

RURAL MUNICIPALITY OF LUMSDEN No. 189
BYLAW NO. 2023-16

A bylaw to amend Bylaw No. 6-2012, known as the Official Community Plan of the Rural Municipality of Lumsden No.189.

Under the authority granted by clause 29(2) of *The Planning and Development Act, 2007*, SS 2007, c P- 13.2, the RM of Lumsden No. 189 in the Province of Saskatchewan, by and with the advice and consent of the RM of Lumsden No. 189 Council, enacts to amend Bylaw No. 6-2012 as follows:

1. **Section 8.0 CONCEPT PLANS** is amended as follows:

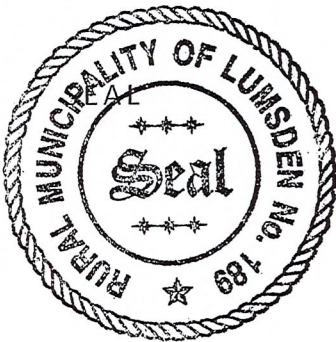
Section 8.1.1 Adopted Multiple Parcel Residential, Commercial and Industrial Development Concept Plans by adding the following Concept Plan:

(1) *RM 189 West Sector Plan and West Service Road Feasibility Study dated November 2023*

2. **Appendix "B" – RM 189 West Sector Plan and West Service Road Feasibility Study** attached hereto as Schedule "A" shall be appended to the Official Community Plan immediately following Appendix "A" Town of Lumsden/RM of Lumsden Joint Growth Strategy.
3. This bylaw shall become effective on the date of approval of the Minister of Government Relations.

Readings

<i>Read a first time this</i>	<i>2nd day of November, 2023.</i>
<i>Read a second time this</i>	<i>23rd day of November, 2023.</i>
<i>Read a third time</i>	<i>23rd day of November, 2023.</i>






Reeve



Chief Administrative Officer



Certified to be a true copy of Bylaw No. 2023-16
adopted by the Council of the R.M. of Lumsden
on the 23rd day of November, 2023



Chief Administrative Officer

**RM 189 West Sector Plan
and
West Service Road Feasibility Study**



Rural Municipality of Lumsden No. 189



November 2023

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1. INTRODUCTION

Background

The intent of this sector plan is to provide a policy framework for directing land use, the primary transportation corridor and utility servicing for lands located south of provincial Highway No. 11, west of the Town of Lumsden. Previously, there have been multiple attempts to develop land in the plan area for commercial and residential purposes. However, those attempts were challenged by highway access and other issues such as servicing. The "RM 189 West Sector Plan" (the Plan) supports and guides development that includes commercial, residential, and potential mixed land uses. The commercial element will consist mainly of highway commercial and ag-related commercial businesses given its proximity to the Highway No. 11 corridor between Regina and Saskatoon, as well as the local and regional agricultural customer base. Residential development will occur mainly in the southern portion of the plan area as servicing capacity will allow for.

It is expected that all subsequent concept plans, rezoning, and subdivision will be in conformity with this plan. Concept plans, which provide a detailed solution for land-use and servicing, will be required for every new multi-lot development in the plan area. The individual concept plans in conjunction with the policies of this plan will ensure that the RM189 West area is developed in a logical and cost-effective manner.

Figure 1.1 Sector Plan Regional Context



RM189 West Sector Plan Area

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Site Context

The Plan area is approximately 348.5 hectares in size and is located immediately south of provincial Highway No. 11, on the Town of Lumsden's western boundary. The plan area is bounded by Highway No. 11 to the north, Range Road 2221 (Trestle Road) & provincial Highway No. 54 Interchange to the west, the Town of Lumsden to the east, and the Qu'Appelle River Valley to the south. The north portion of the Plan area is comprised of existing highway-oriented commercial development, the south portion is comprised mainly of agricultural land, gravel pits, a couple of country residential acreages, as well as an existing farmstead. The Plan area was identified as an RM growth area within the Lumsden Joint Growth Strategy (JGS) in 2016.

The Plan area is located along a preferred highway commercial development corridor, with potential to serve a large regional customer base. Existing land uses, located adjacent to the Plan area include primarily agricultural lands and residential within the Town of Lumsden. The lands directly north of the Plan area also have existing commercial development and are intended for future commercial development. The Plan area, therefore, forms part of a regional gateway into the Town of Lumsden by providing additional development opportunities that will complement the growing marketing demand for commercial and residential lands within the RM and region.

Purpose and Plan Objectives

The Plan area will provide a collective integration of land uses (commercial and residential) that will promote economic, social, and environmental sustainability consistent the Official Community Plan (OCP). Major commercial development will serve as the area's economic foundation, with mixed-use and residential development at a scale determined by servicing capacity. Proposed development in the plan area will achieve the regional function of providing a greater diversity of commercial and residential opportunities all while balancing the preservation of the natural environment of the Qu'Appelle River Valley.

This Plan envisions the development area as a regional gateway that will grow the larger community by expanding commercial and residential opportunities within the RM in close proximity to the Town. A strong commercial presence will provide the development area with a solid economic foundation that will assist with balancing future residential population growth.

Objectives

Key goals and objectives of this Plan are to:

- Preserve ecological and natural features of the Qu'Appelle Valley.
- Provide direction for the location of the service road corridor, and the phased access connections to provincial Highway No. 11, at safe locations to efficiently distribute traffic within the plan area.
- Guide development of the plan area wholistically, by establishing the service road corridor and phased access to the provincial highway system to and from major commercial areas.
- Encourage the logical and cost-effective extension of land uses, utility services and transportation networks.
- To support economic development and diversification that maintains and enhances the services provided to the regional community.



2. REGULATORY AND POLICY CONTEXT

2.1 Regulatory Framework

The Planning and Development Act, 2007

Official Community Plans are established pursuant to *The Planning and Development Act, 2007* (PDA) and provide a comprehensive policy framework to guide the municipality's physical, environmental, economic, social and cultural development. A municipality may, as an amendment to its official community plan, adopt a concept plan by bylaw for the purpose of providing a framework for subsequent subdivision and development of an area of land.

Concept plans are generally defined by section 44 of the PDA and may be referred to as Secondary or Sector Plans depending on the scope. They provide direction for land use (zoning); the provision of community services (parks and recreation); the provision of utility services (water, wastewater and stormwater) as well as transportation (roads). Within the context of this plan, the RM of Lumsden No. 189 is providing direction through the preparation of a Sector Plan to establish the land use policies associated with the large tracts of land and the future provision of a Service Road in the plan area. Generally, this sector plan will provide high level policy direction for the total plan area and require separate Concept Plans for each proposed development within the overarching plan area. Separate Concept Plans will provide more detailed direction on the development vision, servicing framework and design layout for a defined area. Concept Plans must align with this sector plan and the OCP.

