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# INDUSTRIAL PARK AREA STRUCTURE PLAN

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**WSP CANADA INC**

3509 6th Avenue N  
Lethbridge Alberta,  
T1H 5C1

201-03403-00





## VULCAN COUNTY

Vulcan - Alberta

### BYLAW 2020-027

Being a Bylaw of Vulcan County in the Province of Alberta to adopt the Vulcan County Industrial Park Area Structure Plan.

WHEREAS Section 633 of the Municipal Government Act, being Chapter M-26 of the Revised Statutes of Alberta, 2000, and amendments thereto, whereby a municipality may pass a bylaw for municipal purposes of adopting an Area Structure Plan;

AND WHEREAS the Council of Vulcan County has identified a portion of the NW 33 16 24 (+-48ha), as having potential for increased development;

AND WHEREAS the Council of Vulcan County wishes to implement development and subdivision guidelines for an Industrial Park in the area;

NOW THEREFORE under the authority and subject to the provisions of the Municipal Government Act, Revised Statutes of Alberta 2000, Chapter M-26, as amended, the Council duly assembled does hereby enact the following:

1. That Vulcan County Council does hereby adopt the Vulcan County Industrial Park Area Structure Plan as shown on Schedule A
2. This Bylaw shall take effect upon third and final reading hereof.

Received first reading this 5 day of November, 2020

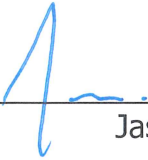
A handwritten signature in blue ink, appearing to be "Jason Schneider", written over a horizontal line.

Jason Schneider, Reeve

A handwritten signature in blue ink, appearing to be "Nels Petersen", written over a horizontal line.

Nels Petersen, CAO

Received second reading this 16 day of December, 2020

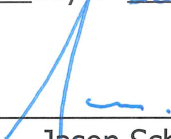


Jason Schneider, Reeve



Nels Petersen, CAO

Received third reading and finally passed this 16 day of December, 2020



Jason Schneider, Reeve



Nels Petersen, CAO



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# 1 INTRODUCTION

## 1.1 Background

The Vulcan County Industrial Park ASP lands are located directly southeast of the municipal boundary of the Town of Vulcan, strategically situated approximately 128 km southeast of the City of Calgary and 93 km northwest of the City of Lethbridge. The area contained within the Area Structure Plan is approximately 48 ha (117.5 ac). The land is located within the fringe planning area of the Intermunicipal Development Plan adopted by both the Town of Vulcan and Vulcan County. This land is situated such that it is of interest to both municipalities. Thus, the plan preparation will be led by Vulcan County in consultation with the Town of Vulcan.

The primary regional transportation corridor, Highway 23, is located directly east of the plan area, supporting easy access for transportation of goods to and from the plan area by utilizing an existing services transportation corridor and services to the travelling public. In addition to the functional aspects of its location alongside Highway 23, the plan area will offer a high degree of visibility.

The plan area is situated such that it is a logical location to benefit both the County and the Town. With a populous proximal to the plan area, development will support the County while providing employment opportunities which support the entire region and its economy. Compatibility between existing land uses, including residential uses, will be ensured to achieve congruity through mitigative measures solidified through the Area Structure Plan policies.

## 1.2 Vision

The Vulcan County Industrial Park Area Structure Plan (ASP) is envisioned as a hub of industrial and business/industrial uses, intended to support the development aspirations of Vulcan County and providing a logical expansion of uses that support the local and regional economies. Development of the plan area will serve as a catalyst to support industrial development and provide employment opportunities to the residents of Vulcan County, the Town of Vulcan and the region.

The Vulcan County Industrial ASP is intended to guide the development of a range of complementary land uses within the planning area. This ASP has been developed to accommodate anticipated future demand for industrial and business/industrial development and is intended to facilitate responsible development that is compatible with surrounding land uses and contributes positively to the growth of the County and the region.

*“The vision of the Vulcan County Industrial ASP is to provide guidance for the development of an industrial park of benefit to both the Town of Vulcan and Vulcan County, by supporting the local economy, creating jobs and capitalizing on the key location of the plan area, adjacent to Highway 23, a major goods and transportation route.”*



*Image 1 - Example showing Regional Pathway / Landscape Buffer*

### 1.3 Purpose

The Vulcan County Industrial ASP describes how 48 ha (117.5 ac) of farmland, located in Vulcan County, directly southeast of the Town of Vulcan’s municipal boundary, will be developed into an efficient and orderly industrial park. The ASP has been prepared on behalf of Vulcan County in consultation with the Town of Vulcan.

This document is designed to provide a framework to guide the development of the Vulcan County Industrial Park area. This Plan will address planning issues in a comprehensive manner to effectively coordinate servicing and transportation infrastructure with the spatial organization of land uses. Additionally, this Plan seeks to introduce policy and guidelines that together, will create a successful and sustainable development.

### 1.4 Interpretation

The following definitions may be used to interpret the Vulcan County Industrial Park Area Structure Plan:

**Area Structure Plan (ASP)**

A statutory plan, adopted by bylaw, which provides a policy framework for subsequent redistricting, subdivision and development of a specified area of land in the municipality.





<b>Council</b>	The council of Vulcan County.
<b>Development Plan</b>	A plan that depicts the development of lands over time which may include but is not limited to: a detailed site plan, topographic information, geotechnical assessment, hydrological assessment, traffic impact analysis, environmental overview, phasing, servicing and an archaeological and historical impact assessment.
<b>Heavy Industrial</b>	Industrial Uses that, due to their appearance, noise, odour, risk of toxic emissions, or fire and explosion hazards are incompatible with residential, commercial, and other land uses. Examples of agricultural related heavy industrial uses include but are not limited to abattoirs, waste management facilities, livestock sales and fertilizer manufacturers. Heavy industrial uses are not permitted within the Plan area.
<b>Highway</b>	A road that is designated as a primary highway pursuant to the Public Highways Development Act.
<b>Infrastructure</b>	Public utility systems in the municipality that may include, but are not limited to, the transportation network, water and sewer systems, gas, communications and power services.
<b>Intermunicipal Development Plan</b>	The IDP is a statutory planning document prepared in accordance with Section 631 of the Municipal Government Act (MGA), which states that: Two or more councils, may, by each passing a bylaw ... adopt an intermunicipal development plan to include those areas of land lying within the boundaries of the municipalities as they consider necessary. (MGA, RSA 2000, c. M-26)
<b>Land Use Bylaw</b>	A bylaw of the Municipality passed by Council as a land use bylaw pursuant to the provisions of the MGA and intended to control, and/or regulate the use and development of land and buildings within the municipality, referenced as Vulcan County Land Use Bylaw No. 2010-010 or subsequent legislation.
<b>Land Use District</b>	One or more divisions of the Land Use Bylaw establishing permitted and discretionary uses of land or buildings with attendant regulations.
<b>Light Industrial/Business</b>	Industrial uses that include indoor storage, fabrication, manufacturing, assembly or processing of materials that are in refined form and that do not in their transformation create smoke, gas, odour, dust, noise, vibration of earth, soot or building lighting. Any nuisance associated with such uses should generally not extend beyond the limits of the building.
<b>Medium Industrial</b>	Industrial uses that include manufacturing, processing, assembly, distribution, service and repair uses that carry out a portion of their operation outdoors or require outdoor storage areas. Any nuisance associated with such uses should generally not extend beyond the boundaries of the site.



<b>Municipality</b>	Vulcan County and the area contained within the boundaries of the municipality.
<b>Municipal Development Plan</b>	A statutory document that addresses future use of land, the manner and proposals for future development, and the provision of required transportation systems and municipal services and facilities in the County.
<b>Municipal Government Act (MGA)</b>	Means the Municipal Government Act, Revised Statutes of Alberta, 2000, Chapter M-26, as amended.
<b>Natural Features</b>	Includes landscapes which are found in their natural state and may be remnant, undisturbed, diverse or contain unique environmental characteristics.
<b>Qualified Professional</b>	An individual with specialized knowledge recognized by the Municipality and/or licensed to practice in the Province of Alberta. Examples of qualified professionals include, but are not limited to engineers, geologists, hydrologists and surveyors.
<b>Redistricting</b>	Refers to the reclassification by the Municipality of a land use district in the Land Use Bylaw applicable to a specific area of the municipality.
<b>Right-of-Way (ROW)</b>	Means the total width of any land reserved or dedicated as a thoroughfare, lane, pedestrian way, or utility line.
<b>Shall</b>	Indicates that a policy is mandatory and must be complied with. However, where quantities or numerical standards form part of a policy, they may be varied at the discretion of the Development Authority, provided that the intent of the policy is still achieved, and the variance is necessary to address unique circumstances that would otherwise render compliance with the policy impractical or impossible.
<b>Should</b>	Indicates that a policy is strongly encouraged but can be varied where unique circumstances require other actions that would still satisfy the general intent of the policy and ASP.



## 1.5 Plan Objectives

The following Development Objectives have been created to help guide and strengthen the overall direction of the plan and policies contained within the Vulcan County Industrial ASP:

1. To create a flexible development concept that could help to stimulate investment while continuing to respond to changing market conditions.
2. To provide investment security and land use predictability for land owners, business owners and potential developers.
3. To sensitively integrate development with surrounding residential land uses and the natural environment.
4. To promote high quality development with appropriate building, site and landscaping standards.
5. To recognize the importance of agriculture in the region and to support the continuing use of agricultural lands within the planning area until it is needed for development.
6. To provide opportunities for industrial development to serve the community's needs and diversify the joint regional economies of the Town of Vulcan and Vulcan County.
7. To fulfil legislative requirements for Municipal Reserve dedications and contribute to the acquisition and development of parks, open spaces and recreational trail facilities within the planning area.
8. To efficiently and safely move people and goods to, from and within the planning area.
9. To provide efficient and economical services to meet the needs of future development.
10. To provide efficient and environmentally suitable storm water management facilities.
11. To provide utility services to meet the needs of future development.
12. To allow for an efficient, economical and logical phasing of development.



## 2 PLAN AREA

### 2.1 Location and Context

The plan area encompasses approximately 48 ha (117.5 ac) of land, comprised of a portion of lands within the NW ¼ Sec. 33 16-24-4.

The lands and their uses surrounding the plan area are described as:

- North – Country Residential and Transitional Agriculture north of Elizabeth Street
- East – Urban Fringe Vacant agricultural, Canadian Pacific Railway and Highway 23
- South – Urban Fringe, Vacant agricultural
- West – Country Residential and Transitional Agriculture

The opportunities and constraints of the plan area have been identified on Figure 3 - Opportunities and Constraints Map.

