
➤ General Industrial	545.7	59.3
<b>Agriculture</b>	<b>119.3</b>	<b>13.0</b>
<b>Roads</b>	<b>64.3</b>	<b>7.0</b>
➤ Internal Roads	58.1	6.3
➤ Road Widening	6.2	0.7

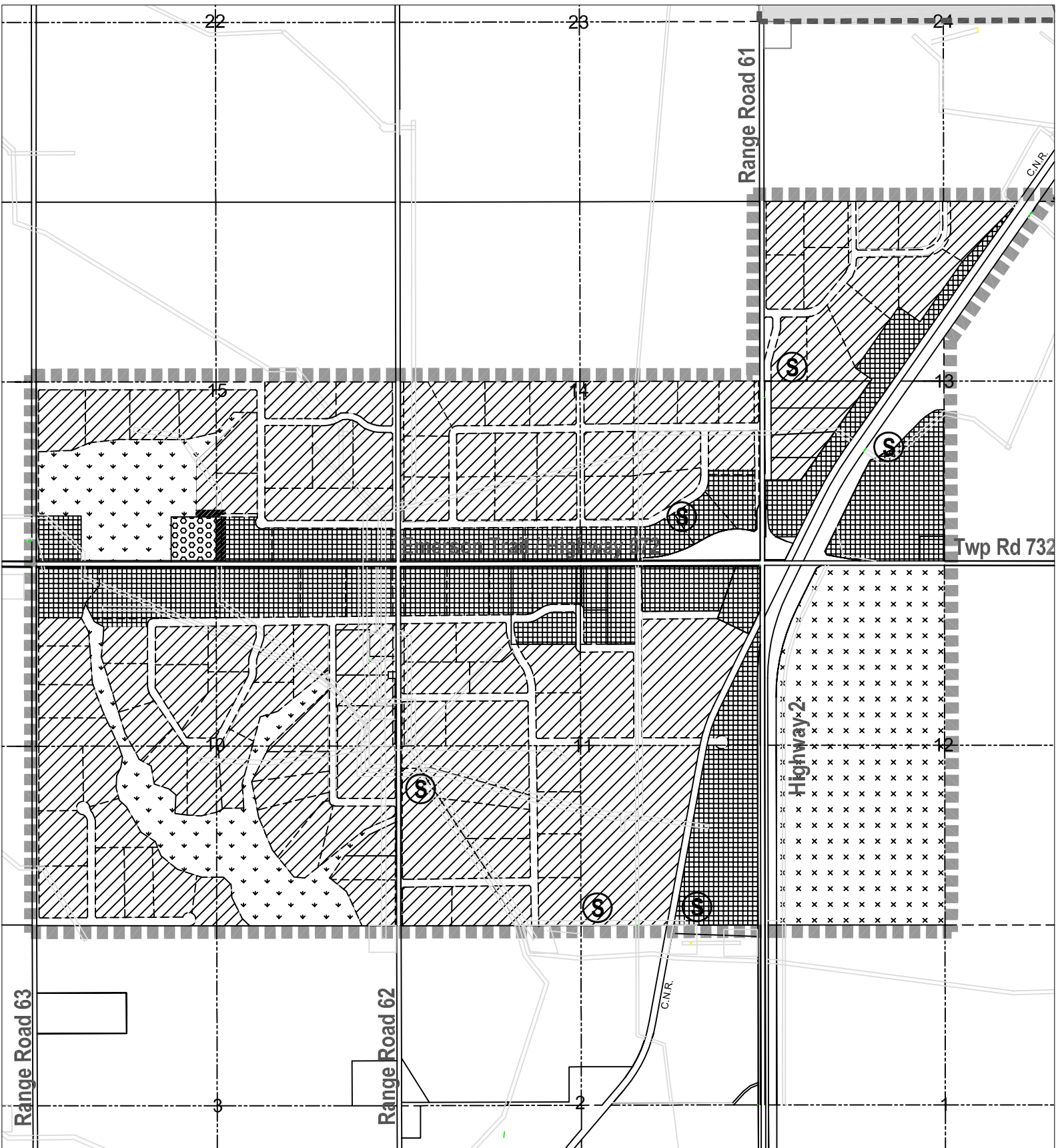
*Table 3: Land Use Area Estimates by Quarter*

Land Use Category	NW 10	NE 10	SW 10	SE 10	NW 11	NE 11	SW 11	SE 11
<b>Gross Developable Area</b>	<b>64.6</b>	<b>64.8</b>	<b>64.7</b>	<b>64.8</b>	<b>64.66</b>	<b>64.2</b>	<b>64.8</b>	<b>64.7</b>
➤ Less Railway	-	-	-	-	-	1.9	-	2.5
➤ Less Road Widening	0.4	0.4	-	-	0.4	1.0	-	1.0
➤ Less Environmental Reserve	3.7	3.6	12.7	21.9	-	-	-	-
➤ Less Cemetery	-	-	-	-	-	-	-	-
<b>Net Developable Area</b>	<b>60.5</b>	<b>60.8</b>	<b>52.0</b>	<b>42.9</b>	<b>64.2</b>	<b>61.3</b>	<b>64.8</b>	<b>61.2</b>
<b>Industrial</b>	<b>56.2</b>	<b>55.9</b>	<b>46.8</b>	<b>40.6</b>	<b>56.1</b>	<b>54.8</b>	<b>59.6</b>	<b>61.1</b>
➤ Highway Industrial	19.0	17.7	-	-	19.8	25.9	-	24.2
➤ General Industrial	37.2	38.2	46.8	40.6	36.3	28.9	59.6	36.9
<b>Agriculture</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Roads</b>	<b>4.3</b>	<b>4.9</b>	<b>5.2</b>	<b>2.3</b>	<b>8.1</b>	<b>6.5</b>	<b>5.2</b>	<b>0.1</b>
➤ Internal Roads	3.6	4.4	4.5	1.9	7.6	6.5	4.7	0.1
➤ Road Widening	0.7	0.5	0.7	0.4	0.5	-	0.5	-

Land Use Category	NW 12	SW 12	NW 13	NE 13	SW 13	SW 14	SE 14	SW 15	SE 15	Total	Percent
<b>Gross Developable Area</b>	<b>64.7</b>	<b>66.7</b>	<b>64.7</b>	<b>13.0</b>	<b>64.7</b>	<b>64.8</b>	<b>64.8</b>	<b>64.8</b>	<b>64.8</b>	<b>1,050.2</b>	<b>n/a</b>
➤ Less Railway	1.3	-	1.1	1.8	2.9	-	-	-	-	11.5	n/a
➤ Less Road Widening	6.8	4.0	2.7	3.2	14.8	0.4	4.9	0.4	0.4	40.9	n/a
➤ Less Environmental Reserve	-	-	-	-	-	-	-	31.9	0.7	74.5	n/a
➤ Less Cemetery	-	-	-	-	-	-	-	3.9	-	3.9	n/a
<b>Net Developable Area</b>	<b>56.6</b>	<b>62.7</b>	<b>60.9</b>	<b>8.0</b>	<b>47.0</b>	<b>64.4</b>	<b>59.9</b>	<b>28.6</b>	<b>63.7</b>	<b>919.4</b>	<b>100.0</b>
➤ <b>Industrial</b>	<b>-</b>	<b>-</b>	<b>54.6</b>	<b>7.7</b>	<b>45.6</b>	<b>60.5</b>	<b>56.8</b>	<b>24.9</b>	<b>54.7</b>	<b>735.8</b>	<b>80.0</b>
➤ Highway Industrial	-	-	6.3	1.9	32.8	15.4	11.7	3.8	11.6	190.1	20.7
➤ General Industrial	-	-	48.3	5.8	12.8	45.1	45.1	21.1	43.1	545.7	59.3
➤ <b>Agriculture</b>	<b>56.6</b>	<b>62.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>119.3</b>	<b>13.0</b>
➤ <b>Roads</b>	<b>-</b>	<b>-</b>	<b>6.3</b>	<b>0.3</b>	<b>1.4</b>	<b>3.8</b>	<b>3.1</b>	<b>3.7</b>	<b>9.0</b>	<b>64.3</b>	<b>7.0</b>
➤ Internal Roads	-	-	5.4	0.3	1.4	3.4	2.8	2.9	8.6	58.1	6.3
➤ Road Widening	-	-	0.9	-	-	0.4	0.3	0.8	0.4	6.2	0.7

## 2.3 Industrial

- As noted in Table 2, 80% of the Plan area is to be developed for industrial purposes. A mixture of highway-oriented and general industrial development is proposed, the location of which is intended to optimize opportunities for transition between uses and minimize the potential for detrimental impacts on non-industrial properties.
- General industrial development, totaling approximately 546 ha, is proposed for a majority of the land area west of Highway 2. Uses encouraged in this area are those that are characteristic of other rural industrial parks, and would be administered under the Rural Light Industrial (RM-1) and Rural Medium Industrial (RM-2) Districts of the County of Grande Prairie No. 1 Land Use Bylaw. Minimum lot sizes for this land use are to be approximately 4.3 ha, as shown on Map 4 except in the NE 11-72-06-W6M where the minimum lot size can be 2 ha.
- Although it is intended that the lot configuration illustrated on Map 4 is intended to be flexible, it is important that large lot sizes be maintained. Notwithstanding Land Use Bylaw requirements, a minimum lot size of 4.3 ha will be enforced in the Plan area. Resubdivision to smaller lot sizes will not be supported unless municipal services are available and the increased density can be supported by the transportation network except in the NE 11-72-06-W6M where the minimum lot size can be 2 ha.



**Map 4 - Future Land Use Concept**



Storm Pond



Municipal Reserve



Environmental Reserve



General Industrial



Highway Industrial



Agriculture



Cemetery



Plan Boundary



# County of Grande Prairie No. 1 **EMERSON TRAIL AREA STRUCTURE PLAN**

Scale: NTS  
November 2008



4. Notwithstanding the provisions of the Land Use Bylaw, it is the intent of the County of Grande Prairie No. 1 to discourage the development of land uses that are likely to generate excessively high traffic volumes such as retail uses, offices, restaurants, hotels and such other high traffic generating uses. Uses to be supported include equipment and materials storage yards (with small office component), oilfield support services, and trans-loading and inter-modal facilities.
5. Given the proximity of the Plan area to Highways 2 and 672, it is proposed that most lands located along the central corridors of the Plan area be designated as Highway Industrial (RM-4) in the County of Grande Prairie No. 1 Land Use Bylaw. Lot sizes are intended to range from 4.3 ha to 22 ha in size in order to provide a diversity of development opportunities. The number of lots between the railroad and Highway 2 (within NE & SE 14-73-6 W6M) will be limited to 2 lots unless an amendment to this ASP is undertaken.
6. All industrial development in the Plan area shall be subject to design and landscaping standards in accordance with County of Grande Prairie No. 1 requirements. This is a result of the high degree of visibility that these locations afford, as well as their close proximity to nearby highways and existing residential development. In addition, landscaped buffers shall be provided, to the satisfaction of the County of Grande Prairie No. 1, wherever industrial sites abut established residential development.
7. Existing residential uses located in the area will be considered as legal non-conforming uses. It is not intended that new or additional residential uses be allowed in the area. The accommodation of major home occupations on these sites will be supported by the County.
8. Where industrial development is proposed adjacent to the local seasonal water bodies, an adequate buffer of native vegetation shall be maintained.

## **2.4 Agriculture**

1. The majority of lands in the Plan area east of Highway 2 are proposed to remain in agricultural use at this time. It is anticipated that development in this area would be limited to agricultural operations and existing incidental country residential development.
2. Agriculture will continue to be the predominant land use west of Highway 2 until each parcel of land is rezoned to an industrial land use district. As the area is slated for rural industrial activity, only those agricultural uses which do not preclude the future use of the land for rural industrial purposes will be permitted.