Figure 1.2 Planning Framework



The Statements of Provincial Interest Regulations

The Statements of Provincial Interest Regulations (SPI) establish provincial land use policy which provides guidance to municipalities on a variety of land use and development issues in Saskatchewan. The SPI correlate provincial and municipal goals & objectives for land use planning which directly impact community development, economic development, and environmental stewardship. Every official community plan adopted or amended, including this plan, shall be consistent with the provincial land use policies contained in the SPI.

This plan specifically addresses the following Provincial Interests:

Public Works

The plan supports safe, healthy, reliable, and cost-effective public works to facilitate economic growth and community development by ensuring that the necessary corridors, easements and land for public works is dedicated during the subdivision and development process.

Transportation

The plan supports safe, cost-effective transportation systems that meet existing and future needs for economic growth, community development and diversification by ensuring development within the plan area is compatible with existing and planned infrastructure, specifically the provincial highway network.

Inter-municipal Cooperation

The plan promotes inter-municipal cooperation that facilitates strong partnerships, joint infrastructure and coordinated local development by establishing land use policy and establishing inter-municipal processes for managing land in areas of common interest.

Official Community Plan

The Official Community Plan (OCP) Bylaw outlines the RM's vision for future growth and guides decisions related to planning and development in the municipality. The OCP provides a framework for physical, environmental, economic, and social development through a vision statement that provides the Goals, Objectives, and Policies of the Plan.

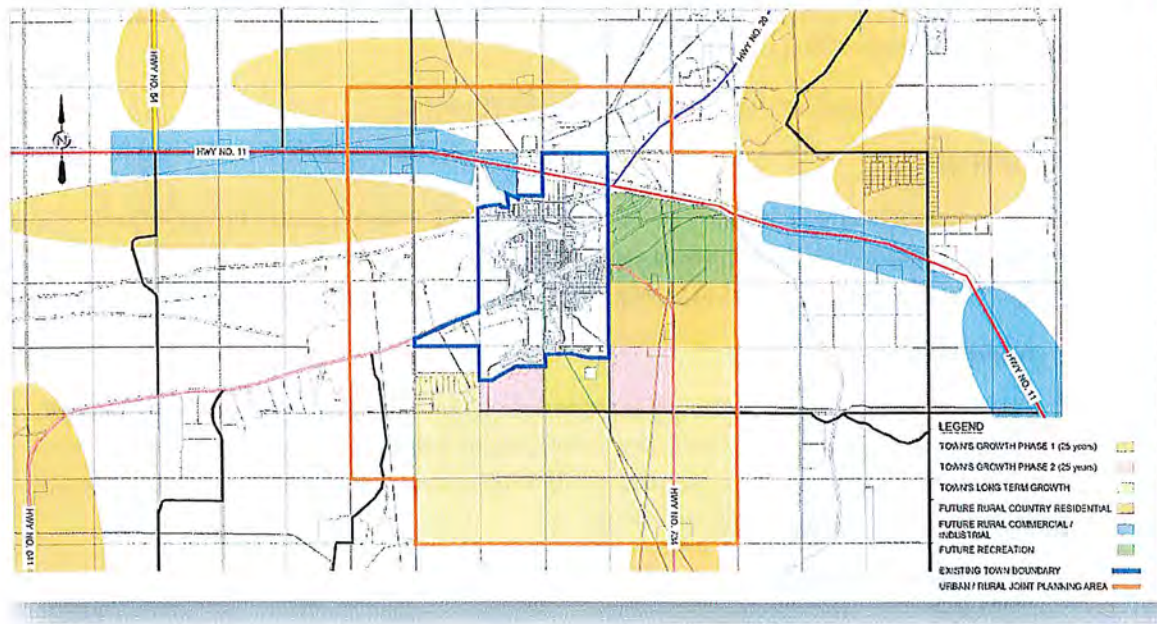
The OCP may be amended by the RM from time to time to reflect changes that may result from external factors or development proposals, provided that the amendments meet the intent of the OCP's vision and overarching goals. The RM will make these amendments in accordance with the process and public participation requirements outlined in the PDA.

Joint Growth Strategy

In 2015, the RM and Town of Lumsden each adopted the *Town of Lumsden/RM of Lumsden No. 189 Joint Growth Strategy* (the JGS) into their respective OCPs as a regional initiative to establish future growth areas for each municipality. The Future Growth Areas and Joint Planning Area Map from the JGS identifies the RM189 West plan area as part of the RM's future growth. Figure 1.3 below, identifies future rural commercial/industrial development, shown in blue, adjacent to Provincial Highway No. 11, as well as future rural country residential development, shown in yellow, within the southern portion of

the area. The JGS is a plan to manage the short- and long-term regional growth for a minimum twenty-five-year planning horizon.

Figure 1.3 Lumsden Joint Growth Strategy – Future Growth Areas & Joint Planning Area



Zoning Bylaw

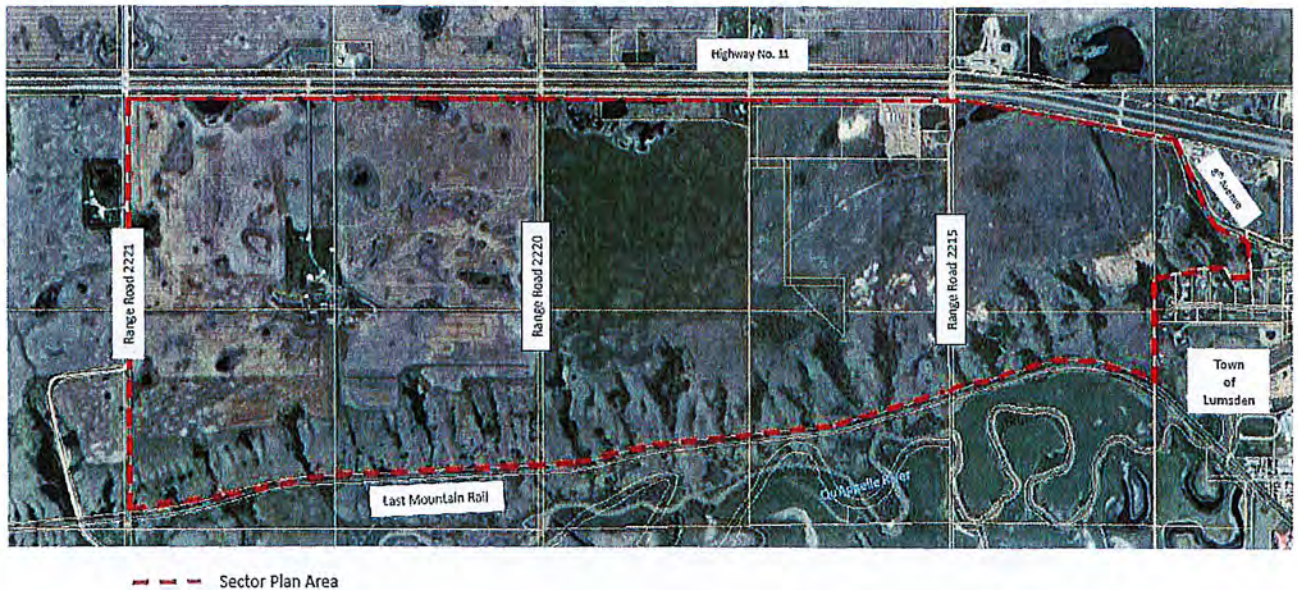
The Zoning Bylaw is the planning tool used to achieve the objectives and implement the policies of the OCP through the regulation of land use and development. Once land use policies are established through the OCP with the adoption of this plan and further refined in subsequent Concept Plans, the lands within the plan area will be suitable for rezoning to enable the proposed development.