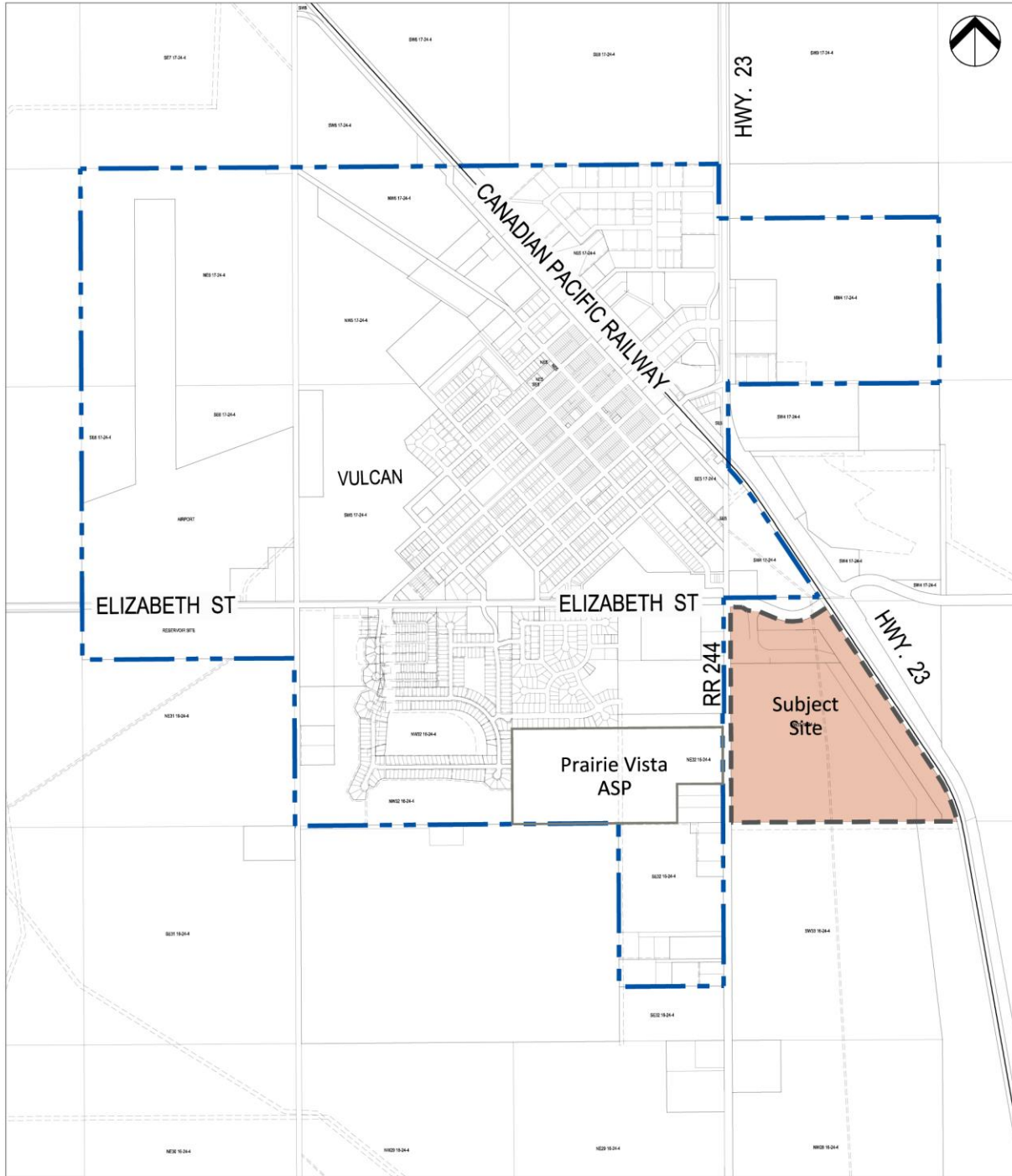


Figure 1 - Location Plan



## 2.2 Legal Descriptions and Ownership

Lands within the ± 48 ha (117.5 ac) plan area are owned by Vulcan County, purchased in 2017 as identified in Figure 2 - Ownership Plan, on the following page. All parcels are owned by private owners or corporations.

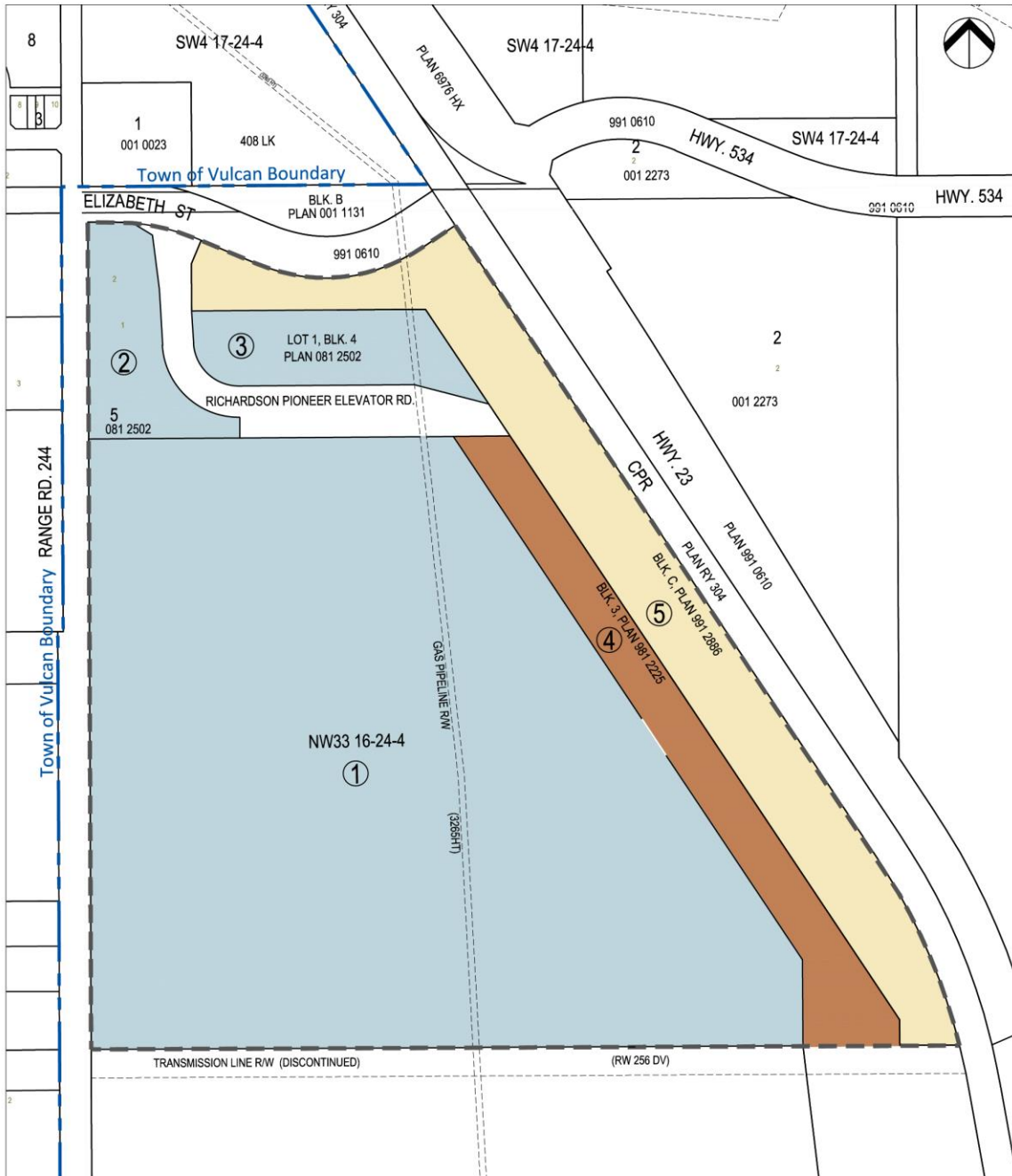
A summary of property ownership is provided in the Table 1- Property Ownership Within the Plan Area , below:

**Table 1 - Property Ownership Within the Plan Area**

	<b>Legal Description</b>	<b>Owner</b>	<b>Certificate of Title</b>	<b>COT Area (ha)</b>	<b>Area in Plan */ **</b>
1	NW33 16-24-4	Vulcan County	201 063 620	33.324	31.87
2	Lot 1, Block 5, Plan 0812502	Vulcan County	081 181 197 + 1	1.696	1.69
3	Lot 1, Block 4, Plan 0812502	Vulcan County	081 181 197	1.813	1.81
4	Block 3, Plan 981 2225	Private Owner	131 106 497	3.43	3.43
5	Block C, Plan 991 2886	Private Owner	991 299 172	7.01	7.01
<b>Sub-Total</b>					<b>45.81</b>
	Richardson Pioneer Elevator Road				1.809
<b>Total</b>					<b>47.62</b>

*\*Land areas are based on CAD drawing compiled from registered survey plans.*

*\*\*C of T areas differ from plan areas and are subject to confirmation by legal survey.*