## **2.5 Country Residential**

1. The Plan will allow for the continuation of existing residential uses, or additions to existing residential uses. However, since the primary purpose of this Plan is to facilitate rural industrial development, the future redevelopment of residential uses for industrial purposes will be supported.
2. Further subdivision of existing country residential lots will not be supported.

## 2.6 Oil and Gas Infrastructure

It is recognized that oil and gas extraction is a significant activity in the Plan area, and it is anticipated that such activity will continue for the foreseeable future. All oil and gas infrastructure located within the Plan area is shown in Tables 4 and 5, while development guidelines for sites containing oil and gas infrastructure are shown in Appendix 1.

*Table 4: Pipelines*

Pipeline ID #	ROW Plan	Location	Owner	Sour	Setback
32089	0320442	NW 14 & SE 15-73-6 W6	Talisman	Yes	ROW
20685	9120644	NE 10-73-6 W6	Talisman	Yes	ROW
20685	9921902	SW 11-73-6 W6	Talisman	Yes	ROW
20685	0226746	SW 11-73-6 W6	Talisman	Yes	ROW
20685	0620691	NW 11	Talisman	Yes	ROW
34824	9122798	NE 10, NW 10 & SW 15-73-6 W6	Talisman	Yes	ROW
-	5523HW	NE 14 SE 14 NE 11, SE 11-73-6 W6	ATCO Gas	No	-
20685	0022735	SE 10-73-6 W6	Talisman	Yes	ROW
20685	0125833	SW 10-73-6 W6	Talisman	No	ROW
-	0622476	NW 12-73-6 W6	ATCO Gas	No	-
28244	-	NE 10, NW & SW 11, SE 15	Suncor	Yes	100 m
16676	-	Adjacent to Highway 672	ATCO Pipelines	No	-

1. Development setbacks from oil and gas facilities as required by Provincial regulations shall be enforced in the Plan area.
2. In order to protect the integrity of existing oil and gas processing infrastructure, the lot configuration and road network as identified in Maps 4 and 5 have been designed to accommodate and not interfere with these facilities. In addition, road crossings of pipeline rights-of-way have been kept to the minimum necessary to serve the Plan area. All costs associated with the assessment, design and construction of pipeline crossings shall be borne by the developer. In addition, prior to the construction of buildings, parking areas, and the like on a development site, the developer shall enter into crossing agreements with oil and gas facility owners as required.
3. Where applicable, as a condition of subdivision approval, the County shall require caveats recognizing the presence of oil and gas extraction activity on the subject lands be registered on any new lots that are created.
4. Given the presence of numerous sour gas facilities in the Plan area, residential, public, recreational and/or commercially designated land uses that entail overnight accommodation shall be discouraged within a sour gas setback area in accordance with ERCB guidelines and directives.
5. The County shall provide the oil and gas industry with information regarding new subdivisions and developments in the Plan area to assist the industry in updating the Emergency Response Plan (ERP) for each facility within the Plan area.
6. Developers shall inform future parcel owners about each ERP in the Plan area and shall provide necessary information pertaining to new development to the

oil and gas industry for the purposes of updating each ERP within the Plan area.

7. Wherever development is proposed adjacent to existing oil and gas infrastructure, the applicant shall provide or replace access for each oil and gas company to service and maintain their respective infrastructure.

*Table 5: Oil & Gas Infrastructure*

Item	Owner	Location
Line Heater	Suncor	North boundary, SE 10-73-6 W6
Shutdown Valve	Talisman	East boundary, NE 10-73-6 W6
Shutdown Valve	Talisman	East boundary, NE 10-73-6 W6
Regulator Station	Talisman	West boundary, NW 10-73-6 W6
Gas Gathering System	Talisman	West boundary, NW 11-73-6 W6

## 2.7 Environmental Reserve

In accordance with the Municipal Government Act, several areas within the Plan area are identified for future Environmental Reserve purposes. According to Table 3, approximately 74 hectares of land are identified for Environmental Reserve. In particular, the SW 15-73-06-W6M contains an area identified as a habitat for trumpeter swans. Additional buffers to provide shoreline protection of the species is of particular importance in this location to maintain all existing natural vegetation around the water body.

1. All subdivision applications for lands abutting future Environmental Reserve shall be required to dedicate a minimum setback of 30 m from the high water mark as Environmental Reserve.

## 2.8 Municipal Reserve

In accordance with the Municipal Government Act, a maximum of 10% of the Plan area, less Environmental Reserve, may be provided as Municipal Reserve at the time of subdivision. Due to previous subdivision activity in the Plan area, approximately 6.5 ha of Municipal Reserve has already been dedicated. In addition, the lands designated as agriculture would not be subject to reserve dedication unless they are subdivided for multi-parcel development. As a result, a total of 73.5 ha of Municipal Reserve may be dedicated in the Plan area west of Highway 2. Given that the land in question is to be developed for rural industrial purposes and that no specific needs have been identified for school or recreation purposes in this area, mostly money in place of Municipal Reserve shall be provided. Where applicable, Municipal Reserve will be provided in the form of land in order to accommodate landscaped buffers adjacent to residential and institutional properties.

1. Municipal Reserve shall be taken in the form of land on subdivisions adjacent to the cemetery on SW 15-73-6 W6M.
2. Municipal Reserve will be taken in the form of land on subdivisions adjacent to existing country residential uses.



## **3.0 Transportation And Servicing**

### **3.1 Road Network**

Primary access to the Plan area is currently obtained from Range Roads 61, 62 and 63 (identified as future arterial roads as illustrated on Map 5) which intersect with Highway 672. In addition, a third access point is proposed on Highway 672 approximately 600m west of the existing intersection with Range Road 61. An existing access point on Highway 2 at the south end of the Plan area that provides localized access to the abutting lands is also present. Access to the east side of the Plan area is obtained from Township Road 732.

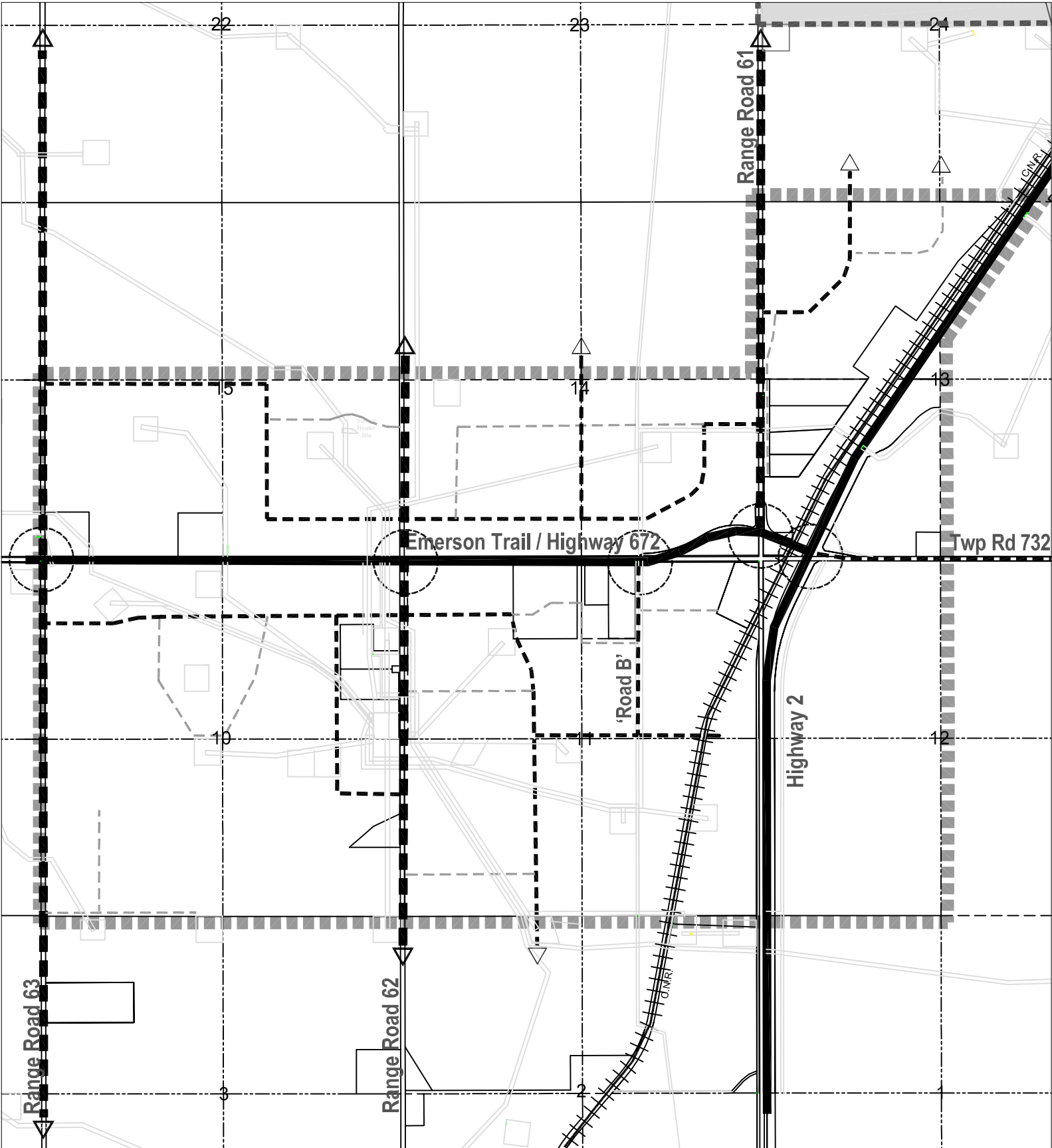
Township Road 732, which serves the agricultural lands on the east side of the Plan area, is to remain as a gravel road due to the very low volumes present unless development activity requires improvements. The rights-of-way for Range Roads 61, 62 and 63 should be protected to arterial standards in accordance with the County's design standards as these roads will carry significant volumes and are major connectors to adjacent areas.

The majority of the roads proposed in the Plan area are to be developed as industrial collectors in accordance with County of Grande Prairie design standards. The area lying directly north of Highway 672 will have a major industrial collector running east-west with industrial local roads connecting to this collector. Where this proposed industrial collector intersects with Range Road 61, throating is recommended as both the right and left turn movements of the west leg of this intersection are anticipated to be high. Lands located north of Highway 672 east of Range Road 61 are to be served by an internal road network that includes an extension of the existing service road and its upgrading to collector status as additional development in proximity to the rail line warrants.

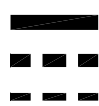
The large area located to the south of Highway 672 and west of Highway 2 will contain a network of industrial collector roads to serve the significant traffic generated in this area at ultimate build-out. At the intersection of the northerly industrial collector and Highway 672, throating is recommended to accommodate the heavy right turning traffic that is anticipated at this location. Towards the south end of the Plan area, a road connecting to Highway 2 provides access to an oilfield facility. This segment of road will remain as an oilfield road only. Any long term upgrades to provide access to the Plan area from the highway must be approved by Alberta Transportation.

The northern end of the Plan area contains a four lot subdivision which has its own access road that will intersect with Highway 672. At present, this area only serves four lots but the road will be widened to industrial collector standard.

1. All lots shall be accessed by the internal road system. No direct highway access will be permitted with the exception of the existing cemetery and those lots located on the NE 11. These parcels currently maintain direct access to Highway 672, which may remain on a temporary basis in accordance with Alberta Transportation requirements. As indicated in Map 5, long term access to residential lots may be obtained via the internal road network to the east and south. Traffic from residential lots will be directed to the future Hwy 672/'Road B' intersection (refer to Map 5). It is expected that direct highway access for these properties will exist until the redevelopment of NE 11. Future access to the cemetery property will be provided through a dedicated panhandle road after the development of SE 15.



