

LACOMBE COUNTY

Highway 2 Corridor

Economic Development Study

Phase 2

Land Use Strategy

adopted by Lacombe County Council

September 8th, 2003

LACOMBE COUNTY
Highway 2 Corridor Economic Development Study
Land Use Strategy
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1. INTRODUCTION

Recently cited as the fastest growing region in the nation, the Highway 2 Corridor between Edmonton and Calgary is a magnet for commercial growth and development. Its role as a critical link in the North American Trade Corridor (CANAMEX) suggests that demand for such development along the Corridor will intensify in future.

By initiating the Highway 2 Economic Development Study, Lacombe County is assuming a proactive approach in planning and properly locating commercial and industrial land uses within that segment of the corridor that extends through the County. For the purposes of this study, the Lacombe County segment of the corridor is defined as being the lands located within 1.0 mile (1.6 kilometres) of Highway 2 (see Figure 1).

The Highway 2 Corridor Economic Development Study comprises two phases. The first phase of the study resulted in the completion of the **Highway 2 Corridor Economic Development Study Background Report**. The Background Report documents the findings of the first phase of the study, and focuses on describing development opportunities along the corridor. Specific elements of each phase are summarized below.

1.1 Phase 1

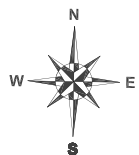
The Phase 1 Background Report recognizes that Highway 2, with an average daily traffic volume of between 20,000 and 25,000 vehicles within the County, is a major attractor for those commercial and industrial uses that rely on high visibility and convenient vehicular access. However, because of the regional, provincial, national and international importance of this major transportation facility for free flow traffic, the opportunities for development are limited to segments of the highway where *right of entry* is safe and convenient.

The Background Report describes:

- Alberta Transportation's position on corridor development;
- Existing and future land use patterns within the corridor as per the County's Municipal Development Plan, Land Use Bylaw, the Lacombe/Blackfalds Area Outline Plan, Milton-Morningside Area Residential Development Study and the Lacombe Intermunicipal Development Plan;
- Future land uses proposed by adjacent municipalities; and
- The input of the development industry and affected landowners.

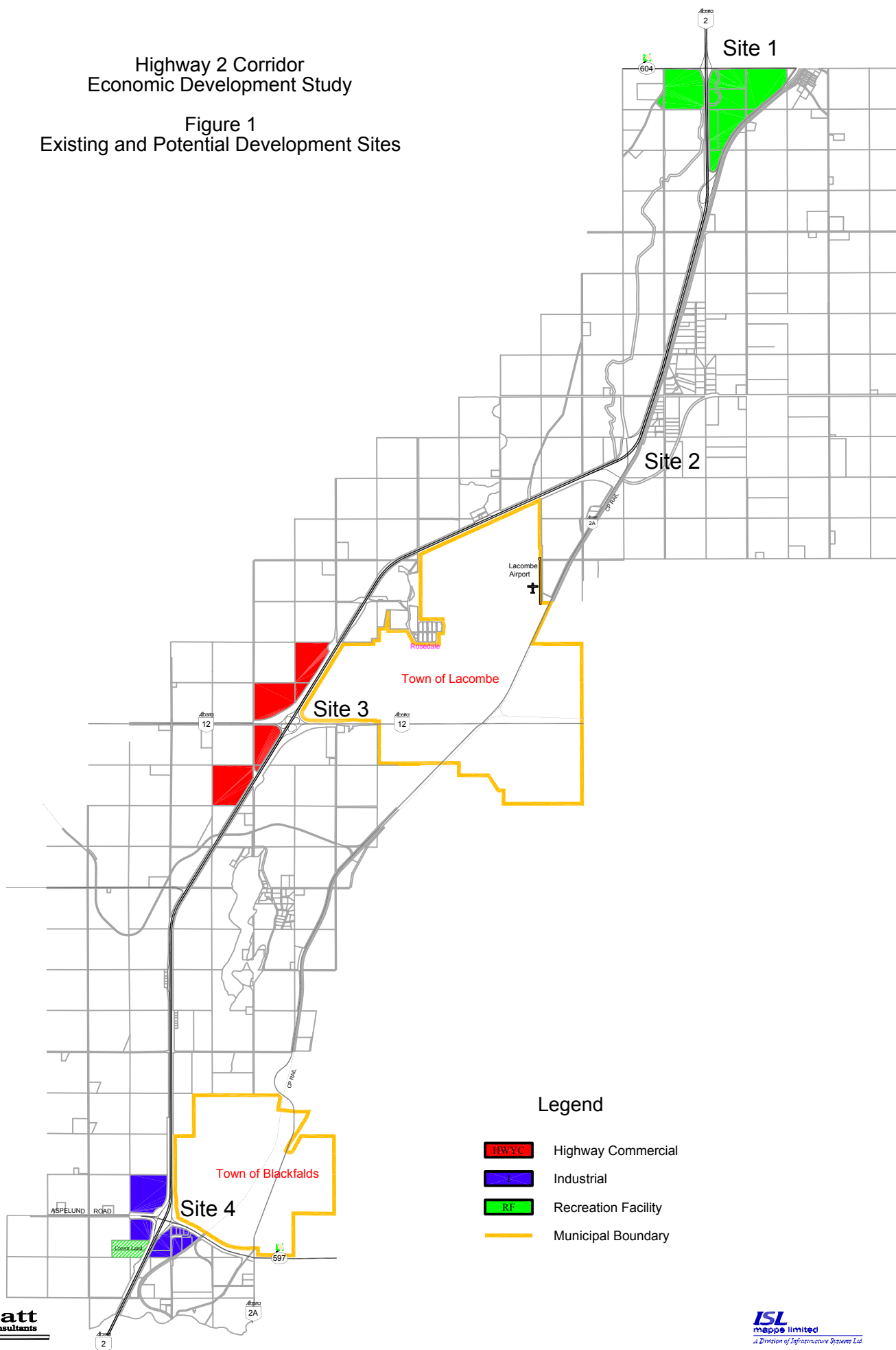
The following recommendations in regard to future corridor development within Lacombe County are based on the findings of Phase 1 of the Corridor Study:

1. The expansion and intensification of existing Highway Commercial developments should be supported, subject to the regulations and standards of the Land Use Bylaw, and the access requirements of Alberta Transportation.
2. In order to maximize the use of its municipal resources, the County should support commercial and industrial developments adjacent Highway 2.
3. Commercial and industrial development opportunities should be limited to the following four locations within the County (see Figure 1).



Highway 2 Corridor Economic Development Study

Figure 1
Existing and Potential Development Sites



- The south quadrants of the interchange of Highway 2 at Secondary Highway 604, and lands to the south located between Highways 2 and 2A (Site 1);
 - The lands south of the Highways 2 and 2A interchange, next to the intersection with the C&E Trail (Site 2);
 - The lands west and south of the Highways 2 and 12 interchange, located at the west entrance to Town of Lacombe (Site 3); and,
 - The lands west and south of the Highway 2 and Secondary Highway 597/Aspelund Road interchange at Blackfalds (Site 4).
4. The County should recognize and encourage, to the extent possible, future compatible types of commercial and industrial uses that build on the synergies created by existing and potential development at the different interchange locations. This means that:
 - Industrial development should be encouraged at the Highway 2 and Highway 597/Aspelund Road location;
 - Highway commercial development should be encouraged at the Highways 2 and Highway 12 location;
 - Commercial recreational development should be encouraged at the Highway 2 and Secondary Highway 604 location, and should include the area east of Highway 2 and north of the interchange at Highways 2 and 2A; and,
 - Highway commercial development **should not be** encouraged at the south side of Highway 2, near the intersection of the C&E Trail and Highway 2A, because of poor highway access and the physical development constraints.
 5. Municipal cooperation in ensuring compatible land uses in the fringe areas should continue to be encouraged and implemented through existing and proposed statutory plans.
 6. Terms of reference should be prepared to direct the planning process and plan contents for the site-specific plans.
 7. The County should develop, in concert with Alberta Transportation and its urban and rural neighbours, development standards to ensure aesthetically pleasing developments. The standards should recognize the importance of the corridor, ensure that the integrity and safety of the highway are protected, and should be capable of consistent application and enforcement with all adjacent municipalities.
 8. The Land Use Bylaw should be amended to allow for minimum lot sizes for industrial or commercial uses on lands adjacent to Highway 2. The list of discretionary uses in the Highway Commercial District and in the Industrial District of the County's Land Use Bylaw should also be amended to discourage the types of uses that may require urban communal services and, therefore, may be best suited to urban locations.

1.2 Phase 2

This report describes the findings of the second phase of the Highway 2 Corridor Economic Development Study. Phase 2 focuses on more precisely identifying and verifying the boundaries and uses of the four sites selected in Phase 1, and in setting the stage to direct future site planning and development. Tasks completed in Phase 2 are listed below:

- Boundaries have been defined for the four selected sites. Significant physical, environmental and access features that may impact future development potential have been identified. Appropriate uses and a range of lot sizes are rationalized.
- Terms of reference have been prepared to direct the planning process and plan contents for site specific Area Structure Plans. The terms of reference were developed in concert with Alberta Transportation, and include mechanisms for consultation with adjacent landowners and urban municipalities.
- Common highway development standards have been prepared in consultation with Alberta Transportation. The development standards promote aesthetically pleasing developments, recognize the importance of the corridor, and protect the integrity and safety of the highway. Appropriate standards being successfully applied by adjacent municipalities and in other Alberta jurisdictions were reviewed and considered in terms of suitability to Highway 2 Corridor development in the County. Methods for the implementation of the standards are recommended, including amendments to the Land Use Bylaw.
- Amendments to the relevant districts of the Land Use Bylaw are considered to provide a more comprehensive list of permitted and discretionary uses. Also, a Highway 2 Corridor overlay has been prepared that will regulate development along the corridor, and will allow the County to consistently apply the development standards.

In addition to the foregoing tasks, Phase 2 involved consultation with neighbouring municipal jurisdictions, relevant government agencies and the public regarding the potential sites, proposed uses and development standards. This final report summarizes the findings and recommendations of Phase 2, and includes implementation strategies, such as amendments to the Land Use Bylaw. Highlights of the land use strategy were presented to Council for ratification and approval of the generic policy, regulatory and design standards and implementation strategies.

2. DEVELOPMENT SITES

2.1 Introduction

The potential for commercial or industrial development within the corridor is related to the rate of economic growth in the Central Alberta region, and the absorption and availability of existing industrial and commercial land. Development potential is also influenced by the proximity of the lands to urban areas and existing compatible developments.

Adjacent the highway, the value of land for economic development purposes is also dependent on traffic volumes at a particular location, with higher visibility locations perceived as having the highest value. Visibility may be enhanced at interchanges by the volume of traffic on the intersecting highways.

This means that, first, those lands immediately adjacent Highway 2 interchanges display the greatest opportunity for economic development and, second, those interchanges with high traffic volumes have the greater potential for more intense, higher density forms of commercial or industrial development.

However, in both the regional and provincial context, it is important to note that the traffic volumes on Highway 2 through Lacombe County are not the highest within the corridor. Traffic volume on Highway 2 at Nisku, for example, is greater than 50,000 vehicles per day while the volume adjacent the City of Red Deer is approaching 30,000 vehicles per day (see Appendix A – Selected Highway 2 Volumes for 1992-2001). The potential for industrial or commercial development adjacent Highway 2 within Lacombe County, therefore, must be considered in the context of the competitive nature of the development industry, and available opportunities within the entire length of the corridor as it extends through Central Alberta.

2.2 Site Boundaries

The four sites identified as potential development nodes in Phase 1 of this study are all located along Highway 2, at existing interchanges with other provincial highways. The sites are defined by legal, rather than physical boundaries, since subdivision and development is typically based on legal lot lines and land ownership.

For the purposes of this study, the site boundaries have been established based on the principle that those lands that are most visible and most accessible to the corridor provide the greatest opportunity for corridor related commercial and industrial development. As such, the boundaries include lands that meet the following criteria:

- Are located adjacent an interchange and, therefore, are more readily accessible than any other lands within the corridor;
- Are highly visible both from the corridor and from the interchange; and
- Can be easily accessed from the interchange through the local road system, which, in turn complies with the access spacing requirements of Alberta Transportation.

The lands included within the boundaries of the four sites meet the foregoing criteria, and should be developed before lands that are further removed from these interchanges.

2.3 Highways 2 and 604 Interchange - Morningside Site (1)

Highway 2 passes over Highway 604 at this interchange located approximately six miles north of the Town of Lacombe. The Hamlet of Morningside is located to the east, near the Highway 2A and Highway 604 intersection that is located about one mile east of the Highway 2 interchange. Highway 2A intersects with Highway 2, 1½ miles south of Highway 604 (see Figure 2).

Traffic volumes for the Highway 2 and Highway 604 interchange are the lowest of the four sites examined, with 18,000 vehicle trips per day for Highway 2, and 540 and 840 trips per day for Highway 604 west and east, respectively. The lower traffic volumes on Highway 2 at this location reflect the distance and remoteness of the interchange from major urban areas, and the relatively low population density of the surrounding area. The low traffic volume on Highway 604 also reflects the standard of this road, which is gravelled west of Highway 2 and paved on a narrow cross section east of Highway 2 to Morningside.