Legend

--- ASP Boundary

Vulcan County

Private Owner

Private Owner

--- Town Boundary

Figure 2 - Ownership Plan



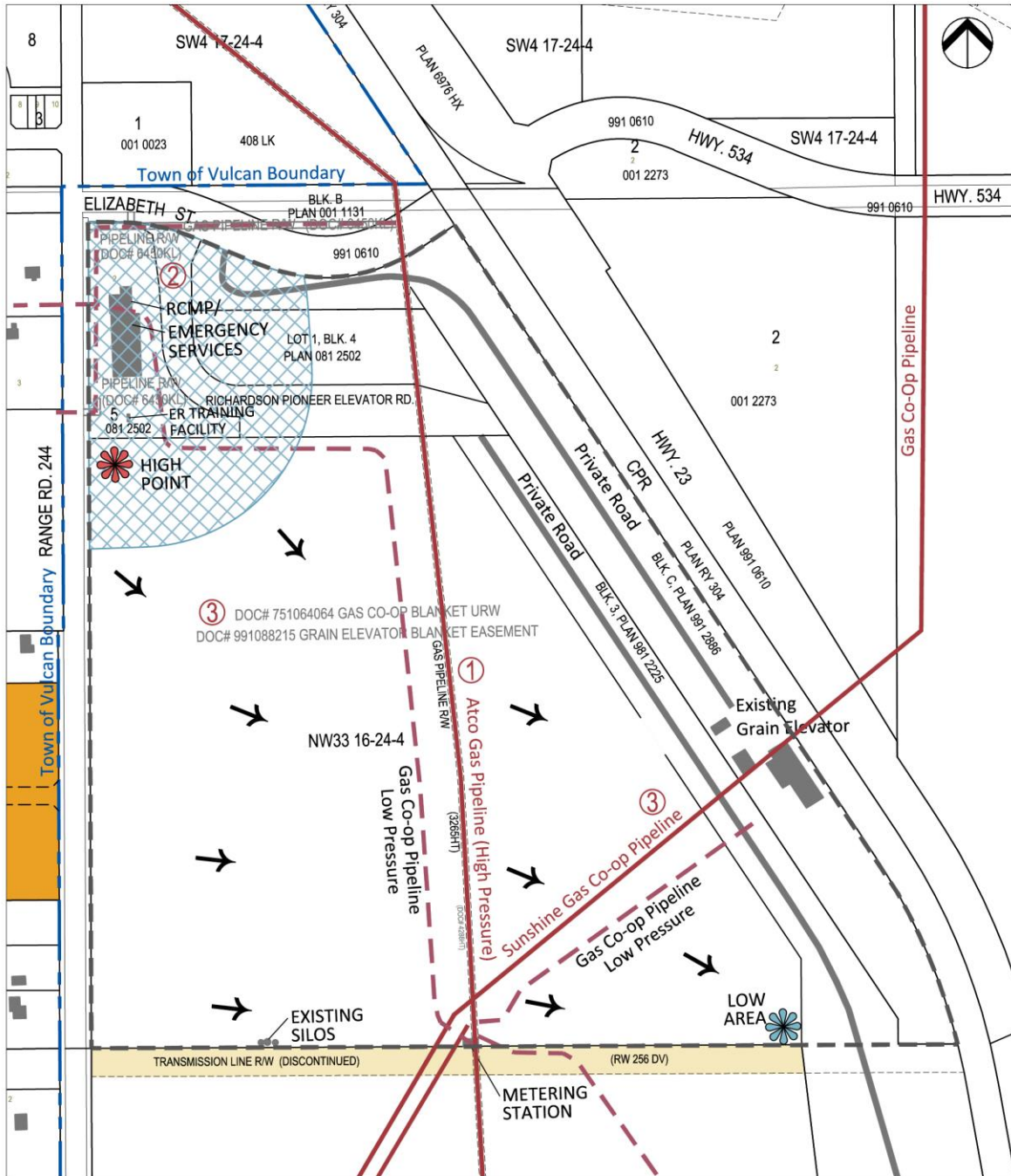
### 2.3 Right-of-way agreements

The land within the plan area is currently under cultivation and is utilized for agricultural purposes. Several rights-of-way exist and are identified in *Table 2 - Right-of-Way Agreements within the Plan Area Boundary*. The numbers identifying each right-of-way in *Table 2* below correspond with the circled numbers located on Figure 3 - Opportunities and Constraints Map. It should be noted that no additional setbacks are required outside of the identified rights-of-way.

**Table 2 - Right-of-Way Agreements within the Plan Area Boundary**

	<b>Description</b>	<b>DOC #</b>	<b>Status</b>	<b>Set-Back</b>	<b>Sour Gas</b>
1	Atco Gas Pipeline	4288HT	Operating	R/W	No
2	Atco Gas Co-op	6450KL	Operating	None	No
3	Sunshine Gas Co-op Pipeline R/W	751 064 064	Operating	None	No





Legend

- ASP Boundary
- Town Boundary
- Overland Direction of Flow
- Pipeline ROW's  
(All pipelines shown are schematic and must be located in the field)
- Existing Residence
- Prairie Vista ASP
- Restricted Use Area  
(165 metre setback from EMS Building for combustible and flammable products)
- High Point
- Low Area

Figure 3 - Opportunities and Constraints Map



## 2.4 Topography and Vegetation

The land within the Vulcan County Industrial ASP area is described as an undulating, high relief landform with a limiting slope of 2-3%. The plan area slopes downwards to the southeast, of which, the highest point is located in the northwest corner at an elevation of 1050 m, and the lowest point is located in the southeast corner at 1037 m. Natural drainage patterns within the Study Area travel southeast, eventually draining into Snake Creek.

## 2.5 Soils and Groundwater

A geotechnical investigation was conducted for the plan area in September 2018 by WSP. A total of 19 geotechnical boreholes were drilled. The investigation identified that soils encountered in most of the test holes consisted of superficial topsoil (150-300mm) underlain by clay till ranging in depth from 2.1-5.3 Meters Below Ground Surface (mbgs). Bedrock was encountered in most cases below the clay till, present to the maximum depth drilled. The Study Area soils are medium texture (very-fine sandy loam, loam, silty clay loam, clay loam) over medium or fine-textured till typical Orthic Dark Brown Chernozem.

The groundwater table was reported to be 3.3 mbgs and is isolated to the southwest corner of the plan area. As such, the groundwater will, for the most part, have a negligible impact on future developments. The levels are prone to fluctuation and may be affected by seasonal fluctuations, recent rainfall, surface drainage, and infiltration, and should be monitored prior to development in order to provide an early indication of dewatering requirements during excavations for underground utilities and foundations.

Recommendations for site preparation, grading, excavations, buildings, stormwater management and underground/surface utilities are provided in accordance with the findings in the geotechnical investigation.

## 2.6 Environmental Assessment

As part of the site review process, a Phase I Environmental Site Assessment (ESA) was undertaken by WSP in April 2020. The purpose of a Phase I ESA is to identify actual and/or potential negative environmental conditions on and within 300m of the property and whether any additional investigation is required.

One Area of Potential Environmental Concern (APEC) was noted within the ESA. This APEC is related to the Sunshine Gas Co-op Metering lease on the southcentral edge of the Plan Area where the use of oil and lubricants for equipment operation (possible petroleum hydrocarbons and polychlorinated biphenyls) could be of particular concern. However, there have been no reported spills in the area and during a site visit, no staining was observed. Thus, eventual reclamation is considered the responsibility of the facility owner. This APEC is not considered to have an impact on the Plan. The assessment does not recommend any further action related to this APEC given that the associated risks are considered to be low. Consideration should be paid to the recommendations within the ESA to ensure that proper care is taken when disturbing the above noted APEC.

## 2.7 Biophysical Significance

A Biophysical Assessment was prepared by WSP in April 2020. The assessment provided a summary of biophysical information related to the Vulcan County Industrial ASP area, identified environmental opportunities and constraints, and provided recommendations for environmental protection measures to be performed as part of site development.



One marsh was noted in the northern lobe of the Study Area determined to be a roadside ditch and cultivation, however there are no mapped watercourses identified within the plan area as per the Fish and Wildlife Information Database. The plan area is not within an environmentally significant area and no historical records of rare plant species or rare ecological communities were noted.

Six records of Potentially Sensitive Wildlife Species were recorded within 5 km of the Study Area including the American Kestrel, Barn Swallow, Long-billed Curlew, Prairie Falcon, Sharp-tailed Grouse and Sprague's Pipit. The Study Area and surrounding land reside within sensitive raptor ranges (ferruginous hawk, golden eagle, and prairie falcon), sharp-tailed grouse survey area and other sensitive and endangered species zones. These species may use the Study Area seasonally, for hunting purposes or to traverse to other natural features outside of the Study Area.

The plan area is generally defined as having a low ecological value as it has been under cultivation since 1951 and does not contain any natural features despite the marsh located in a roadside ditch in the northern portion of the Plan Area.

No additional studies are recommended for this area. Dependent on the time of year in which construction is occurring, pre-construction wildlife surveys may be required to determine if there are any active nests identified and if so, appropriate mitigation measures set in place to remove or relocate.

The biophysical investigation returned no historical records of rare plants or rare ecological communities. However, limited rare plant surveys have been conducted in the area and rare plants may be present within the Study Area. Land within the Vulcan County Industrial ASP area is predominantly used for agricultural purposes (36.94 ha) and has been since at least 1951 with one area of rural infrastructure (cluster of three grain bins; 0.03 ha) and one oil and gas facility (0.03 ha) (Biophysical Assessment, WSP 2020).

## 2.8 Archaeological Significance

Historical Resources Clearance was provided by the Province on April 29, 2020 through application HRA Number: 4835-20-0045-001. In accordance with this approval, if at any time during development of the plan area, a person discovers an historic resource in the course of making an excavation, they shall forthwith notify the Minister of the discovery.

## 2.9 Transportation Impact Assessment

A transportation impact assessment (TIA) was undertaken by WSP in September 2020. This assessment reviewed the condition of existing transportation routes that affect the plan area's expected build out over a 20-year horizon, taking into consideration the intended industrial park uses. There are three main transportation routes, and one railway crossing that comprise the extent of the assessment's drawn conclusions:

1. Highway 23 / Highway 534

The existing left turn lanes at the Highway 23 / Highway 534 intersection will be capable of accommodating the forecasted post-development traffic due to the as-built intersection treatment that exists.

2. Highway 534 / Pioneer Elevator Road

The existing intersection is expected to be capable of accommodating the forecasted future traffic. It is recommended that the existing P & H access road be closed for safety reasons due to the proximity of that access to the Richardson Pioneer public roadway intersection. All trucks that travel



to and from the industrial park will utilise the Pioneer Elevator Road intersection as the permanent means of access and egress. Delineation lighting is expected to be warranted at the Highway 534 / Pioneer Elevator Road intersection at full build out and the 20-year horizon.

3. Highway 534 / Range Road 244

There are no geometric improvements are recommended for the Highway 534 / Range Road 244 intersection.

4. CP Railway Crossing

No improvements to the existing railway crossing are required.

Generally, the plan area and its proposed industrial land uses will be capable of utilizing existing transportation infrastructure without requiring upgrade within the next 20 years.

### 2.10 Hazardous Activity Restriction

The Vulcan Emergency Response Facility and the RCMP Vulcan detachment are both located within in the Plan area. These uses are vital to the safety and security of the region. As such, no uses that have the potential to generate hazardous, flammable or explosive activities will be permitted within 165 m of either facility. Refer to Figure 3 – Opportunities and Constraints Plan and Figure 5 – Land Use Concept for the impacts of the 165 m setback.

### 2.11 Town of Vulcan Industrial Land Strategy (2017)



Image 2 - Vulcan County Industrial Land Strategy Map

The plan area was reviewed as a potential location for the expansion of industrial development in the region, evaluated through the *Joint Industrial Land Strategy* completed by MDB INSIGHT in 2017. Three



locations were evaluated for a variety of criteria related to feasibility for industrial development, the location of each described below:

### Network Assessment (Watt Consulting)

- Site #1 is located between 1st and 2nd Avenues North just north of the industrial area. Its location is outside of the residential areas next to an industrial subdivision on the fringe of Town.
- Location of Site #2 was identified in the area adjacent to airport lands west of 10th Avenue N. This Site is located outside of the residential areas next to the airport and golf course.
- Site #3 was identified south of Highway 534 between Highway 23 and 1 Avenue S. This Site is also located outside of the residential areas.

Site 3 was further evaluated within the Industrial Land Strategy study, including completion of a traffic impact assessment. The assessment noted that the offset between the intersections of Pioneer Elevator access road or P&H access road with Highway 534 is approximately 50 meters. It was deemed desirable to modify the alignment of the Richardson Pioneer Elevator access road or P&H access road and combine the two existing Highway 534 intersections to improve safety of network operation in the area. Alberta Transportation supported this direction and the closure of the P & H private access onto Highway 534.

The study concluded that from an overall network perspective, Site #3 provides for the best location as the traffic destined to the site will not have to cross residential or school zones.

It is understood that Alberta Transportation (AT) will be engaged through the ASP preparation process to ensure that the transportation access and proposed upgrades/amendments are supported.



## 3 POLICY CONTEXT

The Vulcan County Industrial ASP has considered applicable legislation and has achieved consistency with the regulations outlined in applicable Municipal and Provincial policies, explored in greater detail in the sections following.

### 3.1 Municipal Government Act

An ASP is a statutory document and must be consistent with all higher-order plans, including the Municipal Development Plan and Provincial land use policies. Area Structure Plans are regulated under Section 633 of the Municipal Government Act (MGA), which states that an Area Structure Plan must consider: proposed land uses and densities; general location of public utilities and transportation systems and staging of development as well as any other factors deemed necessary by Council.

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, including matters relating to reserves, as the council considers necessary.

