

**BY-LAW NO. 2915 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 Mercer Hill Area Structure Plan for Pt. SE-02-73-06-W6M, Pt. SW-02-73-06-W6M, Pt. NE-02-73-06-W6M, Lot A, Plan 952 4144; Pt. SE-02-73-06-W6M, and Area "A", Plan 032 6061; Pt. SE-02-73-06-W6M.


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 **"MERCER HILL AREA STRUCTURE PLAN BY-LAW"**.
2. That the Mercer Hill 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 14TH DAY OF FEBRUARY,
A.D. 2011.

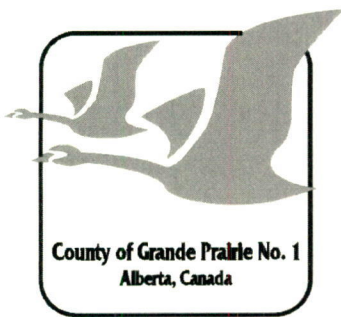

REEVE


COUNTY ADMINISTRATOR

READ A THIRD AND FINAL TIME AND FINALLY PASSED THIS 18TH DAY
OF JULY A.D. 2011.

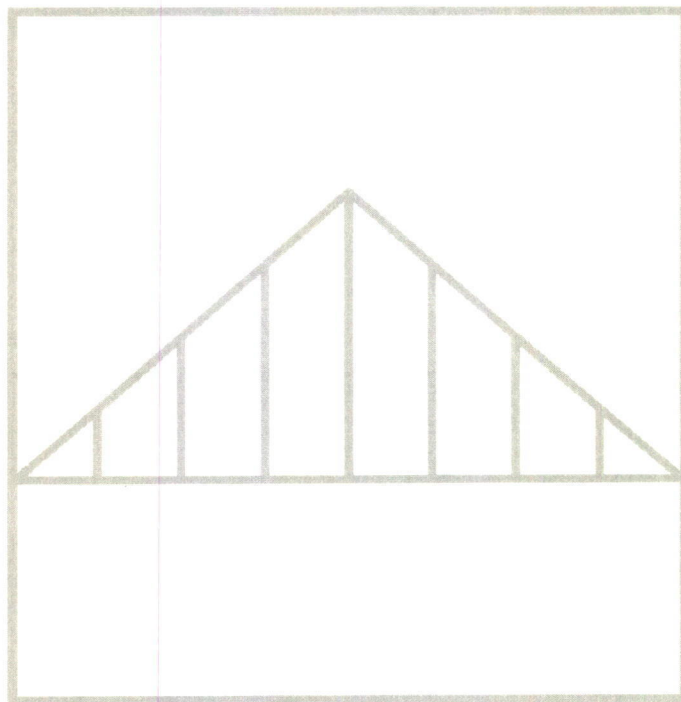

REEVE


COUNTY ADMINISTRATOR



**Mercer Hill
Area Structure Plan**

Portion of Sec. 2, Twp. 73, Rge 6 W6M



Prepared by:
**Beirsto Lehnert Ketchum
Engineering Ltd.**
January 19, 2011

For The
County of
Grande Prairie No.1

BEIRSTO LEHNERT KETCHUM ENGINEERING LTD.

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1.0 INTRODUCTION

1.1 Purpose of Plan

The Mercer Hill Area Structure Plan (ASP) has been prepared for parts of three quarter sections of land in the County of Grande Prairie No. 1 within Sec. 2, Twp. 73, Rge. 6 W6thM.

The primary objective of this Plan is to provide a framework for the future development 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 adjacent to the recently approved Emerson Trail Area Structure Plan, efforts were made to ensure cohesion between the two plans. The Mercer Hill 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, and the Subdivision and Development Regulations.

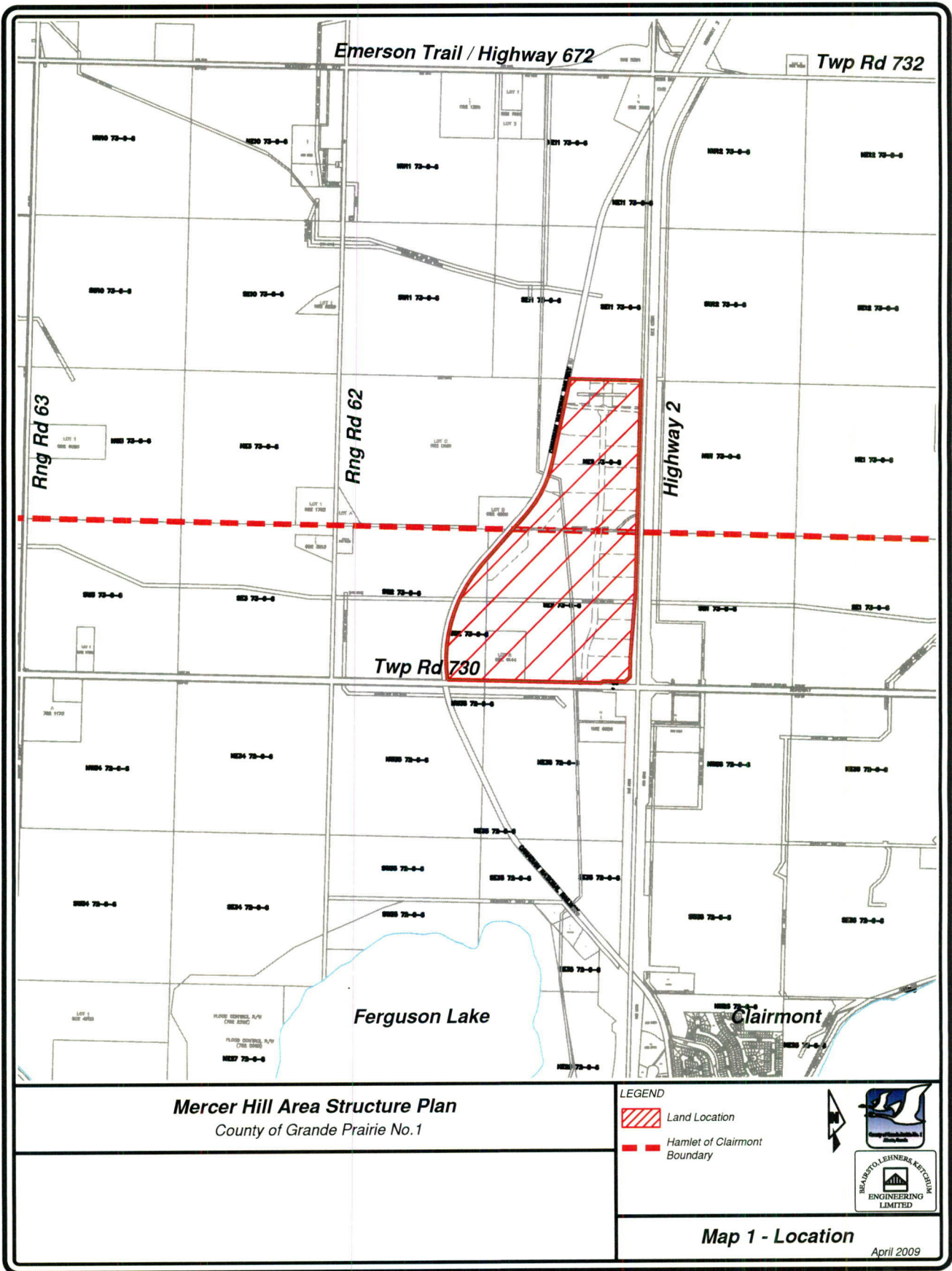
1.2 Plan Area

As illustrated in Map 1, the Mercer Hill Area Structure Plan includes portions of three quarter sections within Section 2 Twp.73. The Plan area is located adjacent Highway 2, on the north east corner of the intersection of Township Road 730. The Hamlet of Clairmont's northern boundary (Appendix 1) bisects the plan area between the north and south quarter sections of Section 2. The Plan area consists of approximately 109.3 ha as outlined in Table 1.

Table 1 – Plan Area Composition

Legal	Owner	Area (ha)
SE 2-73-6-6	Borek Construction Ltd.	55.9
Lot A, Plan 952 4144	Borek Construction Ltd.	5.7
Area "A" Plan 032 6061	Atco Gas and Pipelines Ltd.	0.08
SW 2-73-6-6	Bruce and Caroline Willis	9.9
NE 2-73-6-6	Josef and Angelica Knobloch	37.8
Total		109.3







1.3 Existing Conditions

As illustrated in Map 2, the Plan area is bound by Highway 2 to the east, Twp. Rd. 730 to the south, the Canadian National Railway line (CN) to the west, and undeveloped highway industrial land to the north. The undeveloped land to the north includes a recently constructed stormwater retention pond immediately adjacent the northwest corner of the Plan area, which is consistent with the Emerson Trail ASP.

A developed access road off Highway 2 is located on the south end of NE 2 that services a residence adjacent to the west edge of the Plan area. A second existing residence immediately adjacent to the Plan area is serviced via a private driveway running north from of Twp. Rd. 730 within the same SW 2 land.

Development in the Plan area consists of one industrial shop on the southeast corner of SE 2, as well as an undeveloped industrial lot (Lot A, Zoned CR-5), and an Atco Gas gate station (Area "A") on the south boundary of SE 2 with accesses off Twp. Rd. 730. The balance of the Plan area is zoned agricultural (Appendix B), and is considered good agricultural land.

Two Talisman sour oil wells are located on the north end of NE 2, in addition to a level two Suncor Sour gas pipeline, running east-west. Also present within the Plan area is a high-pressure natural gas pipeline running relatively north-south, and a Pembina gas pipeline running east-west through SE2. A summary of oil and gas infrastructure is listed in Table 4, and illustrated in Map 2. Policies for development adjacent to the oil and gas infrastructure are presented in Appendix C.

As illustrated in Map 3, the Plan area is relatively steep and slopes from east to west toward the railway traversing the west side of the Plan area. Elevations range from 720 m in the southeast corner of the Plan area to 690 m at the southwest corner, with the steepest grades located in the southwest corner.

Natural vegetation in the non-agricultural areas of the Plan is limited to small pockets of willow.