2.2 Local Planning Context

Location

The RM 189 West Sector Plan area consists of approximately 350 hectares of land centrally located within the RM, directly north-west of the Town of Lumsden. The plan area is bounded by Provincial Highway No. 11 to the North, Range Road No. 2221 to the West and the Qu'Appelle River Valley to the south. The plan area is shown below in Figure 1.4.

Figure 1.4 RM189 West Sector Plan Area



This plan supports a land-use and phasing strategy that conforms to the OCP. The plan supports the location and phased development of the service road corridor and associated commercial development, as a priority, adjacent to Provincial Highway No. 11. The plan also identifies land for future residential development and includes the integration of a pathway system to support active transportation within the Plan area. Commercial and residential development will be consistent with the available servicing capacity required to support it, as well as ensuring that future development does not occur on any hazard lands or create any potentially unsafe traffic conditions.

Official Community Plan Bylaw No. 6-2012

The OCP was adopted in 2012 and provides the comprehensive policy framework to guide the growth and development of the RM of Lumsden No. 189. The following sections of the OCP provide specific direction with respect to this Plan:

Goals as set out in section 2.0 of the OCP include:

Section 2.2 Physical and Economic Development Goals

- 2.2(3) To strengthen the economic base of the Municipality by creating a positive environment for business development
- 2.2(4) To ensure a high quality of life for residents.

Section 2.3 Intergovernmental Interests and Involvement Goals

- 2.3(1) To obtain the support and assistance of senior governments in the realization of the goals and objectives of this plan
- 2.3(2) To support and complement the Statements of Provincial Interest.

- 2.3(3)** To engage with neighbouring communities to identify issues and common interests in planning, municipal servicing, and growth opportunities.

Section 3.1 Natural and Heritage Resource Policies

The OCP promotes environmental protection to ensure that development is consistent with the management of natural resources for both human enjoyment and for the preservation of such natural features and locations. This includes the protection of aquifers, groundwater, and wetlands. It also restricts development on potentially hazardous lands with respect to flood potential and slope instability.

- 3.1.3(2)** Applications for proposed uses which require large amounts of groundwater or which may impact the current groundwater supply of adjoining uses may be required by Council to provide a study to verify that the groundwater resource is adequate for both existing users and the proposed use.
- 3.1.3(6)** Council will consider approval of proposed development in terms of the size and configuration of an adjoining waterway, water body or shore land, the capacity for public access, the potential impacts (social, economic and environmental) of development, general and site-specific environmental and ecosystem characteristics and economic potential for development in the area. The developer shall be responsible for all expenses associated with the preparation of studies and relevant information to be undertaken by qualified professionals. The studies shall provide recommendations to protect and conserve natural features and heritage resources.
- 3.1.3(11)** Wetland areas along a lake, slough or creek will be protected and, where appropriate, integrated with recreational uses and development. Future development will not alter such wetland areas other than by the addition of appropriate structures such as: walkways, pedestrian bridges, boardwalks, and interpretive media.
- 3.1.3(14)** Subject to the Aggregate Resource Extraction Policies. Council will consider discretionary use applications for aggregate resource extraction to facilitate future residential, commercial, and industrial development on a case-by-case basis if a Concept Plan for the proposed future development has been adopted by Council. In these cases, Council may apply a reduced separation distance beyond the minimum separation requirements to facilitate future development.

Section 3.2 Biophysical Constraints on Development Policies

- 3.2.3(1)** Development should avoid land that is hazardous due to flooding, erosion, slumping or slope instability, unless suitable mitigation measures are to be implemented. Council will use Future Land Use Map 3 – Hazard Lands as one of the tools to help determine areas that are unacceptable for development, or require mitigation measures, due to hazard lands.
- 3.2.3(4)** Council may refuse to support the subdivision of land or authorize the development of structures on land determined to be hazard land or may permit development only in accordance with specified mitigation measures. The costs of any required flood hazard or slope hazard report to identify the risk of proceeding with a proposed development on

potentially hazardous land or recommending specified measures to mitigate the risk of development of hazardous land will be the responsibility of the proponent of the proposed development.

Section 3.3.3 Residential Land Use and Development Policies

The OCP provides for a variety of housing types and residential lot sizes to correspond with the demand for country residential acreages “with a view” while maintaining critical ecological areas and other sensitive areas.

3.3.3(3) The Zoning Bylaw will provide for single parcel residential development, as well as clustered low, medium and high-density residential zoning districts to accommodate the range of existing legally established residential uses, forms and densities.

3.3.3(4) The Zoning Bylaw will provide for other forms of development, facilities and recreational uses in residential districts that are consistent with and complementary to the overall residential and recreational uses of the district.

3.3.3(9)(a) Multiple Lot Residential Development Policies: The Zoning Bylaw will contain a series of residential zoning districts to accommodate multiple-lot country residential subdivisions at various densities.

3.3.3(9)(b) Subdivision for non-farm residential development at a density greater than two residential sites per quarter section will be considered for multiple lot developments, based on project merits relative to the policies in this section. Such subdivisions shall be implemented in association with a rezoning to appropriate residential zoning districts.

3.3.3(9)(c) Locational Guidelines for Multiple Lot Country Residential Development: To provide for effective and efficient municipal and other services, and to protect prime agricultural land and important ecological habitat in the municipality, multiple-lot country residential subdivisions should be located:

- Near a school of sufficient capacity to handle the increase in enrolment or an existing school bus route.
- Near power, natural gas and telephone lines of sufficient capacity to handle such development.
- So that adequate police and fire protection can be conveniently provided.
- In order to protect or enhance existing treed areas and/or critical wildlife habitat.
- Only where direct all-weather public road access has been provided to the satisfaction of Council.
- On land with a lower CLI Rating of Class 3 to 7, or on land that has other crop production limitations.