(3) An area structure plan must be consistent with

(a) any Intermunicipal Development Plan in respect of land that is identified in both the area structure plan and the Intermunicipal Development Plan, and

(b) any Municipal Development Plan.

### 3.2 South Saskatchewan Regional Plan

The plan area has been reviewed for its compliance with the South Saskatchewan Regional Plan (SSRP) to ensure it aligns with its strategic directions. As per the SSRP, the plan area is located within the Grasslands Natural Region in the Mixed Grass subregion in the South Saskatchewan River Basin and is in the Oldman River Sub-Basin. Of the several guiding principles of this regional plan, the scope and scale of an area structure plan falls within two applicable policy areas including Economy and Community Development. The outcomes and strategies that align most closely with the intent of this plan are noted below:



**1. Economy: Outcome: The region's economy is growing and diversified.**

- Policy 1.2. Support a diverse and innovative irrigated agriculture and agri-food sector.
- Policy 1.3 Assist the agriculture and agri-food industry to maximize opportunities for value-added agricultural products.

**2. Community Development: Outcome: Community development needs are anticipated and accommodated.**

- Policy 8.1 Work together to achieve the shared environmental, economic and social outcomes in the South Saskatchewan Regional Plan and minimize negative environmental cumulative effects.
- Policy 8.3 Coordinate and work with each other in their respective planning activities (such as in the development of plans and policies) and development approval processes to address issues of mutual interest.
- Policy 8.5 Build awareness regarding the application of land-use planning tools that reduce the impact of residential, commercial and industrial developments on the land, including approaches and best practices for promoting the efficient use of private and public lands.
- Policy 8.7 Consider the value of intermunicipal development planning to address land use on fringe areas, airport vicinity protection plans or other areas of mutual interest.

**3. Land Use Patterns**

- Policy 8.11 Provide an appropriate mix of agricultural, residential, commercial, industrial, institutional, public and recreational land uses; developed in an orderly, efficient, compatible, safe and economical manner.
- Policy 8.12 Contribute to a healthy environment, a healthy economy and a high quality of life.
- Policy 8.13 Provide a wide range of economic development opportunities, stimulate local employment growth and promote a healthy and stable economy. Municipalities are also expected to complement regional and provincial economic development initiatives.
- Policy 8.15 Minimize potential conflict of land uses adjacent to natural resource extraction, manufacturing and other industrial developments.

**4. Agriculture**

- Policy 8.21 Employ appropriate planning tools to direct non-agricultural subdivision and development to areas where such development will not constrain agricultural activities, or to areas of lower-quality agricultural lands.
- Policy 8.22 Minimize conflicts between intensive agricultural operations and incompatible land uses by using appropriate planning tools, setback distances and other mitigating measures.

**5. Water and Watersheds**

- Policy 8.23 Utilize or incorporate measures which minimize or mitigate possible negative impacts on important water resources or risks to health, public safety and loss to property damage due to



hazards associated with water, such as flooding, erosion and subsidence due to bank stability issues, etc., within the scope of their jurisdiction.

**6. Transportation**

- Policy 8.38 Work with the Ministry to minimize negative interactions between the transportation corridors and related facilities identified in accordance with strategy 8.37 above and the surrounding areas and land uses through the establishment of compatible land-use patterns.

**3.3 Vulcan County Municipal Development Plan**

Vulcan County Municipal Development Plan (MDP) provides the long-range land use direction for lands within the jurisdiction of Vulcan County. The Vulcan County Industrial ASP area will encompass a range of uses that align with the intent of the MDP for industrial land uses which facilitate economic growth within the regional market.

**MDP Land Use Objectives**

Although the MDP lacks specific policies related to the plan area, conclusions on the development intent within the County can be drawn including the following statements:

- *It is important that the types of industry and commercial development that locate in the County are appropriate for rural areas. Industrial development in the County must be directed to locations which minimize environmental impacts and land use conflicts. In general, many commercial activities can co-exist with industry in designated districts. Because existing industrial and commercial activities in the County are fundamental to the regional economy, it is important that the long-term viability of these activities is protected from incompatible land uses. The majority of commercial/ industrial uses are located within the County's hamlets and consist mainly of service-oriented businesses. (Page 15)*

**• Objectives**

- To expand and diversify the local economy.
- To create a positive municipal environment that encourages and supports business

**• Policies**

- 5.1 Land use decisions shall reduce the negative impact of commercial and industrial development on existing land uses.
- 5.2 The municipality should support positive opportunities to diversify the local economy.
- 5.3 The approval of any industrial or commercial development may require that the developer enter into an agreement with the County regarding the construction of roads, servicing, and any other matter which Council may require to be addressed.
- 5.4 The municipality's economic development strategies shall focus on:
  - (a) enhancing and developing the strengths of the community; and (b) maintaining, enhancing and marketing local amenities to diversify economic opportunities.





- 5.5 The storage and handling of hazardous goods or wastes associated with industrial activities in the County shall comply with established Provincial regulations and standards.
- 5.6 The following factors shall be considered when locating industrial and commercial development in the County:
  - (a) the compatibility of the proposed development with existing uses in the surrounding area;
  - (b) the presence of natural landscape features that may impact or be affected by the proposed development;
  - (c) the impact on agricultural operations in the area; and
  - (d) the impact on local roads and the provincial highway network

## Summary

In adhering to the policy directions specified in the MDP, the ASP area will support a high-quality industrial/commercial development environment that promotes local industry and considers its impacts on neighbouring properties.



### 3.4 Town of Vulcan and Vulcan County IDP (2019)

The Town of Vulcan and Vulcan County Intermunicipal Development Plan (IDP) was adopted in September 2019 and describes the shared aspirations of the Town and County where the two entities border each other. The ASP is located wholly within "Opportunity Area 2" as identified in the IDP and which designates the area for commercial and industrial land uses. The plan area is located west of Highway 23, referred to within the plan as a "gateway corridor"

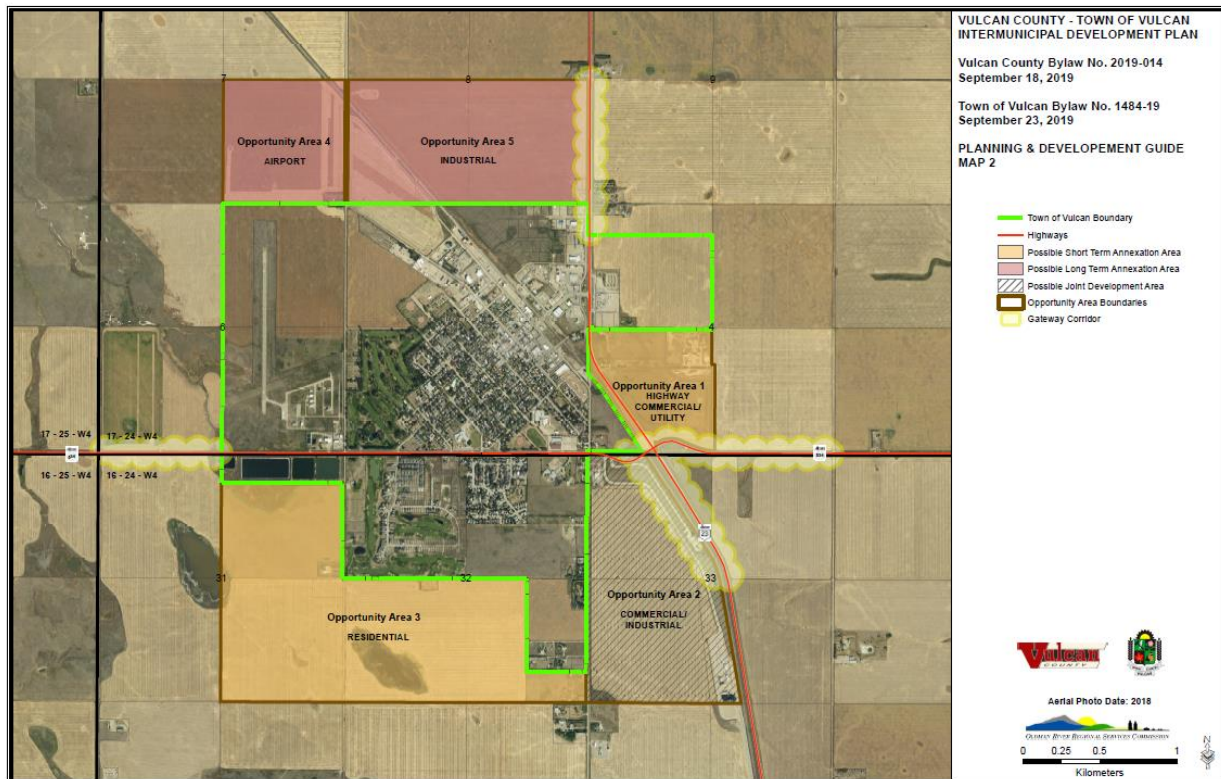


Figure 4- Town of Vulcan and Vulcan County IDP – Development Concept

Several policies in the IDP have been considered in the preparation of the ASP.

Policies 5.2.6 and 5.2.7 - Include provisions for some restrictions on land uses within the plan area. These policies prohibit confined feeding operations and manure spreading within the IDP area, so this restriction will apply to the entire ASP plan area. Therefore, neither confined feeding operations nor manure spreading will be permitted within the plan area.

Policy 6.3.1 - Directs commercial and industrial development within the IDP limits as shown on IDP Map 2. The Plan area is identified as commercial/industrial and noted as Opportunity Area 2. This area is shown as a joint development area between the County and the Town and is not considered as a candidate for annexation.

Policy 6.3.2 – All new subdivision and development activity adjacent to a Provincial highway will be sent to Alberta Transportation for comment and approval.



Policy 6.3.3 - The Town and County will negotiate with Alberta Transportation and the adjacent developments, to merge the two access points from Highway 534 and agree to a single access point.

Policy 6.3.4 - The Town and County will, in consultation with Alberta Transportation, ensure a comprehensive street network for the subject lands, with linkages to the two private roads and access points from 1 Ave S (Range Road 244/1 Ave S).

Policy 6.3.5 - Developers shall provide and construct at their expense the required access, service roads, or major and minor roadways as needed in accordance with Alberta Transportation conditions and municipal requirements.

Policy 6.3.6 - Developers shall be responsible to provide at their expense Traffic Impact Assessments that may be required by Alberta Transportation for any major subdivision or development which may impact the provincial road network.

Policy 6.3.7 - The lands located in the W½ 33-16-24-W4M are identified for a possible joint development commercial/industrial area for uses including but not limited to large scale industrial and agricultural processing. Non-agricultural land uses which are considered as noxious or hazardous shall demonstrate how these effects shall be mitigated as part of an application for development.

Policy 6.3.8 - The County and Town may agree to enter into a separate agreement for a joint development project to support the development of this area with the principle of proportionate and agreed upon cost and revenue sharing. An agreement for joint development should include, but is not limited to, cost and revenue sharing, reciprocal development and servicing standards, proposed land uses, transportation linkages, and any other relevant matters.

### 3.5 Vulcan County Land Use Bylaw No. 2010-010

Lands within the Vulcan Industrial ASP boundary are designated as **Rural Commercial – RC**.