1.4 Policy Framework

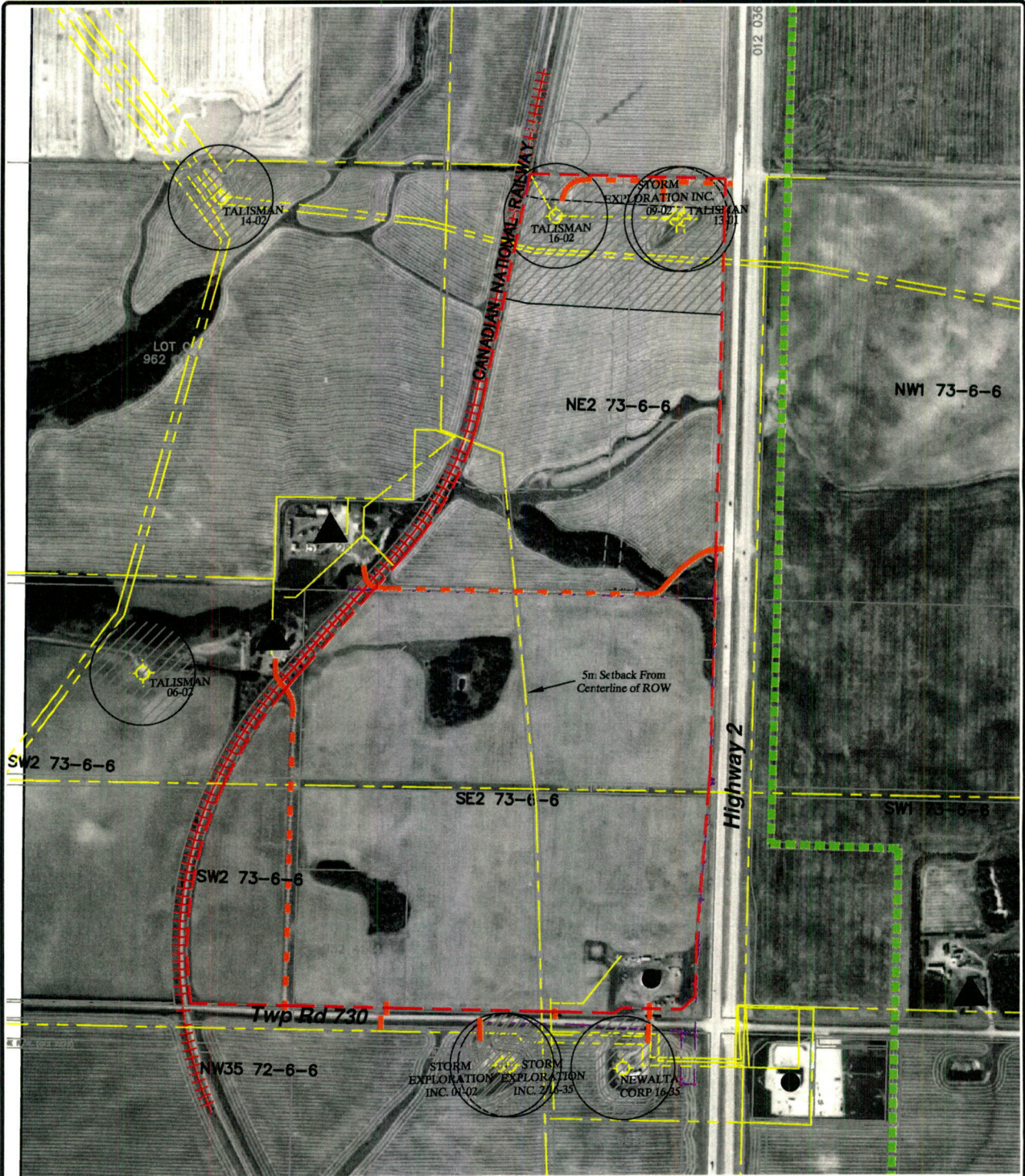
1.4.1 County of Grande Prairie Municipal Development Plan

The County Municipal Development Plan (MDP) provides the general policy framework within 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 in making planning decisions". Section 8.4 also requires an Area Structure Plan in advance of industrial park development.

The south portion of the Mercer Hill ASP is contained within the 20-year growth boundary of the Clairmont Urban Area as identified in Section 5 of the MDP (illustrated in Appendix A – Map 3). The northern portion of the Mercer Hill ASP is defined within the MDP under future land use areas (illustrated in Appendix A – Map 6). The content of this Plan has been prepared in accordance with the requirements of the MDP.

1.4.2 County of Grande Prairie Land Use Bylaw





Mercer Hill Area Structure Plan
County of Grande Prairie No. 1

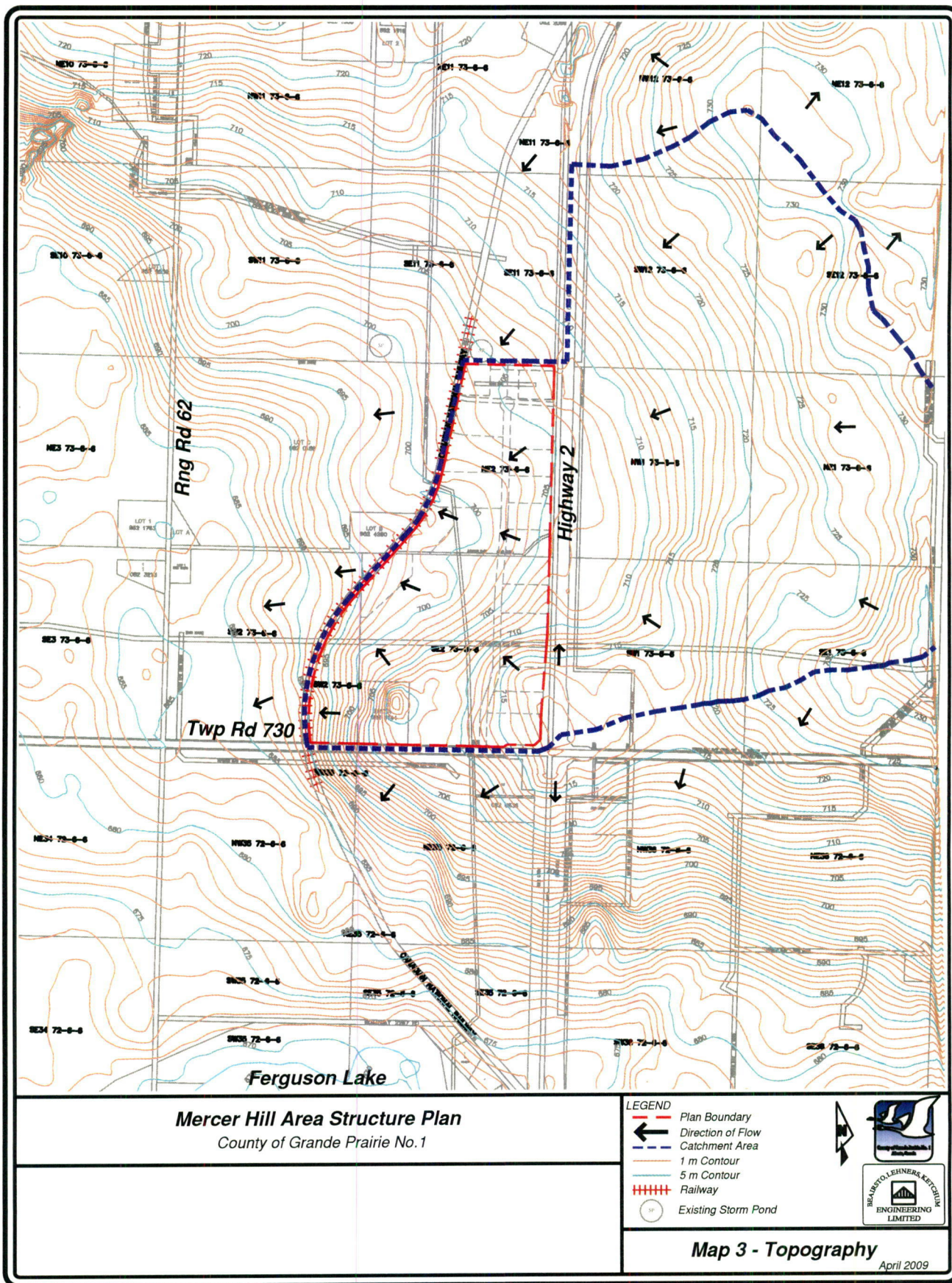
LEGEND

- Plan Boundary
- Pipeline
- Setback
- Wellhead
- Aquatera Regional Waterline
- Approaches
- Overhead Power
- Railway
- Existing Industrial
- Residence



Map 2 - Existing Conditions

April 2009



LEGEND

- Plan Boundary
- Direction of Flow
- Catchment Area
- 1 m Contour
- 5 m Contour
- Railway
- Existing Storm Pond



BEARSTOE LEHNERT & ASSOCIATES
ENGINEERING
LIMITED



Lot A is zoned CR-5, with the remaining land in the Plan area currently designated as Agricultural (AG) in the County's Land Use Bylaw. In order to facilitate the development of these lands for 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

As per Section 14, of the Subdivision and Development Regulation, an Area Structure Plan is required in advance of development for all lands located within 800m of a highway.

As per Sections 3, 10 and 11, of the Subdivision and Development Regulation, all "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

The Highway 2 and 43 Transportation/Access Study Final Report (McElhanney Report) prepared for Alberta Transportation includes the subject Plan area, which recommends future intersection locations and access requirements. This Mercer Hill ASP has been prepared in accordance with the recommendations of the study.

2.0 DEVELOPMENT CONCEPT

2.1 Goals of the Plan

The Mercer Hill 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 area through the development of the plan area for industrial purposes.
3. To protect and maintain the operational safety of Highway 2.
4. To establish an efficient and economical development and servicing concept for the Plan area.





2.2 Land Use Concept

A breakdown of land uses proposed for the Plan Area is provided in Table 2, with additional detail in Table 3. The overall development concept proposed for the area is illustrated in Map 4. The intent of this plan is to provide a generalized land use plan with a conceptual lot layout that will be subject to further refinement at the time of subdivision and survey.