2.3.1 Description

Wolf Creek bisects the Morningside site from north east to south west, passing under Highway 2 approximately ½ mile south of the interchange. The portion of Wolf Creek south of Highway 604 to the Town of Lacombe is contained within a 40 metre (131.2 foot) wide drainage right of way (Right-of-Way Plans 8421505 and 8621583).

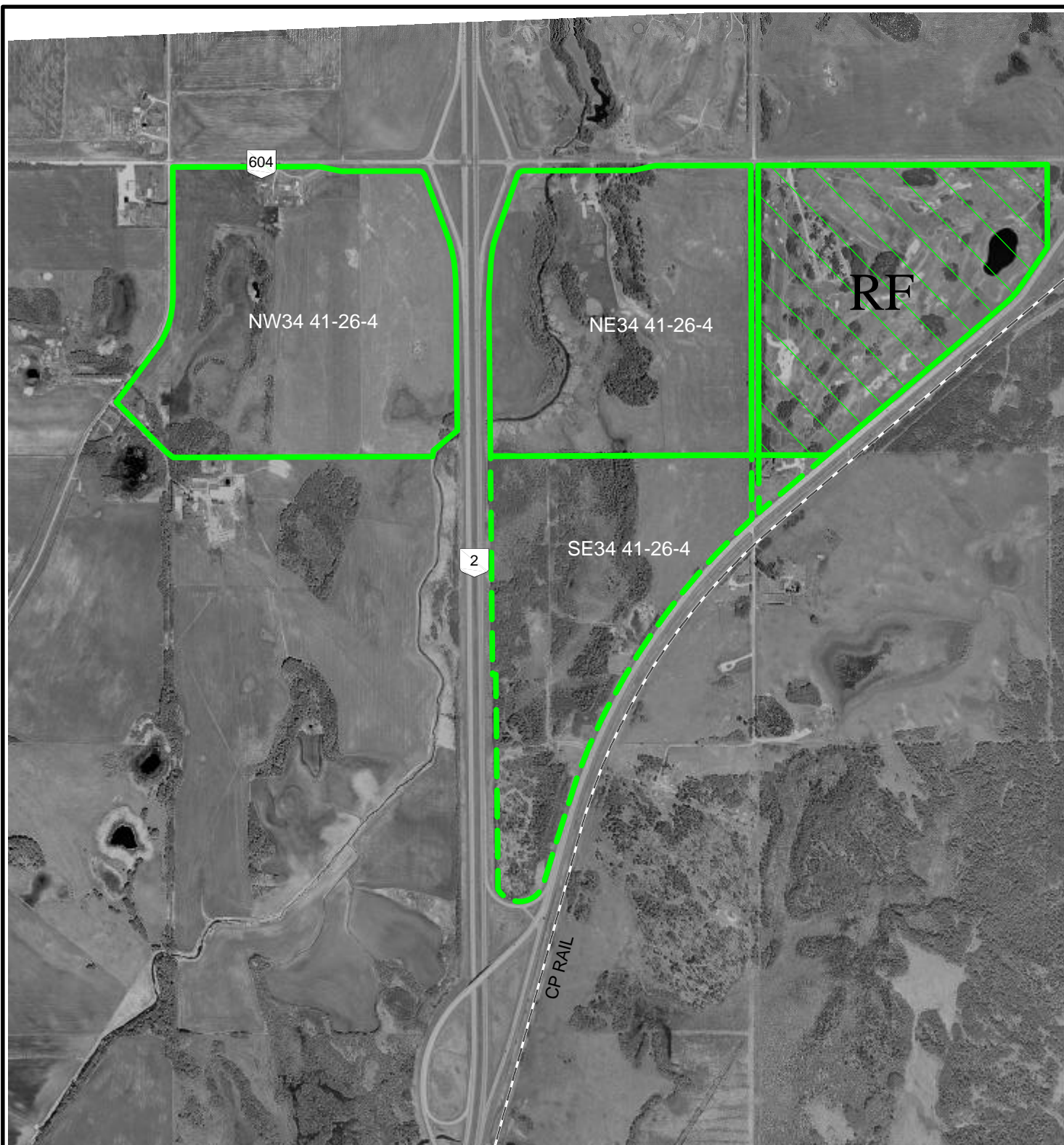
The segment of the drainage course within the right-of-way has been *trained* and is not naturally occurring, so that although the water in the channel is a provincially owned resource, the Crown may not automatically claim the bed and shore of the channel. As such, the related Environmental Reserve provisions under section 664 of the Municipal Government Act also may not apply. However, Policies 7.2 and 7.3 of the County's Municipal Development Plan allow the County to protect the creek valley, the channel and any associated escarpments.

Wolf Creek serves as the major amenity feature for the world class Wolf Creek Golf Resort. The golf course has an international reputation and hosts the annual Alberta Open golf tournament. Most of the golf course and related facilities are located in the northeast quadrant of the Highway 2 and Highway 604 interchange, north of Lacombe County in Ponoka County. The remainder of the golf course and a recreational vehicle (RV) campground are located within Lacombe County, south of Highway 604 and west of Highway 2A. The golf course and the RV park provide direct employment for local residents, and contribute to the local Morningside economy.

Because Highway 604 forms the north boundary of Lacombe County, only the south quadrants of the interchange are included in the Morningside site. The quadrants are described as follows:

1. **The southwest quadrant** of the interchange corresponds to the NW ¼ of 34-41-26-4 and is bounded by Highway 2 on east, Highway 604 on the north, the ¼ section line and a portion of the C and E Trail on the west, and the ¼ section line on the south. A low wet area is located adjacent the west side of this ¼ section so that the C & E Trail (Range Road 26-3) is diverted west of the road allowance, outside the low area. Natural vegetation is associated with the low wetlands.

The lands contained in this quadrant rise to the northwest, are cultivated and accommodate an existing farmstead and ancillary facilities that are located near the northwest corner of the ¼ section.



Highway 2 Corridor
Economic Development Study
Morningside - Site 1

Figure 02

Legend



Existing
Recreation Facility



Future
Recreation Facility

Access to the residential development and surrounding farmland exists off Highway 604, at a point approximately 400 metres west of the interchange. Although this approach does not constitute legal access as defined by Section 9 of the Subdivision and Development Regulation, it may continue to function as access to the existing farmstead. However, additional subdivision or development may not be permitted to use this access.

2. **The southeast quadrant** of the interchange comprises a triangle defined by Highways 2, 2A and 604, and includes the south portion of the Wolf Creek Golf Resort. The lands are bisected in part by the Wolf Creek Drainage channel that generally parallels the east side of Highway 2. This quadrant corresponds to the NE $\frac{1}{4}$ of 34-41-26-4, that portion of the SE $\frac{1}{4}$ of 34-41-26-4 located between Highways 2 and 2A, and a small fragment of the NE $\frac{1}{4}$ of 27-41-26-4. The south portion of the Wolf Creek Golf Resort facility is located in the east segment of this quadrant.

The lands located below the top of the bank of the creek channel in the NE $\frac{1}{4}$ of 34-41-26-4 are treed and contain some low areas and steep slopes. The remainder of the $\frac{1}{4}$ section located above the top of the bank is characterized by rolling topography and is mostly cleared for use as pasture. The lands located between Highway 2 and Wolf Creek are fragmented from the balance of the $\frac{1}{4}$ section, and appear to have no road access.

This $\frac{1}{4}$ section has been subdivided to create two 80 acre parcels (more or less) that are under single ownership, and appear to be farmed as one unit. A farmstead is located adjacent the east side of the drainage channel, while an undeveloped road allowance is located adjacent the east boundary of the $\frac{1}{4}$ section.

Those lands to the south in the SE $\frac{1}{4}$ of 34-41-26-4 are also rolling and mostly treed, although some land has been cleared for pasture along Highway 2A. A 40 acre parcel adjacent Highway 2 has been subdivided out of this $\frac{1}{4}$ section. The 40 acre parcel is low and wet, is covered with Black Spruce, and does not appear to have road access.

The small fragment to the south of these lands forming the apex of the triangle comprising the southeast quadrant displays similar physical characteristics, and also does not appear to be accessible by road.

2.3.2 Zoning

The two quadrants comprising the Morningside site located south of the Highway 2 and Highway 604 interchange are zoned Agricultural under Lacombe County's Land Use Bylaw. This zoning reflects the current extensive agricultural land use. The Agricultural District allows some discretionary uses that may be considered industrial or commercial. These uses are discretionary and are intended to be compatible with agricultural operations.

The Wolf Creek Golf Resort lands in the southeast quadrant are zoned Recreational Facility under the Land Use Bylaw. This District allows for the existing golf course and recreational vehicle campground uses.

The lands located southeast of the southeast quadrant are designated Country Residential by the Milton-Morningside Area Outline Plan. The Hamlet of Morningside is included in this Outline Plan.

2.3.3 Access

Access to the $\frac{1}{4}$ section comprising the **southwest quadrant** of the Highway 2 and Highway 604 interchange is available off the C & E Trail, a portion of which extends south from Highway 604 along the west boundary of the subject $\frac{1}{4}$ section. Access also may be available off Highway 604 near the existing farmstead approach, as long as this approach is located more than 400 metres from the taper of the closest entrance or exit interchange ramp as per Alberta Transportation's regulations.

This existing approach provides an opportunity for future direct access to any developable lands east of the low area. However, because of Alberta Transportation's 800 metre intersection spacing requirements along a highway, the existing approach may need to be eliminated and consolidated with the C & E Trail, so that all access will be restricted to the C & E trail along the west side of this southwest quadrant.

As well, access to the **northwest quadrant** of the interchange should be coordinated with the requirements of Ponoka County and Alberta Transportation. Alberta Transportation prefers that all access onto highways be off intersecting municipal roads.

Within the **southeast quadrant**, the land west of the Wolf Creek drainage channel is accessed via an existing field approach off Highway 604. This field access will likely be permitted to remain only as a field access in compliance with Alberta Transportation's requirement that direct access be located a minimum of 400 metres from an entrance or exit interchange ramp. Access to non-agricultural land uses and development will not be permitted. This means that in future, access to those lands that are isolated between the creek channel and Highway 2 will involve a crossing of Wolf Creek.

An access to the agricultural and farmstead developments located on the east side of Wolf Creek also exists off Highway 604. This access may need to be relocated to accommodate any further development to comply with Alberta Transportation's 400 metre spacing requirement.

Future access requirements off Highway 604 to accommodate potential developments must consider the existing approaches to the golf course clubhouse and recreation vehicle campground adjacent the north and south sides of Highway 604, respectively. As is noted above, Alberta Transportation prefers that approaches to developments be directed to a local road that intersects with a highway, with 800 metres spacing between highway intersections. The undeveloped north south road allowance that extends through the **southeast quadrant** provides an opportunity for directing all internal traffic to this road allowance, including traffic generated by any potential development of the SE $\frac{1}{4}$ of 34-41-26-4. The road allowance intersects with Highway 604 to the north, and Highway 2A to the south. Additional approaches onto Highway 2A for non-agricultural development may not be permitted.

2.3.4 Analysis

The following factors should be considered in evaluating future economic development opportunities within the Morningside site:

- As was suggested in the Phase 1, the Wolf Creek Golf Resort creates opportunities for attracting additional recreation commercial development at the Highway 2 and Secondary Highway 604 interchange.

- The triangular **southeast quadrant** contains significant tree cover, rolling topography and natural features. The area is also fragmented by landownership and is suitable for recreational uses requiring larger parcels. A recreational vehicle park has been proposed in the past, and the natural physical characteristics of the lands surrounding the interchange are suited to such development.
- The fragmentation of the **southeast quadrant** of the interchange by the Wolf Creek drainage right-of-way may complicate the development of this area. As well, the need to protect the creek and valley slopes from development may significantly reduce the potential size of any development, particularly between Highway 2 and the creek channel.
- Uses and developments in the **south quadrants** of the Highway 2 and 604 interchange should be compatible with the surrounding recreational land uses. The intensity and density of recreational uses may best respond to the relatively low traffic volumes at this location.
- The south portions of the **southeast quadrant** of the interchange may also be suitable for country residential developments. Country residential uses would be compatible with the existing Recreational Facility district uses and are proposed by the Milton-Morningside Outline Plan that applies to the lands east of Highway 2A.

2.3.5 Conclusions

Although the Agricultural District allows outdoor recreation use as a discretionary use, at the time of subdivision and development, rezoning of lands within the Morningside site to Recreational Facility will provide potential developers a broader range of possible uses, and require that development standards be commensurate with recreational activities.

The fragmentation of the **southeast quadrant** may complicate future development of this quadrant, particularly in regard to legal access. However, the types of existing and potential recreational uses proposed for this area, such as campgrounds or golf course expansion, suggest a need for relatively large parcels, so that extensive subdivision may not be required. A comprehensive Area Structure Plan also may not be necessary as long the requirements of Alberta Transportation and the County's Land Use Bylaw are met.

Regardless, a detailed site plan, soils investigation, proposed methods for providing water and sewage disposal, Environmental Reserve and access considerations will need to be addressed in support of a rezoning to Recreational Facility District. A traffic impact analysis may also be required.

In the event that some portion of the **southeast quadrant** is rezoned for Country Residential subdivision purposes, a comprehensive Area Structure Plan should be required to properly address, amongst other items, the impact of traffic on the adjacent highway(s) and country residential developments.