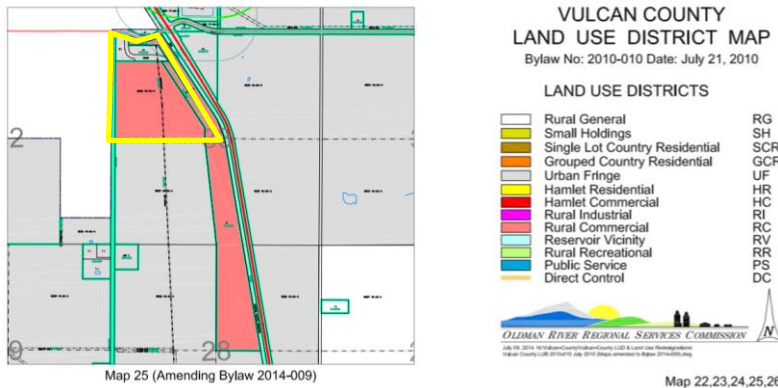


Image 3 - Land Use Designation of Plan Area

Within the Land Use Bylaw, Rural Commercial is intended:

- To provide for the location of commercial uses in rural areas which will not compromise either the use of agricultural lands for agriculture.



This land use district allows for certain uses that may not be suitable in an urban setting and includes requirements for minimum parcel sizes and roadway setbacks that would be otherwise conducive to more rural areas. The Vulcan County Land Use Bylaw also includes a Rural Industrial District that has similar issues. The development of industrial uses in the vicinity of an urban centre will necessitate a more sensitive integration with the surrounding land uses. Accordingly, as the current available districts in the Vulcan County LUB are not directly suitable for the proposed development, a new land use district should be created that will reflect the development intent of light and medium industrial uses while considering the impacts of industry on adjacent residential and agricultural uses.

Among other things, the new Land Use District should include:

- A stated purpose to reflect the focus of the area as being directed towards agricultural support services in a light to medium industrial setting;
- Provisions for light industrial or business commercial land uses along range Road 244 to facilitate appropriate land use transition from the residential uses to the west;
- Provisions for a variety of medium industrial land uses for lands east of those lots fronting onto Range Road 244;
- Provisions for public utility uses anywhere within the plan area;
- Provisions for minimum building design and landscape standards in recognition of the area as a high exposure, high value site located at the gateway to the town and the area;
- Provisions for prohibiting external nuisance factors from being generated from businesses adjacent to Range Road 244;
- Provisions for intensified landscaping along Range Road 244 to provide a visual buffer and transition from residential lands to the west;
- Provisions for a range of uses targeted at the agriculture service industry; and
- Specific exclusion of confined feeding operations and manure spreading in accordance with the provisions of the IDP.

## 4 ENGAGEMENT

### 4.1 Public Consultation and Stakeholder Information

A public open house to review progress to date on the Vulcan County Industrial Park Area Structure Plan (ASP) was held between 4:30 PM and 7:30 PM on Tuesday October 20, 2020 at the Vulcan Legion.

The event was advertised on the Vulcan County Website and in the Vulcan Advocate. An invitation was also mailed out to both Town of Vulcan and Vulcan County residents residing in the area.

A total of 17 attendees were recorded as attending the open house. The feedback received related to the Vulcan County Industrial ASP was mainly positive and can be summarized as follows:



- Better clarity on the trail and buffer width would be beneficial;
- The trail should be integrated into the Town's trail network;
- The light industrial lot sizes seemed appropriate
- The road widths were questioned
- Comments were received regarding a possible future rail spur;
- Comments regarding manure spreading were considered to be adequately dealt with in the IDP and could be removed from the ASP;
- Some concerns were expressed about the potential for competition with businesses in town;
- Was future southward expansion considered in the ASP.

Generally, attendees were supportive of the Area Structure Plan as presented. Comments noted above were incorporated into the plan where appropriate.

An additional opportunity for public engagement will be made during the Council Bylaw process through a statutory public hearing before second reading of the bylaw to adopt the plan.



## 5 DEVELOPMENT CONCEPT

The Vulcan County Industrial Area Structure Plan (ASP) provides a framework for future development within the planning area. The development concept encompasses a variety of uses, including business and industrial land uses while addressing development constraints within the planning area. The planning principles used to develop this concept were cognizant of the existing rural residences and future Prairie Vista ASP west of the plan area. Appropriate buffering and care will be taken to ensure compatibility between industrial and residential uses. The policies set forth in this ASP will define the location and types of anticipated development and provide guidance for how the planning area will develop over time.

The ASP intends to capitalize on the locational advantage of the lands and has been crafted to best suit the characteristics of the site and respond to future demands for business and industrial development in the region. It is intended to facilitate responsible development that is compatible with surrounding land uses and provides a positive contribution to both Vulcan County and the Town of Vulcan including a focus on;

- A mix of business and industrial lot sizes;
- High visibility business exposure;
- Maintaining existing natural topography and drainage; and
- Providing efficient, economical servicing with stormwater management through surface drainage.
- Providing guidance and direction for development and land uses within the planning area;
- Adequate transitions from existing and future residential land uses adjacent to the plan area;
- Maintaining transportation access to industrial users and providing emergency access;
- Providing for staging of development in an economical and efficient manner.

### 5.1 Development Objectives

The Vulcan County Industrial ASP has been developed to align with the following general development objectives and policies:

**Objective 1:** *To create a flexible development concept that could help to stimulate investment while continuing to respond to changing market conditions.*

**Policy 1.1** All future subdivision, development and land uses within the Vulcan County Industrial Park planning area shall occur in general accordance with the Development Concept and policies of this Area Structure Plan.

**Policy 1.2** The land use designations and lot boundaries depicted in this Area Structure Plan are graphical representations only. The exact location, size and shape of individual lots within the Vulcan County Industrial Park Area Structure Plan shall be determined at the subdivision stage, in general accordance with the policies and guidance established in this Area Structure Plan and having regard for, but not being bound by, the Figure 5 – Land Use Concept



**Objective 2:** *To provide investment security and land use predictability for land owners, business owners and potential developers.*

Policy 2.1 Development shall comply with applicable Vulcan County policies and regulations current at the time of development.

Policy 2.2 Where possible, development and subdivision should follow existing property lines to reduce conflicts during development and phasing.

**Objective 3:** *To sensitively integrate development with surrounding land uses and the natural environment.*

Policy 3.1 Development adjacent to pipelines within or adjacent to the planning area shall conform to the setbacks required by the Alberta Energy Regulator and the Development Authority.

Policy 3.2 Development within areas designated for business/industrial uses along Range Road 244/1 Ave S shall not produce nuisance factors that extend beyond the limits of the. Lots or parcels

Policy 3.3 Development along the west edge of the plan area should be buffered using a combination of landscaping techniques, transitional land uses, a regional pathway connection to be dedicated as Municipal Reserve.

Policy 3.4 Uses that have flammable or combustible elements or components related to operations shall be prohibited within 165m of the County Protective Services Centre, as depicted on Figure 5 – Land Use Concept

**Objective 4:** *To promote high quality development with appropriate site, building and landscaping standards.*

Policy 4.1 All land uses and buildings in high visibility locations within the Vulcan County Industrial Park Area Structure Plan shall maintain a high aesthetic appearance through the use of landscaping, high-quality signage, screening of outdoor storage, and building materials and treatments that are complementary with the industrial park’s visual theme.

Policy 4.2 Outdoor storage yards shall be screened from the view of adjacent public roadways and non-industrial land uses. Screening may consist of landscaping, fencing, berms or other screening methods acceptable to the Development Authority.

Policy 4.3 Heavy industrial land use or activities shall not be permitted within the planning area. Heavy industrial activities include those capable of having detrimental effects on humans or the natural environment through the discharge of emissions or other nuisance factors that may extend beyond the boundaries of the development site.

**Objective 5:** *To recognize the importance of agriculture in the region and to support the continuing use of agricultural lands within the planning area until it is needed for development.*

Policy 5.1 Cultivation of lands within the plan area for agricultural purposes will continue to be encouraged in the interim period until the land is required for the development as identified within the plan.



Policy 5.2 Appropriate erosion and sediment control techniques shall be utilized during construction and development activities to minimize top soil erosion.

Policy 5.3 Development of the plan area and continued occupancy should not negatively impact the cultivation of adjacent land used for agricultural purposes.

**Objective 6:** *To provide opportunities for industrial development to serve the community’s needs and diversify the joint regional economies of the Town of Vulcan and Vulcan County.*

Policy 6.1 Business/industrial and industrial land uses will be developed in accordance with Figure 5 – Land Use Concept, which will incorporate a range of light and medium industrial uses that are of benefit to both the local and regional markets.

## 5.2 Land Uses

The Vulcan County Industrial ASP area has been divided into two general land use categories: Business/Industrial and Industrial. The land use concept is intended to allow for a range of lot sizes, with smaller lots being located towards the west to allow for an appropriate transition from the residential land uses, and larger lots located in the central and east areas to accommodate the larger industrial users. The spatial organization of land uses within the planning area has been designed in accordance with the objectives of this ASP and the policies outlined above.

### Business/Industrial

Approximately 3.56 ha of land in the western portion of the plan area has been identified as Business/Industrial use. This area is intended for industrial businesses that carry out their operations such that no nuisance is created or apparent outside an enclosed building. These uses are intended to be compatible with any adjacent non-industrial district, specifically the residential land uses along Range Road 244/1 Ave S. Vulcan County will consider uses that would be compatible with residential uses when processing development permit applications. Appropriate screening will also be required to buffer between residential uses and business/industrial uses. Unenclosed non-accessory outside storage is not recommended in this area and should be directed to the medium industrial land use areas in the interior portion of the plan.

### Medium Industrial

Approximately 20.90 ha of land in the eastern portion of the plan area has been dedicated to medium industrial uses. These industrial uses include an existing grain elevator currently located adjacent to the CP rail line, echoing the size, scale and off-site nuisance factors of existing development. Medium industrial uses are buffered from residential uses by a combination of smaller lot business/industrial land uses and enhanced landscaping along the east side of Range Road 244/1 Ave S.

Medium industrial uses within the plan area could include such uses as manufacturing, processing, assembly, distribution, service and repair uses, and uses which carry out a portion of their operation outdoors or require outdoor storage areas. Medium industrial uses within the plan area will include the County public works yard and possible future administration building.

The proposed Vulcan County Industrial ASP Development Concept is illustrated on Figure 5 - Land Use Concept and the corresponding land use statistics shown in Table 3 - Land Use Statistics. The concept plan incorporates the development principles and objectives for each applicable land use within





## Parks and Trails

Section 666(1) of the Municipal Government Act permits municipalities to require up to 10 percent of the developable area (or the cash equivalent) of a proposed subdivision to be dedicated as Municipal Reserve. Specifically, Section 666(1) states that a subdivision authority may require the owner of a parcel of land that is the subject of a proposed subdivision:

- to provide part of that parcel of land as municipal reserve, school reserve or municipal and school reserve;
- to provide money in place of municipal reserve, school reserve, or municipal and school reserve, or;
- to provide any combination of land or money referred to in clauses a) and b).