Table 2 - Land Use Area Estimates

Land Use Category	Total	Percent
Gross Developable Area	109.3	
Net Developable Area	109.3	100.0
Industrial	98.1	89.8
Road ROW	5.1	4.7
Storm Ponds	3.9	3.6
Municipal Reserve	2.2	2.0

Table 3 - Detailed Land Use Estimates

Land Use Category	SW 2	Lot A	Area "A"	SE 2	NE 2	Total	Percent
Gross Area	9.9	5.7	0.08	55.9	37.8	109.38	
Net Developable Area	9.9	5.7	0.08	55.9	37.8	109.38	100
Industrial							
Heavy (RM-3)	9.6	5.7	0.08	34.2	0	35.8	32.7
Medium (RM-2)	0	0	0	0	18.1	31.8	29.1
Highway (RM-4)	0	0	0	16.2	14.3	30.5	27.9
Road Row	0	0	0	2.4	2.7	5.1	4.7
Storm Ponds¹	0.3	0	0	1.9	1.7	3.9	3.6
Municipal Reserve²	0	0	0	1.1	1.1	2.2	2.0

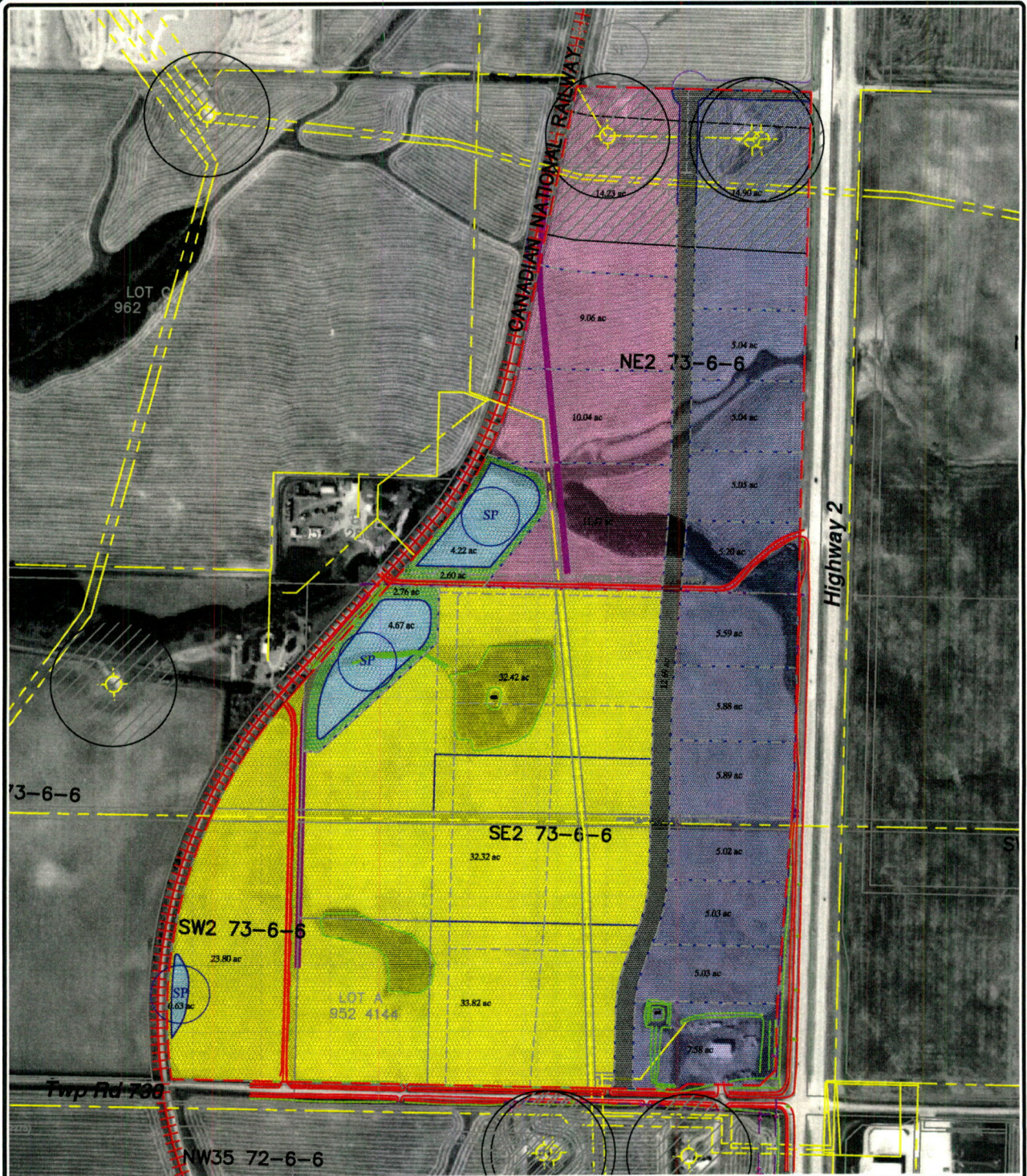
2.3 Industrial Development

- 2.3.1 As noted in Tables 2 and 3, approximately 89.8% of the Plan area is to be developed for industrial purposes. The intention is to transition from highway industrial (RM-4) zoning adjacent Highway 2, to a mix of medium industrial (RM-2) in the northwest, and heavy industrial (RM-3) in the southwest area of the Plan. The proposed heavy industrial zoning, is to take advantage of potential railway spur accesses to the existing CN Railway. Given the proximity of the existing residential properties to the proposed industrial

¹ Storm Pond sizing is estimated. Actual land dedication to be determined at detailed engineering stage.

² Municipal Reserve is estimated. Actual land dedication to be determined in coordination with detailed engineering of storm ponds.





Mercer Hill Area Structure Plan

County of Grande Prairie No. 1

GROSS AREA = 109.26 ha (269.98 ac)

NET AREA = 109.26 ha (269.98 ac)

HEAVY INDUSTRIAL AREA
9.6 - 13.7 ha (23.8 - 33.8 ac)

MED. INDUSTRIAL AREA
3.7 - 5.8 ha (9.1 - 14.3 ac)

HWY. INDUSTRIAL AREA
2.0 - 6.0 ha (5.0 - 14.9 ac)

MR AREA
1.0 - 1.1 ha (2.6 - 2.8 ac)

ROAD AREA
5.1 ha (12.7 ac)

POND AREA
0.3 - 1.9 ha (0.6 - 4.7 ac)

LEGEND

- Plan Boundary
- ++++ Railway
- Proposed Rail Spurs
- SP Existing Storm Pond
- SP Proposed Storm Pond
- Alternative Lot Configuration



Map 4 - Land Use Concept

April 2009



development, two storm ponds with MR strips on their perimeters are proposed as a buffer zone. As is reasonable, development is to be compatible with existing residences. Some measures to facilitate compatibility are, limits to emissions of noxious odors, as well as noise considerations should be implemented. The intention is to minimize the potential for detrimental impacts on non-industrial properties.

- 2.3.2 The total area proposed for industrial development is approximately 98.1 ha. Based on the layout illustrated in Map 4 a yield of 4 lots averaging 12.4 ha in size is anticipated for the RM-3 zoning, 4 lots averaging 4.5 ha in size is anticipated for the RM-2 zoning, and 12 lots averaging 2.5 ha in size is anticipated for the RM-4 zoning.
- 2.3.3 All industrial development in the Plan area shall be subject to design and landscaping standards in accordance with County requirements. This is a result of the close proximity to Highway 2, and the high degree of visibility this Plan area will have.
- 2.3.4 In order to respond to potential changes in market conditions, an alternative lot configuration that could be considered at development stage is shown on Map 4.

2.4 Municipal Reserve

In accordance with the Municipal Government Act, a maximum of 10% of the Plan area (10.9 ha) may be provided as municipal reserve at the time of subdivision. It is proposed that municipal reserve be allocated in the Plan area as follows:

- In order to provide buffering between residential and industrial properties, it is proposed that lands surrounding the stormwater detention ponds are dedicated as municipal reserve as they contribute to the open space network. The amount of land to accommodate this dedication is to be determined once the pond sizes have been finalized through detailed design. Only those portions of wet ponds that are located above the 1:5 year flood may be eligible for MR credit.
- The balance of the municipal reserve owing (10.9 ha less storm pond dedication) shall be provided to the County as cash-in-lieu as a condition of subdivision approval.

2.5 Oil and Gas Infrastructure

It is anticipated that oil and gas extraction will continue to be active in the Plan area. Map 2 and Tables 4 and 5 outline the oil and gas infrastructure located within the Plan area. Guidelines for Oil and gas infrastructure are shown included in Appendix C.



**Table 4 – Oil and Gas Pipelines**

License/Line #	ROW Plan	Location	Owner	Sour	Setback
29903 - 2	992 3696	SW 2 & SE 2	Pembina	No	ROW
1571 - 33	5523 HW	NE 2 & SE 2	Atco Gas	No	ROW
28243 - 10	-	NW 2	Suncor	No	ROW
28244 - 4	-	NW 2	Suncor	Yes	100m
20685-18	012 5835	NW 2	Talisman	Yes	100m

Table 5 – Oil and Gas Infrastructure

License #	Licensee	Location
0114026	Talisman	NW 2
0246073	Storm Exploration	NW 2
0246072	Talisman	NW 2

1. Development Setbacks from oil and gas facilities required as per provincial regulations shall be enforced in the Plan area.
2. The proposed lot configuration and transportation network as outlined in Maps 4 and 5, have been designed to accommodate the existing oil and gas infrastructure. Road crossings of existing pipeline right-of-ways (row) have been kept to a minimum. All costs associated with the assessment, design and construction of pipeline crossings shall be borne by the developer.
3. Prior to the construction of buildings, parking lots or any type of development on a site, the developer shall be required to enter a crossing agreement with oil and gas facility owners as required.
4. Where applicable, as a condition of subdivision approval, the County shall require caveats recognizing the presence of oil and gas infrastructure on the subject lands be registered on title.
5. The County shall inform the oil and gas industry of any new subdivisions in the Plan area to assist the industry with updating the Emergency Response Plan (ERP) for the required facilities affected by the subdivision.
6. During any subdivision application process, the County shall inform future lot owners and developers about each ERP in the Plan Area. The County shall also provide information to the oil and gas industry pertaining to new development in the Plan area to assist the industry with updating the Emergency Response Plan (ERP) for the required facilities affected by the development.
7. Applicants for development shall provide or replace any access to existing oil and gas infrastructure affected by the proposed development.



3.0 TRANSPORTATION AND SERVICING

3.1 Road Network

As illustrated in Map 5a, the Plan area is to be accessed from four points as follows:

- A collector road connection to Highway 2 at the northwest end (Option 1- Twp. Road 731 Layout);
- Two lot access locations to Twp. Road 730 at the southwest end; and
- A collector connection to Twp. Road 730 at the southeast end of the Plan area.

The industrial collector is the only roadway proposed for the area. Located from the connection of Highway 2 at the northeast corner of the Plan area, the road runs north-south to connect to Township Road 730 at the south end of the Plan area. It is recommended this collector road continue south to provide access to the adjacent NE 35 lands. This proposed roadway provides separation of the Highway Industrial lots from the medium and heavy industrial lots within the Plan area.