3.3.3.(9)(d)(iv) Locational Requirements for Multiple Lot Country Residential Development:
Concept Plan
Council will require, in the interests of ensuring a comprehensive and planned approach to development, the preparation of a concept plan for the entire area that

will ultimately be developed and submission of supporting documentation, where appropriate, as follows:

1. Reports, prepared by professionals certified to assess relevant factors to assess the geotechnical stability of the site, susceptibility to flooding or other environmental hazards, together with any required mitigation measures. These measures may be attached as a condition for a subdivision or development permit approval.
2. Engineering reports to address concerns such as availability of water supply, surface water drainage, and sewage treatment and disposal.
3. The initial concept plan shall provide an integrated layout for the total country residential subdivision development envisioned, showing road layout and access to external public road, phasing of development, and dedicated lands. Once the initial concept plan has been accepted by Council, and subdivision and development commences, no subsequent subdivision that is inconsistent with the approved concept plan and all policies in this document will be permitted without acceptance of a revised concept plan by Council.


Development Standards

The Zoning Bylaw will prescribe maximum and minimum lot sizes and other appropriate development standards for multiple lot country residential development, with the aim of preserving productive agricultural land and ensuring that such development does not result in increased road hazards related to obstruction of sight lines, etc.

Section 3.5.3 Commercial/Industrial Land Use and Development Policies

The OCP supports a variety of commercial businesses and promotes a high-quality aesthetic that includes landscaping and building design. Businesses that serve the local and regional population base as well as the traveling public are encouraged to locate within the Plan area subject to compatibility with adjacent land uses and the ability to mitigate any negative impacts. The policies contained in this section provide guidance for evaluating such development applications, including the following:

- 3.5.3(2)(d)** the potential impacts on adjacent land uses, and proposed measures to mitigate any negative impacts.
- 3.5.3(2)(e)** the environmental suitability of the site and other potentially affected lands with consideration to the soils, topography, drainage and availability of services, proximity to public recreation and wildlife management areas and hazard land.
- 3.5.3(2)(f)** the access, egress, and the potential impacts of the proposed development on the highway system and traffic safety.
- 3.5.3(10)** Highway commercial uses should maintain the functional integrity of the highway, through the use of service road systems, or controlled highway access points, which are approved by Saskatchewan Highways and Transportation.



Section 3.6.3 Municipal Infrastructure and Services Policy

The OCP requires that all developments shall have some provision of water and wastewater services, stormwater management and solid waste disposal. The RM does not currently operate any water or wastewater systems but encourages developments to utilize a variety of options to meet the necessary servicing requirements. Every proposed development will have to demonstrate through the submission of a concept plan the provision of required infrastructure and services.

- 3.6.3(3)** The R.M. will not be responsible for the capital costs associated with the provision of municipal services to new subdivisions, except for developments owned by the Municipality. Where a private development requires municipal services, the proponent will be responsible for all costs associated with providing the services. Council may require a proponent of a development to undertake an engineering study that clearly articulates the on and off-site infrastructure required to support the development.
- 3.6.3(4)** Council will consider partnering with local urban and rural municipalities, such as the Town of Lumsden, to construct and manage infrastructure that will support future development in the R.M., including but not limited to sewage treatment and disposal systems, water treatment and distribution systems and solid waste management facilities.
- 3.6.3(6)** Council will not approve new development or subdivision applications unless infrastructure and utility systems and services have adequate capacity.

3.6.3.(14) Transportation Policies

The Plan establishes the location and phasing of a service road corridor that provides east-west access through the plan area and connects safely and effectively to Highway No. 11 at various stages of development build-out. The Plan gives consideration for accommodating convenient access to the existing commercial businesses and future development, while facilitating a safe route for heavy trucks that will minimize traffic through residential areas.

- 3.6.3(14)(a)** The Municipality will cooperate with the Ministry of Government Relations, the Ministry of Highways and Transportation, adjacent municipalities and other jurisdictions in long-term planning that addresses its transportation needs.
- 3.6.3(14)(c)** Development shall not create any potentially unsafe traffic conditions. Council will ensure that appropriate road designs, speed limits and traffic control devices are used to help ensure traffic and road safety.
- 3.6.3(14)(d)** Development along provincial highways shall be consistent with the safety standards and access policies established by the Ministry of Highways and Transportation.

Lumsden Joint Growth Strategy

Adopted in 2015, The Lumsden Joint Growth Strategy (JGS) identifies the Plan Area as an RM growth area within the Urban Fringe Boundary with the Town of Lumsden. The following growth management principles from Section 6 of the JGS provide specific direction with respect to this area of common interest.



Complementary Growth – The Town and RM shall not compete for the same type of residential growth but rather seek to support differential residential opportunities and lifestyles within the region.

Fiscally Responsible – Growth in both the Town and the RM shall be cost effective and maximize the net benefits to the residents and the individual municipalities.

Connected and Contiguous – RM growth shall have access directly or through service roads to preferred transportation corridors.

Liveable – Growth shall maintain the quality of life for the residents and densities of development will be based on the Town’s new neighbourhoods and the RM’s country residential developments.

The following policies from JGS, in conjunction with the policies outlined in the RM’s OCP, will guide the future growth in the Plan area:

General Policies

- 6.2.1.5 The Urban/Rural Joint Planning Area as shown in Figure 1.3 above, is an area of mutual interest to both municipalities and shall be managed by both the RM and the Town in a consultive and cooperative manner respecting the growth management principles and policies contained within the JGS.
- 6.2.1.7 The maximum density for new rural residential subdivisions in the Joint Planning Area shall not exceed a density of 4.0 dwelling units per hectare (1 dwelling unit per 0.6 acres)
- 6.2.1.8 Notwithstanding 6.2.1.7, upon mutual agreement of the respective Councils, the maximum density for a rural residential subdivision in the Joint Planning Area may be exceeded for the purposes of accommodating a regionally significant development.
- 6.2.1.9 The density of new rural residential subdivisions shall be established based upon an evaluation of the carrying capacity of the lands to accommodate private waste water disposal systems or the operational capacity of a privately owned centralized waste water treatment facility; and the supply capacity for potable water.