**Map 5 - Transportation Concept**



Provincial Highway  
Arterial  
Collector



Local  
Railway  
Highway Intersection  
Plan Boundary



# County of Grande Prairie No. 1 **EMERSON TRAIL AREA STRUCTURE PLAN**

Scale: NTS  
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2. Traffic Impact Assessments will be prepared for Alberta Transportation as a condition of subdivision to determine if improvements to highway intersections are required in the future. A Traffic Impact Assessment shall also be prepared as condition of subdivision to determine if realignment or relocation of the Highway 672/Range Road 61 intersection is warranted in the future.
3. All internal roads are to be constructed to the County's design standards at the expense of the developer. All industrial roads are to be developed to a paved standard. In those instances where a proposed road straddles a property line, the cost of road construction shall be shared by the affected landowners. Any required upgrades to either Highway 2 or 672 shall also be undertaken at the expense of the developer.
4. Through the subdivision process, additional land may be acquired by the County from the developer to provide for the future widening of Highway 672, as well as Range Roads 61, 62 and 63, in order to allow for their eventual upgrading to an arterial standard. The protection of additional right-of-way on Range Road 63 is of particular importance as this road provides a direct link south to Highway 43 and the City of Grande Prairie. It is anticipated that Range Road 63 will function as a major north/south arterial road providing an important alternative to the Highway 2 corridor. In addition, Traffic Impact Assessments shall be prepared to identify potential improvements to all external roadways. The County may assess a levy to recover the cost of upgrading these Range Roads.
5. Where improvements to the road network create a benefit to other landowners outside the Plan area, the County of Grande Prairie No. 1 may require any new development in those areas to compensate the developers in this Plan area for a portion of the costs of the improvements.
6. The existing approach to Highway 2 that serves those lands between the rail line and west of Highway 2 on E $\frac{1}{2}$  11 shall be removed at the time of development. Access to these lands shall ultimately be provided via an internal road network that provides a rail crossing at the middle of Section 11. Should future subdivision of the land be contemplated, an amendment to this Plan will be required in order to redefine the road system.

### **3.2 Rail**

The Plan area is bisected by the CN Rail line that runs between Grande Prairie and Rycroft. Increasing interest in the use of the rail may result in the development of industry in the area requiring rail access, which would be encouraged by the County of Grande Prairie No. 1.

1. Every effort will be made to encourage the development of rail related industries along the rail line. The construction of spur lines in this area is supported by the County of Grande Prairie No. 1. The development of non-rail related industries along the rail line will be discouraged unless no alternate sites are available.
2. CN shall be provided with a Traffic Impact Assessment for the existing Highway 672 crossing west of Highway 2 and the proposed new at grade crossing at future subdivision/development permit stages.

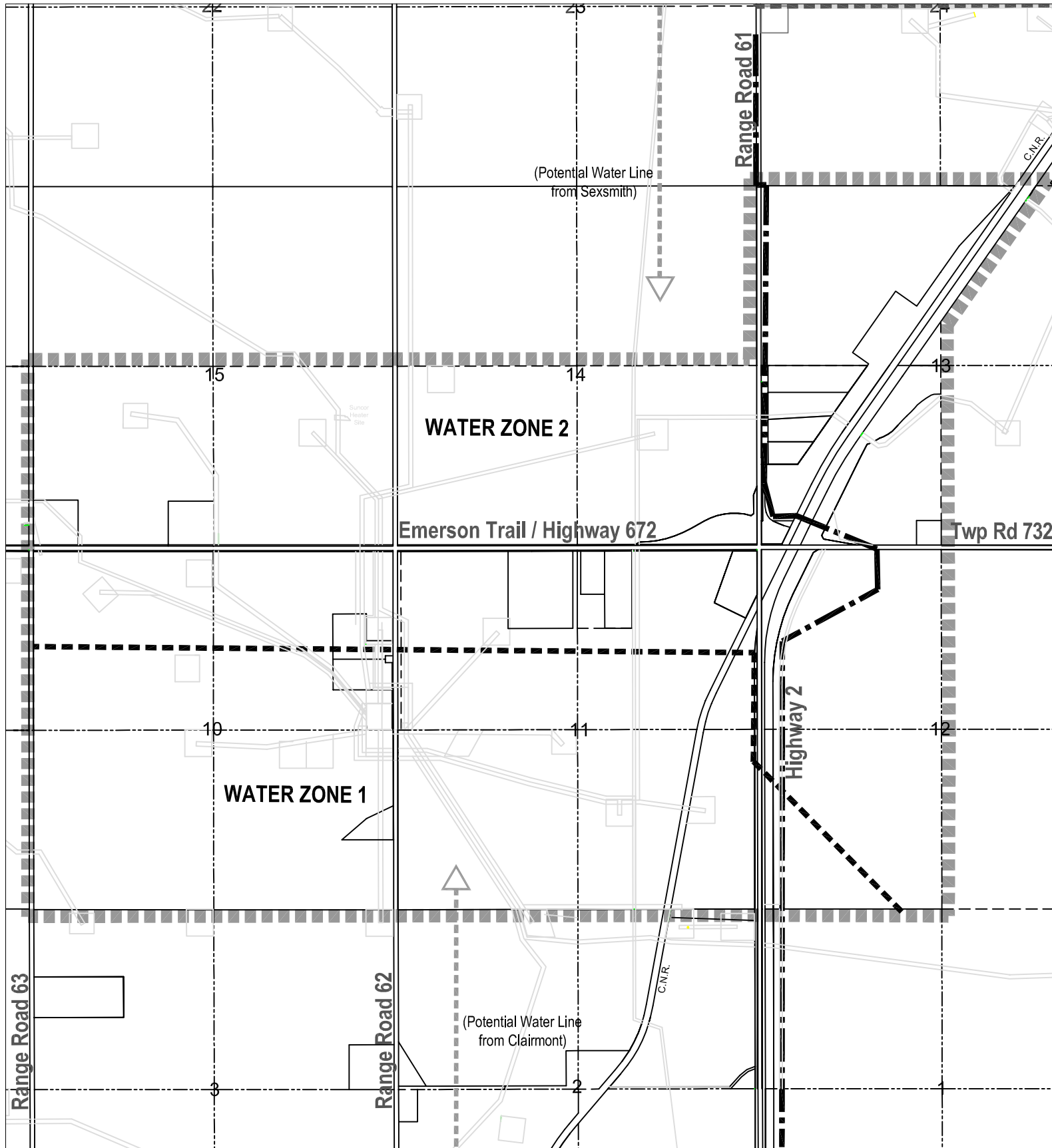


3. CN shall not be responsible for the costs to bring the existing Highway 672 crossing into federal regulated compliance due to future subdivision or development in the Plan area and shall not be responsible for the costs to develop the proposed new crossing, if approved by CN and Transport Canada.
4. Any proposal for additional road crossings of the rail line along the south boundary of the SE 11-73-6-W6M must receive prior approval from CN.

### **3.3 Servicing**

All existing development in the Plan area is serviced by private water supply and sewage disposal systems, and it is anticipated that all development occurring in the foreseeable future would also be serviced in such a fashion. However, there may be an opportunity in the future to service the area with municipal water and sanitary sewer systems. Refer to Maps 6 and 7 for potential concepts of future water and sanitary sewer systems.

1. Prior to subdivision taking place, soil and water well testing will be provided to demonstrate that current water supplies and soil conditions are sufficient to accommodate the proposed development. In the event that water supplies are insufficient to accommodate the proposed land use, a different land use should be proposed, or restrictive covenants may be registered on the proposed lots limiting water supply sources to cisterns.
2. In accordance with Provincial regulations, all existing water wells in the Plan area are required to be licensed by Alberta Environment, and any new wells that are to be developed in conjunction with any development will be required to seek a water license from Alberta Environment as a condition of a development permit approval.
3. The extension of municipal water and sanitary sewer systems to the Plan area would be supported by the County of Grande Prairie No. 1. Any municipal system infrastructure and upgrade costs will be borne at the sole cost of the developer. The planning for a municipal water or sanitary sewer system, including resulting changes in lot density or general lot size, will require an amendment to this Plan.
4. The provision of municipal services may be provided by the developer or by the local municipality. If municipal services are made available in the area, all developments will be required to connect to the services. Caveats will be attached to the properties to ensure that the connections are required. The County of Grande Prairie No. 1 will support a petition for a local improvement charge to enable the extension of municipal water and/or sanitary sewer services to this area.
5. It is intended that future servicing of the Plan area be accommodated through the installation of municipal water and sanitary sewer lines within the rights-of-way of the internal roads.
6. In order to provide fire protection to developments in advance of a municipal water system being installed in the Plan area, the County of Grande Prairie No.



**Map 6 - Potential Water Concept**



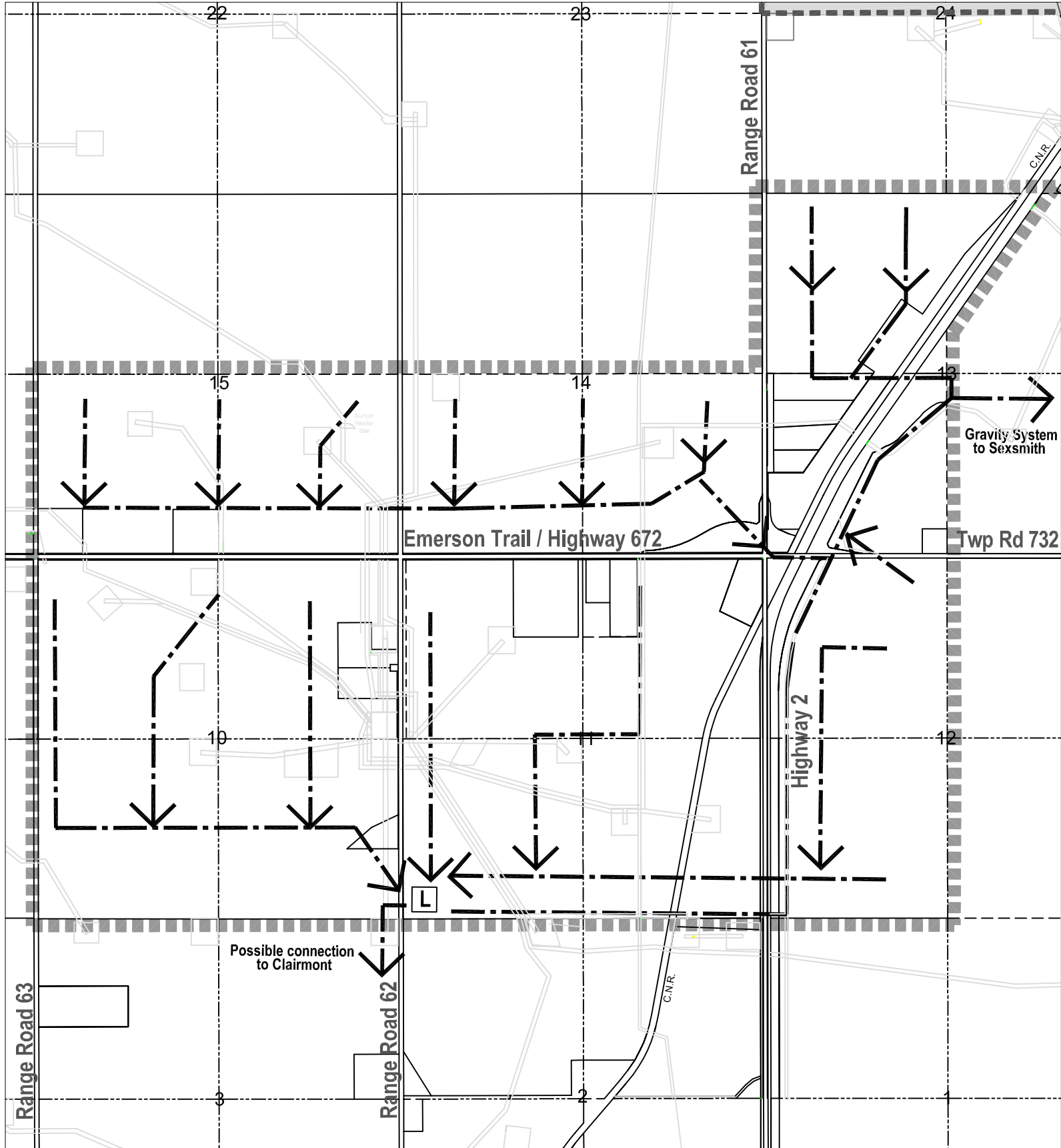
— Possible Water Line  
 - - - Regional Water Line

- - - Water Zone Boundary  
 ■■■ Plan Boundary



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**Map 7 - Potential Sanitary Sewer Concept**



- Sanitary Line Routes
- Plan Boundary
- Potential Lift Station



County of Grande Prairie No. 1  
**EMERSON TRAIL AREA STRUCTURE PLAN**

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- 1 may require the construction of fire ponds on specially dedicated public utility lots.
7. If additional easements are deemed to be required at the time specific servicing alignments are determined, such easements shall be acquired from the owner/developer through the subdivision approval process.
8. All shallow utilities (natural gas, power, telephone) are to be extended into the Plan area by the individual franchise holders as required.