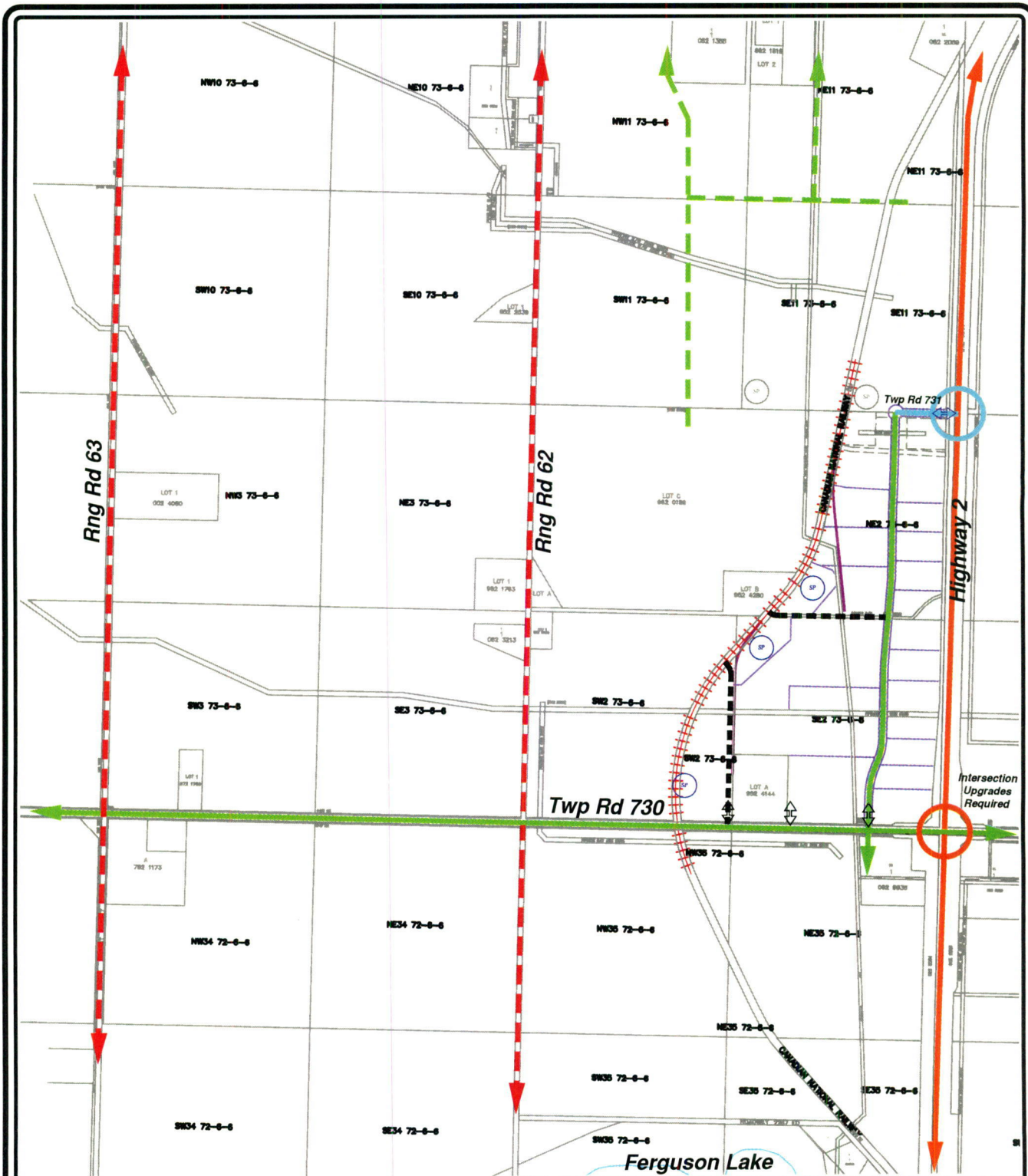
The existing private access road servicing the residential lot in NE 2, shall no longer connect directly to Highway 2, but will be serviced off of the proposed internal collector road. The existing access road may require upgrading to serve multiple purposes being; current residential access, County access to the proposed storm pond facilities, and improved ditch network to transport overland storm water to the ponds (see Map 8). Any upgrades to the existing access, will not extend to the CN rail crossing, which will remain a private agreement between CN Rail and the residential lot owner. This multi-purpose access could be protected via an easement agreement between the County and the private land owner(s).

The existing access off Township Road 730 servicing the residential lot in SW 2 will remain as existing. Any future subdivision within SW 2 that includes the existing access shall require consideration in maintaining access to the residential lot.

Access to the proposed heavy industrial lot (includes Lot A) adjacent Township Road 730 shall conform to all County standards including necessary site lines. If future marketing warrants lot size changes, the access may be upgraded to provide a local road loop through the SE 2 lands as shown in Map 5b.

As mentioned in Section 1.4.4, the Highway 2 and 43 Transportation/Access Study Final report (McElhanney Report) includes the subject Plan area, which recommends future intersection locations and access requirements. The proposed connection to Highway 2 at the northeast corner of the Plan area is consistent with the reports recommendations for a possible Twp. Road 731 connection (Appendix D). However, discussions with Alberta Transportation indicated they would not support isolated signals for this intersection at this time. An interim option would be to provide right-in right-out access only, however the Alberta Transportation does not typically support this type of access on provincial highways, therefore detailed discussions with Alberta Transportation would be required to finalize this interim geometry. Ultimately this intersection is to be an all direction access which will require proper median spacing. A second option to accommodate the road system if the Highway 2 (Twp. Rd. 731) connection does not proceed is illustrated in Map 5b. This option provides no road access to the north. A result of this option is all accesses to the Plan area, are strictly off Twp. Rd. 730.





Mercer Hill Area Structure Plan
County of Grande Prairie No. 1

LEGEND	PROPOSED STORM POND	EXISTING STORM POND
PROVINCIAL HIGHWAY 2	ARTERIAL ROAD	PRIVATE ACCESS
PROPOSED COLLECTOR ROAD	PLAN AREA ACCESS	PROPOSED RAIL SPURS
EMERSON TRAIL ASP	HIGHWAY INTERSECTION	RAILWAY
COLLECTOR ROAD		

- OPTION 1 ACCESS
- OPTION 1 COLLECTOR
- OPTION 1 LOT LAYOUT
- OPTION 1 HIGHWAY INTERSECTION



Map 5A - Transportation Network
April 2009



- 3.1.1 As development proceeds in the Mercer Hill area, the McElhanney Report recommends the intersection of Highway 2 and Twp. Rd. 730 be signalized. Recent Traffic Impact Analysis (TIA) for the existing Highway 2 and Twp. Rd. 730 intersection have also indicated that upgrades are required for further development. Alberta Transportation has indicated they will not support isolated signals or reduced traffic speeds in this location at this time (reference Appendix D), therefore upgrades to the intersection to provide adequate median widths are required. Highway improvements must meet current Alberta Transportation standards, and detailed plans must be reviewed and approved by Alberta Transportation. The agreed upon improvements must be completed as a condition of subdivision and at no cost to Alberta Transportation. Where highway improvements are required, the County should assess a levy to new development within the four quarter sections adjacent the intersection to recover the upgrading costs.
- 3.1.2 All roads in the Plan area are to be constructed to a rural (paved) standard in accordance with County specifications at the expense of the developer. The proposed rural road standard shall be used to provide a cleansing mechanism for overland flows and to accommodate anticipated large storm water runoff. In instances where a proposed road straddles a property line, both benefiting landowners shall share the cost of road construction.
- 3.1.3 All proposed lots should be accessed off the internal road network, with exception to the two heavy industrial lots which have access off Twp. Rd. 730. No direct Highway 2 access will be permitted.
- 3.1.4 Through the subdivision process, additional land may be acquired by the County from the developer to provide for future widening of Township Road 730 to a minimum 40m right-of-way width. A Traffic Impact Assessment shall be provided to identify potential improvements to external roads, as well as identify possible site line issues on accesses. The County may assess a levy to recover the cost of upgrading these external roads.

3.2 CN Rail

The CN Rail line running from Rycroft to Grande Prairie is adjacent the west boundary of the Plan area. Efforts shall be made to encourage the development of rail related industries that can be serviced off the proposed rail spurs. The County supports the construction of rail spurs.

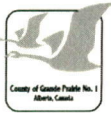
1. Any proposals for future road crossings of the rail line, or connection of spurs to the rail line, must receive prior approval from CN.

3.3 Servicing

The existing Borek Industrial site is serviced by private water supply and sewage disposal system. It is proposed that all new development occurring in the Plan area will also be serviced in such a fashion, until such time that municipal water and sanitary systems are made available. Refer to Maps 6 and 7 for potential concepts of future water and sanitary sewer systems.

1. Prior to any subdivision in the Plan area, soil and water well testing will be provided to demonstrate that water supply and soil conditions are sufficient to accommodate the proposed development. In the event that water supply is insufficient to accommodate the proposed land use, either a different land use should





be proposed, or restricted covenants be registered on the proposed lots limiting water supply sources to alternative methods such as cisterns.

2. In accordance with the Provincial regulations, the existing Borek well will require a water license by Alberta Environment. As a condition of development approval, all new developments in the Plan area requiring a water well, shall apply for a water license by Alberta Environment.
3. The County would support the extension of municipal services to the Plan area. Any extension or upgrades to municipal system infrastructure will be borne by the developer. The detailed planning for a municipal water or sanitary system resulting in changes to this Plan, will require an amendment of this Plan.
4. The developer or the County may provide municipal services to the area. If municipal services are provided to the area, all developments must connect to these services. Caveats will be attached to each property to ensure that these 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 services to the area.
5. It is intended that future municipal servicing through the Plan area, be within internal road right-of-ways.
6. In advance of municipal water services, fire protection for developments in the area may require fire ponds. Fire ponds are to be protected either by dedicated public utility lots, or by easements within private lots acceptable to the County.
7. Any easements required for future servicing alignments are to be acquired from the developer through the subdivision approval process.