Town and Rural Infrastructure Policies

- 6.2.2.5 Any rural development requesting access to and service by the Town’s sanitary sewer collection and water distribution systems shall be at the discretion of the Town; and if the Town approves the extension of such services, the rural developer shall be solely responsible for financing and the construction of all necessary infrastructure to facilitate the new connection
- 6.2.2.6 Rural subdivisions proposing to connect to the Town’s sanitary sewer collection and/or water distribution system shall be required to execute a servicing agreement with the Town to confirm the conditions for service including but not limited to the standards for construction and payment of any direct or indirect capital costs associated with the construction of new or expansion of existing municipal infrastructure.
- 6.2.3.2 Rural subdivisions in designated rural growth areas shall be encouraged to connect to the Town’s sanitary sewer collection and water distribution system. The developer shall bare the full responsibility for financing and the construction of this new infrastructure.



- 6.2.3.3 The RM shall require that new rural subdivision proposing to connect to the Town's sanitary sewer collection and/or water distribution system enter into a servicing agreement as described in 6.2.2.6.
- 6.2.3.4 Rural subdivisions in designated rural growth areas proposing to construct a private centralized waste water treatment system shall be encouraged to establish a bare land condominium to provide the necessary private funding and management structure for the proposed facility.
- 6.2.3.5 Any new country residential development or commercial/industrial development shall be directed to one of the designated transportation corridors or provide a local service road that has access to an all-weather public access road.

Zoning Bylaw No. 7-2012

The Zoning Bylaw designates a variety of zoning districts within the plan area. Current zoning includes:

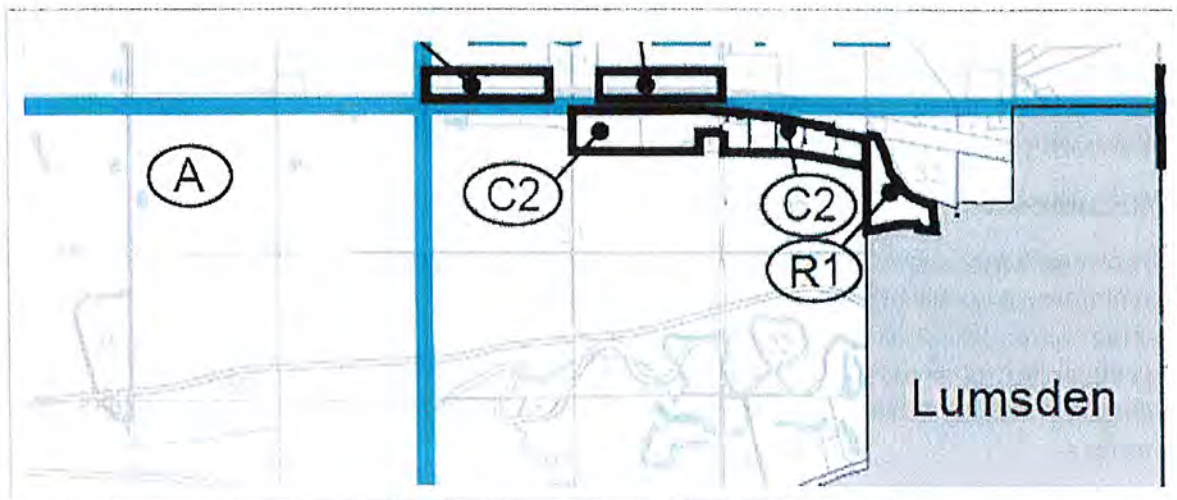
A – Agriculture

R1 – Low Density Valley Residential

C2 – Highway Commercial

The predominate zoning district is A – Agriculture for farmed and undeveloped lands within the Plan area. The entire frontages along Highway No. 11 of the NE ¼ 31 and NW ¼ 32 have been zoned C2 – Highway Commercial. Any future commercial or multi-lot residential subdivision or development application must be rezoned to an appropriate zoning district as part of any future development.

Figure 1.5 RM of Lumsden Zoning Bylaw No. 7-2012



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3. EXISTING CONDITIONS AND DEVELOPMENT INFLUENCES

The natural and built site conditions were evaluated to assess and identify existing features that will influence the location, form, and intensity of future development in the plan area.

Natural Conditions

The plan area encompasses predominately uncultivated agricultural land overlooking the Qu'Appelle River Valley. A desktop assessment was undertaken to understand where the topography and other natural features may limit development. The lands in the plan area above the valley wall are relatively flat with a gradual slope from the northern boundary southerly towards the river valley. A significant elevation change occurs from the top of the valley wall to the bottom of the river valley at the southern limits of the plan area. As per the OCP these lands have been identified as being potentially hazardous with respect to slope stability and will require further geotechnical analysis through additional studies at the time development is contemplated.

Groundwater resources in the plan area are limited. Published groundwater resource maps indicate that there are no shallow aquifers underlying the site. The Judith River Formation is approximately 240 metres below existing ground surface. However, the plan area is characterized by having a shallow water table, groundwater well records indicate well depths ranging from 4.35 meters to 12.15 meters. Groundwater depths below the ground surface ranged from 0.38 metres to 10.61 metres. During periods of heavy rainfall or spring runoff, the water table could be even higher.

The Canada Land Inventory Agriculture Land Capability mapping classifies the soils in the plan area as predominately WL – Weyburn Loam, dark brown soils formed in loam textured, moderately to strongly calcareous glacial till. Weyburn soils are fair agricultural soils of capability class 3. Class 3 soils have moderately severe limitations that reduce the choice of crops or require special conservation practices. They are medium to moderately high in productivity for a moderate range of field crops.

A desktop biophysical screening was completed using the Government of Saskatchewan's HABISask Databases to identify potential critical or sensitive wildlife habitats and rare and endangered species. The assessment identified several known rare and endangered species of vascular plants and vertebrate animals within the plan area.

Heritage Resources

The plan area was scanned using the Government of Saskatchewan's Developers' Online Screening Tool to determine potential heritage sensitivity. The Ministry of Parks, Culture, Heritage, and Sport – Heritage Conservation Branch provides the online tool as a resource for the development industry to flag potential heritage sensitivity of lands and determine if they require further screening by staff of the Heritage Conservation Branch. The following results were yielded from the screening report within the plan area:



Parcel Description	Sensitivity (Y/N)
NW-36-19-22-2	N
NE-36-19-22-2	N
SW-36-19-22-2	Y
SE-36-19-22-2	Y
NW-31-19-21-2	N
NE-31-19-21-2	N
SW-31-19-21-2	Y
SE-31-19-21-2	Y
NW-32-19-21-2	Y
NE-32-19-21-2	Y
SW-32-19-21-2	Y