2.4 Highways 2 and 2A Interchange – Lacombe North Site (2)

Highway 2A is paralleled by the CP mainline at the Lacombe North site which is located north east of the Town of Lacombe, where Highway 2 separates from Highway 2A (see Figure 3). This highway interchange allows northbound traffic on Highway 2A to merge with the northbound lanes of Highway 2. As well, the interchange allows southbound Highway 2 traffic to exit and flyover Highway 2, to access the southbound lanes of Highway 2A that intersect with the revised alignment of the C & E Trail.

This interchange is best described as a *fork* of Highway 2 and Highway 2A, and is not the typical crossing of two roadways. Accordingly, the interchange accommodates a limited number of traffic movements and, therefore, does not provide the same degree of development opportunity as the other three sites being investigated by this study. This conclusion is supported by Alberta Transportation's draft Position Paper - Rationale for Planning and Design Standards – Freeway Facilities which suggests that interchanges that cannot provide for all directional movements can cause safety and traffic operations problems.

The draft Position Paper further states that *If a vehicle leaves a freeway at an interchange there is a logical expectation that the driver may return to the freeway at the same location, either travelling on in the same direction or returning in the opposite direction.* The relatively low traffic volumes at this interchange are likely a result, at least in part, of this interchange not allowing for typical all directional traffic movements.

2.4.1 Description

The Wolf Creek Drainage Channel right-of-way extends through the lands located north and west of this interchange. These lands are generally low-lying and poorly drained. An intensive market garden operation exists just west of Highway 2.

The area located east of Highway 2 and the CP rail line contains a developed country residential subdivision. The lands located in the *fork* between Highway 2 and 2A south of the interchange are relatively flat and visible from both highways. The Wolf Creek Drainage Channel meanders through this area that is cultivated and accommodates two farmsteads.

2.4.2 Zoning

The lands located east of the interchange are currently zoned Country Residential or Agricultural. The lands zoned Agricultural are designated for future country residential development by the Milton-Morningside Area Outline Plan.

The lands located within the *fork* to the south of this interchange are contained within the Lacombe Intermunicipal Development Plan area. However, because most of this *fork* area is designated as a Floodway by the Wolf Creek Flood Risk Mapping Study, the lands are not identified as part of the Town's long-term growth area, and remain within the County's Agriculture District. Policy 5.2 of the Intermunicipal Development Plan requires that the County *restrict incompatible development within the floodway and flood fringe areas of Wolf Creek as identified by Alberta Environmental Protection in the Wolf Creek Flood Risk Mapping Study.* This means that permanent developments are not permitted in the floodway, thereby eliminating the potential for commercial or industrial development.



Highway 2 Corridor
Economic Development Study
Lacombe North - Site 2

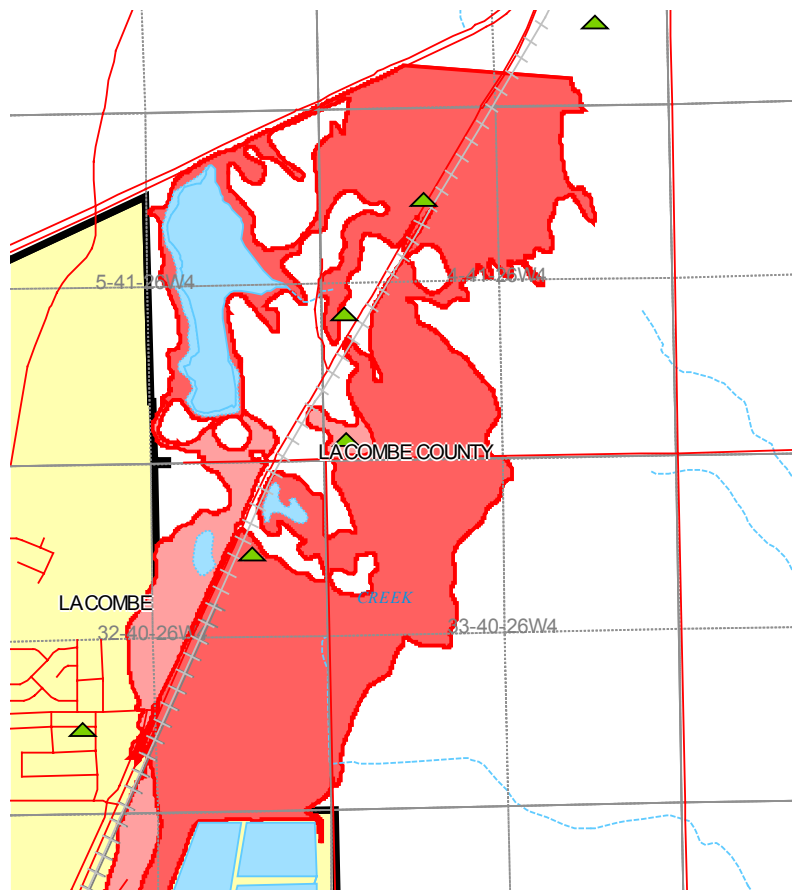
Figure 03

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Wolf Creek Floodway

Wolf Creek Flood Risk Map



2.4.3 Access

The configuration of this interesting interchange, combined with the constraints posed by the CP rail line, severely restrict the quality of the access from Highway 2 to the adjacent lands. Although visible from both Highways 2 and 2A, access to the lands contained within the *fork* of the interchange is relatively poor. Southbound vehicles on Highway 2 must exit the highway before the lands are visible, and northbound Highway 2 traffic must *backtrack* from the exit ramp intersecting with Highway 2A south, to a service road that parallels the northbound lanes. Neither of these traffic movements has a logical return movement.

Direct access to the *fork* lands is available from the Highway 2 service road. As well, a partially developed road allowance extending north into the *fork* area may provide alternate access. The south end of this road allowance is developed as a minor local road. However, the approach onto Highway 2A that is located about 1½ miles south of the interchange is considered awkward. More intense use of this existing approach may require that it be upgraded.

No direct access is allowed from exit or entrance ramps to Highway 2, which limits potential access to the lands north and west of the interchange. Access to these lands must be located 400 metres north of the intersection of the newly aligned C & E Trail.

2.4.4 Analysis

At this site, the lands with the greatest potential for industrial or commercial development are located southwest of the interchange in the *fork* between Highways 2 and 2A. However, the Wolf Creek Flood Risk Mapping Study identifies most of this *fork* area as being in the floodway of the creek. Pursuant to the requirements of the Flood Risk Mapping Study and Policy 5.2 of the Intermunicipal Development Plan, no permanent development is allowed on these lands.

The portions of the Lacombe North site located north and west of Highway 2 contain low lands that surround Wolf Creek, and may be subject to potential flooding. As well, these lands do not have high quality, convenient access to Highway 2.

Areas to the east of the highways and the rail line are designated for country residential uses, which may not be compatible with most forms of industrial or highway commercial developments.

2.4.5 Conclusion

The investigation of the Lacombe North site confirms the recommendation of the Background Report that *Highway commercial development **should not be** encouraged at the south side of Highway 2, near the intersection of the C&E Trail and Highway 2A, because of poor highway access and physical development constraints.*

2.5 Highways 2 and 12 Interchange - Lacombe West Site (3)

Highway 2 passes over Highway 12 at this interchange located at the west boundary of the Town of Lacombe (see Figure 4). Although Highway 2 traffic volumes along this segment are lower than at Blackfalds, the relatively high traffic volume on Highway 12 makes this the busiest Highway 2 interchange within the County. The interchange is designed as a *full cloverleaf*, and accommodates the free flow of all traffic movements.

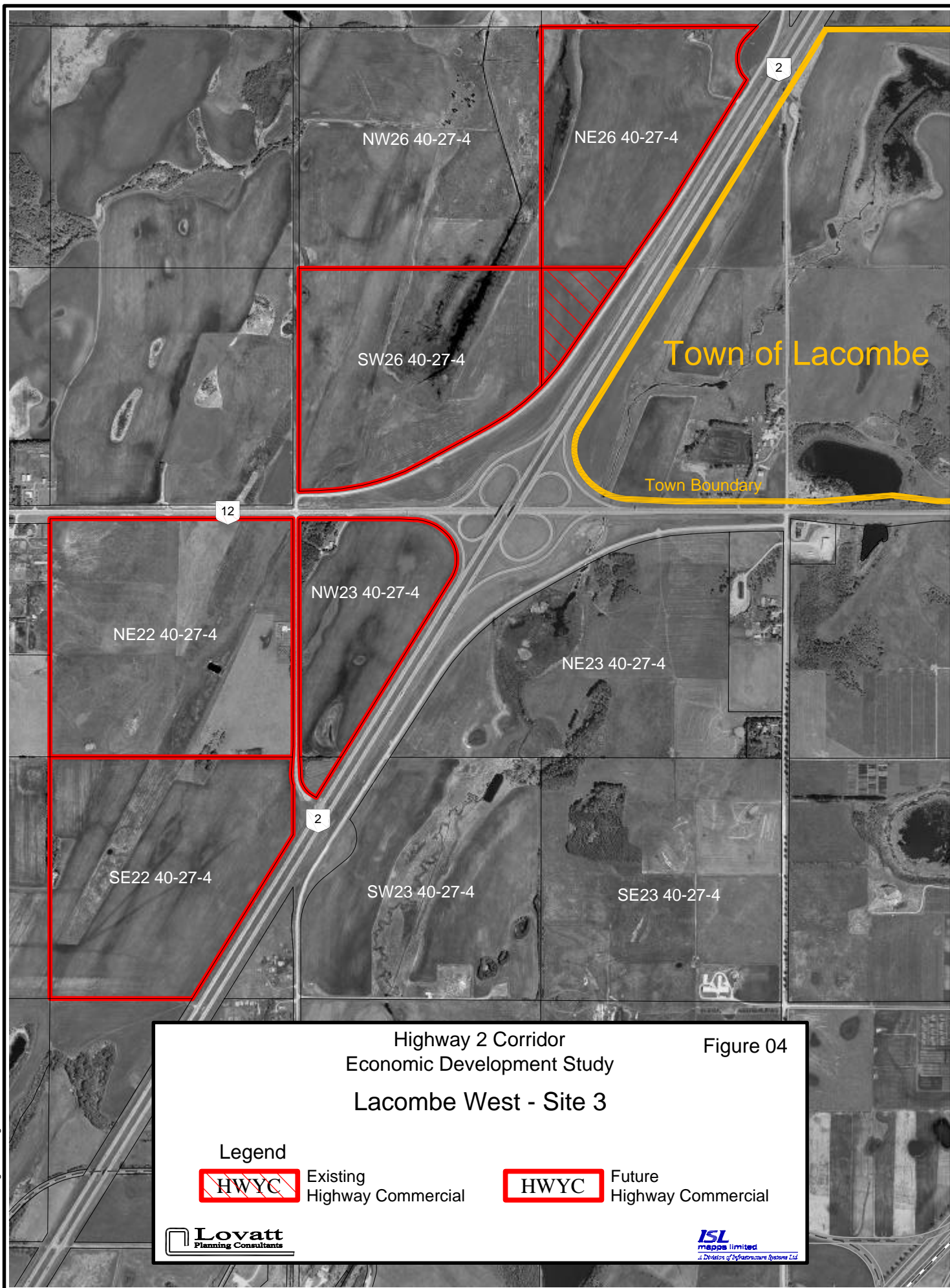
2.5.1 Description

The northeast quadrant of the interchange is within the Town of Lacombe and, therefore, development of these lands is regulated by the Town's Land Use Bylaw and the West Lacombe Area Structure Plan. Whelp Creek flows through this quadrant.

The remaining lands surrounding the Highways 2 and 12 interchange that are included in the Lacombe West site are described as follows:

1. **The southeast quadrant** corresponds to the N ½ of 23-40-27-4, and is fragmented by Whelp Creek. This creek generally parallels Highway 2 and is surrounded by low lying lands that may be subject to flooding. Isolated treed areas exist along the creek channel. The creek fragments a relatively narrow strip of land between Highway 2 from the balance of the ¼ section. Integrating this strip of land with the remainder of the ¼ section will complicate the design and engineering of these lands, and may require one or more creek crossings.

Excepting two developed residential parcels and a church site located south of Highway 12, ½ mile east of Highway 2 along Range Road 27-3, the entire southeast quadrant is owned by Agriculture Canada. This means that this quadrant is likely to remain agricultural for the foreseeable future.



2. Lands comprising **the southwest and northwest quadrants** on the west side of the corridor are mostly high, well drained and generally slope toward the creek. However, a low lying drainage channel extends through the centre of this quadrant both north and south of Highway 12. Much of the westerly area is cultivated although the low lying lands are used as pasture. A residential development and associated farming operation is located adjacent the south side of Highway 12, west of Highway 2, in the NW $\frac{1}{4}$ of 23-40-27-4. As well, a farmstead is located north of Highway 12 in the NE $\frac{1}{4}$ of 26-40-27-4, on a ridge overlooking Highway 2.

2.5.2 Zoning

The Town of Lacombe's Municipal Development Plan, Land Use Bylaw and the West Lacombe Area Structure Plan designate the lands in the **northeast quadrant** as Highway Commercial. The purpose of the Town's Highway Commercial District (C2) is *to provide for commercial and other uses, which require large areas for parking or display and which create an attractive environment, primarily accessible to motor vehicles.*

The permitted uses for this district include highway related commercial uses, with discretionary uses providing for a broader array of commercial and industrial uses. District standards regulate floor area, screening and buffering, signs, and building design.