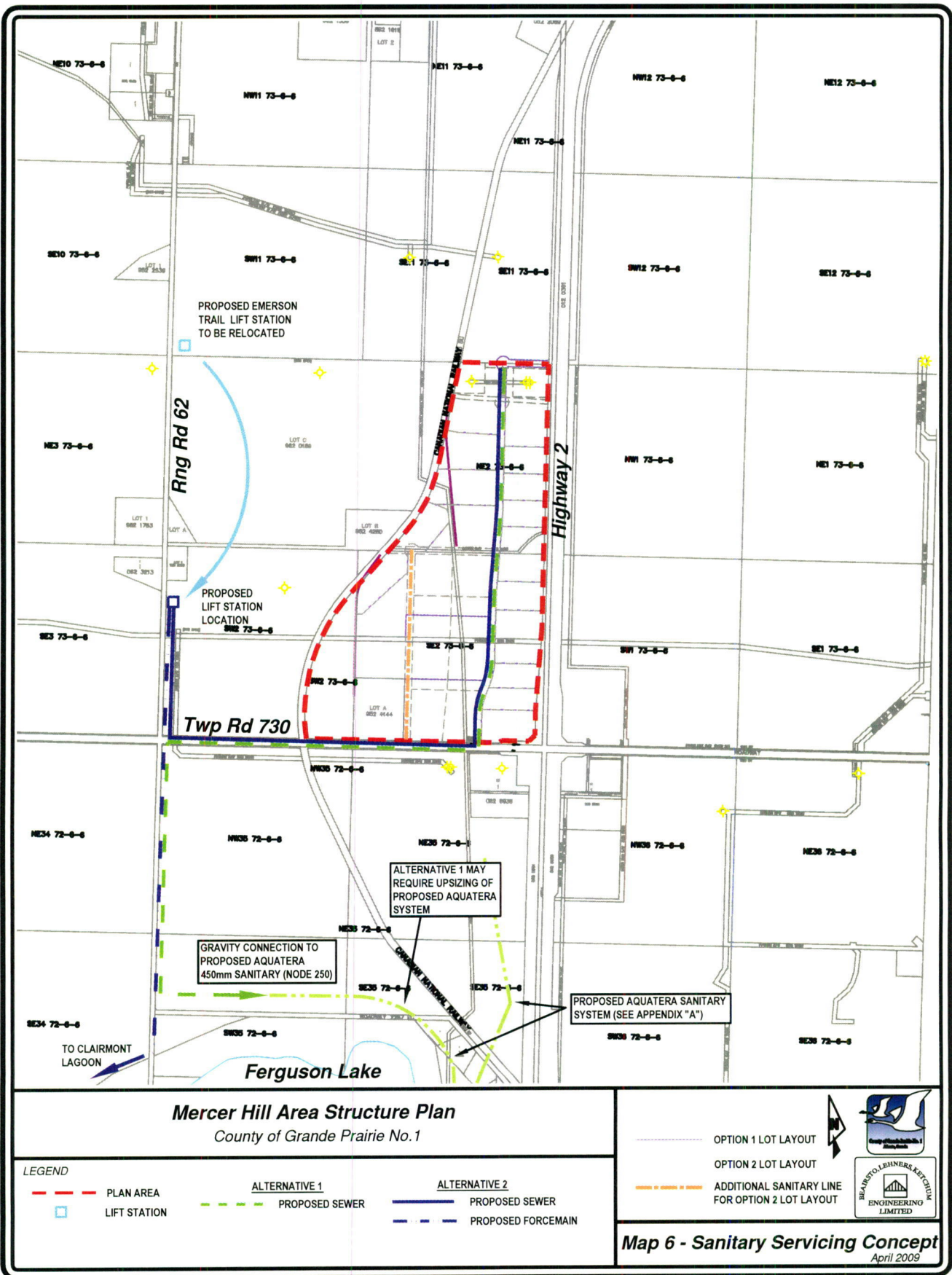
3.3.1 As illustrated in Map 6, there are two alternatives proposed to provide sanitary services to the Plan area.

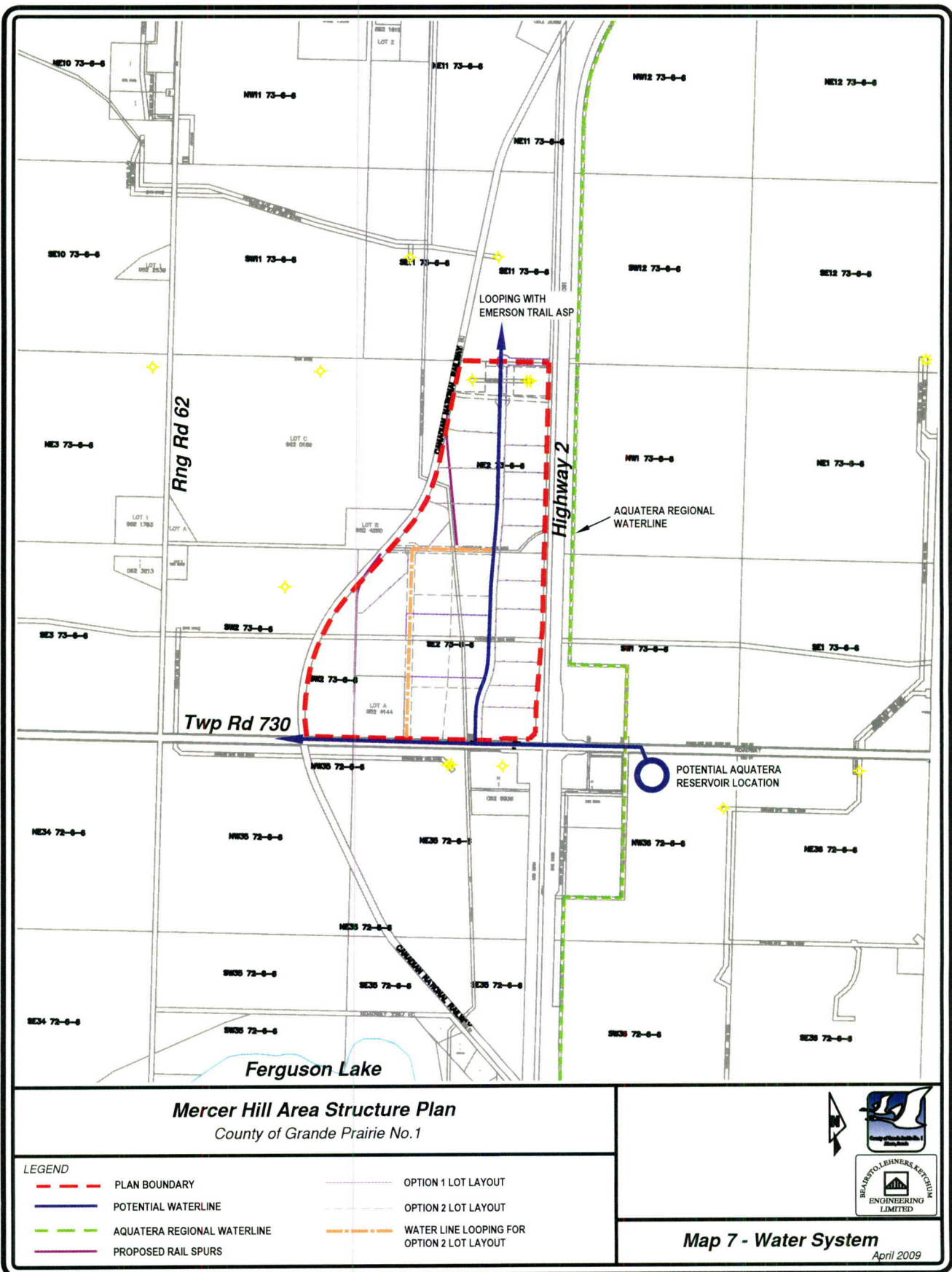
1. The first alternative is to install a sanitary main from the Plan area, west within Twp Rd. 730 road right-of-way, then south within Rng. Rd. 62 road right-of-way, then finally east within SW35 at a location that connects to future extension on the Aquatera system. This alternative requires review of the proposed Aquatera extension around Ferguson Lake (See appendix E), as well as a study of the possibility of oversizing the proposed sanitary main adjacent Rng. Rd. 62, as this alignment has the potential of servicing adjacent lands, including portions defined in the Emerson Trail ASP.

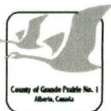
A second alternative for providing sanitary services to the Plan area is to connect to the proposed sanitary infrastructure outlined in the Emerson Trail ASP. As illustrated in Map 6, the Emerson Trail ASP proposes a lift station. This lift station is intended to service approximately 9.5 quarter sections of land south of Emerson Trail. By relocating the proposed lift station south, Section 2, including the Plan area, could be serviced. This regional lift station would discharge via a force main along Rng. Rd. 62, which could tie directly into the existing Clairmont Lagoon.

2. A final Sanitary Master Plan will provide a recommendation as to which alternative will be incorporated. The sanitary sewer system will be sized to accommodate the maximum land area possible.
- 3.3.2 Map 7 depicts the proposed location of the future water system. Aquatera has indicated they are currently in negotiations to obtain land for a reservoir in the Mercer Hill area. Water main extensions in the area are









contingent on the reservoir construction, as Aquatera prefers not to have direct links to the Regional water line.

- 3.3.3 Water mains shall be sized to accommodate fire flows to industrial lots, which meet FUS guidelines and building codes.
- 3.3.4 The County may establish an offsite levy to assist in providing infrastructure required to service this development.
- 3.3.5 The County will require benefiting landowners to compensate developers for expenses incurred in providing municipal services to the area.

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.