### **3.4 Storm Water Management**

Storm water management shall be required for quantity and quality control. Quantity control is required to reduce the potential impacts of urban storm water run-off on drainage ditches and watercourses (i.e. higher rates of erosion), and limit the potential for flooding on developed lands during major storm events. Quality control is required to mitigate any potential for environmental contamination of nearby bodies of water.

Storm water from the Plan area may drain to the south, as this is the predominant direction of the land contour. The intent is for the area to be drained by grassed swale ditches, including roadside ditches. In addition, storm water shall be contained in fire ponds at appropriate locations in the Plan area. The direct discharge of storm water into highway ditches will not be permitted.

Storm water run-off from the roads will be primarily treated and controlled in roadside and grassed swale systems. The effectiveness of grassed swales in handling water quality and quantity is outlined in the Alberta Environment Stormwater Management Guidelines.

Erosion protection measures should be considered in roadway ditches that approach a grade of 3%, depending on the contributing catchment areas. Detailed analysis of the susceptibility of erosion occurring should be considered at the detailed design stage.

The County may implement a review process at the time of development permit application to ensure any businesses wishing to locate within any of the drainage basins do not impose any undue or unreasonable environmental risk to the area as part of their normal operations. Should there be a suspicion of risk, it would be prudent of the County to require site specific on-site storm water management to minimize any spill related incidents. Based on the nature of the zoning, only certain areas will be at elevated risk of this occurring.

1. Storm water management shall be required for quantity and quality control in accordance with the guidelines established by Alberta Environment and the County. Any activity impacting seasonal ponds or intermittent watercourses shall require Alberta Environment approval under the Water Act.
2. As subdivision and development occurs in any particular catchment area (identified in Map 2), a storm drainage master plan will be prepared for the particular area. The plan will identify the development standards for any required storm ponds and all required drainage passageways that need to be improved and/or protected and the timing of the required improvements. The plan will consider and provide recommendations for the entire drainage basin

impacted by development and identify how storm water will be managed within the drainage basins at build-out. The plan must identify future improvements in the planning area as well as future downstream improvements required on other lands. This may involve modeling of storm water run-off to ensure that downstream areas will be adequately protected from flooding in later years and recommend levies that will address the costs of downstream improvements.

3. The County will encourage the use of Best Management Practices for storm water quantity and quality where feasible.
4. Throughout the Plan area, it is conceivable that public utility lots or drainage easements will be required to properly handle overland drainage depending on topography.
5. Any storm water pond required for the development shall be designated as a public utility lot.

### **3.5 Shallow Utilities**

1. All shallow utilities (natural gas, power, telephone) are to be extended into the Plan area by the individual franchise holders as required and will be a condition of subdivision approval.
2. Any overhead power lines are to be installed underground at the Developer's expense.
3. ATCO Pipelines presently has a high pressure gas line that bisects the easterly quarters in a north/south direction. Any development will require that this line be moved or accommodations be made in the development pattern to ensure that no buildings are constructed over these lines. All appropriate crossing agreements are to be in place with ATCO Pipelines prior to constructing parking lots over this line.
4. Pipeline rights-of-way shall be dedicated as public utility lots at the future subdivision stage.
5. Where possible, pipelines operated by ATCO Pipelines shall be relocated at the subdivision stage.

### **3.6 Lot Grading**

1. A lot grading plan will be prepared by the Developer in accordance with County of Grande Prairie No. 1 standards, with the intent that all future building projects conform to the grading plan.
2. The grading plan is intended to ensure that surface drainage from all lots is directed to the ditch drainage system.

## **4.0 Implementation**

### **4.1 Phasing**

The proposed phasing of development in the Plan area will be dependent on market conditions and the logical extension of municipal services. The development phasing is shown in Map 8.

1. Should development phasing be proposed out of sequence in accordance to Map 8, an amendment to this Plan may be required at the County's discretion.

### **4.2 Proposed Zoning**

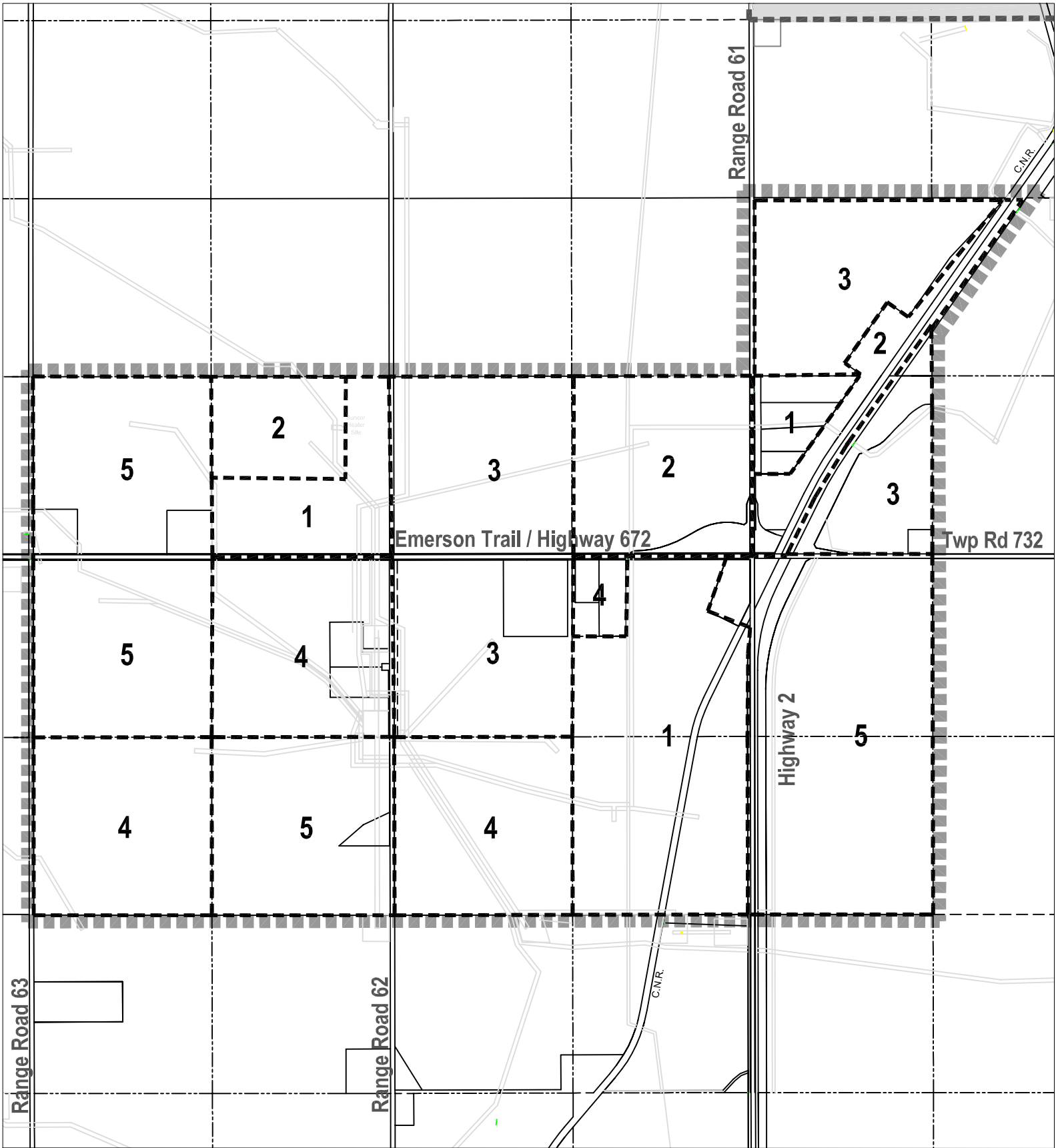
Proposed zoning for the Plan area is identified in Map 9. Areas slated for industrial development will be zoned under the Rural Medium Industrial (RM2) and Highway Industrial (RM4) Districts of the County of Grande Prairie No. 1 Land Use Bylaw. The area identified as Agriculture is to remain under the current Agricultural (AG) zoning. All zoning changes will be made in advance of subdivision approval.

### **4.3 Subdivision and Development**

1. All developers shall be required enter into development agreements with the County of Grande Prairie No. 1 as a condition of subdivision approval. The matters to be included in these agreements may include, but may not be limited to, the provision of roads and municipal services and the payment of off-site levies.
2. Detailed engineering drawings and specifications for roads, water, sanitary sewer, and storm drainage shall be prepared by the developer and approved by the County of Grande Prairie No. 1 prior to subdivision endorsements for the subject lands.
3. The lot sizes identified in this Plan are conceptual and may be altered at the time of subdivision without requiring an amendment to this Plan.
4. The resubdivision of industrial lots in the Plan area may be supported provided that the resulting lot sizes meet the minimum requirements of the County of Grande Prairie No. 1 Land Use Bylaw, and the capacity of servicing systems is not negatively affected. Where possible, buildings should be located in a manner that allows for future resubdivision.

### **4.4 Endeavours to Assist**

Where a developer provides an infrastructure improvement (road, sanitary sewer, storm drainage or water system) that will have a benefit for adjacent lands, the County of Grande Prairie No. 1 will enter into an endeavour to assist agreement with the developer. This will enable the developer providing the improvement to collect a portion of the cost of the improvement from other benefiting lands should the subject lands develop.