Highway commercial development in the **northeast quadrant** will be serviced with Town sewer and water, and will be of high quality, and likely tourist oriented in keeping with the area's strategic importance as the major entrance into the community. The County can best support the Town's initiative for high quality development by promoting compatible commercial development across Highway 2.

The triangular remnant of the SE $\frac{1}{4}$ of 26-40-27-4 located in the **northwest quadrant** of the Highway 2 and Highway 12 interchange, along the west side of Highway 2, is zoned Highway Commercial under the County's Land Use Bylaw. However, the site is undeveloped.

The remainder of the lands within the Lacombe West site located west of Highway 2 in the **southwest and northwest quadrants** are zoned Agricultural, and are used for that purpose. Confined feeding operations are located further to the west and north. However, the size of the operations suggests that future development will not be impacted by the Minimum Distance Separation recommendations as per the Standards and Administration Regulation of the Agricultural Operations Practices Act. Regardless, at the time of subdivision and development, separation requirements will need to be confirmed.

2.5.3 Access

Frontage service roads along Highway 2 exist in the **northwest and southeast** quadrants of the interchange. These service roads were constructed to provide access to several parcels fronting Highway 2 at the time that all the at-grade crossings along the highway were removed. The roads also connect the local road system to Highway 12 and to Highway 2 via the interchange, and provide direct access to several parcels fronting the corridor. The service road intersections with Highway 12 provide for all directional movements.

A local road provides access to the **southwest quadrant** of the interchange. This road extends south from Highway 12 and terminates at Highway 2. Future commercial uses may use this road to gain access onto Highway 12 and the Highway 2 interchange.

Similarly, local access to the triangular **northeast quadrant** that is located in the Town of Lacombe will continue to be off the local road adjacent the east side of the quadrant, as per the West Lacombe Area Structure Plan. This road intersects with Highway 12 and is the extension of Range Road 27.

2.5.4 Analysis

The following factors should be considered in evaluating future economic development opportunities within the Lacombe West site:

- It is important to recognize that most of the lands located in the **southeast quadrant** of the interchange are owned by Agriculture Canada and, therefore, will likely not be available for development for the foreseeable future, if ever. Agriculture Canada has historically resisted any form of development or encroachment on its agricultural research operations. The lands are expected to continue to be used for agricultural purposes.
Development of the **southeast quadrant** is further complicated by Whelp Creek, which fragments the area leaving a narrow strip of land between Highway 2 and the creek. The location of the creek makes integration of the strip of land difficult. As well, the requirements to preserve the creek and valley will reduce the amount of land available for development.
- Future highway commercial development of the Town's northeast quadrant is predicated on the extension of sewer and water services. The timing of development and extension of services may be influenced by the rate of development on the adjacent lands to the east. Developments envisioned for this area are typical Highway Commercial uses. However, specific use types may be influenced by the Area Structure Plan objective to attract high quality tourist oriented developments.
- Although municipal services may eventually be provided to the west side of Highway 2 to the **northwest quadrant**, services must first be extended to west side of the Town of Lacombe. The cost of extending municipal services to serve proposed highway commercial developments within the West Lacombe Area Structure Plan area is expected to be relatively high, since both a sanitary sewage lift station and a force main will be required. The cost of extending services further west, across Highway 2, may also be relatively high.
- Extending sewer and water services from the Town of Lacombe to the lands in the **southwest quadrant** of the interchange will require crossings of both Highways 2 and 12. The cost of extending municipal services to this quadrant, therefore, may be particularly prohibitive. As well, the local road used to provide access to this quadrant, *dead ends* south of Highway 2 thereby limiting future development potential.
- The service road in the **northwest quadrant** of the interchange provides a significant development opportunity for the abutting lands and will reduce the cost of providing infrastructure for new development projects. The triangular parcel adjacent the corridor is zoned Highway Commercial (HWYC), which allows for a range of discretionary highway related uses that may be developed with on-site services.

2.5.5 Conclusion

The relevant conclusions resulting from the analysis are:

1. Most of the lands in the **southeast quadrant** of the interchange are owned by Agriculture Canada. This means the lands are not available for economic development purposes. Although the two residential parcels located along Range Road 24 may be redeveloped in future for commercial or industrial uses, these parcels are removed from Highway 2 and, therefore, provide limited opportunity for corridor related development.
2. The Town will promote a high standard of highway commercial development in the northeast quadrant of the interchange.
3. As is noted in Section 2.5.2, the County can best support the Town's initiative for high quality development in the northeast quadrant of this interchange by promoting compatible commercial development across Highway 2 **in the southwest and northwest quadrants**. As such, the narrowly defined list of discretionary uses in the Highway Commercial District of the County's Land Use Bylaw should be expanded to better reflect the types of uses being contemplated by the Town, as well as the types of uses that typically require high quality visibility and access along major corridors. The need to be able accommodate on-site servicing also should be recognized in expanding the list of uses in the Land Use Bylaw. The list of discretionary uses in the Highway Commercial District may be expanded to include:
 - accommodation and convention services
 - amusement and entertainment services
 - automotive, equipment and vehicle services
 - campground
 - eating and drinking establishment
 - retail/wholesale outlets
 - service station/gas bar
 - tourist information services and facilities
 - truck stop
4. The **northwest quadrant** of the interchange displays the greatest potential for further economic development, and one parcel within this quadrant is zoned for highway commercial use. The service road extending along Highway 2 provides high quality access to these highly visible lands so that future subdivision to facilitate economic development is feasible. An Area Structure Plan for these lands will be required to meet the requirements of Alberta Transportation, and to identify potentially undevelopable low lying lands, as well as setback requirements from nearby confined feeding operations. Comments provided by the Town should also be considered in evaluating an Area Structure Plan.

A cursory site inspection of this quadrant suggests that the lands abutting the service road may be physically better suited to development than some of the lands located *back of* the service road.

5. The **southwest quadrant** of the interchange is similarly well suited for supporting highway commercial type development that does not require communal services. Those portions of this quadrant that are most visible from Highway 2, and are most easily accessed via the local roadway, are most likely to be developed for highway commercial purposes. This means that the NW $\frac{1}{4}$ of 23-40-27-4, including the small portion of the SW $\frac{1}{4}$ 23-40-27-4 located west of Highway 2, and the northeast corner of the SE $\frac{1}{4}$ of 22-40-27-4 are most likely to be developed. The NE $\frac{1}{4}$ of 22-40-27-4 is not visible from Highway 2, and does not meet the quadrant boundary criteria listed in on page 4 of Section 2.2. As such, this $\frac{1}{4}$ section is not included in the southwest quadrant.

The need for an Area Structure Plan, as opposed to an Outline Plan, for the southwest quadrant will be dependent on the proposed density of subdivision and development. Planning for this quadrant should consider setback requirements from existing confined feeding operations.

6. A minimum lot size of 1.0 acre is recommended for highway commercial uses to allow for on-site servicing. This size complies with the Private Sewage Systems Standard of Practice, while still promoting efficient design and utilization of commercial land.

2.6 Highways 2 and 597/Aspelund Road Interchange Blackfalds South Site (4)

Highway 597 extends east from Highway 2 at this interchange, and provides access to the Town of Blackfalds, the Burbank area and the major industrial operations near Joffre and Prentiss. Aspelund Road is a municipal road that is paved and extends west to connect with Highway 20 north of Sylvan Lake.

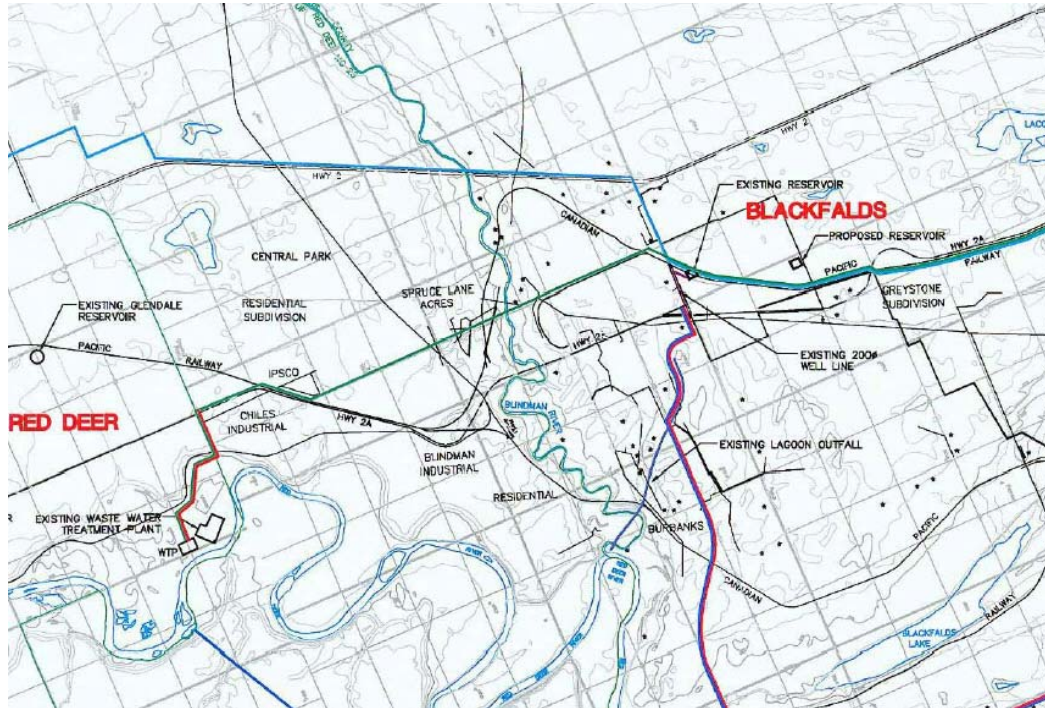
The *skewed* diamond interchange is the newest of the Lacombe County interchanges having been constructed in the mid 1980's. To reduce the grade on the north side of the Blindman River valley, Highway 2 is depressed as it passes under Aspelund Road and Highway 597. As well, Highway 597 passes under the CP mainline approximately 800 metres east of the interchange.

Traffic volumes on Highway 2 south of Blackfalds are the highest in the County at approximately 28,000 vehicles per day. Highway 597, with traffic volumes of almost 4,000 vehicles a day in 2001, carries a notably large proportion of trucks (26.7%) relative to Highway 2 (10%). Traffic volume on Aspelund Road west of Highway 2 is much lower, and reflects the agricultural nature of the lands west of the interchange.

The alignment recommended by the Feasibility Study Steering Committee for the Regional Water Line extends along the east boundary of the NW $\frac{1}{4}$ 22 - 39 - 27 4. However, other alignment options are being considered.

The proposed regional water line will be owned and operated by the Towns of Blackfalds, Lacombe and Ponoka, and the Counties of Lacombe, Red Deer, and Ponoka. The line will carry treated water from the City of Red Deer to the subscribing municipalities. Federal and Provincial governments, as well as member municipalities, will fund the capital cost of the project.

Proposed (Red/Green) Regional Water Line

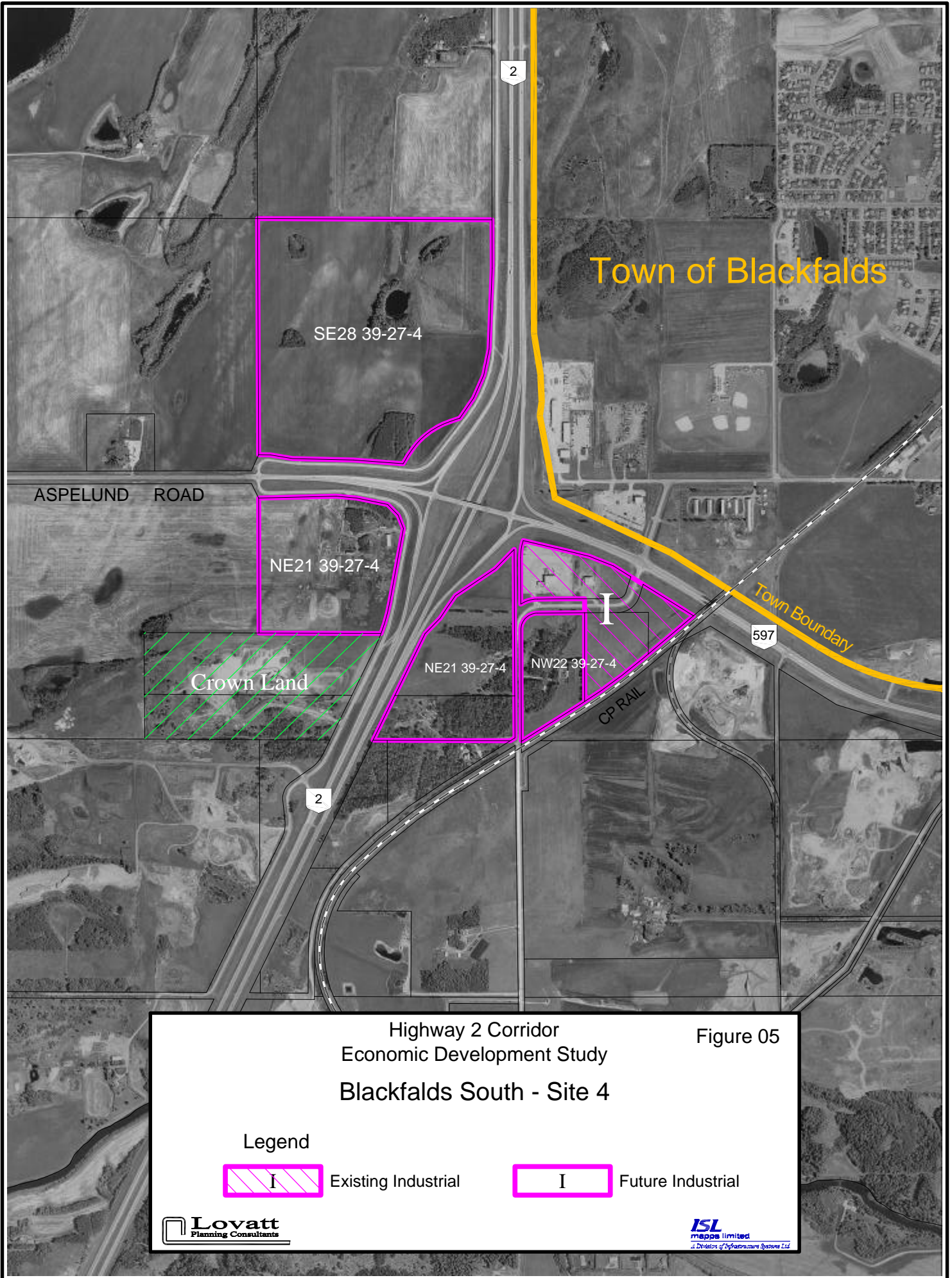


2.6.1 Description

The northeast quadrant of the Blackfalds South site (see Figure 5) has recently been annexed to the Town of Blackfalds and contains a number of industrial trucking and storage type developments. A confined feeding operation (chicken hatchery) is also located within this quadrant. The remaining quadrants are described as follows:

1. **The south east quadrant** generally corresponds to parts of the NE ¼ 21-39-27-4 and the NW ¼ 22-39-27-4, and is defined by the CP rail line on the east side, a residential parcel to the south, and Highways 2 and 597 on the west and north, respectively. The quadrant also contains some trucking and storage type industrial uses that back onto Highway 597. The lands adjacent Highway 2 are partially cleared for pasture. Three country residences are located on the east and south periphery of this fragmented quadrant.

The parcel to the south was originally subdivided in 1942 to be used as a gravel source for the provincial highways department. This privately owned parcel continues to be used for gravel extraction. Similar extraction operations are evident at other locations in the surrounding area.



2. **The northwest quadrant** of the interchange is cultivated farmland. A small slough surrounded by trees is located near the centre of the $\frac{1}{4}$ section (SE $\frac{1}{4}$ 28-39-27-4). No developments exist within this quadrant.
3. **The southwest quadrant** of the interchange comprises a single parcel that is legally described as part of the NE $\frac{1}{4}$ 21-39-27-4. A residence and ancillary buildings with some vehicle storage exist on this parcel that is treed on the east side, and cultivated on the west. The parcel is bounded on the south by gravel extraction operations located on two Crown owned lots that are located adjacent Highway 2. As well, Border Paving has a large gravel extraction operation south west of the southwest quadrant.

2.6.2 Zoning

The lands in the **northwest and southwest quadrants** of the interchange are zoned Agricultural in support of existing land uses.

The east portion of the lands in the **southeast quadrant** of the interchange is zoned Industrial in the County's Land Use Bylaw. The majority of these lands are developed for contracting and equipment storage type uses. However, several of the subdivided parcels remain undeveloped. The remainder of the lands within this quadrant are districted Agricultural, and are used for that purpose with some associated residential uses.

As is noted above, the northeast quadrant of the interchange is located within the Town of Blackfalds. The recently annexed lands have not yet been designated under the Town's Land Use Bylaw, and therefore, are zoned Industrial under the County's Land Use Bylaw.

The Town's Growth Management Study suggests that the industrial lands located next to the Highway 2 interchange will remain unserviced for the foreseeable future, and will continue to be used for low intensity type industrial uses such as warehousing, distribution and storage. However, the Town's recently amended Municipal Development Plan recognizes that the construction of a new school north of this area could significantly advance the timing of the extension of sewer and water services to these industrial lands. The Municipal Development Plan supports the development of a planned business/commercial park east of Highway 2, along the north side of Secondary Highway 597. The extension of municipal services to this area may increase the density of such development.

2.6.3 Access

Access off Highway 2 to the **northeast and southeast quadrants** is available via the all-directional intersection along Highway 597 located approximately 400 metres from the easterly extent of the interchange. This intersection is flared to accommodate the predominant left-turn movements off Highway 597 into Blackfalds via South Street.

The intersecting road to the south is Range Road 27-3, which accesses the industrial and small holdings/residential parcels located north of the CP line, as well as properties south of this rail line along the Blindman River. Range Road 27-3 ties into the C&E Trail, which intersects with Highway 597 at a "T" intersection approximately one mile east of the Highway 597 all-directional intersection.

A frontage service road along Highway 2 extending off Aspelund Road that *dead ends* about one mile north of the interchange provides access to the **northwest quadrant**. The service road intersects with Aspelund Road at the $\frac{1}{4}$ section line about 700 metres west of the interchange.

The service road also extends south of Aspelund Road and along the highway as far as the Blindman River, thereby providing access to the **southwest quadrant** of the interchange. A *slip ramp* accessing the southbound lanes of Highway 2 has been built in this quadrant to expedite the removal of gravel from the Crown owned gravel pits. This ramp enters Highway 2 about 300 metres south of the southerly extent of the southbound interchange ramp. The location of the *slip ramp* access onto Highway 2 does not comply with highway standards and, **therefore, increased development within this quadrant will require that the slip ramp be removed.**

2.6.4 Analysis

The following factors should be considered in evaluating future economic development opportunities within the Blackfalds South site:

- Because municipal services may be extended to properties in Blackfalds in the northeast quadrant of the interchange in the near future, the availability of services to these parcels will likely lead a transition to more intense business industrial type uses from the existing trucking, warehousing and distribution uses.
- Extending municipal services to adjacent County lands may be possible. However, existing industrial developments in the **southeast quadrant** do not require such services. To be economically viable, the extension of services into this quadrant would need to be supported by considerably more intensive industrial development than is feasible within a relatively small area.
- Policy 8.7 of the County's Municipal Development Plan states that: *New subdivision and development will be directed away from active and potential non-renewable resource extraction areas so as not to conflict or constrain extraction of the resource.* This policy stems from the Provincial Land Use Policies of the Municipal Government Act that encourage municipalities to identify areas where the extraction of surface materials (i.e. sand and gravel) should be a primary land use. The provincial policy views non-renewable resource extraction as a temporary use of the land, and is aimed at ensuring the unconstrained removal of the resource prior to development. As such, potential gravel extraction areas should be protected from fragmentation and/or development until the resource is removed and the land reclaimed. This means that future economic development subdivision activity in the **southeast and southwest quadrants** of the interchange should recognize the existing gravel operations.
- Good quality access is available to the three County quadrants of the interchange. Frontage service roads are in place for the **northwest and southwest quadrants**. The service road in the **southwest quadrant** currently has access to the southbound lanes of Highway 2. However, the access does not meet Alberta Transportation's freeway standards and the ramp will be removed in future.

2.6.5 Conclusions

The relevant conclusions resulting from the analysis are:

1. The existing industrial land use pattern, combined with an established high quality system of access, means that the **southeast quadrant** is well suited to supporting additional industries along Highway 597. Also, the County's Municipal Development Plan supports the concentration of industrial development in industrial parks.

2. Although the proposed regional water line **may** provide an opportunity to extend municipal services to the **southeast quadrant**, the alignment of the line remains to be finalized.
3. The relatively small area of land available for future development in the **southeast quadrant**, combined with the extent of existing development and the existing good quality access, suggests that a comprehensive Area Structure Plan may not be required in support of future economic development initiatives. Regardless, any Land Use Bylaw amendments should be supported by a detailed site plan, which includes a traffic impact assessment and landscape plan, amongst other items.

However, if municipal services are extended into the **southeast quadrant**, thereby creating the potential for increased density of development, an Area Structure Plan should be required. An Area Structure Plan should also be required if subdivision and development is proposed for a larger area extending beyond the lands identified as the southeast quadrant for the purposes of this study.

4. The extension of urban services to the lands west of Highway 2 in the **southwest and northwest quadrants** is likely as a very long-term possibility. However, these lands display high quality access and visibility characteristics, and are well located for supporting economic development. An Area Structure Plan would facilitate the development of these lands. The uses permitted for this quadrant should be compatible with, and support, the urban development across Highway 2 in Blackfalds.
5. The viability of gravel resources in the **southwest quadrant** should be investigated as part of any future development initiative. At Council's discretion, the area may be developed for industrial uses or reserved for future resource extraction. The development of this quadrant should not anticipate the continued use of the direct *slip ramp* access to Highway 2.
6. A minimum lot size of 0.81 hectares (2.0 acres) is recommended for industrial uses that are serviced on-site. Where off-site services are provided, a minimum lot size of 0.2 hectares (0.5 acres) is recommended. These minimum lot size recommendations reflect the regulatory provisions of nearby rural municipalities, such as Red Deer County, and typically meet the requirements of most industries.

The significant development elements of each of the sites investigated are summarized in Appendix B – Site Summary Table.

3. PLANNING CONSIDERATIONS

3.1 Introduction

The development history of the region has demonstrated that development *success* is associated with municipal forethought. Municipalities can lead development by using the powers of the Municipal Government Act to put in place a land use strategy for an area that recognizes the aspirations of landowners, the requirements of other authorities, as well as the concerns of adjacent residents. The strategy may be formalized as a statutory or non statutory plan, enacted through changes to the Land Use Bylaw, and implemented through subdivision and development permit approvals.

Lacombe County successfully directs development through a hierarchy of plans including:

- The Municipal Development Plan, which provides direction on locating and designing developments within the County;
- Intermunicipal Development Plans with its urban and rural neighbours, which coordinate development on the edges of urban areas or protect lakes over which the County has shared jurisdiction; and,
- Outline Plans, which guide subdivision and development of smaller areas of land.

Although the County has typically required that an Outline Plan, as opposed to an Area Structure Plan, be prepared to direct local subdivision and development initiatives, the Phase 1 Background Report recommends that, if deemed appropriate, plans prepared for the development nodes identified by this study be approved as an Area Structure Plan.

The rationale for this approach to approving planning documents is that although the contents of the two types of plans are essentially the same, the Minister of Transportation, as well as the County, must approve an Area Structure Plan. This means that the Department is provided an opportunity for formal, direct input. Affected municipalities and landowners are also provided an opportunity for formal input, but their approval is not required.

Alberta Transportation values the certainty of the statutory plan approach of an Area Structure Plan since the plan is considered a legal, binding instrument approved by municipal bylaw pursuant to the Municipal Government Act and, therefore, provides certainty in regard to managing development and access along Alberta's highways. Because of the strategic importance of Highway 2 in the provincial context, statutory plans are particularly significant in considering the implications of development adjacent the highway in terms of safety and aesthetic factors.

The benefit to the municipality and developers is that once approved by the Minister, subsequent subdivision and development proposals that comply with the approved area structure plan do not require further approvals by Alberta Transportation.

Although an area structure plan is approved as a municipal bylaw, Lacombe County's Municipal Development Plan Policy 8.5 states that the developer of a new rural industrial park may be required to prepare site specific plans. This means that developers are expected to bear the cost of preparing and amending site-specific plans, which will support land use, subdivision and development approvals in compliance with the Municipal Development Plan.

In preparing a site specific plan along Highway 2, the developer must demonstrate that the site is suitable for the intended use, and that the standards of development will meet the expectations of Alberta Transportation, affected residents and the municipality.

If the site specific plan is proposed to be adopted as an Area Structure Plan, the role of the municipality is to ensure compliance with the Municipal Government Act, and municipal policy and regulations, and that all requirements have been met pursuant to the provisions of the Municipal Government Act prior to adopting the plan by bylaw.

3.2 Area Structure Plan Terms of Reference

The purpose of an Area Structure Plan is to provide a framework for subsequent subdivision and development of an area of land. Such plans are typically required in support of an amendment to the Land Use Bylaw to allow for subdivision to occur.

Section 633(2) of the Municipal Government Act requires that an Area Structure Plan must describe:

- The sequence of development (staging) proposed for the area;
- The land uses proposed for the area, either generally or with respect to specific parts of the area;
- The density of population proposed for the area;
- The general location of major transportation routes and public utilities;

and may contain any other matters the council considers necessary.

Relevant excerpts from the Municipal Government Act are contained in Appendix C.

Because of the general nature of these requirements, some Alberta municipalities develop more detailed terms of reference for preparing an Area Structure Plan. Terms of reference recommended for Area Structure Plan prepared for the Highway 2 corridor sites identified by this study are listed below. These terms of reference may be varied depending on site specific conditions and requirements.

3.2.1 Purpose of the Area Structure Plan

- (a) Describe the purpose, name and type of Area Structure Plan.
- (b) Demonstrate that the proposed Area Structure Plan complies with relevant plans such as the Municipal Development Plan and the Land Use Bylaw.

3.2.2 Definition of Plan Area

- (a) A description of the plan area in the regional context.
- (b) A map and legal description of the plan area.
- (c) If more than one owner is involved, a land ownership map and table showing the legal description, size and ownership of each parcel.

3.2.3 Existing Conditions and Physical Evaluation of the Plan Area

- (a) A map and description of surrounding land uses and impact of proposed development on these uses.