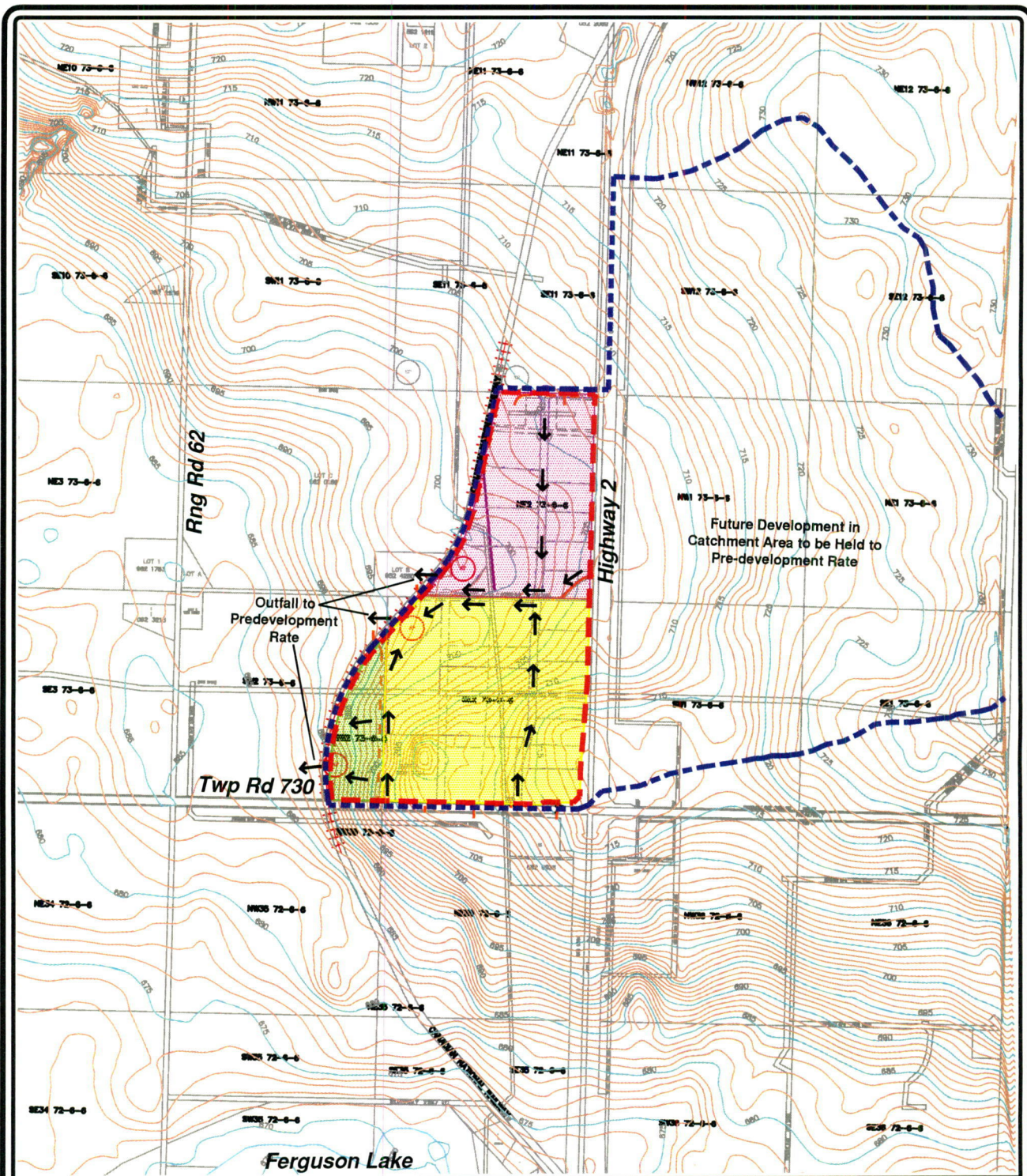
The storm water within the Plan area travels generally from east to west. The intent is for the area to continue draining in this predominant direction by use of grass roadside ditches as illustrated in Map 8. Storm water will be collected in wet ponds proposed in three locations. These wet ponds will be designed in accordance with guidelines established by Alberta Environment and the County. The ponds will be sized to accommodate each basin as identified in Map 8, to allow discharge to continue west at pre-development rates, as well as sized to ensure adequate capture of any pollutants. In addition, storm water may be contained in fire ponds at appropriate locations in the Plan area. The storm management concept assumes that future development east of Highway 2 will be held to pre-development rates.

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

The County may implement a review process at the time of development permit to ensure any industrial businesses wishing to locate within the plan area do not impose any unreasonable environmental risk to the area as part of their normal operations.

- 3.4.1 Storm water management shall be required for quantity and quality control. Storm drainage will be provided as indicated on Map 8.
- 3.4.2 A storm drainage master plan for the drainage areas will be prepared for the area prior to subdivision. The plan will identify development standards for the storm ponds and all required drainage passageways that need to be protected and the timing of the required improvements. The improvements must be done no later than the time the land is accepted as Municipal Reserve. This Master Plan will consider, and provide recommendations for the entire drainage basins impacted by development in this plan area and identify how storm water will be managed within the drainage basins at build-out. This may involve modeling of storm





Area Structure Plan for Portion of Sec.2, Twp. 73, Rge.6 W6thM

County of Grande Prairie No. 1

LEGEND			
	PLAN AREA		CATCHMENT AREA 1
	DITCH AND OVERLAND CONVEYANCE		CATCHMENT AREA 2
	EXISTING STORM POND		CATCHMENT AREA 3
	PROPOSED STORM POND		1 m CONTOUR
			5 m CONTOUR
			RAILWAY



Map 8 - Stormwater Management
April 2009



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.

- 3.4.3 Throughout the Plan area it is conceivable, based on the topography, that PULs or drainage easements will be required to properly handle overland drainage.
- 3.4.4 Any storm water pond required for the development will be designated as a Public Utility lot below the 1 in 5 year storm event.

3.5 Shallow Utilities

- 3.5.1 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.
- 3.5.2 Accommodations for the existing ATCO pipelines that bisect the Plan area are to be made. No buildings are to be constructed over these lines, and all appropriate crossing agreements are to be in place with ATCO prior to constructing anything overtop of these lines.

3.6 Lot Grading

- 3.6.1 A lot grading plan will be prepared by the Developer in accordance with County standards, with the intent that all future building projects conform to the grading plan.
- 3.6.2 The grading plan is intended to ensure that surface drainage from all lots is directed to the roadside ditches and storm retention ponds as provided in Section 3.4.

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.

As illustrated in Map 9, it is intended that subdivision of the existing Borek industrial lot proceed first. Phasing would then most likely proceed northerly. If development phasing occurs out of sequence according to Map 9, 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 10. The industrial areas will be zoned as Highway Industrial (RM-4), Rural Medium Industrial (RM-2) and Rural Heavy Industrial (RM-3) Districts. Once detailed design of the storm ponds are completed the area within the 1 in 5 year storm retention will be zoned PUL, with a MR zoning as a buffer around the ponds, sized to County approval. All zoning changes will be made in advance of subdivision approval.

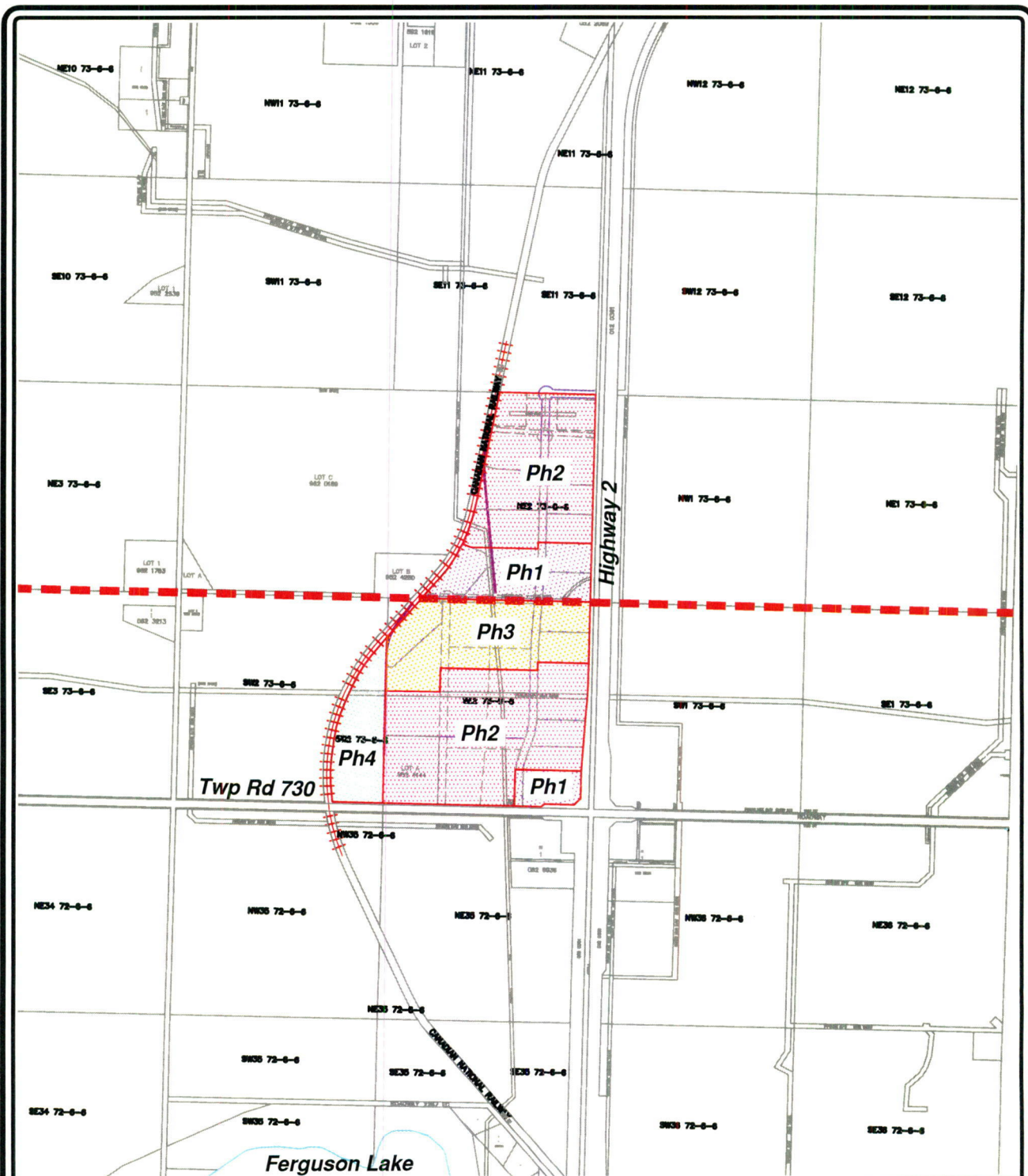




4.3 Subdivision and Development

- 4.3.1 All developers shall be required to enter into development agreements with the County as a condition of subdivision approval. The matters to be included in these agreements will include but not be limited to the provision of roads and municipal services, and the payment of off-site levies.
- 4.3.2 Detailed engineering drawings and specifications for roads, water, sanitary sewer, and storm drainage shall be prepared by the developer and approved by the County prior to subdivision endorsement within the subject lands.
- 4.3.3 The lot sizes and yields identified in this Plan are conceptual and may be altered at the time of subdivision without requiring an amendment to this Plan.
- 4.3.4 The resubdivision of lots in the Plan area may be supported provided that the resulting lot sizes meet the minimum requirements of the Land Use Bylaw, and the capacity of servicing systems is not negatively affected. Where possible, buildings should be sited in a way that allows for the future resubdivision of lots.
- 4.3.5 Where municipal infrastructure is developed that provides a benefit to lands outside of the plan area, the County will assist in collecting a portion of the costs of the infrastructure from the said lands that benefit from the infrastructure at the time the lands that benefit initiate subdivision or development activities.