Y = Heritage Sensitive; N = Not Heritage Sensitive

Plan Influences

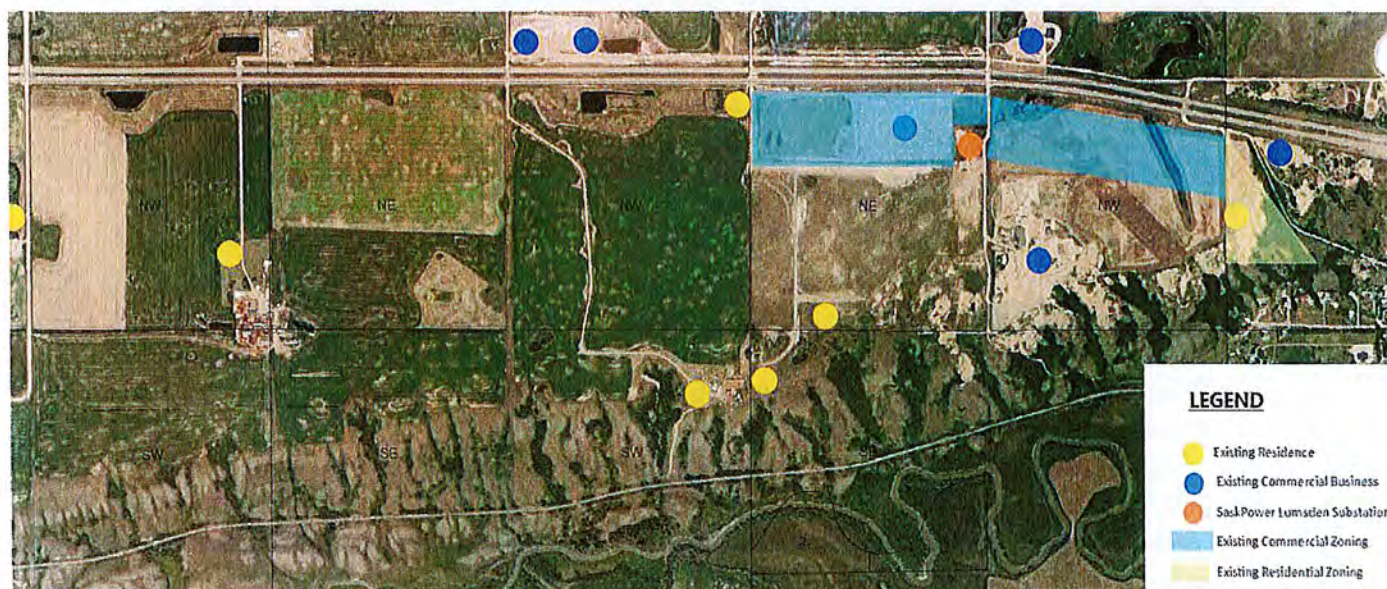
- A site-specific geotechnical study should be prepared before subdivision or development to assess the geotechnical stability of the site and identify any necessary mitigation measures, and comment on the suitability of the site for any required onsite sewage disposal systems as per Provincial regulations.
- A site-specific hydrogeological study should be prepared before subdivision or development to assess the groundwater regime, determine the physical, hydraulic and geochemical properties of the aquifer and confirm its suitability for groundwater use, and ensure the proposed development does not negatively impact neighbouring well users.
- In conjunction with a subdivision or development application on lands exhibiting the potential for rare or endangered species, the developer shall conduct a natural area screening consistent with the Species Detection Survey Protocols and the Activity Restriction Guidelines for Sensitive Species.
- In conjunction with a subdivision or development application on lands exhibiting potential heritage sensitivity, the developer must engage with the Heritage Conservation Branch to determine if a Heritage Resource Impact Assessment (HRIA) is required for sites having moderate to high heritage sensitivity.
- If a HRIA is required, it must be completed by a qualified archeological consultant. The Heritage Conservation Branch will advise if a project is given heritage clearance to proceed or will require additional measures to protect any known archeological sites within the development area.

Current Land Uses and Built Conditions

Current land use in the plan area consists of agricultural, country residential, commercial, and resource extraction. The plan area is largely undeveloped with a large portion of the land being used for resource-based purposes such as agriculture and aggregate extraction along with established farmsteads, and country residential developments. Commercial development is limited along the Highway 11 corridor and includes a Recreational Vehicle Storage site. SaskPower has a land holding that contains the Lumsden Substation, this site is an important part of the regional electrical generation, transmission, and distribution system.

Land uses outside the plan area include urban residential development in the Town of Lumsden to the east, additional highway commercial to the north, continued agricultural land to the west, and the Qu'Appelle River valley bounding the plan area to the south. Existing development and plan areas that establish specific future land uses are shown as follows:

Figure 1.6 Existing Land Uses



Existing urban residential development in the Town of Lumsden is predominantly low density single-detached family dwellings.

The mix of commercial businesses in the area straddle Highway No.11 with Nutrien, an agriculture industry business located to the north, along with a CN Rail line known as the Last Mountain Railway which is owned and operated by Last Mountain Rail, running from Regina to Davidson. The rail line is isolated at the bottom of the Qu'Appelle Valley adjacent to the river.

Community service uses available to the regional area located within the Town of Lumsden include the Heritage Home, a residential care home; École Lumsden Elementary School and Lumsden High School; an RCMP detachment, the shared Lumsden Municipal Office, and numerous other commercial retail business, restaurants and service providers.

The regional area has several recreational assets including numerous parks and playgrounds, sports facilities, and trails. Additional recreational amenities within the Town of Lumsden include an indoor and outdoor skating rink, curling rink, splash pad and the Qu'Appelle Valley Nordic Ski Club. Notably, approximately 15 km of the Trans-Canada Trail runs through the Town and RM, providing opportunities for passive recreation.

Transportation

Provincial Highway No. 11 provides primary vehicle access to the current land uses within the plan area. In discussion with the Ministry of Highways, Provincial Highway No. 11 will need to be transitioned to a controlled-access highway with designated control circles to improve traffic safety. There are five temporary access points within the plan area, identified in the below Figure. The temporary access points will need to be removed and consolidated over time as development occurs, with the ultimate connections being an interchange at Provincial Highway No. 54 to the west, and Provincial Highway No. 20 to the east.

Figure 1.7 Overview of Access



Municipal roads within the plan area are limited. The classification of roads currently within the plan area include gravel roads, private subdivision roads and undeveloped road allowances. There are three principle municipal road rights-of-way within the plan area:

- Range Road 2221 (Interchange with Highway 54) – An all-weather registered road providing north/south access across the valley to Primary Grid 641.
- Range Road 2220 (Goodsman Acreage Access/West Access) – Largely undeveloped road allowance, with only the first 120 metres of gravel road within the right of way, the road then turns into a private subdivision road to access the existing acreage.
- Range Road 2215 (Access to RV Storage, SaskPower Substation, and Gravel Pit/Central Access)

Plan Influences

- The layout of the plan area will need to consider compatibility between potentially conflicting commercial and residential land uses. Municipal buffers, Open space, berms, landscaping and transitional land uses (reduced intensities/densities) should be considered to mitigate against potential nuisance.
- The direction portrayed in subsequent concept plans for specific development areas will establish land use areas for the subject development within the plan area.