- (b) A map and description of existing land uses and on-site developments.
- (c) A map and description of natural features including trees, wet areas, drainage courses and drainage patterns, and 1.0 metre contour intervals. Where relevant, the top of the bank of a drainage course should be identified.
- (d) Description of existing internal and external road systems.
- (e) Identification on a map of flood prone areas and areas with problematic near surface groundwater conditions.
- (f) Description and mapping of pipeline rights-of-way, power transmission lines, rail lines and other such infrastructure.
- (g) Complete Historical Resources Impact Assessment if requested by Alberta Community Development.

3.2.4 Proposed Development Concept

- (a) Description and map of proposed development/land use pattern including proposed lot sizes and specific use types.
- (b) Identification of Environmental Reserve and proposed method of providing required Municipal Reserve dedication.
- (c) Land use area breakdown table.
- (d) If required, proposed approach for dealing with incompatible adjacent land uses.
- (e) Description and illustrations of development standards to be applied to uses visible from the Highway 2 Corridor and intersecting highways.
- (f) A map and description of staging of development.

3.2.5 Municipal Services

- (a) Transportation and Access
 - Alberta Transportation typically requires that a Traffic Impact Assessment be completed in support of an Area Structure Plan or subdivision proposed to be located within 800 metres of a highway. The Impact Assessment should determine the volume of traffic that will potentially be generated by the development, and any required intersection improvements.
 - A map and description of proposed internal and external circulation patterns including identification of future road connections to adjacent properties, and road types and standards.
 - Description of approaches and required improvements onto adjoining highways and municipal roads based on Impact Assessment.
- (b) Water Supply
 - A Groundwater Supply Study, to determine the availability and quality of potable water, must be completed by a qualified engineer and must include aquifer testing.
 - Description of proposed method of providing potable water based on the findings of the Groundwater Supply Study.

- Description of proposed method of fire protection.
- (c) Sanitary Sewage
 - A Percolation Testing and Groundwater Levels Study for Private Sewage Disposals Systems to be completed by a qualified engineer.
 - Description of proposed private sewage disposal systems.
- (d) Storm Water Drainage
 - Proposed approach to managing storm water on-site and identification of where the water will be discharged off-site at predevelopment rates.
- (e) Shallow Utilities
 - Description of the provision of utilities such as telephone, gas and electricity.

3.2.6 Implementation

- (a) Description of any required Municipal Development Plan and/or Land Use Bylaw amendments.

The Area Structure Plan may also include any other provisions at the discretion of County Council. Council must also determine whether an Area Structure Plan is necessary to support any proposed Land Use Bylaw amendment. Council, at its discretion may also stipulate the extent of the structure plan area and any other special considerations it deems necessary.

Many municipalities offset the cost of processing the Area Structure Plan by charging a fee, which includes costs for agency referral and internal review of the Area Structure Plan. Additional fees are charged to accommodate necessary amendments to the Municipal Development Plan and the Land Use Bylaw.

4. AESTHETIC GUIDELINES

4.1 Introduction

Traffic volumes on Highway 2 through Lacombe County are between 20,000 and 30,000 vehicles a day, which means that land adjacent the highway is visible to more than 11.0 million people annually. This high level of visibility attracts commercial and industrial operations, and also pressures developers and approving municipalities alike to *put on their best face* by either screening developments from view, or by requiring a high standard of development.

Higher aesthetic standards are frequently imposed on developments by urban municipalities at major entrances or adjacent to high visibility corridors, often in cooperation with adjacent rural municipalities. Rural municipalities are becoming increasingly aware of the economic benefits of attracting corridor related businesses by complementing urban standards.

To ensure a high aesthetic quality, development standards typically consider such matters as: more dense landscaping requirements; the buffering (or screening) of parking or display areas; architectural controls; the screening of rooftop mechanical equipment; regulations on the placement of loading and trash facilities; and restrictions on the number and size of signs.

Through its statutory powers, Alberta Transportation may impose development conditions that include aesthetic considerations.

The Phase 1 Background report recommends that:

The County should develop, in concert with Alberta Transportation and its urban and rural neighbours, development standards to ensure aesthetically pleasing developments. The standards should recognize the importance of the corridor, ensure that the integrity and safety of the highway are protected, and, should be capable of consistent application and enforcement with all adjacent municipalities.

The standards should be implemented through the Land Use Bylaw as an overlay for the selected corridor development locations.

Although Lacombe County contains provisions for landscaping, parking and loading, and design, character and appearance of buildings in the Highway Commercial and Industrial Districts of the Land Use Bylaw, no corridor specific regulatory provisions exist in the current Bylaw. As well, existing provisions allow the County to require, at the discretion of the Municipal Planning Commission, that these measures be addressed, but provide no specific direction regarding the quantity or quality of landscaping, parking or building appearance.

The approach taken by other municipalities in regulating development along highway corridors is described below.

4.2 Other Municipalities

As part of the review of industrial and commercial developments adjacent highway corridors, the bylaws of five other Alberta municipalities have been analyzed for comparative purposes, primarily to determine what approaches are being applied and what a comprehensive strategy should include. The five bylaws selected for comparison purposes include:

- The City of Edmonton
- The City of Red Deer
- The City of Spruce Grove
- Red Deer County
- Strathcona County

Highlights of each municipality's approach are provided below:

4.2.1 City of Edmonton Land Use Bylaw

Major Commercial Corridors Overlay: The Purpose of this overlay is to ensure that development along Major Commercial Corridors is visually attractive and that due consideration is given to pedestrian and traffic safety.

The Overlay applies to those lands identified as Major Commercial Corridors in the Appendices to the Overlay Schedule. A number of specific corridors are listed. Where the provisions of the Overlay are in conflict with the regulations of any other Section of the Bylaw, the more restrictive provisions take precedence. Where there is no conflict, the provisions of the Overlay are applied in conjunction with the regulations of the underlying Zone(s) and other Sections of the Zoning Bylaw, which include: applicable setbacks, signing, lighting, screening and parking requirements. The Overlay provisions are included as part of the Land use Bylaw. However, the provisions stem from a Highways Corridor Study, which identifies guidelines for control of development along corridors.

Highway Corridor District: The purpose of this district is to provide for high quality commercial development along those public roadways which serve as entrance routes to the City. Provisions similar to the requirements of the Major Commercial Corridors Overlay are also included.

4.2.2 City of Red Deer Land Use Bylaw

Building and Landscape Design Standards for Development on Major Entry Areas. The general purpose of these standards is to establish architectural, landscaping and site planning development criteria for the purpose of ensuring that development along major commercial corridors leading into the City is visually attractive, and does not prejudice pedestrian and traffic safety and the function of the adjacent public roadways. The standards are contained within the Special Regulations and Performance Standards section of the Red Deer Land Use Bylaw. The focus of this section of the Bylaw is on regulations and performance standards relating mainly to building design, and landscaping and tree planting criteria.

Land Use Bylaw provisions also require the screening of exterior walls visible from the major arterial roadway. As well, additional landscaping requirements are placed on larger (25 or more vehicles) parking lots.

As a condition of the development permit, the developer is required to provide an irrevocable letter of credit for 100% of the estimated cost of the landscaping. The letter is held for two growing seasons to ensure that *the landscaping has been maintained and is in healthy condition*.

4.2.3 City of Spruce Grove Highway 16A Land Use Bylaw Corridor Overlay

The Highway 16A Corridor Overlay is intended to improve the appearance of the highway corridor by creating a simple landscaping theme, which is consistently applied within the corridor.

A consistent approach allows business and property owners, and the City of Spruce Grove, to cooperatively improve the safety and aesthetics of the corridor. The theme emphasizes landscaping with coniferous trees and shrubs organized into typical beds, consistently repeated through out the corridor. The overlay is applied to City and privately owned land, and allows some flexibility to accommodate individual developments and the special requirements of specific sites.

4.2.4 Red Deer County

Section 57 of the County's Land Use Bylaw contains general landscaping requirements, which include the submission of a landscape plan. As well, the Bylaw contains provisions specifically for Major Entranceways and Hamlets, which include size and planting density requirements for landscaping. The Highway Commercial and Industrial Districts in the Bylaw contain provisions respecting parking, loading and building appearance. However, no specific standards are attached to these provisions and none of the provisions is specific to highway corridors.

4.2.5 Strathcona County

Landscape Requirements for Gateway Areas is a separate section of the 1989 Land Use Bylaw. This section is applied to designated (by Schedule) areas of the County displaying a major entrance function.

However, the County's 2001 Land Use Bylaw requires a high standard of landscaping, screening and building appearance be applied to all commercial and industrial development, regardless of location. A landscaping plan prepared by a landscape architect registered with the Alberta Association of Architects is required in support of a development permit application for any commercial or industrial use. A guaranteed security is also required to ensure that landscaping is provided and maintained for two growing seasons. Development permit applications are scrutinized by the Engineering and Environmental Planning Department, the Parks and Recreation Department, as well as the development officer to ensure compliance with the *County's Open Space Development Standards*, amongst other aesthetic standards.

Strathcona's Land Use Bylaw also contains provisions regarding, access and queuing requirements for drive-in establishments.

4.3 Proposed Aesthetic Guidelines

The review of other municipal Land Use Bylaws clearly indicates that the preferred approach to dealing with high visibility corridors is to create an overlay district. An overlay provides overall aesthetic and/or development standards within specified highway corridor areas. These standards are applied in addition to any other land use district or general regulations.

The advantages of implementing a highway corridor overlay are:

- The overlay provides consistent standards for an area containing a variety of uses and districts to which other district specific standards may also apply;
- Amendments to district or general regulations do not impact the development standards of the highway corridor; and,
- Regulating highway corridor standards as part of the Land Use Bylaw promotes compliance.

The overlay should exempt the owners of the roadway (the municipality and the province) from the regulations of the overlay. Alberta Transportation has developed *Landscaping Guidelines for Primary Highways Under Provincial Jurisdiction Within Cities and Urban Areas* to assist municipalities and developers in planning for subdivision and development adjacent highways. The guidelines clearly indicate that Alberta Transportation is responsible for the highway right-of-way, and that the right-of-way will not be landscaped, only seeded. The same principle may apply to highways in rural areas.

Typical regulatory elements that may comprise the highway corridor overlay are listed below. Like any land use district, two specific items are required:

1. **Purpose:** It is important that a general statement be included outlining the intent of the overlay. An example might be *to establish a positive visual impression on major corridors*. To aid in the interpretation of the regulation, the purpose should also state the intent of the regulations. The intent may address: compatibility with adjacent uses, visual intrusion, minimizing the harmful impact of noise, dust, or light intrusions, and other objectionable activities.
2. **Application:** It is important that those areas of the corridor that will be subject to the regulations of the highway corridor overlay be clearly identified.

In addition, a number of other specific regulations may be included.

1. **Landscaping and Planting:** Specific details which might be covered under this topic include:
 - Landscaping Plan requirements, including plan details, conditions and letter of credit issues; and,
 - Planting Standards including such details as general or specific planting types and locations.
2. **Fencing and Screening:** Specific details, which might be covered under this topic, include:
 - Fencing standards, to provide a minimum standard for design and visual appearance along the corridor; and,
 - Screening requirements, to hide less desirable visual elements such as trash and storage areas, vehicle parking areas and mechanical equipment (including roof top).
3. **Design, Character and Appearance of Buildings and Structures:** Where the desire to achieve a specific aesthetic look or design is identified. This is particularly important when dealing with many freestanding structures on a single site. Examples of architectural controls that can be employed include:
 - Colour, material and finish of building facades; and,
 - Building height and setbacks.
4. **Signs:** Where a municipality wishes to regulate the visual clutter associated with signage along a highway corridor, typical sign regulation elements might include:
 - Restricting types of signs permitted;
 - Regulation of the construction and materials of signs; and,
 - Restricting the size, height, location and/or spacing of signs.

5. **Lighting and Safety:** Specific details which might be covered under this topic include:

- Regulation of type and intensity of illumination to achieve a consistent appearance; and,
- Identification of location and types of facilities to ensure safe and efficient movement of both vehicular and pedestrian traffic.

The foregoing guidelines form the basis for the preparation of a Highway 2 Corridor Overlay for application in Lacombe County. This overlay should be applied to all industrial and commercial development along the Highway 2 Corridor to promote high quality aesthetic standards that recognize the development opportunities of the corridor, and its regional, provincial and international importance. The proposed Highway 2 Corridor Overlay is contained in Appendix D.

5. CONCLUSIONS AND RECOMMENDATIONS

Phase 2 of this study has investigated three sites along the Highway 2 Corridor that provide particularly significant opportunities for the types of industrial and commercial uses that require a high degree of visibility and accessibility from the highway. These sites should be considered as economic development nodes and are all:

- Located adjacent an interchange and, therefore, are more readily accessible than any other lands within the corridor;
- Highly visible both from the corridor and from the interchange;
- Easily accessed from the interchange through the local road system.

By encouraging commercial and industrial development to locate within these sites, the County is assuming a proactive regional economic development strategy that recognizes the unique opportunities afforded by the Highway 2 Corridor.