## Map 8 - Development Phasing



Engineering  
and Land Services

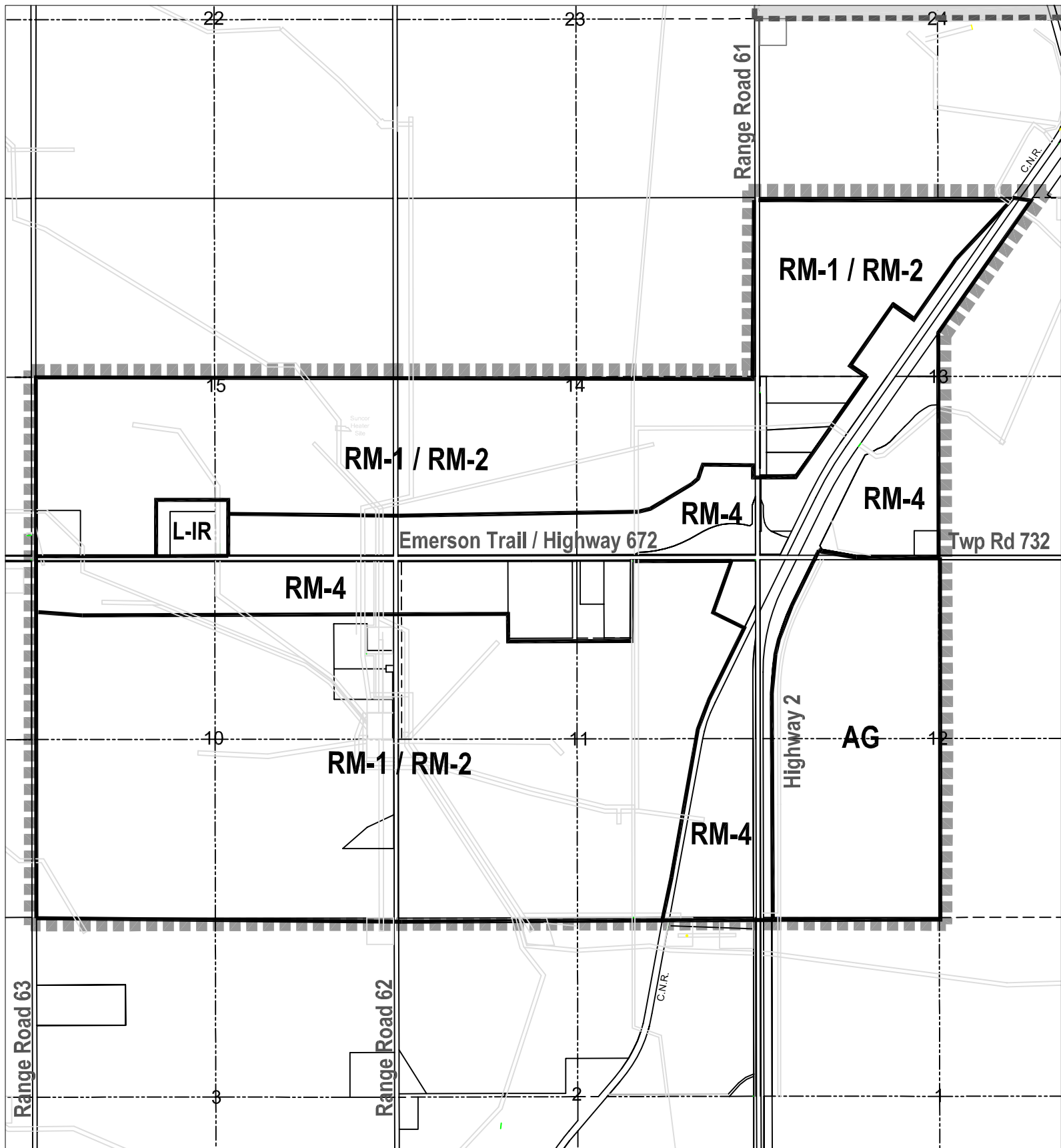
- Phase Boundary
- Plan Boundary



# County of Grande Prairie No. 1 EMERSON TRAIL AREA STRUCTURE PLAN

Scale: NTS  
November 2008





## Map 9 - Zoning



RM-1 Rural Light Industrial  
 RM-2 Rural Medium Industrial  
 RM-4 Highway Industrial

AG Agricultural  
 L-IR Limited Institutional and Recreation  
 ■■■■■ Plan Boundary



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#### **4.5 Amendments to the Plan**

1. An amendment to this Plan will be required where a major change in land use or modification of the road network is proposed, or in situations where subdivision activity is proposed that results in an increase in lot density from what is illustrated in this Plan.
2. Should municipal services be made available to the area, the entire Plan should be reviewed with appropriate amendments to reflect the change in servicing standards. A change in servicing standards will likely result in a modification to land uses and standards that should also be captured by an update to the Plan.

## **Appendix A**

### **Development Adjacent to Oil and Gas Infrastructure**

## **Development Adjacent to Oil and Gas Infrastructure**

### **1.1 Introduction**

The County of Grande Prairie No. 1 is a strong supporter of the oil and gas industry and gratefully acknowledges the long standing commitment this industry has shown to Grande Prairie County residents and the entire Peace Country region.

This Appendix to the Emerson Trail ASP is intended to help foster an atmosphere of cooperation and respect between the representatives of each industry. This Appendix intends to communicate the concerns the oil and gas industry may have about proposed developments and how these concerns can be addressed by development applicants.

### **1.2 Consultation**

By legislation, The County of Grande Prairie No. 1 is obligated to circulate subdivision and development applications adjacent to oil and gas infrastructure to the Energy Resources Conservation Board (ERCB). The County of Grande Prairie No. 1 will also circulate applications directly to the operators of oil and gas infrastructure within the Plan area.

Applicants should be proactive in their initial site planning, and contact representatives from each oil and gas operator to participate during the early stages of the planning process. The County will endeavour to maintain a contact list with details related to the oil and gas infrastructure.

### **1.3 Emergency Evacuation**

Oil and gas operators are required by the ERCB to complete and continually update an Emergency Response Plan (ERP) in areas which sour gas infrastructure exist. This detailed plan addresses the possibility of incidents and strategies to minimize threats or public danger. This statutory obligation will motivate the oil and gas industry to seek consultation at each phase of development of the Emerson Trail ASP. The County will encourage development applicants to cooperate as much as possible with each oil and gas operator in updating the respective ERP's.

The ERP for Suncor and Talisman Energy are attached to this Appendix.

### **1.4 Sour Gas**

Sour gas is defined as natural gas having an H<sub>2</sub>S content of 10 moles per kilomole or greater. ERCB classifies oil and gas infrastructure into categories (Class I - IV) based on the amount of sour gas emitted from an energy facility (pipeline, wellhead, battery or a gas processing plant). Sour gas in high quantities is dangerous to human health, so the corresponding building setback is relative to the amount of H<sub>2</sub>S content each facility emits.

Sour gas pipelines and facilities exist throughout in the Emerson Trail ASP. Development applicants are encouraged to contact the owner of each sour gas facility to confirm the setback requirements.



### **1.5 Pipeline Crossings**

Oil and gas operators become actively involved in how surface lands are used through the process of obtaining a Crossing Agreement. Development applicants should contact affected oil and gas infrastructure operators in order to obtain a Crossing Agreement.

As a general rule, oil and gas operators prefer pipeline crossings at 90 degree angles. Although this ASP shows a tentative road network which must be generally adhered to, the site specific details of crossings are undefined and are typically proposed by the development applicant.

Development applicants are encouraged to consult with oil and gas operators prior to applying for a Crossing Agreement for identifying adequate crossing location options, provide detailed engineering requirements and negotiate the responsibility of each party.

### **1.6 Legislated Setbacks**

Setbacks provide an absolute minimum distance that must be maintained between any energy facility and a dwelling, rural housing development, urban centre, or public facility. Setbacks vary according to the type of development and whether the well, facility, or pipeline contains sour gas.

Building setbacks from oil and gas infrastructure are contained in the 'Oil and Gas Conservation Regulations' and 'Directive 056: Energy Development Applications and Schedules', available through the ERCB.

Setback distances generally apply to country residential land use, public facilities, recreational uses or any land use proposing overnight stays. From the County's perspective, setback distances do not apply directly to industrial and agricultural land use, including those industrial uses prescribed by the Emerson Trail ASP.

Despite this, all oil and gas wells require a 100 m building setback and future surveyed roads should maintain a 40 m distance from existing oil and gas infrastructure.

### **1.7 Infrastructure Access**

Nearly all oil and gas operators have some means of accessing the location of their infrastructure. Accesses and approaches are constructed at different places throughout the Emerson Trail area and developers may be required to relocate oil and gas facility accesses and approaches.

Each oil and gas facility requires regular monitoring and maintenance, so adequate access to each site is very important to operating companies. Where access to oil and gas infrastructure is proposed to be removed, development applicants will need to prove that adequate site access can be provided by alternate means. Again, adequate consultation with the respective oil and gas operator is urged wherever an alternative means of access is to be proposed.