The ASP is directed towards industrial development. As such, there is limited need for passive or active recreational amenity space within the development area. However, the plan and the community can benefit from a landscaped buffer and recreational trail to be located adjacent to Range Road 244. The buffer will assist with the transition from the residential uses to the west and the industrial uses within the central and eastern portions of the plan area. The pathway will also provide a convenient multi-use trail for pedestrians and cyclists to connect to the Town’s existing trail network to the north along Elizabeth Street. The trail and buffer is expected to be 10 m in width running parallel and adjacent to the eastern boundary of Range Road 244. Engineering and landscaping details will be determined at the time of development with careful attention paid to the Elizabeth Street crossing. It is estimated that approximately 0.55 ha of land will be dedicated as Municipal Reserve and provided as a linear strip for this trail and buffer. The land will be landscaped in accordance with Vulcan County standards. No other parks are contemplated within the ASP.



*Image 4 - Example of Landscape Buffer and Regional Pathway*

Additional Municipal Reserve up to the maximum 10% may be dedicated as money in place of reserves in accordance with the Municipal Government Act, at the discretion of Vulcan County.



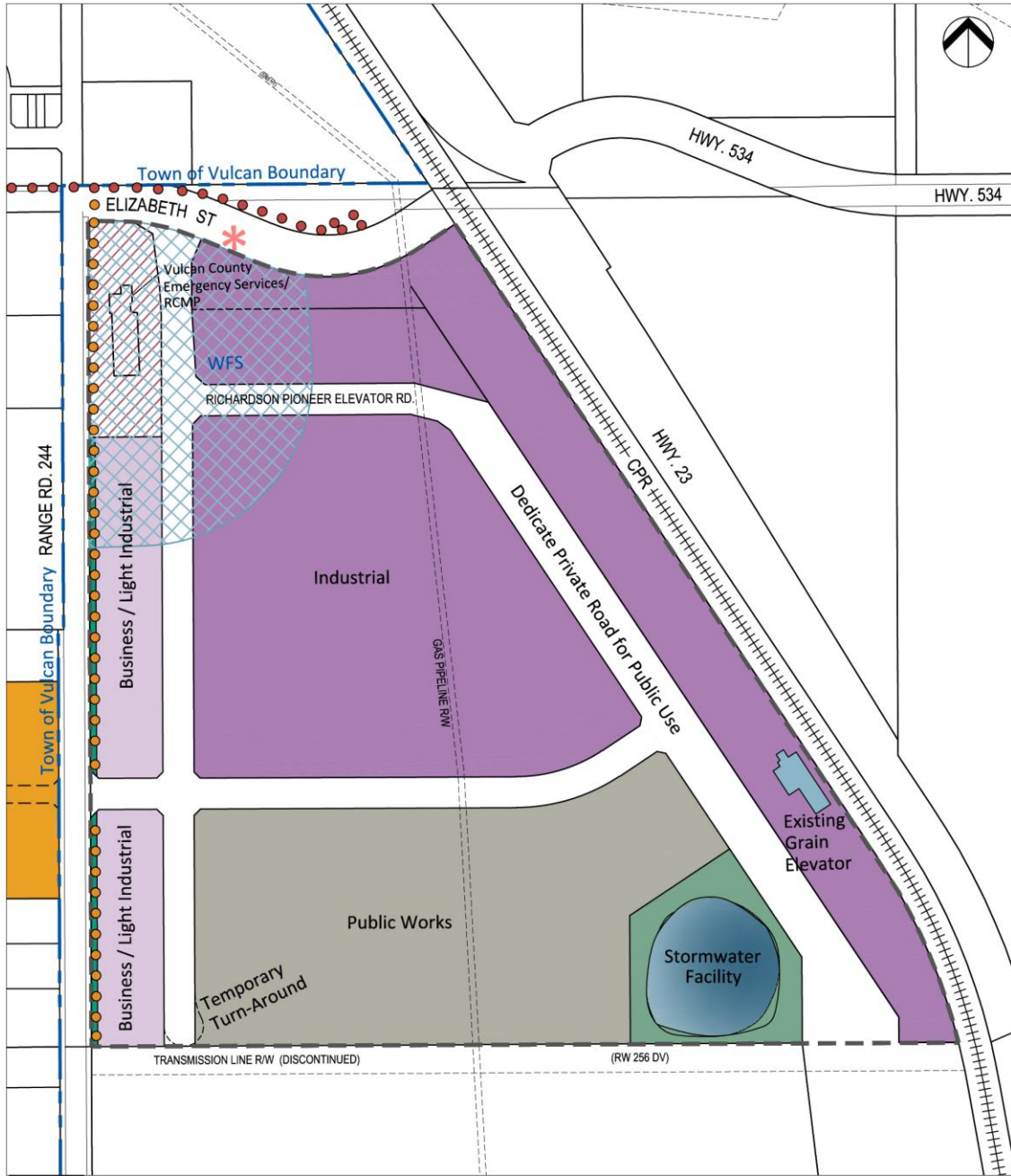
**Objective 7:** *To fulfil legislative requirements for Municipal Reserve dedications and contribute to the acquisition and development of parks, open spaces and recreational trail facilities within the planning area.*

Policy 7.1 A 10m wide landscaped multi-use trail and buffer will be provided as Municipal Reserve dedication generally in accordance with that shown on Figure 5 – Land Use Concept.

Policy 7.2 A maximum of 10% of the gross developable area within the Vulcan County Industrial ASP area shall be dedicated a combination of Municipal Reserve land and money in place of land in accordance with the provisions of the Municipal Government Act.

Policy 7.3 The precise size, location and configuration of Municipal Reserve buffer and trail shall be determined at the time of subdivision.

Aesthetics will be a major consideration associated with development in the Vulcan County Industrial ASP area. Highway 23 and Highway 534 will provide a visual gateway for the development; however, it is important to consider that the south entrance into the Town of Vulcan is also located north of the plan area. To mitigate any negative effects of industrial development, visual screening and buffering techniques shall be used including: building placement, screen fencing, landscaping, berms and site grading.



Legend

--- ASP Boundary	Business/Light Industrial	Emergency Response	* Access To Be Closed
--- Town Boundary	Industrial	Public Works	— Municipal Reserve
● Ex. Regional Pathway	Prairie Vista ASP	Stormwater Facility	WFS Water Fill Station
● Future Regional Pathway	Restricted Use Area (165 metre setback from EMS Building for combustible and flammable products)		

Figure 5 – Land Use Concept



Table 3 – Land Use Statistics

	Area (ha)	%GDA
<b>GROSS AREA</b>	<b>47.62</b>	
<b>GROSS DEVELOPABLE AREA</b>	<b>47.62</b>	<b>100.0</b>
Municipal Reserve (buffer & trail)	0.55	1.2
Stormwater Management Facility	2.43	5.1
Circulation Roads	8.40	17.6
<b>NET DEVELOPABLE AREA</b>	<b>36.24</b>	<b>76.1</b>
<b>Non-Residential Land Uses</b>	Area (ha)	
Emergency Response	1.40	2.9
Public Works	10.60	22.3
Business / Light Industrial	3.34	7.0
Industrial	20.90	43.9
<b>Total</b>	<b>36.24</b>	<b>76.1</b>

\*Note: All amounts are subject to confirmation at the time of subdivision



# 6 TRANSPORTATION

## 6.1 Circulation, Access and Roadways

The Vulcan County Industrial ASP is situated adjacent to Highway 23, a highway commonly used as an alternate route for motorists travelling between Calgary and Lethbridge. Highway 534, an east/west route which links up with Highway 1 is located adjacent to and north of the plan area. These two highways provide increased exposure to the area and have excellent vehicle capacity to assist in moving goods to and from the site.

There are two access roads located on the northern boundary of the Plan area along Elizabeth Street that service two major grain elevators in the vicinity: Parish and Heimbecker (P & H) and Richardson Pioneer. The easternmost of the two roads is a private access road that is owned by and services Parish and Heimbecker. The westernmost roadway is a publicly dedicated roadway owned and maintained by Vulcan County and services the Richardson Pioneer elevator as well as the Emergency Response centre and Vulcan RCMP detachment. Alberta Transportation has indicated concerns over these two accesses located in close proximity to each other and to Range Road 244, the CP rail crossing and the Highway 23 intersection, all along a Provincial highway. These concerns have prompted Alberta Transportation to request the eventual closure of the eastern private access servicing P & H. Alternate access for the Parish and Heimbecker elevator will be provided from internal public roadways within the plan area.

Richardson Pioneer also owns a private road that accesses their elevator to the south of the plan area. The roadway is constructed to full industrial gravel standards and is conveniently located to service the plan area. Richardson Pioneer has confirmed their concurrence to dedicate the private road area lying within the NW ¼ Section 33 to Vulcan County. This will serve to provide convenient internal access to the developing area, the new access required resulting from the P & H closure and continued access to Richardson Pioneer.

An additional access to and from the plan area is proposed in the southwest corner onto Range Road 244. This access is necessary to ensure that the plan is accessible from more than one access point. Connectivity within and through the plan area will be achieved through a series of local industrial roads.

**Objective 8:** *To efficiently and safely move people and goods to, from and within the planning area*

- Policy 8.1 Roadways within the Vulcan County Industrial ASP will be developed in accordance with the designs identified in this plan, and with the County’s engineering standards.
- Policy 8.2 The Plan area shall be accessed by two access points; one access from Elizabeth Street and a future access planned in the southwest corner of the plan area from Range Road 244/1 Ave S, in accordance with Figure 6 - Transportation Network.
- Policy 8.3 The existing easterly Highway 534 access to Parish and Heimbecker elevator road shall be closed and redirected to an internal road.
- Policy 8.4 The existing Richardson Pioneer road located within the NW ¼ Sec 33-16-24-4 will be dedicated without compensation to Vulcan County for public use in perpetuity.
- Policy 8.5 Direct Access to Highway 23 shall be prohibited.



Policy 8.6 Individual site accesses may be permitted from Range Road 244 in accordance with Vulcan County standards.