Mercer Hill Area Structure Plan

County of Grande Prairie No. 1

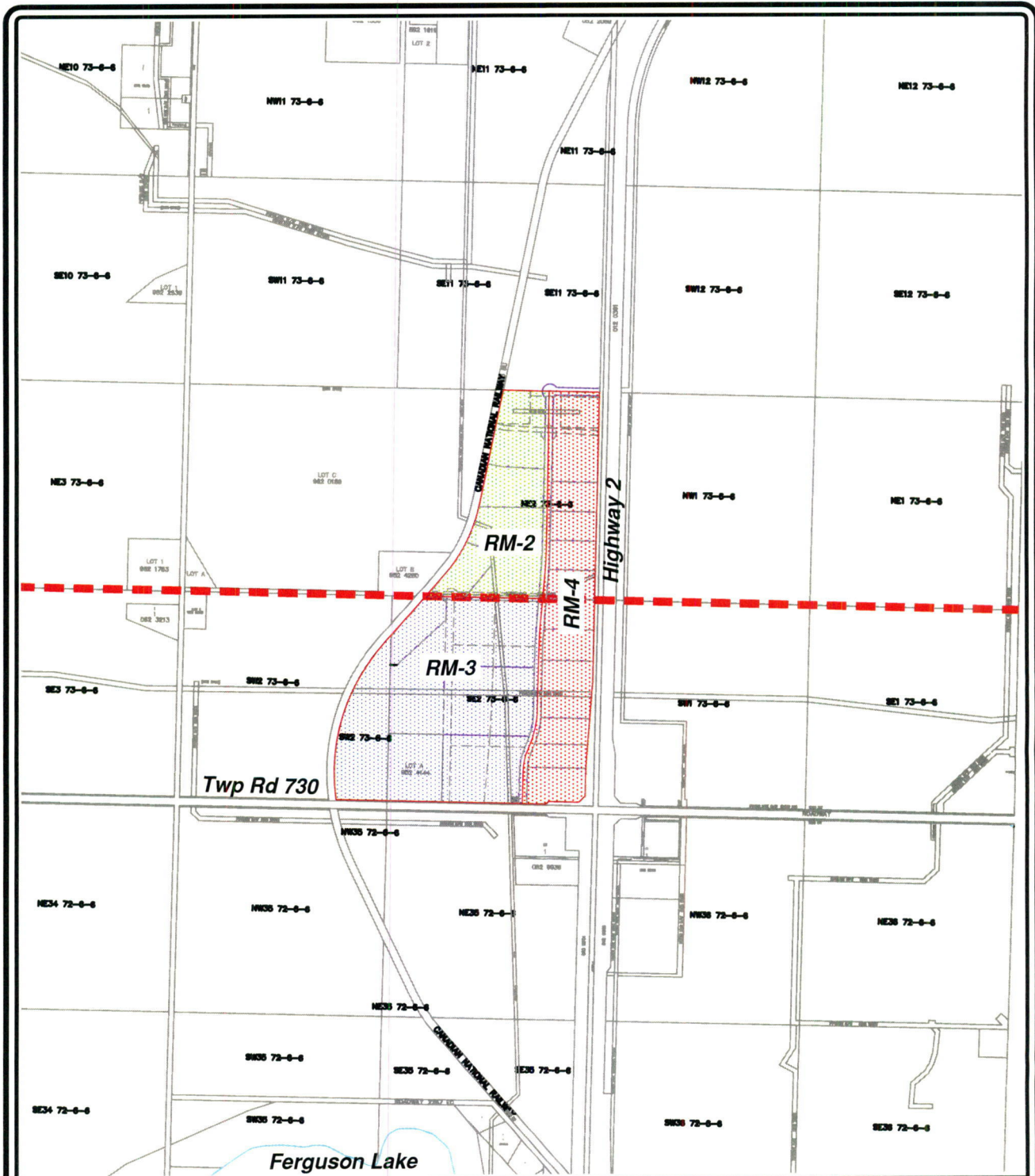
LEGEND

- PHASE BOUNDARIES
- PROPOSED RAIL SPURS
- - - - - HAMLET OF CLAIRMONT BOUNDARY
- +++++ RAILWAY







Map 9 - Phasing



April 2009



Mercer Hill Area Structure Plan
County of Grande Prairie No. 1

LEGEND

-  RM-3 RURAL HEAVY INDUSTRIAL
-  RM-2 RURAL MEDIUM INDUSTRIAL
-  RM-4 HIGHWAY INDUSTRIAL
-  HAMLET OF CLAIRMONT BOUNDARY

-  OPTION 1 LOT LAYOUT
-  OPTION 2 LOT LAYOUT



Map 10 - Zoning

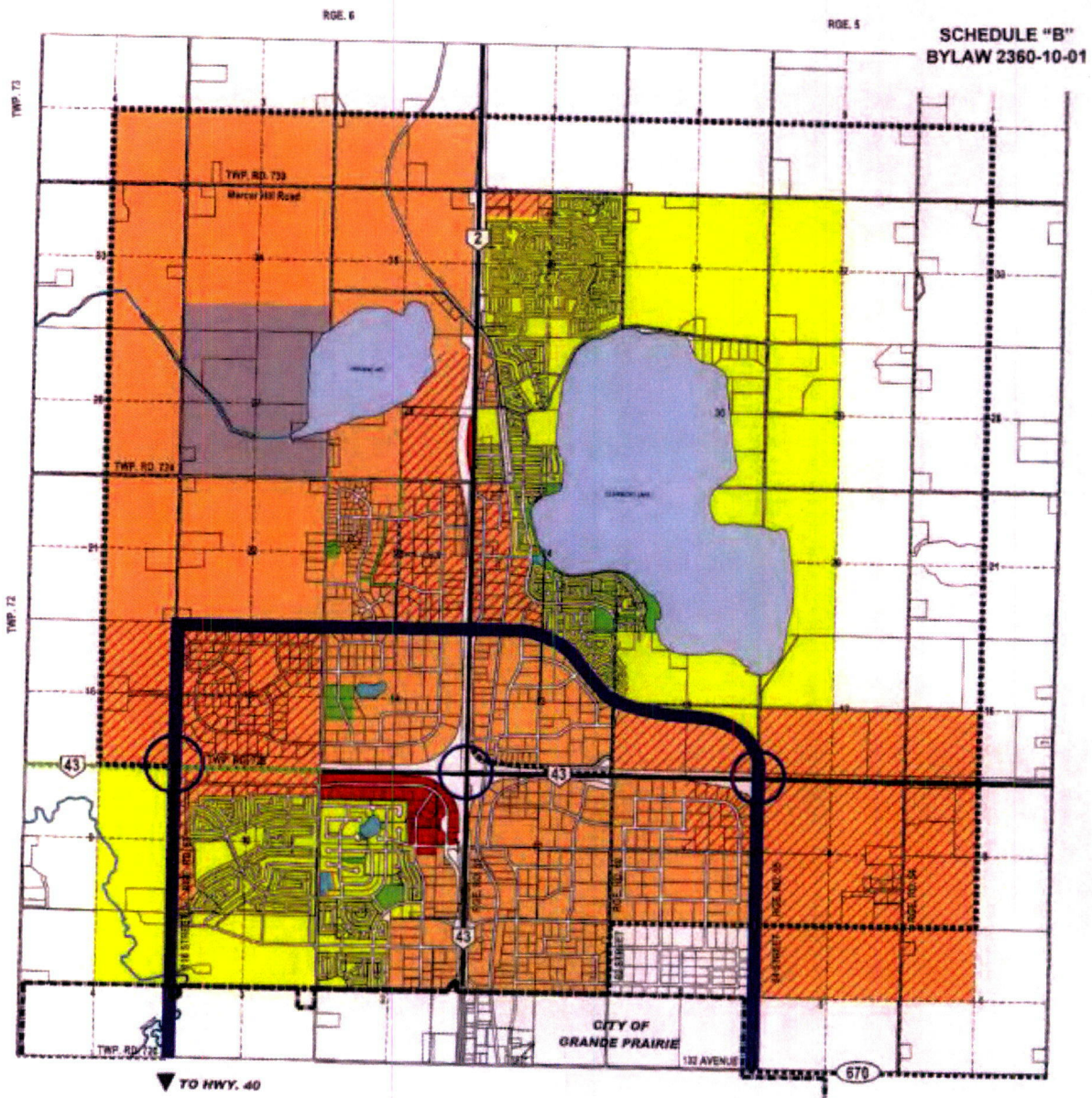
April 2009



Appendix A

**County of Grande Prairie No. 1 – Municipal Development Plan
Map 2 – Clairmont Urban Area
Map 3 – Clairmont Urban Area Future Land Use
Map 6 – Future Land Use Areas**





MAP 3

**CLAIRMONT URBAN AREA
FUTURE LAND USE**

**COUNTY OF GRANDE PRAIRIE NO. 1
MUNICIPAL DEVELOPMENT PLAN**

LEGEND

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- INDUSTRIAL/COMMERCIAL
- OPEN SPACE
- STORM WATER MANAGEMENT
- AGRICULTURE

- LANDFILL / LAGOON
- WATER
- ARTERIAL ROAD
- PROPOSED PROVINCIAL HIGHWAY SYSTEM BYPASS
- FUTURE INTERCHANGE

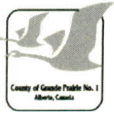
- HAMLET OF CLAIRMONT BOUNDARY
- CITY OF GRANDE PRAIRIE BOUNDARY
- COUNTY ROAD
- 43 HIGHWAY
- 570 SECONDARY HIGHWAY



COUNTY OF GRANDE PRAIRIE NO. 1



FILE: MOPMAP1.DWG
MAPPER: ADRIAN CLARK DESOR
10/05/2008



Mercer Hill Area Structure Plan

Appendix B

County of Grande Prairie No. 1 – Land Use Bylaw



Seirsto Lehnert Ketchum Engineering Ltd.





Appendix C

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 Mercer Hill 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 endeavor 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 Mercer Hill 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.

1.4 Sour Gas

Sour gas is defined as natural gas having an H_2S 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_2S content each facility emits.

Sour gas pipelines and facilities exist within the Mercer Hill 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 Mercer Hill 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 Mercer Hill area and developers may be required to relocate oil and gas facility accesses and approaches.