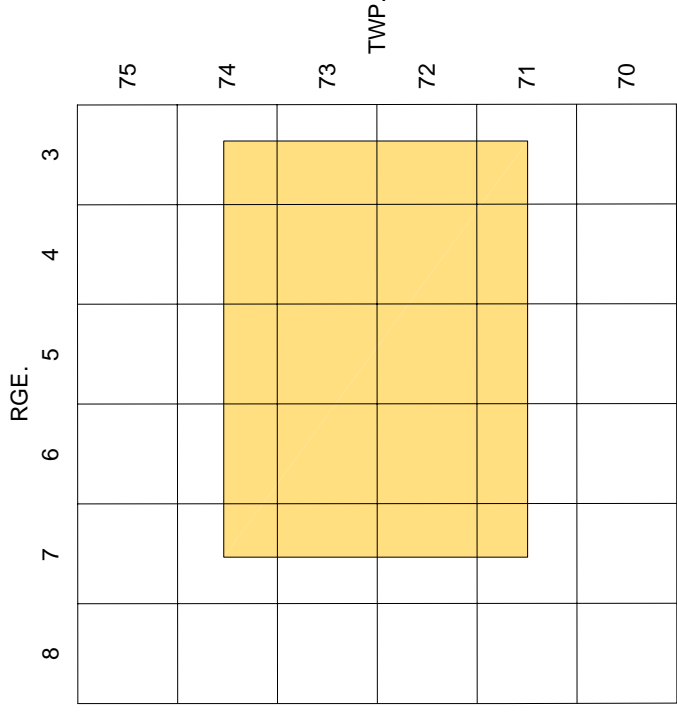




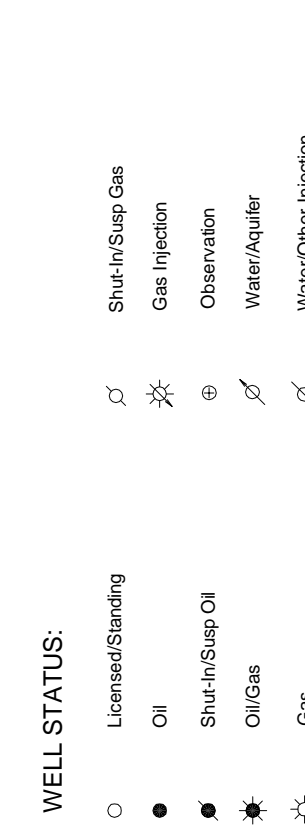
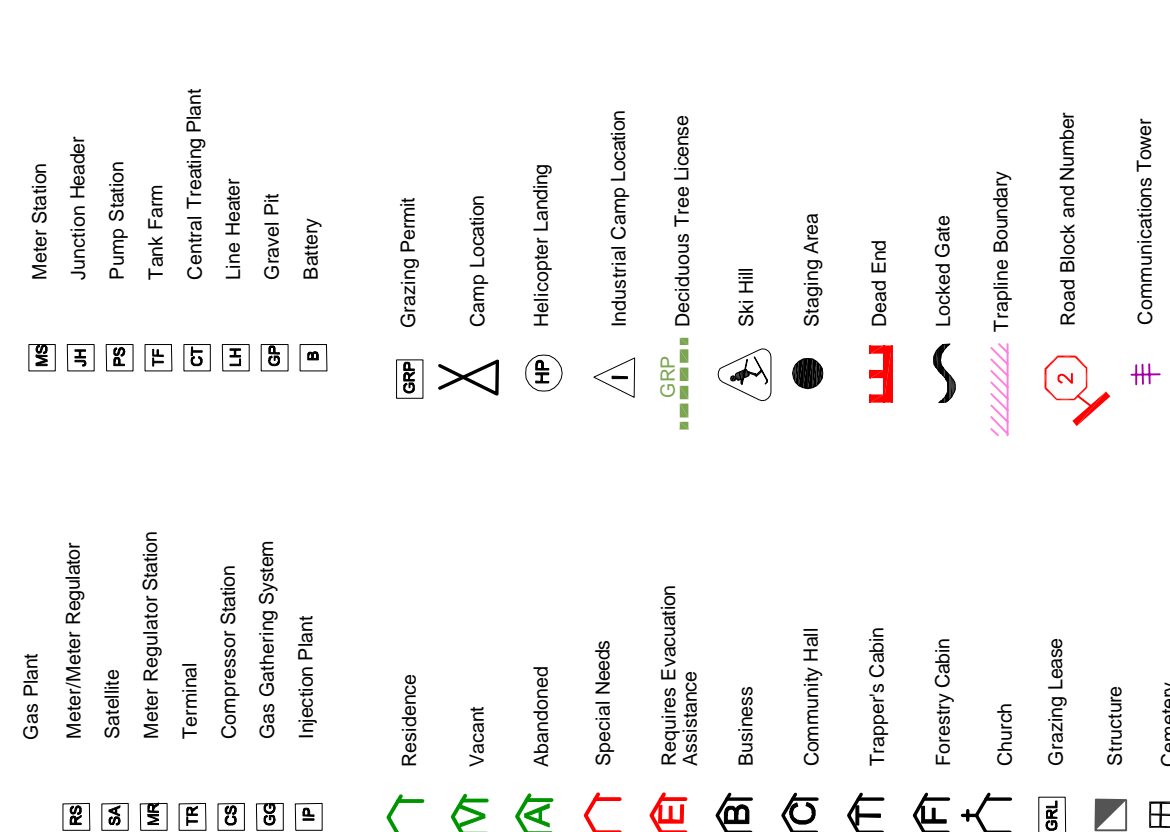
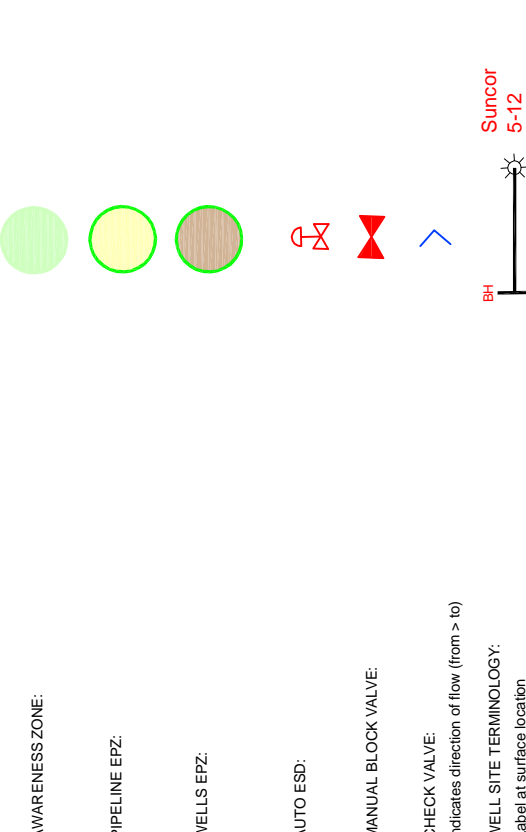
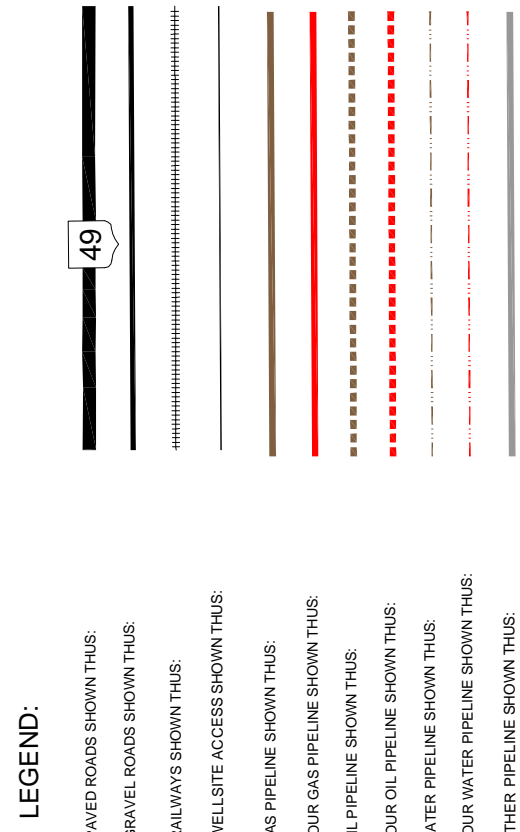
Grande Prairie/Manir  
Emergency Response Plan  
for  
Twp's 72, 73 & 74  
Rgs 4, 5, 6 & 7 W.6 Mer.