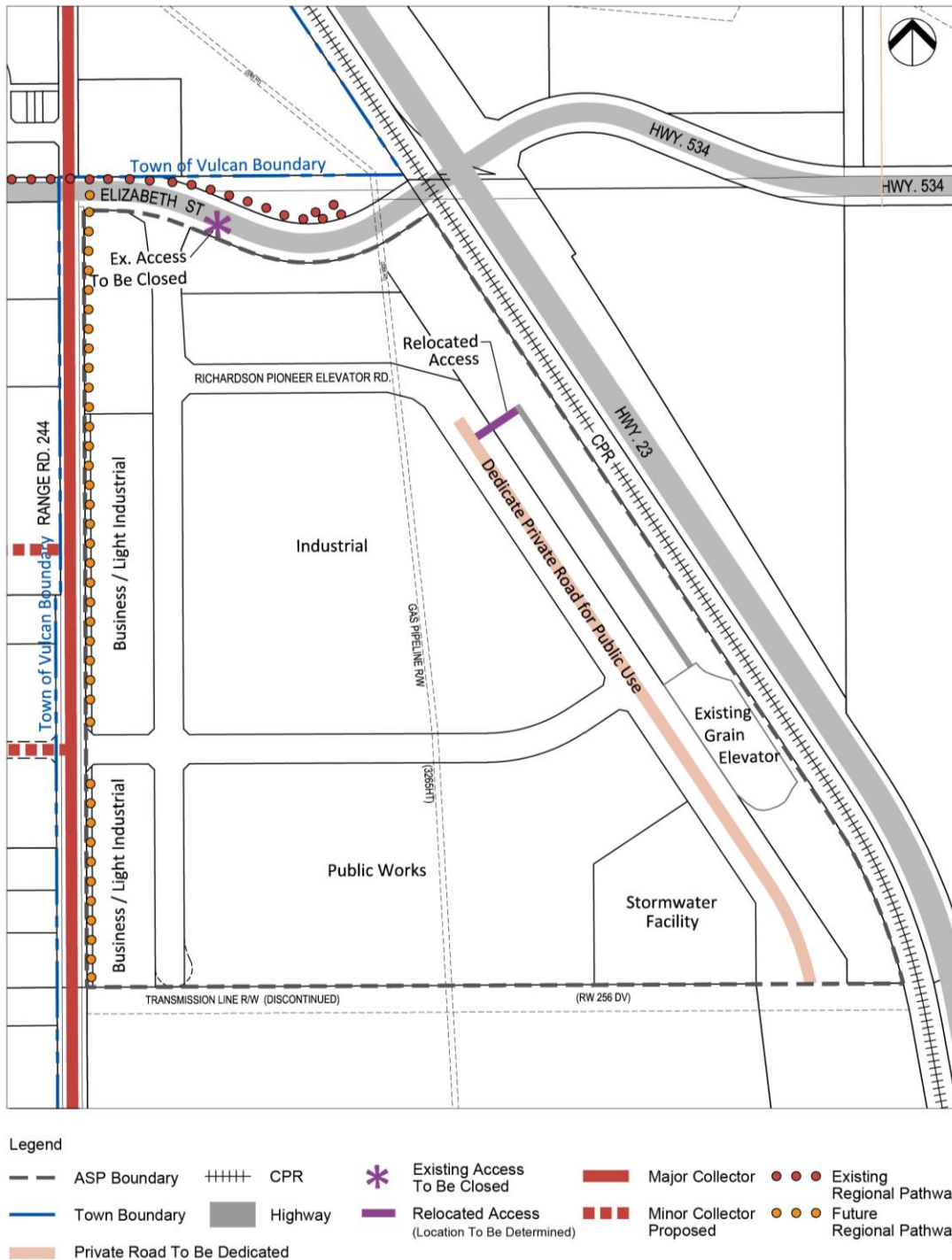


Figure 6 - Transportation Network



## 7 SERVICING

Servicing of the Vulcan County Industrial ASP will consist of water, storm and sanitary infrastructure as well as shallow utilities including power, natural gas, and telecommunications. Extensions or connections to regional water and wastewater trunks for servicing are planned. Connections will be made to existing sanitary and water services currently located west of the plan area. Solid Waste disposal services will be provided by the County. The details of these concepts will be further explored and defined through subsequent reports and detailed engineering design prior to subdivision and development.

**Objective 9:** *To provide efficient and economical services to meet the needs of future development.*

- Policy 9.1 Potable water for daily consumption and fire flow demands will be provided through a piped water supply system generally as shown on Figure 7 – Water Servicing Plan. All developments shall connect directly to the piped system for water servicing.
- Policy 9.2 Overall water servicing for the plan area will be provided through Vulcan County’s water allocation within the Twin Valley Regional Water line. The tie-in will be located at Rge Rd 244 and Twp. Rd 164, with an independent pump and chlorination station. Connection through the Town of Vulcan water supply system may be considered.
- Policy 9.3 Sanitary sewer infrastructure will be provided generally as shown on Figure 8 Sanitary Servicing Plan. All developments shall connect directly to the onsite sanitary sewer system for sanitary servicing.
- Policy 9.4 Sanitary flows generated from users within the plan area will be temporarily stored within the on-site lift station and then discharged at a controlled rate and time necessary to meet the available capacity of the Town system.
- Policy 9.5 Solid waste removal services within the plan area will be provided by Vulcan County. Receptacles shall be screened from view with the use of fencing, landscaping or other methods of screening.

### 7.1 Water Distribution Servicing Plan

There are two options available to the plan area for water servicing and fire protection. The first option is to connect to the Water Commission line approximately 2.8 km south of the site along Range Road 244., by establishing a pump and chlorination station. Alternatively, the Town of Vulcan is provided potable water from the Twin Valley Regional Water Commission. The second option is therefore by means of an extension of the Twin Valley Regional Commission water system through the Town of Vulcan water distribution mains. Resolution of the preferred option will be determined based on additional engineering analysis of the first option to connect directly to the Water Commission pipeline.

Onsite water mains shall be constructed within the road rights-of-way to allow for easy access for maintenance purposes. The water mains for potable water and fire suppression shall be located between the edge of roads and property lines in order to minimize disruption to traffic in the event maintenance is required. A looped distribution system with two connection points within the plan area will be provided generally as shown on Figure 7 – Water Servicing Plan. This looping is mandated by Alberta Environment in order that fire protection is not compromised. The two connections are separated by at least one valve and are not located within the same water main to provide servicing redundancy described above. The water is being supplied by the Twin Valley Water Commission, so confirmation prior to construction is



required from the Water Commission to verify that adequate pressures and flows are available to the development hydrants for fire fighting purposes.