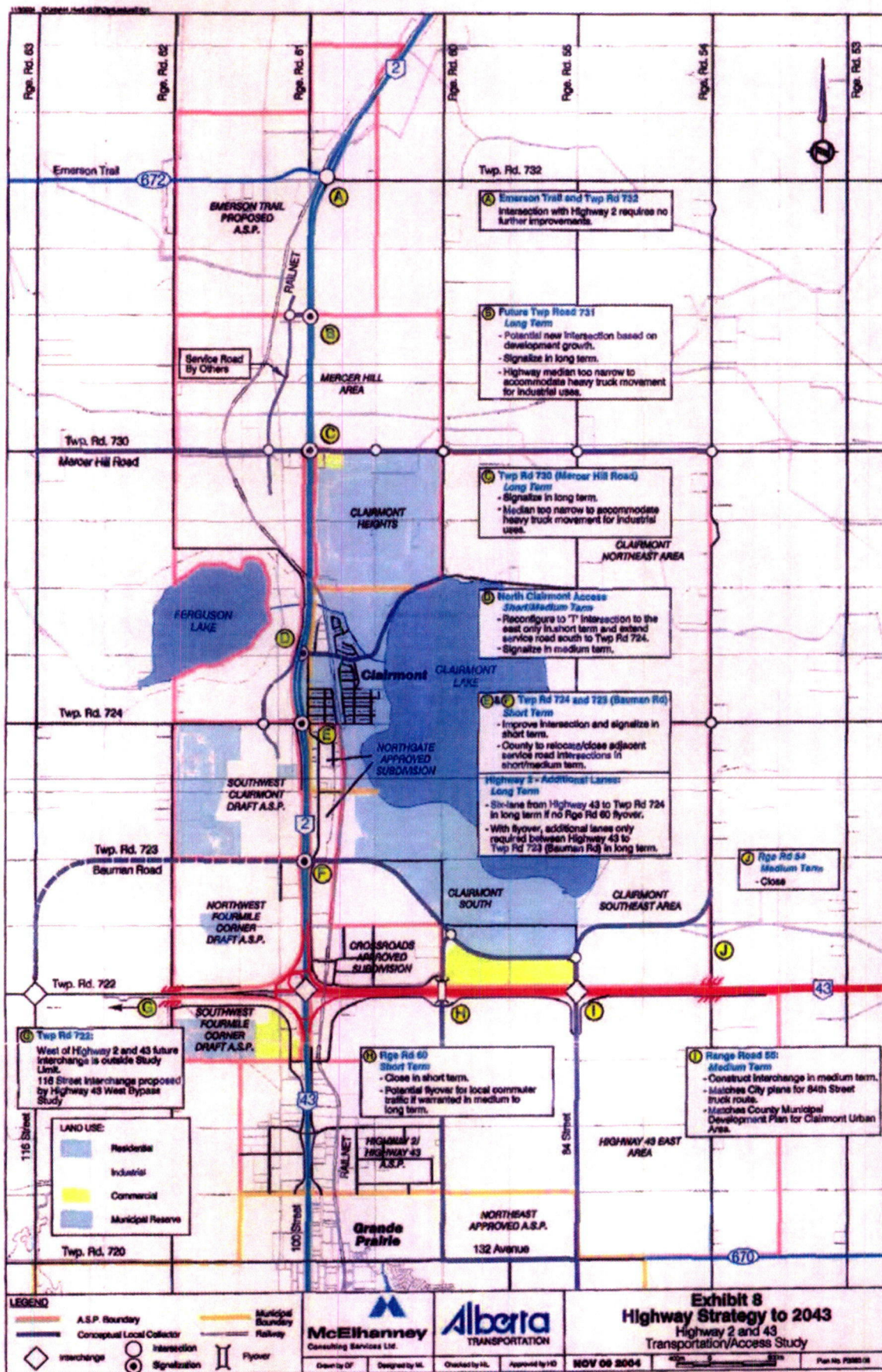
Each oil and gas facility requires regular monitoring and maintenance, so adequate access to each site is very important to operating companies. Where access to oil and gas infrastructure is proposed to be removed, development applicants will need to prove that adequate site access can be provided by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



Appendix D

Exhibit 8 Highway Strategy to 2043 – Highway 2 and 43 Transportation/Access Study
Government of Alberta Transportation – Letter September 16, 2009
Government of Alberta Transportation – Letter March 19, 2010
Government of Alberta Transportation – Letter September 3, 2010





Government of Alberta ■

Transportation

TRANSPORTATION & CIVIL
ENGINEERING

Rm 1401, 10320 - 99 St
GRANDE PRAIRIE AB T8V 6J4
Phone: (780) 538-5310
Fax: (780) 538-5384

Our Ref: 73-6-W6M
September 16, 2009

County of Grande Prairie No. 1
10001-84 Avenue
Clairmont, AB T0H 0W0

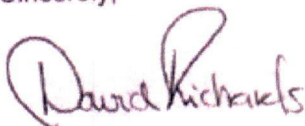
**RE: MERCER HILL AREA STRUCTURE PLAN
PART OF THE EAST ½ SECTION 2-73-6-W6M
PREPARED BY BEAIRSTO LEHNERS KETCHUM ENGINEERING LTD.**

Alberta Transportation supports the County of Grande Prairie and their efforts in the development of this planning document. Upon review of the area structure plan the department has the following comments:

Traffic from development industrial in nature cannot safely be accommodated at the existing and proposed at-grade intersections on Highway 2, as described in Section 3.1 of the document. The existing highway centre median width spacing at the intersections of Township Road 730 (Mercer Hill) and Township Road 731 (proposed) is not adequate to support large truck traffic associated with industrial developments and the department will not support the installation of isolated traffic signals with reduced speed zones on a provincial highway with the classification Highway 2 carries.

Alberta Transportation is not prepared to endorse the Mercer Hill ASP until issues surrounding suitable access to the provincial highway network have been addressed to the satisfaction of the department.

Sincerely,



David Richards
Development and Planning Technologist

cc: Cathy Maniego, Highway & Roadside Planning Engineer
Tom Williams, Operations Manager – Grande Prairie

Government of Alberta ■

Transportation

TRANSPORTATION & CIVIL
ENGINEERING

County of
Grande Prairie
MAR 23 2010

Rm 1401, 10320 - 99 St
GRANDE PRAIRIE AB T8V 6J4
Phone: (780) 538-5310
Fax: (780) 538-5384

Our Ref: 73-6-W6M
March 19, 2010

County of Grande Prairie No. 1
10001-84 Avenue
Clairmont, AB T0H 0W0

cc: TERB

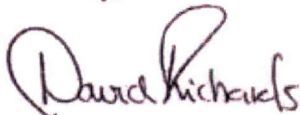
**RE: MERCER HILL AREA STRUCTURE PLAN
PROPOSED HIGHWAY 2 & TOWNSHIP ROAD 730 INTERSECTION DESIGN
PREPARED BY BEAIRSTO LEHNERS KETCHUM ENGINEERING LTD.**

Alberta Transportation has reviewed the proposed intersection design prepared by Beairsto, Lehnern, Ketchum in support of the draft Mercer Hill Area Structure Plan.

Considering the type and volume of traffic anticipated to be generated from the Mercer Hill ASP lands and adjacent lands the department has concluded that the appropriate design standard for this intersection, required to maintain the safe and efficient operation of highway should be a Major Road Intersection on a Four-Lane Divided Highway, with a 54 metre centre to centre median separation

Alberta Transportation is not prepared to endorse the Mercer Hill ASP until issues surrounding access to the provincial highway network have been addressed to the satisfaction of the department.

Sincerely,



David Richards
Development and Planning Technologist

cc: Cathy Maniego, Highway & Roadside Planning Engineer
Tom Williams, Operations Manager - Grande Prairie

Government of Alberta ■

Transportation

TRANSPORTATION & CIVIL
ENGINEERING

County of
Grande Prairie

SEP. 10 2010

---Rwy 1401, 10320 89 St
GRANDE PRAIRIE AB T8V 6J4
Phone: (780) 538-5310
Fax: (780) 538-5384

Our Ref: 73-6-W6M
September 3, 2010, 2009

County of Grande Prairie No. 1
10001-84 Avenue
Clairmont, AB T0H 0W0

**RE: REVISED MERCER HILL AREA STRUCTURE PLAN
PART OF THE EAST ½ SECTION 2-73-6-W6M
PREPARED BY BEAIRSTO LEHNERS KETCHUM ENGINEERING LTD.**

Alberta Transportation supports the County of Grande Prairie and their efforts in the development of this planning document. Upon review of the area structure plan the department has the following comments:

- The report references a draft Highway 2 and 43 Transportation/Access Study. Please note that the report that should be referenced is the Highway 2 and 43 Transportation/Access Study Final report (September 2005) prepared by McElhanney Consulting Services Ltd. for Alberta Infrastructure and Transportation. Please review above-noted final report in conjunction with ASP, as submitted, to ensure the statements made in the ASP remain valid and revise the ASP to note the proper study.
- The last paragraph of Section 3.1 (Road Network) presents the possibility of an interim right-in, right-out access at future Township Road 731 intersection at the north limit of the ASP lands. The department does not typically support right-in, right-out access on the provincial highway network. The existing intersection at the future Township Road 731 location is an all direction at grade intersection and creating a right-in, right-out at this location would limit access to the residence east of the highway. A second all direction intersection at this location would require the same median spacing to accommodate industrial type traffic as Township Road 730 and point needs to be addressed in the ASP should plans to access the highway at this location remain.
- The department agrees with the point of view presented in Section 3.1.1 that isolated signals or reduced highway speed would not be supported by the department and as a result upgrades to the intersection are required to provide adequate median widths needed to accommodate industrial traffic. It should be made clear within the ASP that any improvements to the highway must meet current department standards and shall be completed at no cost to Alberta Transportation. In addition, a detailed geometric design must be approved by the department and the agreed to improvements must be completed prior to any subdivision or development occurring in the plan area.

- Transportation network maps 5A and 5B note the highway intersection at Township Road 730, however they do not indicate that specific intersection improvements are required.
- Transportation network maps 5A and 5B note that Township Road 730 would be paved in the future to promote traffic movement to the west. Within the Transportation and Servicing section the ASP needs to provide additional detail as to future for Township Road 730.
- Within Section 3.4 (Storm Water Management) the statement "The ponds will be sized to accommodate each basin as identified in Map 8, to allow discharge to continue east at pre-development rates ..." seems to be contradictory to other information presented in the ASP which indicates that storm water in the plan area would travel generally from east to west.

Alberta Transportation is not prepared to endorse the revised Mercer Hill ASP until the above noted comments have been addressed to the satisfaction of the department.

Sincerely,

A handwritten signature in black ink, appearing to read "David Richards". The signature is stylized with a large, looped initial "D" and a cursive "Richards".

David Richards
Development and Planning Technologist

cc: Peter Ngo, Highway & Roadside Planning Engineer
Tom Williams, Operations Manager – Grande Prairie



Appendix E

**Exhibit 8.1.1 Clairmont Corridor Servicing Strategy – 2005 Wastewater System Master Plan
Grande Prairie**