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Scale 1:50,000

**SUNCOR**  
EMERGENCY NUMBER:  
1-800-378-6267



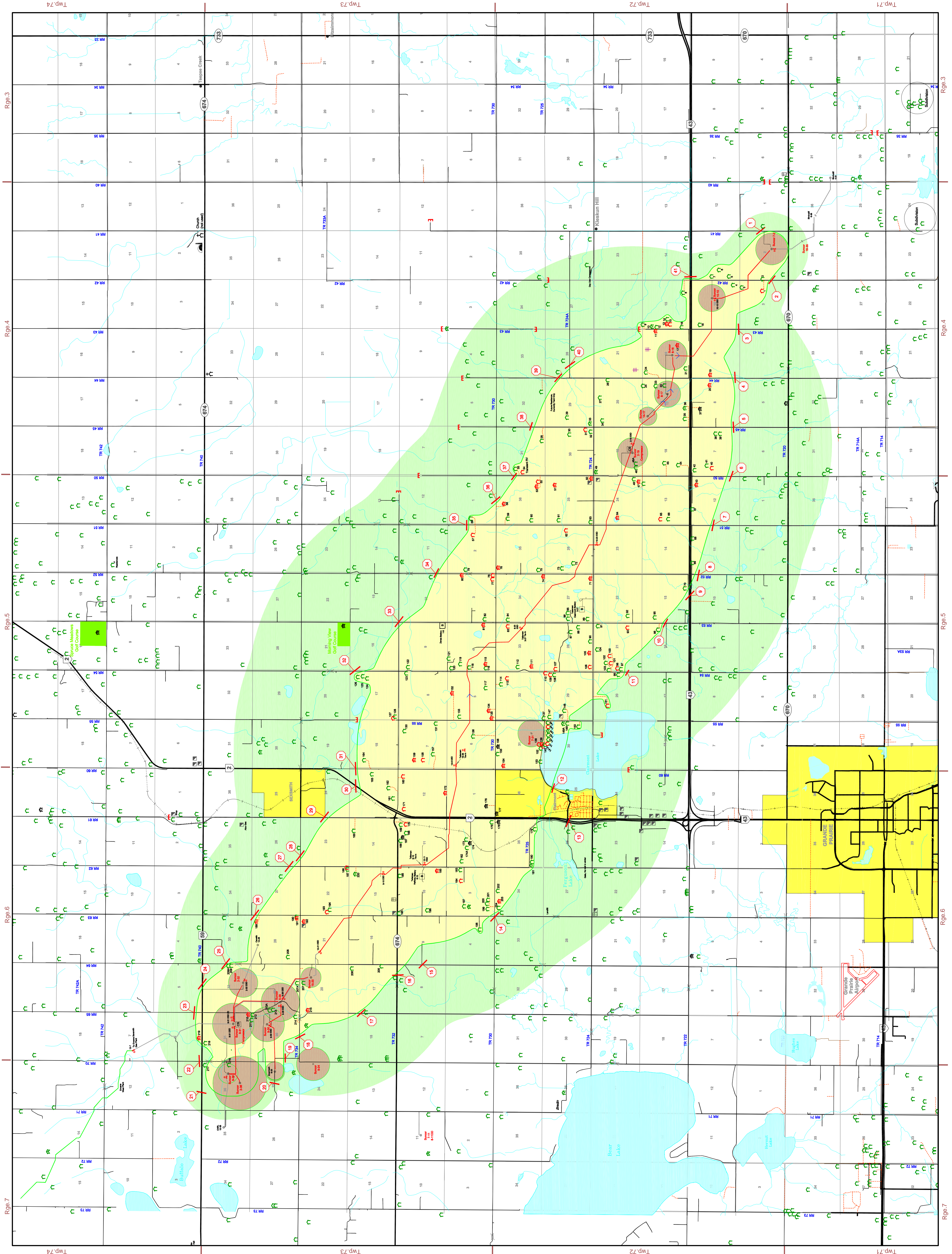
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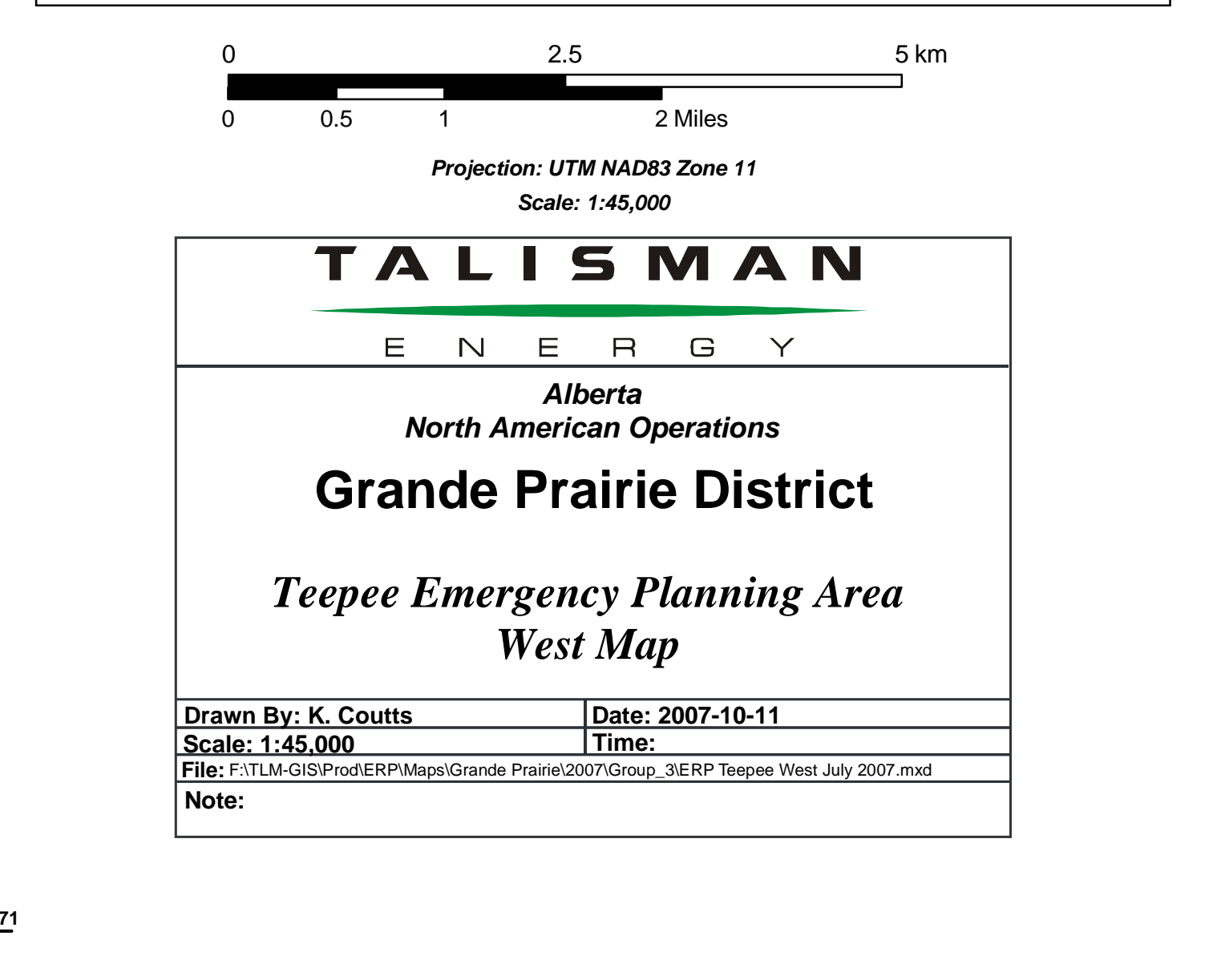
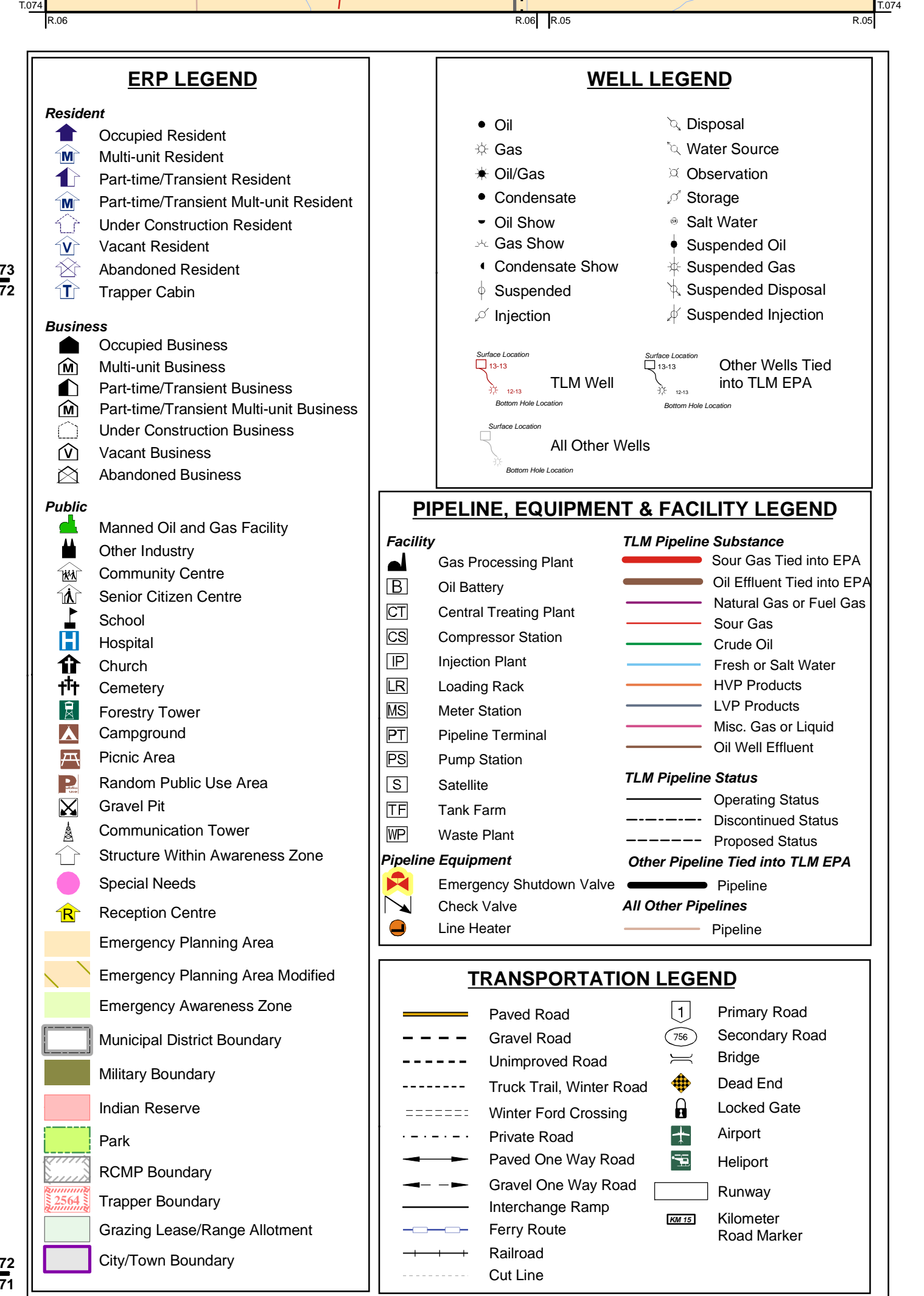
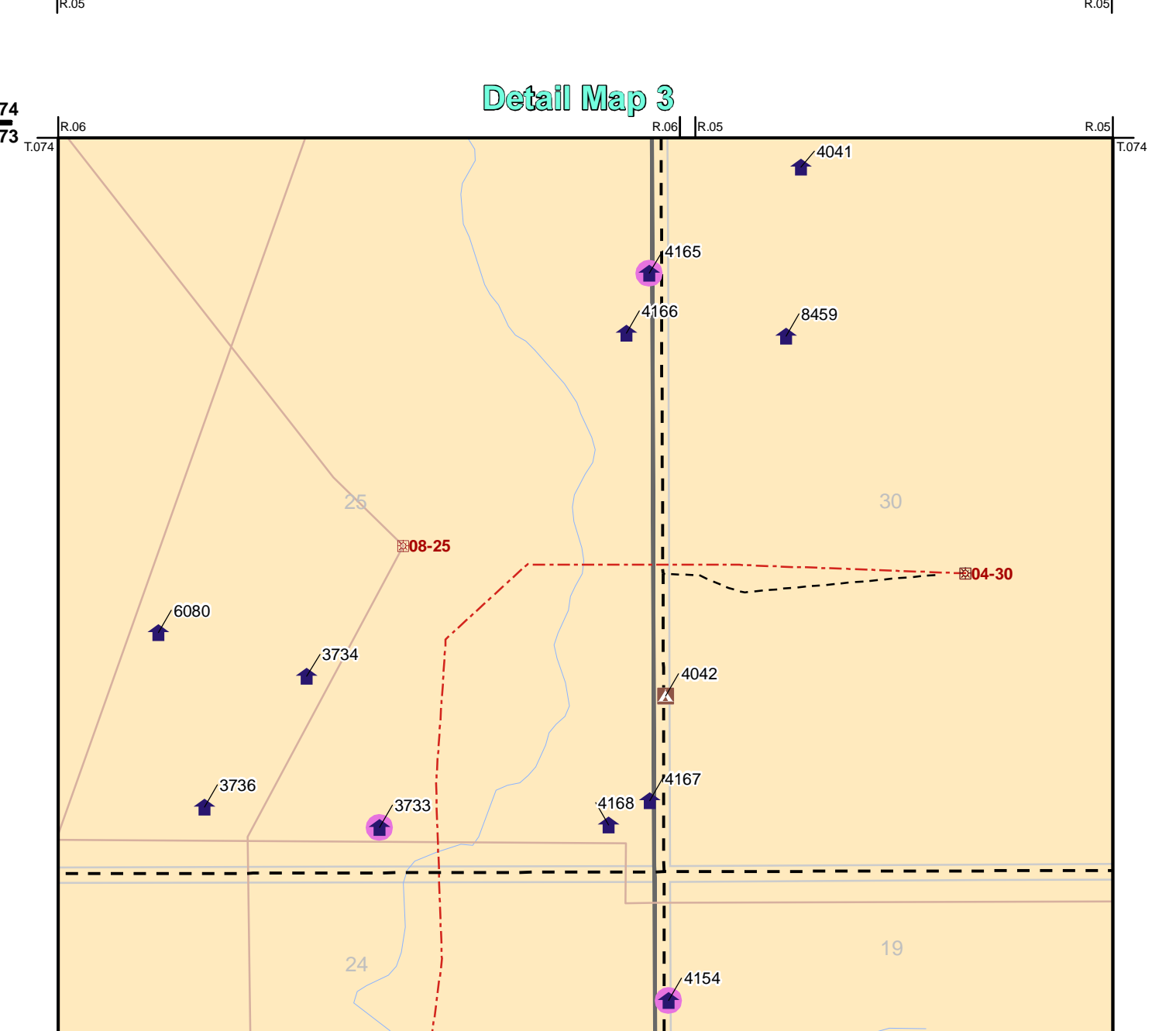
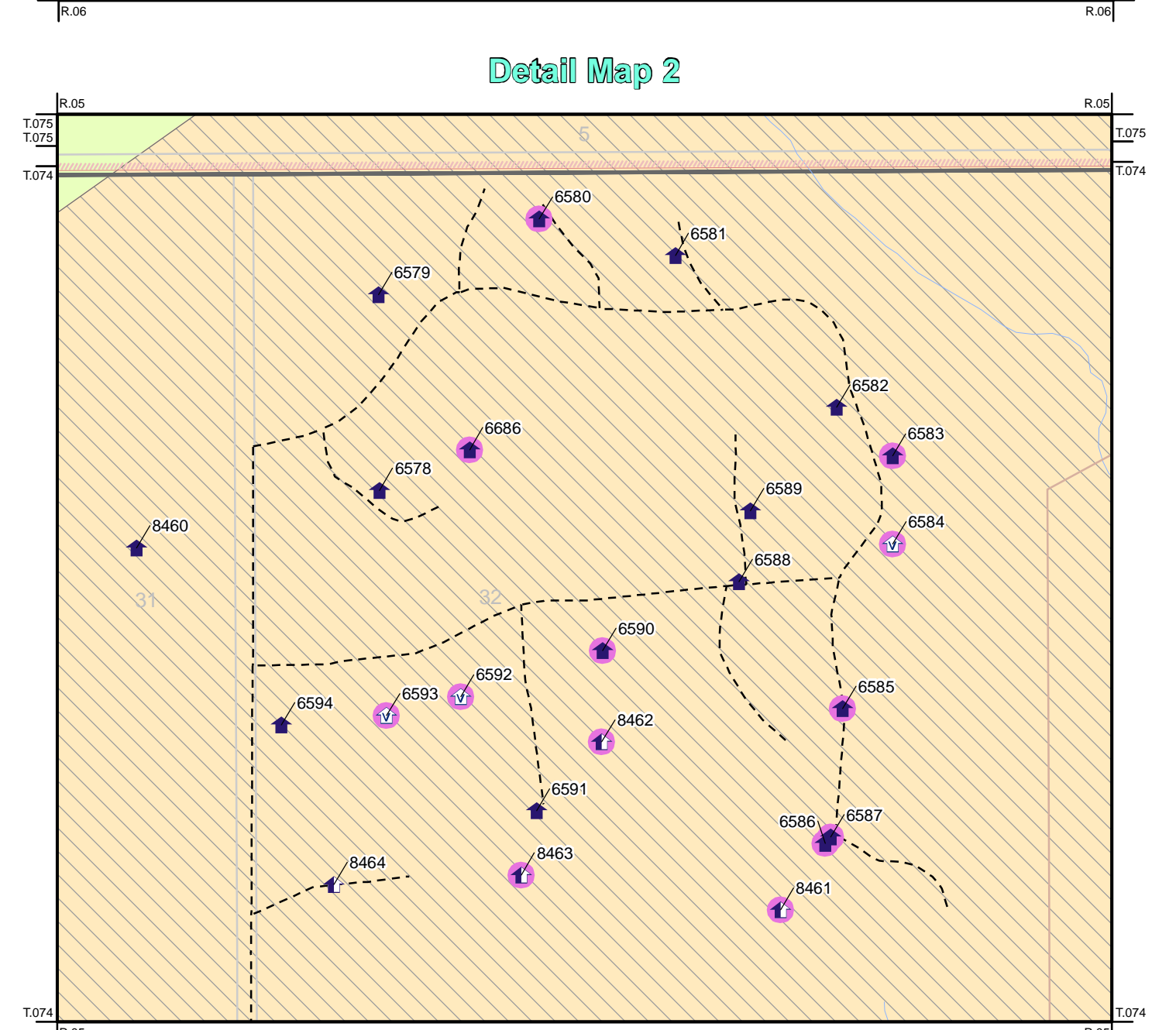
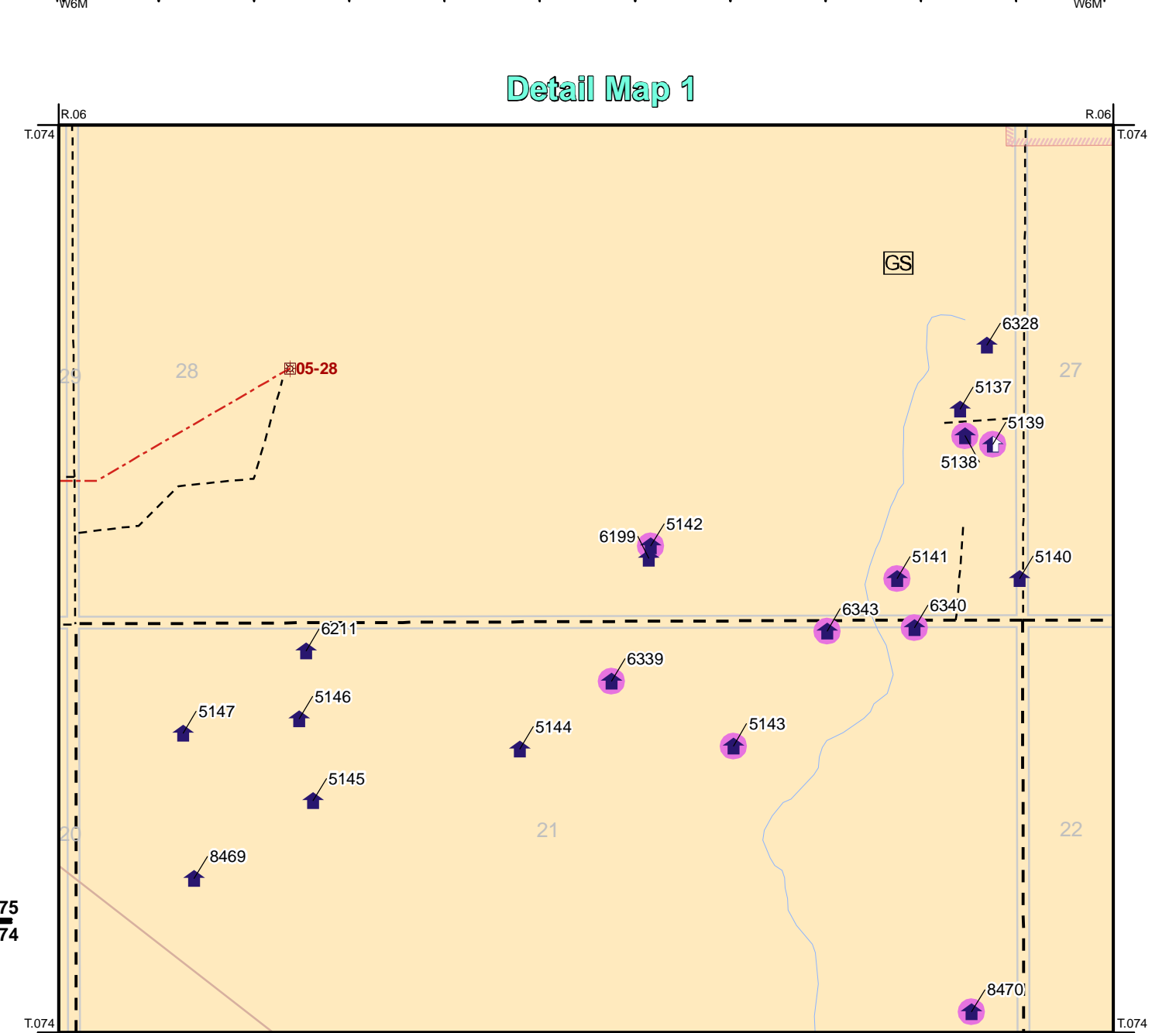
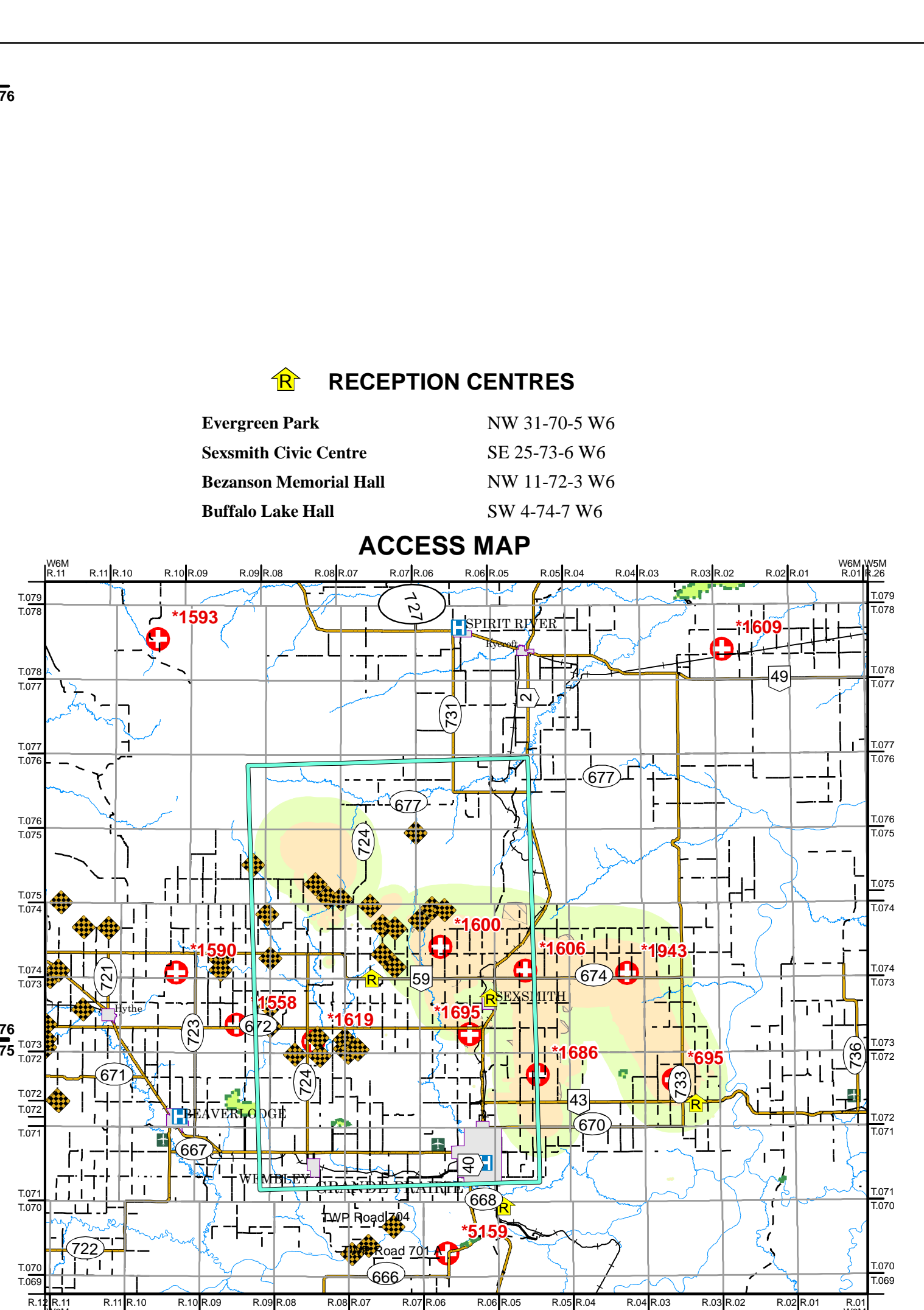
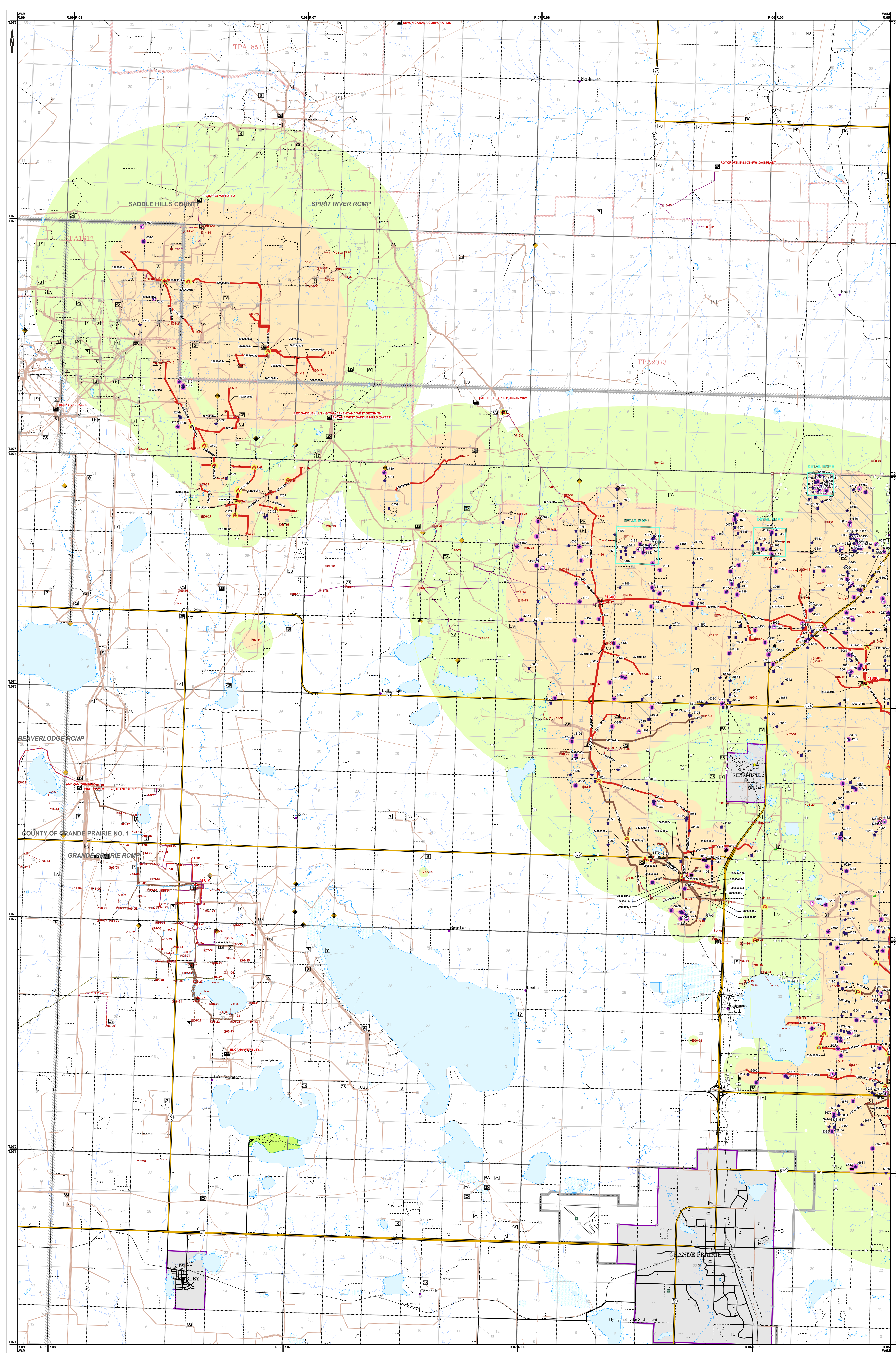
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Sept. 2005	Updated map to September 30, 2005	CC/RW
Mar. 2006	Updated map to March 16, 2006	CC/RW
May 2007	Updated E.P. ESO and Focuss	CC/RW
Ref. No. 324255-03-EP-3, 324257-01-EP-5		CC/RW

Company  
Country  
Province  
Municipality  
Map  
Scale  
Date  
Author  
Reviewer  
Permit No.

Scale = 1:50,000  
Drawn By: CC  
Date: August 3, 2005  
Checked by: BG  
Job No. 324255-01-EP-5









## **Appendix B**

### **Oil and Gas Operating Company Contacts (for information purposes only)**



## **Oil and Gas Operating Company Contacts (for information purposes only)**

Attached hereto for information purposes only, and not forming part of this Area Structure Plan, is Appendix B being a contact list related to the oil and gas infrastructure, the contents of which may be updated from time to time by the County, without formal amendment to the Emerson Trail Area Structure Plan.

<b>Operating Company</b>	<b>Telephone</b>	<b>Contact</b>
Talisman Energy	(780) 402-2220	Kevin Koe
Encana Corporation	(780) 539-4422	General Reception
Suncor Energy	(780) 539-2650	Mark Conacher
Atco Gas	(780) 420-8957	General Reception
Atco Pipelines	(780) 420-8957	General Reception