The three sites include:

1. The Morningside Site located at the Highway 2 and Highway 604 interchange. This site provides opportunities for the development of additional commercial recreational facilities to complement and augment the existing, very successful Wolf Creek recreational operations.
2. The Lacombe West Site located on the west side of the Highway 2 and Highway 12 interchange. The volume of traffic using this interchange is the highest of all Lacombe County's highway interchanges and a portion of the Lacombe West Site is already zoned for highway commercial purposes by the County's Land Use Bylaw. As such, this site provides significant opportunities for future highway commercial development that complements, and is compatible with, the types of highway commercial uses being contemplated across Highway 2 in the Town of Lacombe. However, to realize the types of uses being contemplated by the Town, the current limited list of discretionary uses in the Highway Commercial District of the County's Land Use Bylaw should be expanded.
3. The Blackfalds South Site located at the Highway 2 and Highway 597/Aspelund Road interchange. Traffic volumes on Highway 2 south of this interchange are the highest in the County, and the adjacent lands are particularly visible from the highway because the interchange is located on a curve on top of the slope that extends south towards the Blindman River. This site is also closest to the City of Red Deer. As a result, industrial uses have located near the interchange both in the County and the Town of Blackfalds, and considerable opportunity for future industrial activity is evident. Gravel pits also exist within or near the Blackfalds South Site so that the site is suitable for industrial uses.

Although Lacombe County has typically required that an Outline Plan, as opposed to an Area Structure Plan, be prepared to direct local subdivision and development initiatives, because of their proximity to Highway 2, an Area Structure Plan may provide a more effective approach to properly planning portions of these three development nodes.

As is noted in Section 3.1, Alberta Transportation values the certainty of the statutory plan approach of an Area Structure Plan since the plan is considered a legal, binding instrument approved by municipal bylaw pursuant to the Municipal Government Act and, therefore, provides

certainty in regard to managing development and access along the highway. Because of the strategic importance of Highway 2 in the provincial context, statutory plans are particularly significant in considering the implications of adjacent development in terms of safety and aesthetic factors. Also, affected municipalities and landowners are provided an opportunity for formal input.

Because of the far reaching importance of the Highway 2 Corridor, and the desire by the County to present a favourable *facade* to the millions of motorists annually travelling through Lacombe County on Highway 2, aesthetic standards that promote attractive, good quality development are required. The standards should also ensure that the integrity and safety of the highway are protected. The proposed Highway 2 Corridor Overlay contained in Appendix D provides the aesthetic standards needed for promoting such development, and may be consistently applied and enforced on a cooperative basis by adjacent municipalities.

To properly implement the conclusions and recommendations of this Highway 2 Corridor Economic Development Study, the following amendments to the Municipal Development Plan and Land Use Bylaw are required.

5.1 Municipal Development Plan

Section 8 of the Municipal Development Plan - Industrial/Commercial Development should be amended such that the following policies are added:

1. Industrial and commercial development along Highway 2 will be encouraged to locate in the three development nodes identified by the Highway 2 Corridor Economic Development Study.
2. An Outline Plan or an Area Structure Plan Development may be required within these nodes in support of development. The Outline Plan or Area Structure Plan will be prepared by the developer and, at the discretion of the County, may be required for a portion, or all, of the node to be developed.
3. The Outline Plan or Area Structure Plan will be prepared in compliance with the guidelines and recommendations of the Highway 2 Corridor Economic Development Study.

5.2 Land Use Bylaw

Two amendments to the Land Use Bylaw are required to implement the recommendations of this study.

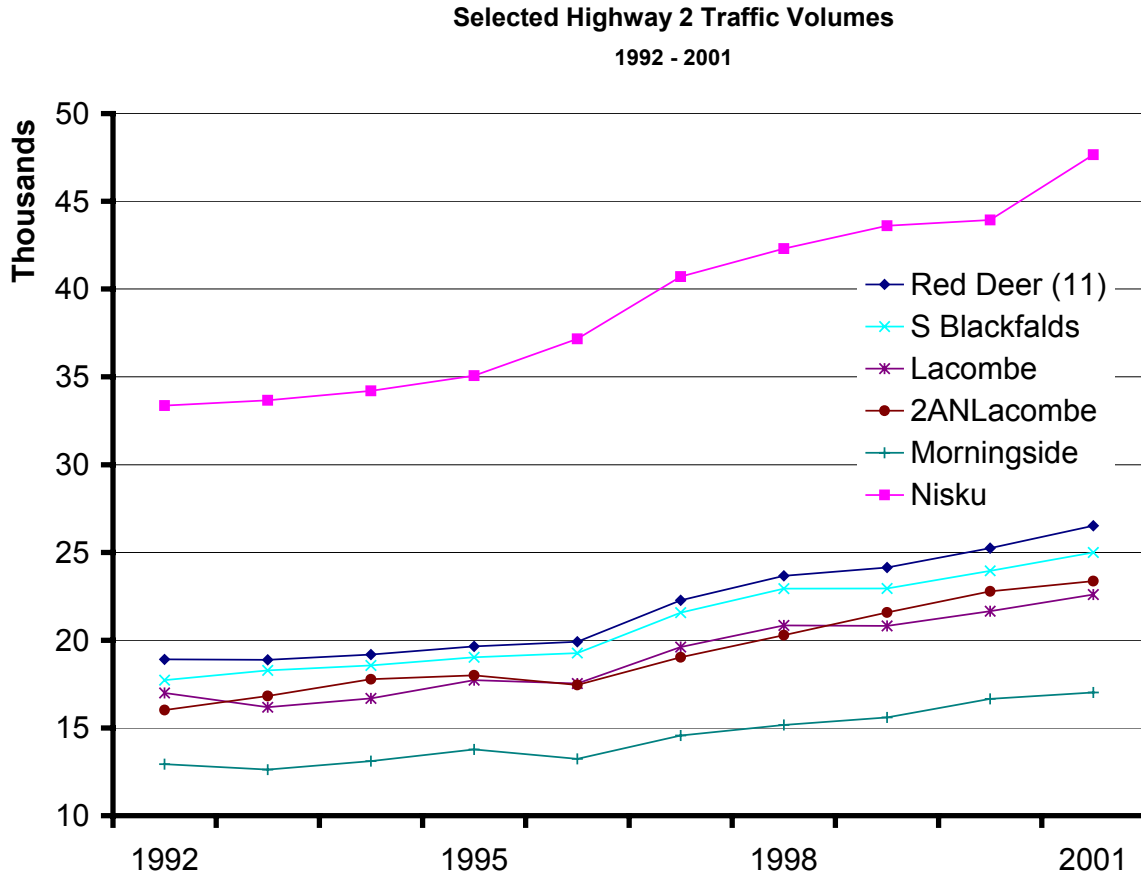
1. The list of Discretionary Uses under the Highway Commercial (HWYC) District should be amended such that the existing list is replaced with the following uses:
 - ancillary building and/or use
 - accommodation and convention services
 - amusement and entertainment services
 - automotive, equipment and vehicle services
 - campground
 - eating and drinking establishment

- retail/wholesale outlets
- service station/gas bar
- tourist information services and facilities
- truck stop
- one dwelling unit in connection with a discretionary use

2. The proposed Highway 2 Corridor Overlay District contained in Appendix D should be adopted as Schedule H of the Land Use Bylaw.

All applicable regulations of the Land Use Bylaw should continue to apply to future development within the identified sites.

Appendix A – Selected Highway 2 Traffic Volumes (1992 – 2001)



Location	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	10 Year Growth	Absolute^	5 Year Growth	Absolute^
Red Deer (11)	18910	18880	19180	19650	19910	22270	23670	24140	25250	26520	28.7%	7610	10.7%	2850
S Blackfalds	17720	18280	18570	19030	19270	21570	22930	22950	23950	25000	29.1%	7280	8.3%	2070
Lacombe	16990	16180	16680	17720	17530	19610	20840	20810	21650	22600	24.8%	5610	7.8%	1760
2ANLacombe	16020	16820	17770	18000	17450	19030	20280	21580	22790	23360	31.4%	7340	13.2%	3080
Morningside	12940	12620	13110	13780	13240	14570	15180	15600	16660	17020	24.0%	4080	10.8%	1840
Nisku	33360	33660	34200	35070	37160	40710	42300	43610	43930	47650	30.0%	14290	11.2%	5350

Appendix B – Site Summary Table

	Morningside - Site 1	Lacombe North - Site 2	Lacombe West - Site 3	Blackfalds South - Site 4
Legal Description	<ul style="list-style-type: none"> ▪ N½ 34-41-26 W4M and the portion of the NE 33-41-26 W4M southeast of the C&E Trail and northeast of the intersecting local road. ▪ Portions of the SE 34-41-26 and NE 27-41-26 west of Hwy 2A. 	<ul style="list-style-type: none"> ▪ S½ 9-41-26 W4M. ▪ Part of the NW 4-41-26 W4M, located west of Hwy 2A. 	<ul style="list-style-type: none"> ▪ Part of the NE¼ 26- 40-27 W4M west of Hwy 2. ▪ Part of the S½ 26- 40-27 W4M west of Hwy 2. ▪ N½ 23-40-27 W4M located on either side of Hwy 2. ▪ The portion of the NW ¼ 23-40-27-4 located west of Highway 2 ▪ SE¼ 22-40-27 W4M. 	<ul style="list-style-type: none"> ▪ SE 28-39-27 W4M. ▪ NE 21-39-27 W4M located on either side of Hwy 2. ▪ NW 22-39-27 W4M north west of the CP rail line.
Physical Description	<ul style="list-style-type: none"> ▪ West of Hwy 2, relatively flat and well drained, cultivated lands overlooking Wolf Creek. ▪ East of Hwy 2, rolling pasture with some treed areas. ▪ Wolf Creek and land ownership fragment the land east of Hwy 2. 	<ul style="list-style-type: none"> ▪ Areas north of the interchange are low lying and poorly drained currently used as pasture. ▪ Cultivated land south of Hwy 2 and west of Hwy 2A are within the Wolf Creek drainage channel floodway. 	<ul style="list-style-type: none"> ▪ West of Hwy 2, cultivated lands overlooking Whelp Creek, small low area south of Hwy 12. ▪ A low poorly drained area dominates the central portion of the area north of Hwy 12 and west of Hwy 2. ▪ East of Hwy 2, Whelp Creek fragments cultivated land south of Hwy 12. 	<ul style="list-style-type: none"> ▪ Area west of Hwy 2 and north of Aspelund Road cultivated. ▪ Land west of Hwy 2 and south of Aspelund Road is partially cleared with treed areas adjacent the north and east sides. ▪ Area east of Hwy 2 south of Hwy 597 and west of the CP line is fragmented by existing industrial development. Portion of the NW 22 cleared for use as pasture.
Land Use	<ul style="list-style-type: none"> ▪ All lands designated Agricultural. ▪ Recreation Facility adjacent the east side. 	<ul style="list-style-type: none"> ▪ All lands designated Agricultural. ▪ Country Residential adjacent the east side. 	<ul style="list-style-type: none"> ▪ All lands designated Agricultural with the exception of the small undeveloped portion of the SW 26 west of Hwy 2 that is designated Highway Commercial. 	<ul style="list-style-type: none"> ▪ Land west of Hwy 2 designated Agricultural. ▪ The east portion of the area east of Hwy 2 is designated Industrial with the remainder Agricultural.

	Morningside - Site 1	Lacombe North - Site 2	Lacombe West - Site 3	Blackfalds South - Site 4
Access	<ul style="list-style-type: none"> ▪ Portion of the C&E Trail provides access for land west of Hwy 2. ▪ Access to land east of Hwy 2 complicated by Wolf Creek. Access proposals should consider use of the undeveloped road allowance adjacent the east side and coordinate access location with golf course clubhouse and RV park approaches. 	<ul style="list-style-type: none"> ▪ Access to the lands south of Hwy 2 and west of Hwy 2A is available from the existing service road or by improving the intersection of Range Road 26-4 with Hwy 2A. ▪ Access to the land north west of Hwy 2 is available from the realigned portion of the C&E Trail. ▪ A new intersection with C&E Trail must occur at least 400 m north of the intersecting highway ramps. 	<ul style="list-style-type: none"> ▪ Access to land in the northwest and southeast quadrants of the interchange is available from existing frontage service roads. ▪ Access to area in the south west quadrant of the interchange is available from Range Road 27-2. 	<ul style="list-style-type: none"> ▪ Frontage service roads provide access to lands west of Hwy 2 ▪ Access to land east of Hwy 2 and south of Hwy 597 is available from Range Road 27-3.
Analysis	<ul style="list-style-type: none"> ▪ Opportunity to capitalize on the reputation of the Wolf Creek Golf Course. ▪ Uses at this site should be compatible with the Recreation Facility designation. ▪ Fragmentation of land east of Hwy 2 may complicate development. ▪ The areas associated with Wolf Creek may require designation as Environmental Reserve. ▪ Country residential uses may be considered for the southeast quadrant. 	<ul style="list-style-type: none"> ▪ Areas associated with this interchange have severe limits due to high water table and susceptibility to flooding. ▪ Land south of Hwy 2 and west of Hwy 2A is within the Wolf Creek Floodway. ▪ Permanent developments within this area are prohibited (IDP Policy 5.2). 	<ul style="list-style-type: none"> ▪ Uses at this site should be compatible with the Highway Commercial district. ▪ Most of the land in the southeast quadrant of the interchange is Federally owned and will not be developed for commercial purposes. ▪ The small pocket of land between Federally owned parcels may support commercial developments; however, they should be oriented to serving local users. ▪ Servicing lands west of Hwy 2 is not likely in the foreseeable future. 	<ul style="list-style-type: none"> ▪ Industrial uses at this location are compatible with existing industrial uses in the County and the Town of Blackfalds. ▪ Although not required to serve existing developments, extension of municipal sewer and water service to land in the southeast quadrant of the interchange is possible and may be accelerated by the construction of the regional water line through the area. ▪ Extraction of gravel resources should precede development for industrial uses

	Morningside - Site 1	Lacombe North - Site 2	Lacombe West - Site 3	Blackfalds South - Site 4
Conclusions	<ul style="list-style-type: none"> Completion of an ASP may not be required to support the redesignation of this area to Recreational Facility. However, some form of pre-subdivision planning, including servicing and open space concepts and a traffic impact analysis are required. Redesignation of these lands to a Country Residential District will require completion of an ASP. 	<ul style="list-style-type: none"> Commercial or industrial development should not be allowed at this site. 	<ul style="list-style-type: none"> Discretionary Highway Commercial uses at this location could include: <ul style="list-style-type: none"> – accommodation and convention services – amusement and entertainment services – automotive, equipment and vehicle services – campground – eating and drinking establishment – retail/wholesale outlets – service station/gas bar – tourist information services and facilities – truck stop Redesignation and development of lands west of Hwy 2 should be supported by an ASP. 	<ul style="list-style-type: none"> Potential industrial development in the southeast quadrant may not require the completion of an ASP. However, a detailed site plan including a traffic impact assessment and landscape plan is required. Redistricting, subdivision and development to accommodate anticipated municipal services should be supported by an ASP. Subdivision and development of lands west of Hwy 2 requires completion of an ASP..