- The RM, along with the Ministry of Highways, will require a developer to inform a Traffic Impact Assessment (TIA) in conjunction with a subdivision or development permit application. The need for a TIA will depend on the location, scale and intensity of development. The assessment will detail impacts on the existing road network and identify roadway improvements, both on and off site, to minimize traffic impacts and ensure public safety.
- Active transportation is an important consideration within the plan area.
- Development that generates changes to the transportation network will be required to upgrade the road network accordingly.

Utilities

The RM of Lumsden No. 189 does not own or operate any utilities such as water or wastewater systems. The Town of Lumsden has a water treatment plant, and a new wastewater treatment facility. The Town of Lumsden, with support from the RM, is currently looking at expanding the capacity of its water supply, treatment and storage infrastructure to accommodate regional growth. The Town of Lumsden also recently commissioned a brand new wastewater treatment facility, that can treat wastewater for 2,500 people and can expand to serve more than double the Town of Lumsden's current population of 1800. The Town's waste water treatment plant does not accept hauled septage.

All drainage within the plan area is currently overland, there is no engineering storm water management system. There is a privately registered drainage easement on the NE ¼ 31-20-21-W2 south of the RV Storage. Additionally, there is a natural drainage course on the NW ¼ 32-20-21-W2 that should be maintained as a natural drainage feature within the plan area.

Power

SaskPower owns and operates the Lumsden Substation within the plan area. SaskPower requires a specific standard of road structure to provide access to their site to bring in heavy equipment vital in the maintenance and operations of the substation which feeds the communities of Lumsden, Regina Beach, Craven and the surrounding rural customer base. Additionally, there is an overhead 138kV transmission line extending across the N ½ of 31-20-21-W2 from southwest to northeast. This corridor is protected by a 38-metre wide easement that restricts development. The easement states that no ground disturbance can occur within 15 metres of any SaskPower structures, including poles, anchors, and guy wires, and that SaskPower must have clear access to each structure. The final design elevations of any proposed road crossing will require verification by SaskPower to confirm that clearance requirements have been met.

Plan Influences

- Servicing of development within the plan area shall be on-site systems, unless it is economically feasible, and agreed to by the Town to extend and connect to their water and wastewater systems.
- In conjunction with a subdivision or development application, drainage plans will be required to ensure that drainage courses, and stormwater management facilities are managed accordingly and do not contribute to erosion and slope instability.



4. CONSULTATION

Consultation with stakeholders ensures that the plan considers the broadest perspective possible. Affected landowners were engaged directly during the initial planning process to gather local knowledge and information, as well as share local perspectives of the subject area to supplement previous plans and studies. This initial engagement contributed to establishing the plan context and helped to inform the plan objectives. Following the preparation of the plan, a second round of engagement occurred with the larger public and the Town of Lumsden to obtain feedback on the plan's direction and to determine any revisions required before formal adoption.

Initial Stakeholder Engagement

An invite-only stakeholder engagement session was held January 13, 2022, at Centennial Hall in Lumsden. The RM invited landowners directly affected by the future service road within the plan area to attend. The landowners consist of agricultural operators, business owners and developers as well as SaskPower, a Crown Corporation. An information package was provided to each stakeholder containing a copy of the RM's presentation, the draft *Service Road Feasibility Study* completed by the RM's engineering consultants, MPE, and a Comment Form. The primary objective of the stakeholder session was to address the removal of a high-profile access, known as the Central Access, located between the north-east quarter of section 31 and the north-west quarter of section 32, which was deemed unsafe by the Ministry of Highways due to inadequate sight distances, to determine what alternative access would be preferred by the stakeholders to serve the plan area for the short-to-medium term. As well as, to inform stakeholders about the RM's long-term plan (20+ year planning horizon) to establish land use and transportation policy and the options for phasing in the required service road and access to Provincial Highway No. 11 in the plan area to the ultimate long-term connection to the future interchange with Provincial Highway No. 54.

The RM Council and Administration began the session with a presentation to the landowners about the findings of the draft *Service Road Feasibility Study*, which is attached to this plan as Appendix A. The session then provided the opportunity for stakeholders to present their concerns and business needs, development priorities and general thoughts and questions regarding the service road feasibility study within the plan area. There was good discussion overall, and lots of questions and comments for the RM to take-away. Following the session, a two-week period was defined to return Comment Forms. Administration also participated in follow-up one-on-one telephone conversations with stakeholders to further understand potential impacts to their business and farming operations and hear concerns about the proposed service road corridor.

The following summary of engagement provides some common themes and concerns that were expressed by stakeholders.

Summary of Engagement

Process

- Stakeholders expressed concerns about the engagement process itself. Many indicated that they would like to have more information up-front and be kept up to date on the development of the plan. This extended to decisions being made by the Ministry of Highways with respect to controlling access along Highway No. 11.



- Many stakeholders were encouraged by the session and the opportunity to participate in the process and agreed that there is a significant need to develop a long-term plan for the area to provide certainty for their business operations, as well as investment in future developments.