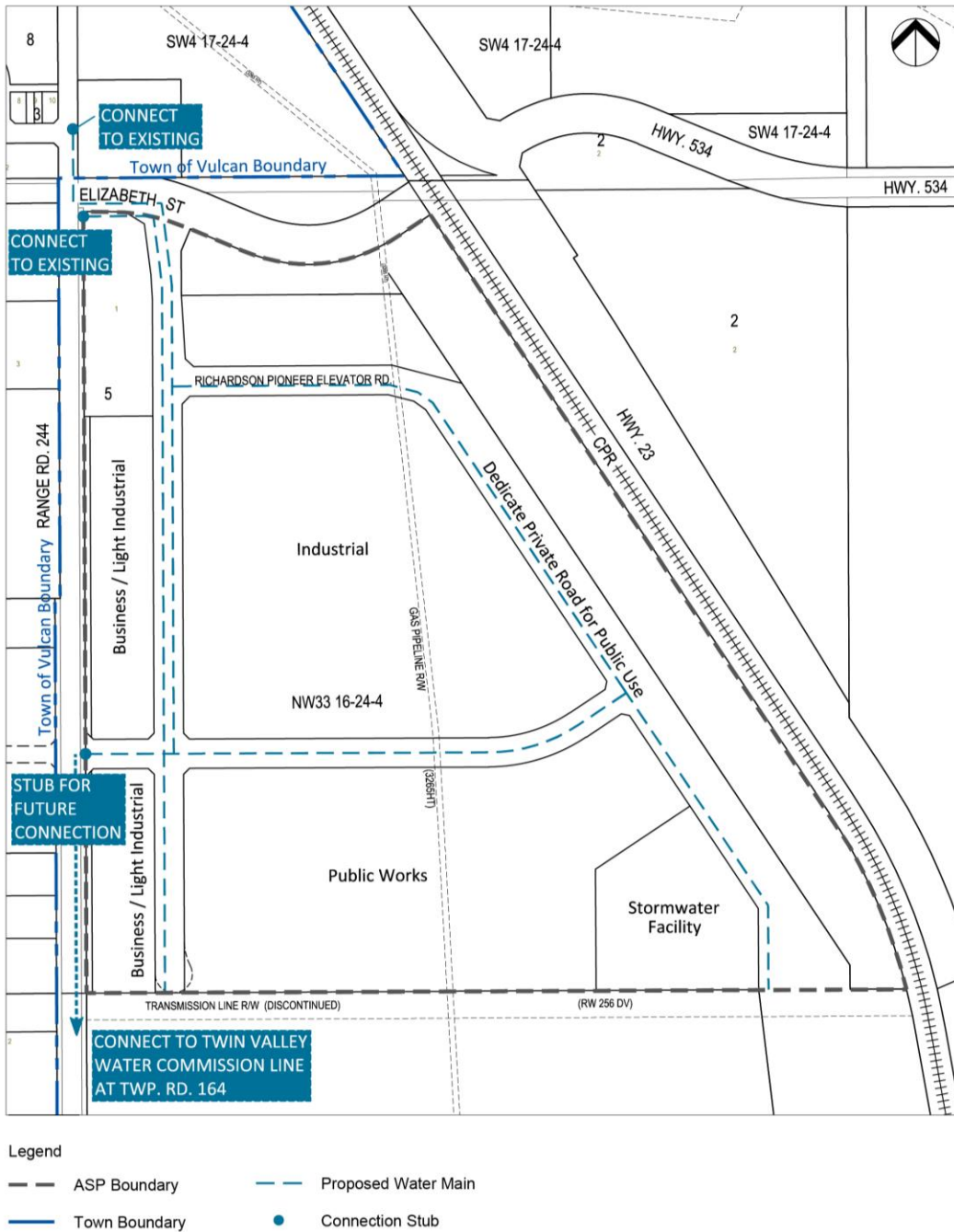


Figure 7 - Water Servicing Plan

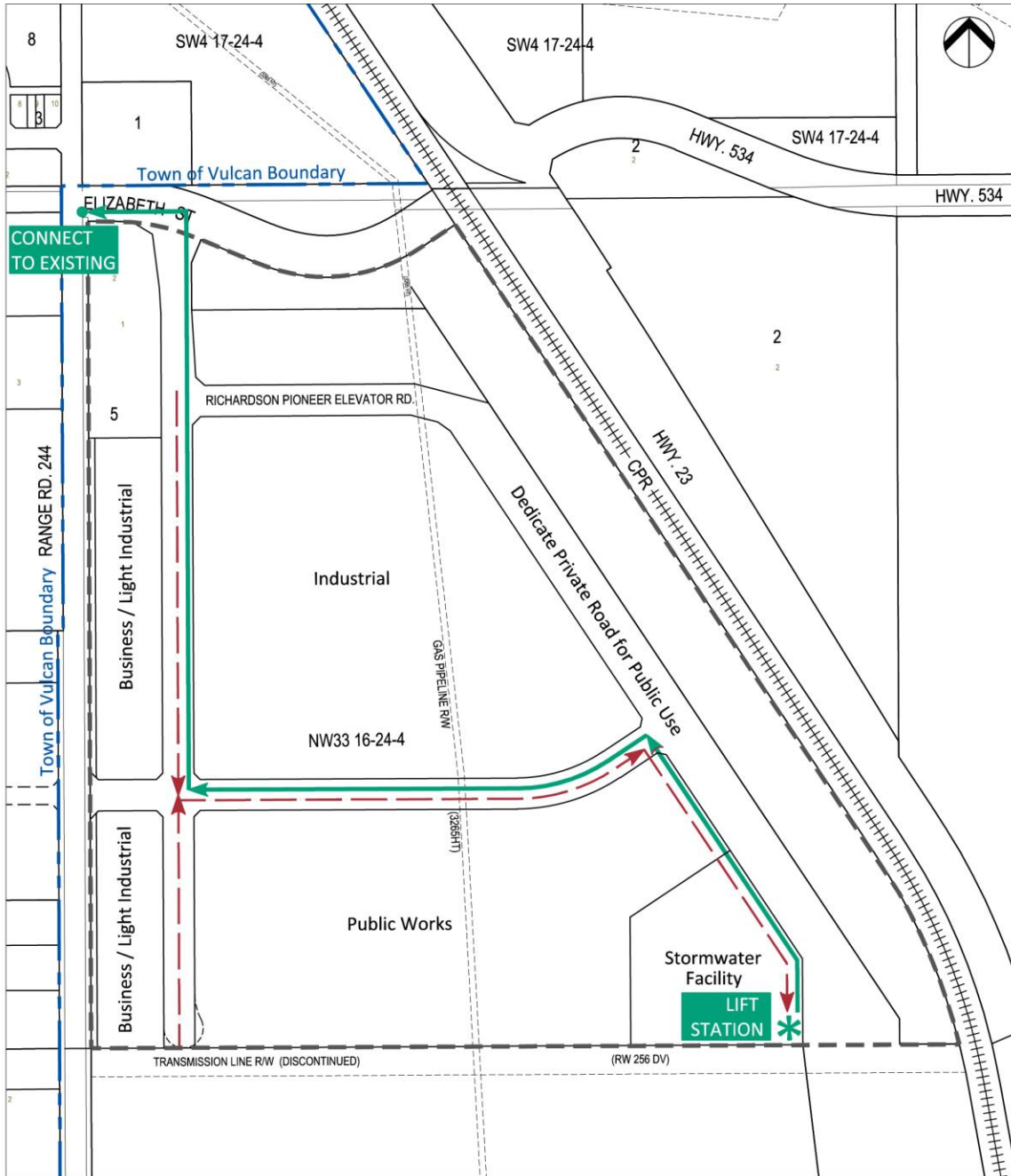
The details of these water servicing concepts will be further explored and defined through subsequent reports and detailed engineering design prior to subdivision and development.





## 7.2 Sanitary Sewer Servicing Plan

Sanitary sewer servicing shall be provided by a conventional underground piped gravity collection system and directed to the low point of the plan area located in the southeast corner, generally as shown on Figure 8 – Sanitary Servicing Plan. A sanitary pump station will be constructed at that location to store and convey the collected effluent. Sanitary flows generated from the users within the plan area will be stored and then discharged to the existing Town of Vulcan sanitary sewer system at a controlled rate and time necessary to meet the available capacity of the Town system. In the event that the Town of Vulcan facility has inadequate capacity, sewage could be trucked from the lift station location to another Vulcan County facility. The forcemain could then be eliminated in favour of a larger holding tank for the truck haul system. Details of these design considerations will be explored with further engineering analysis.



Legend

- ASP Boundary
- Proposed Gravity Main
- \* Lift Station (Storage and Controlled Discharge)
- Town Boundary
- Proposed Force Main

Figure 8 - Sanitary Servicing Plan

The details of these sanitary servicing concepts will be further explored and defined through subsequent reports and detailed engineering design prior to subdivision and development.



### 7.3 Storm Water Servicing Plan

A storm water management plan has been developed as a part of the ASP. This provides pond sizing and release rates for the development utilizing downstream stormwater management facilities to limit the runoff rate leaving the site to pre-development flow rates.

In accordance with this storm water management plan, overland flows will be collected by means of ditches located within the road right-of-way and directed to the storm pond located at the topographic low point in the development’s southeast corner generally as shown on Figure 9 – Storm Water Servicing Plan. This storm pond will store overland flow and release to the existing discharge point of the lands; the west ditch of Highway 23, at no more than pre-development release rates identified in the storm water master plan.

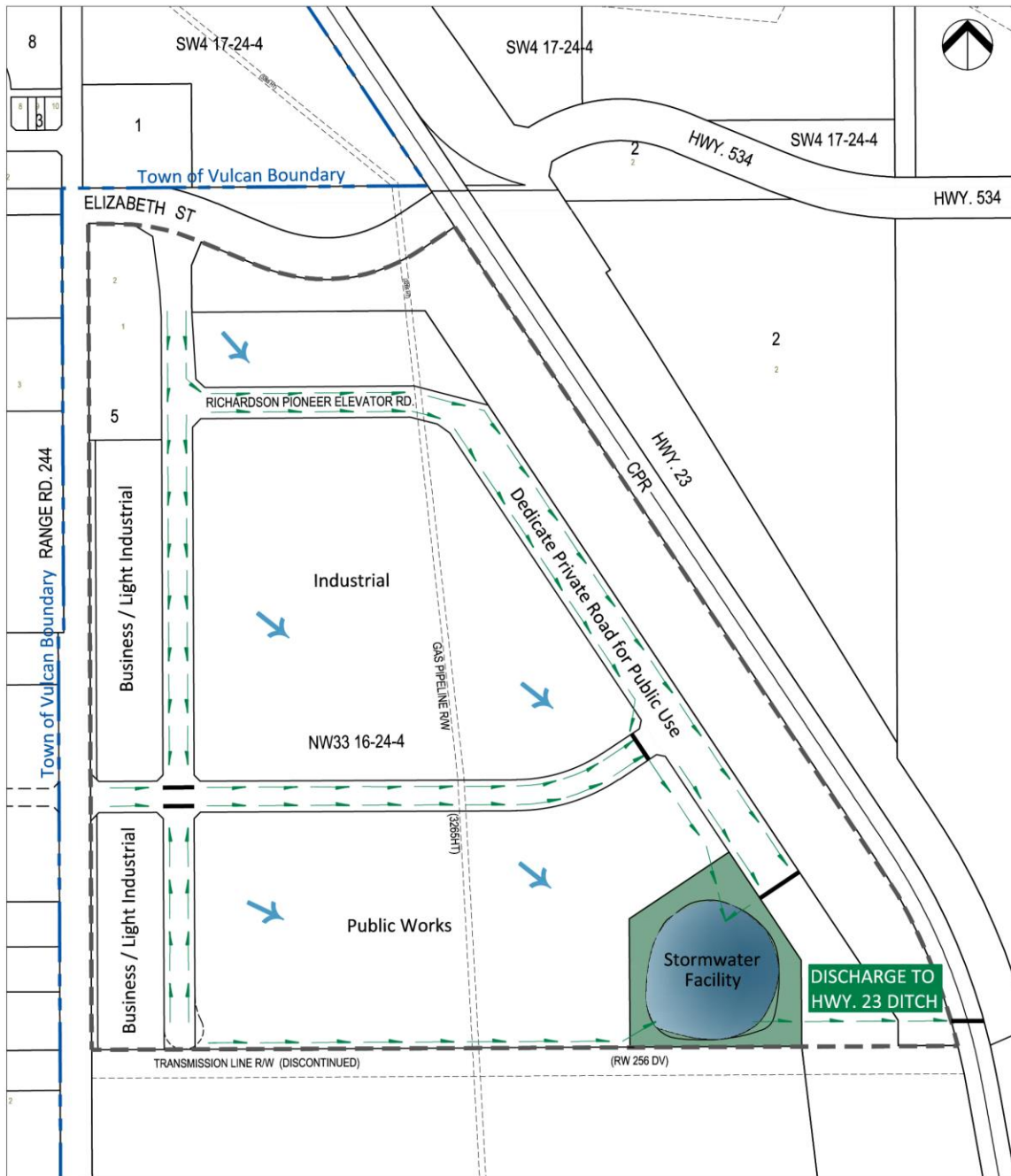
**Objective 10:** *To provide efficient and environmentally suitable storm water management facilities.*

Policy 10.1 Development parcels shall drain towards adjacent ditches.

Policy 10.2 Storm water from the development land is to be managed to meet Alberta Environment Standards and Guidelines.



*Image 5 - Example of natural space surrounding storm water facility*



Legend

- ASP Boundary
- Town Boundary
- Proposed Storm Main
- Proposed Storm Main
- Overland Direction of Flow
- Culvert

Figure 9 - Stormwater Servicing Plan

The details of these storm water servicing concepts will be further explored and defined through subsequent reports and detailed engineering design prior to subdivision and development.



## 7.4 Shallow Utilities

Shallow utilities including natural gas, power, street lighting, and telecommunications are available in the area adjacent to the site. Utilities will be extended by the respective franchise utility companies from their major trunk services. Utilities will be placed within road rights-of-way or within easements registered against lands within the plan area. Fibre optic technology should be utilized wherever possible and available.

**Objective 11** *To provide utility services to meet the needs of future development.*

Policy 11.1 All shallow utility infrastructure required to provide service to development will be located underground, with an exception to power.

Policy 11.2 Notwithstanding policy 11.1 above, aerial power distribution facilities may be installed provided that road crossings are underground.



# 8 IMPLEMENTATION

## 8.1 Implementation Strategy

The Vulcan County Industrial ASP provides a policy framework for development. Once adopted, policies contained within the Plan will be binding and will direct the manner in which development occurs within the plan area. There are a number of studies, approvals, infrastructure improvements and factors that will influence the ability of the Vulcan County Industrial ASP to function as envisioned within this Plan, such as:

- Dedicate land as municipal reserve and develop the landscape buffer and multi-use trail along Range Road 244/1 Ave S to allow vegetation a head start to mature prior to development;
- Establish a regional pathway connection to the exiting pathway systems; and,
- Study the feasibility of the off-site water connection to the Twin Valley Regional Water Commission line;

In addition, this Plan recognizes that development is subject to market conditions and has sought to provide flexibility to facilitate development under a range of conditions. This Plan should be understood to be a living document in so much as it can be adapted to accommodate for changes in areas such as sustainable technology, stormwater management techniques, etc. The Plan should be interpreted in a manner that considers the importance of these activities and allows for modification of the Plan through approval processes as required.

## 8.2 Development Staging

The entire Plan area is expected to be constructed in a single development phase together with the dedication of the private Richardson Pioneer road (Block 3, Plan 981 2225) to Vulcan County as a public roadway.

**Objective 12** *To allow for an efficient, economical and logical phasing of development.*

- Policy 12.1 Development will be developed in a single phase.
- Policy 12.2 Prior to developing the first subdivision, lands shall be redistricted to the appropriate land use districts in accordance with the County’s land use bylaw.
- Policy 12.3 Development shall be generally in accordance with the land use concept in Figure 5 – Land Use Concept. Minor variations of land use boundaries and roadway alignments are expected and will not require amendments to the plan.
- Policy 12.4 A restrictive covenant shall be placed on all lots within 165m of the County Protective Services Centre that restricts activities and uses involving flammable and combustible products in accordance with Policy 4.3.5.

The lands directly south of the plan area are intended to maintain an urban fringe land use designation and remain for agriculturally productive uses. Should additional demand for business/industrial land be identified in the future, these lands may be considered for future expansion of the ASP.



### 8.3 Amendments to the Plan

Amendments to the Vulcan County Industrial ASP Area Structure Plan may be initiated by person(s) with interest in the plan area. In this event, the proponent must follow all Vulcan County procedures for statutory plan amendments and shall consult with the Town of Vulcan on the proposed amendments.



# 9 APPENDIX