Appendix C – Excerpts from the Municipal Government Act

Area Structure Plans

633(1) For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may, by bylaw, adopt an area structure plan.

(2) An area structure plan

- (a) must describe
 - (i) the sequence of development proposed for the area,
 - (ii) the land uses proposed for the area, either generally or with respect to specific parts of the area,
 - (iii) the density of population proposed for the area either generally or with respect to specific parts of the area, and
 - (iv) the general location of major transportation routes and public utilities,
- and
- (b) may contain any other matters the council considers necessary.

Statutory plan preparation

636(1) While preparing a statutory plan a municipality must

- (a) provide a means for any person who may be affected by it to make suggestions and representations,
- (b) notify the public of the plan preparation process and of the means to make suggestions and representations referred to in clause (a);
- (c) notify the school authorities with jurisdiction in the area to which the plan preparation applies and provide opportunities to those authorities to make suggestions and representations,
- (d) in the case of a municipal development plan, notify adjacent municipalities of the plan preparation and provide opportunities to those municipalities to make suggestions and representations, and
- (e) in the case of an area structure plan, where the land that is the subject of the plan is adjacent to another municipality, notify that municipality of the plan preparation and provide opportunities to that municipality to make suggestions and representations.

(2) Subsection (1) does not apply to amendments to statutory plans.

Effect of plans

637 The adoption by a council of a statutory plan does not require the municipality to undertake any of the projects referred to in it.

Plans consistent

638 All statutory plans adopted by a municipality must be consistent with each other.

Appendix D – Highway 2 Corridor Overlay District

1. PURPOSE

To establish a positive visual impression of the Highway 2 corridor by:

- *Providing greenery and seasonal colour to visually soften paved areas and buildings;*
- *Preserving existing trees wherever possible;*
- *Screening unsightly equipment or materials from the view of the Highway 2 Corridor, adjacent roadways or adjoining properties; and,*
- *Enhancing the quality and appearance of developed properties within the overlay district.*

2. APPLICATION

- 2.1 The Overlay regulation applies to the development or redevelopment of all lands Districted for Industrial or Highway Commercial purposes and located within 800 metres of the right-of-way of Highway 2.
- 2.2 The regulations are to be satisfied as a condition of a Development Permit.
- 2.3 The Overlay regulation applies to the redevelopment of existing buildings and facilities as well as all new development.
- 2.4 Wherever possible, vegetation existing on the site shall be preserved and protected or replaced. Notwithstanding the status of existing vegetation, landscaping of the site shall be subject to the provisions of the overlay.
- 2.5 Where the provisions of the overlay conflict with other regulations of this bylaw the more restrictive provisions shall take precedence.

3. GENERAL

- 3.1 All applications for development permits within the overlay area shall be accompanied by a landscaping plan. No development permit shall be issued prior to the approval of the required landscaping plan.
- 3.2 The landscaping plan shall include the following:
 - (a) Boundaries and dimensions of the subject site;
 - (b) Location of all the buildings, parking areas, driveways and entrances;
 - (c) Location of all exterior lights on the site and their projected light patterns in relation to adjacent public roadways and developments;
 - (d) Location of existing plant materials to be retained;
 - (e) Location of new plant materials;
 - (f) Plant material list identifying the name, quantity and size of plant material; and
 - (g) All other physical features, existing or proposed; including berms, walls, fences, outdoor furniture, lighting and decorative paving.

- 3.3 The owner of the property, or his/her successor or assignees, shall be responsible for landscaping and proper maintenance. As a condition of a development permit, an irrevocable letter of credit may be required, up to a value of the estimated cost of the proposed landscaping/planting to ensure that such landscaping/planting is carried out with reasonable diligence. The conditions of the security being that:
- (a) If the landscaping is not completed in accordance with this Bylaw and the landscaping plan within one year after occupying the building or site, then the County shall use the security to complete the approved landscape development; and,
 - (b) If the landscaping does not survive a two (2) year maintenance period, the applicant must replace it with a similar type of species and with a similar calliper width or forfeit the portion of the amount fixed equal to the cost of replacing the affected landscaping materials.

4. PLANTING STANDARDS

- 4.1 All required yards and all open spaces on the site excluding parking areas, driveways, outdoor storage and service areas shall be landscaped in accordance with the approved landscaping plan.
- 4.2 To provide year round colour and interest, a tree mix of approximately 50% coniferous and 50% deciduous, shall be provided.
- 4.3 50% of required deciduous trees shall be at least 50mm (2.4 in.) calliper and 50% shall be a minimum of 75mm (3.0 in.) calliper above the root ball.
- 4.4 75% of coniferous trees shall be a minimum of 2.0m (6.6 ft.) in height and 25% shall be minimum of 3.5m (11.5 ft.) in height above the root ball.
- 4.5 Trees or shrubs shall be provided in accordance with this Section. The number is determined on the basis of the following:
 - (a) One (1) tree for every 40.0 sq.m (430.6 sq.ft.) and one (1) shrub for each 20 sq.m (215.3 sq.ft.) of any required yard or setback;
 - (b) One (1) tree for each 25.0 sq.m (269.1 sq.ft.) and one (1) shrub for each 10.0 sq.m (107.6 sq.ft.) of required parking area islands. In no case shall there be less than one tree per required parking area island.
- 4.6 Trees or shrubs should be clustered or arranged in planting beds within the site.
- 4.7 Trees and scrubs shall only be placed evenly at regular intervals when used for screening onsite or adjacent developments.
- 4.8 As required by the Development Authority, all required yards and all open spaces on the site excluding parking areas, driveways, and outdoor storage and service areas shall be landscaped in accordance with the approved landscaping plan.
- 4.9 Planting beds shall consist of an odd number of trees mixed 50% coniferous and 50% deciduous with shrubs in a mulched medium such as bark chips, rocks, or similar materials. Mulch shall not be used as a substitute for plant materials.
- 4.10 At a minimum, a planting bed shall be composed of a mix of three (3) coniferous trees, two (2) ornamental deciduous trees and shrubs.

- 4.11 The undeveloped portion of the site must be graded, contoured and seeded, if not utilized for other purposes.

5. LANDSCAPE ISLANDS WITHIN PARKING AREAS

- 5.1 Landscape islands shall be required within at-grade parking areas with a capacity of twenty-five (25) or more vehicles. These islands shall be landscaped in accordance with Section 4 – Planting Standards.
- 5.2 Parking islands shall be placed to provide visual relief and to organize large areas of parking into smaller cells. The number of islands provided shall be to the satisfaction of the Development Authority.

6. ADDITIONAL LANDSCAPE REGULATIONS

- 6.1 The Development Authority may require the application of additional landscaping regulations, if in the opinion of the Development Authority:
- (a) There is a likelihood that the proposed development will generate undesirable impacts on surrounding sites, such as poor appearance, excessive noise, light, odours, traffic, litter, or dust;
 - (b) There is a likelihood that undesirable impacts may be generated on the site, and cause conflicts with other businesses within the development;
- 6.2 The additional landscaping that may be required at the discretion of the Development Authority may include, but is not limited to, the following:
- (a) Additional separation space between incompatible use classes;
 - (b) The use of trees, shrubs, fences, walls, and berms to buffer or screen uses of negative impact;
 - (c) The use of trees, shrubs, planting beds, street furniture and surface treatments to enhance the appearance of a proposed development.

7. SIGNS

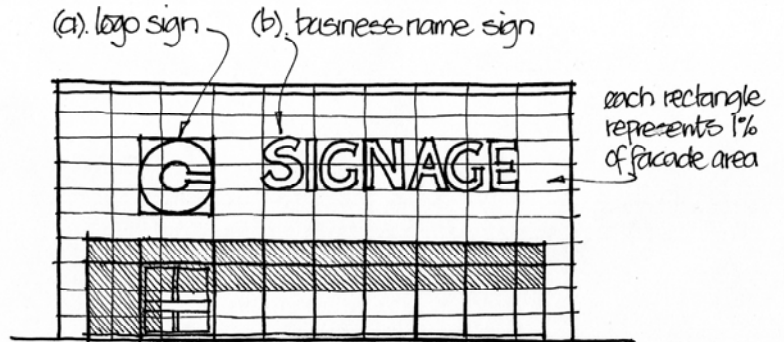
- 7.1 Where more than one business occupies a building, additional signage shall be located in accordance with a comprehensive signage package prepared for the building, and submitted as part of the required landscape plan.
- 7.2 One freestanding sign per lot may be allowed. The sign shall not exceed 9.13m (30.0 ft.) in height with no dimension exceeding 4.5m (14.76 ft.). Illuminated freestanding signs shall not exceed 7.62m (25.0 ft.) in height.

7.3 Where buildings abut the highway corridor, signs facing and visible from that corridor may be considered by the Development Authority if they comply with the following principles:

(a) One illuminated company or business sign (logo) per visible façade. The maximum dimension of such sign shall not exceed 3.0m (9.8 ft.) in vertical and horizontal direction, parallel to the façade of the building, nor exceed a depth of 0.305m (1.0 ft.)

(b) One illuminated business name per visible façade shall not exceed 15% of the area of the façade of the building or business premises, whichever governs and shall in no case exceed 40.0 sq.m (430.6 sq.ft.) (less the area of any logo sign (see a) above).

(c) To discourage the use of building facades as billboards a business sign exceeding an area of 10.0 sq.m (107.7 sq.ft.) and 1.5m (4.92 ft.) in height, shall be limited to individual letters or shapes.



EXAMPLE FACADE : 100 sq. m (1077 sq.ft) in area.

In the example above, the logo sign "(a)" represents 4.5% of the facade area. Accordingly, the maximum area of the business name sign "(b)" is 10.5% of the facade area. i.e. : 15% - 4.5%

Also in the example, the business name sign is (i), over 10 sq.m. (1077 sq.ft) in area and (ii), over 1.5 sq.m (5 sq.ft) in height, so it must be comprised of individual letters.

8. LIGHTING

8.1 Outdoor lighting provided for security, display or attraction purposes for any development shall be arranged so that no direct rays of light are directed at any adjoining site or interfere with the effectiveness of adjacent traffic, and shall comply with the following provisions:

(a) No light structure shall exceed a height of 7.62m (25.0 ft.);

(b) No light shall be attached to a structure above a height of 7.62m (25.0 ft.) along that structure;

(c) The developer shall provide a plan indicating the location of all exterior lights, including the projected light patterns in relation to adjacent public roadways and developments; and,

(d) No flashing or strobe, or revolving lights, which may impact the safety of motorists using adjacent public roadways, shall be installed on any structure or site.

9. ACCESS

9.1 Vehicular entrances and exits, as well as on-site pedestrian and vehicular routes shall be designed in a manner that provides a safe and clearly defined circulation pattern.

- 9.2 Loading bays shall be located in such a manner as to not impede the efficient flow of traffic and pedestrian movement and to minimize impacts on adjacent land uses.
- 9.3 To provide opportunities for convenient and free flowing traffic movements between lots development on adjoining lots may be integrated by direct on site access connections.

10. ARCHITECTURAL FEATURES

- 10.1 All buildings on a site shall follow the same theme and exhibit a high standard of appearance. Exceptions may be made to accommodate corporate images.
- 10.2 Rooflines and facades of large buildings single wall >30.0m (98.4 ft.) shall be designed to reduce the perceived mass by the inclusion of design elements such as arches, columns or gables with exterior finish materials composed of predominantly muted colours.
- 10.3 Mechanical equipment (including roof top mechanical equipment) shall be screened from view. Screening should be compatible with the theme and character of the site.
- 10.4 All waste collection areas, visible from the corridor shall be screened. Screening shall take the form of berming, landscaping or solid fencing or any combination of the foregoing.

11. BUILDING SETBACK HIGHWAY 2

- 11.1 Development setbacks adjacent Highway 2 will be established with input from Alberta Transportation as part of an Outline or Area Structure Plan, or at the time of subdivision or development.