Location of the Service Road

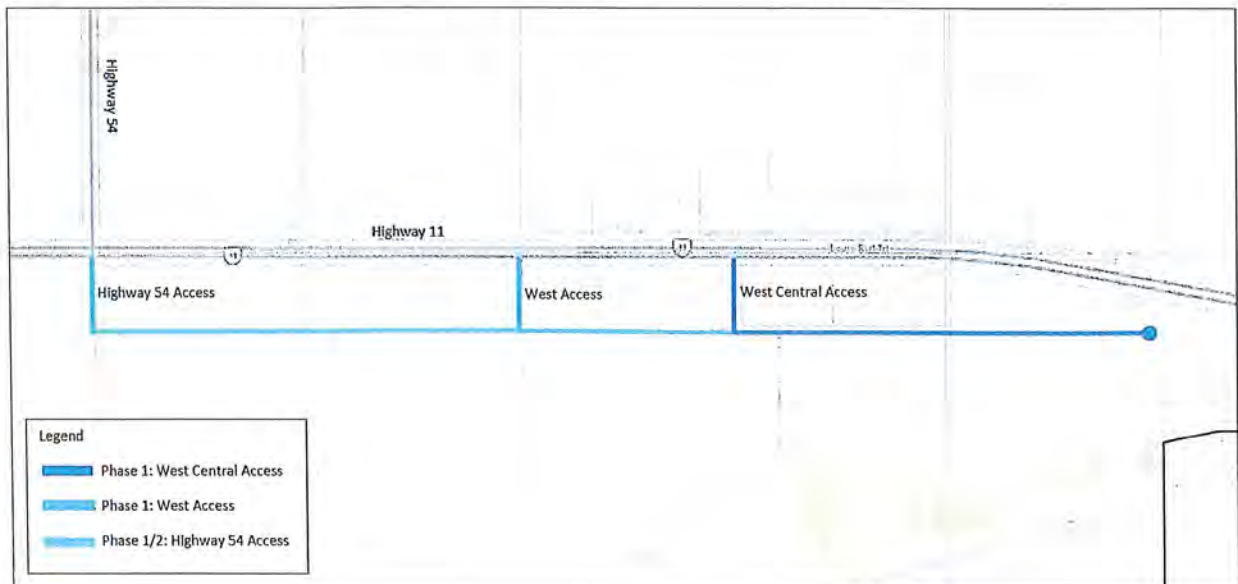
- Stakeholders indicated general acceptance for setting the service road back approximately 250 metres from Highway No. 11, however some raised concerns with the location not being directly adjacent to the Highway as per previous plans.
- The RM's rationale for setting the service road back from the highway was based on several factors, including: constraints associated with existing developments such as dugouts and a farm site, the ability to economically service development on both sides of the proposed road, as well as dust control.
- One stakeholder indicated that the proposed location of the service road would impact their water supply. This has been noted and will be addressed at the time an interest is registered on the property for the future acquisition of the land for the service road.

Short to Medium Term Access

- The Comment Form provided to stakeholders sought out specific information about the preferred Short-to-medium term access to Highway No. 11. This was requested due to the indication from the Ministry of Highways that they will be removing the Central Access in the near future, and that the long-term access must ultimately be from Range Road No. 2221 and a future inter-change with Provincial Highway No. 54.

The following figure was provided to stakeholders with the potential options for phasing of access to the plan area.

Figure 1.8 – Service Road Potential Phasing Options



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Considering this information there was generally support for not overbuilding the service road, with the West Central Access identified by four (4) stakeholders in the Comment Forms as the preferred access point for the short to medium term. This was also supported by other stakeholders, verbally, at the engagement session including SaskPower, who identified a need to ensure that large equipment, vital in the maintenance and reliability of the substation, can conveniently access the site. Direct, unencumbered access to the substation will ensure that the larger communities of Lumsden, Craven, Regina Beach and the surrounding rural customers are not at risk of long-duration power outages and that it will not inhibit SaskPower personnel from completing regular maintenance to the transformer.

The West Central access is seen as an economical option as there is already an existing service road built directly adjacent to Highway No. 11 to provide continued access to the Commercial Storage Business. However, some improvements will need to take place to support the West Central Access intersection with Highway No. 11, including coordination with the Ministry of Highways and the landowner of the existing yard site directly west of the intersection, to ensure that the area is sufficiently cleared to ensure adequate sight lines for heavy commercial traffic.

East Access/8th Avenue

It was recognized by many stakeholders that the old highway, currently known as 8th Avenue, which is under the shared jurisdiction of both the RM and Town of Lumsden provides a logical connection to the plan area with the Town to facilitate complimentary commercial developments, as well as critical emergency vehicle access. However, it was also recognized that the existing land use along 8th Avenue within the Town is largely a recreational walking path and low-density residential development and therefore is not suitable for commercial traffic, but rather limited to local traffic and emergency vehicles. In any case, the East Access/8th Avenue connection may be explored in the future as a joint initiative between both the Town and RM.

Public Open House

A public open house was held at Centennial Hall in Lumsden on June 14, 2023, to present the draft sector plan to the public for review and comment. Several display boards with maps and policy highlights were available for come and go viewing and members of the RM Administration were present to listen to comments and answer questions. A formal presentation on the sector plan was given by the RM, followed by a question-and-answer session. Approximately 24 people attended the open house, including a few members of the Town of Lumsden Council, a representative from the Ministry of Highways as well as numerous landowners.

The materials presented at the open house, including the presentation, display boards, draft sector plan report and comment cards were posted on the RM's website. Comments on the draft plan were accepted until June 30, 2023. However, an extension was provided to the Town of Lumsden to allow all of the Town Council to review and discuss the draft sector plan documents at their July 18, 2023, meeting. Comments from the Town were received by the RM on August 9, 2023. In addition to the comments received from the Town, the comment response rate was very low. Additional comments received from the public included concerns over the acquisition of land and the funding model that will be used to pay for the construction of the proposed service road. As well as the phasing-in of the proposed service road and the impacts on existing businesses that have established frontage and access.



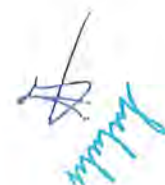
Summary of Second Round of Engagement

Generally, the draft sector plan was well received by landowners and the Ministry of Highways.

The Town of Lumsden reflected on *The Lumsden Joint Growth Strategy* and suggested that the sector plan should adhere to the growth management principle of Complementary Growth, to ensure that the Town and RM do not compete for the same types of residential growth, but rather seek to support differential residential opportunities and lifestyles in the region. Further, the Town indicated that it is apprehensive of on-site sewage disposal systems, such as holding tanks, and would be supportive of future connections to the Town's sanitary sewer system, where feasible. Finally, the Town maintained that future access via 8th Avenue remains a serious concern, in that opening 8th Avenue to future traffic would be incompatible with the existing land use of low density residential and take away an important recreational opportunity for the community. The Town requested that any future discussions related to the re-opening of 8th Avenue be left to the Town's discretion.

As a result of the comments and feedback received on the draft sector plan, the following revisions were made:

- Additional references to the growth management principles and policies from the Lumsden Joint Growth Strategy were added to the Policy and Regulatory Context section of the sector plan. Reinforcing the RM's commitment to managing growth with the Town.
- Additional transportation policies were added under the Land Use Policy section to provide clarification on the transition of access within the sector plan area and the administration and implementation of the road.
- Policy statements within the plan containing "shall" or "will" as they relate to future discussions between the Town and RM regarding the re-opening of 8th Avenue were replaced with "may" at the Town's request, to provide the Town with discretionary compliance regarding this aspect of meeting the intent of the plan.



5. LAND USE STRATEGY

This sector plan envisions an overall community design focused on the development of a complete community that is interconnected with the region, is safe and accessible to multiple modes of transportation, is sensitive of natural features, and creates a high-quality built environment. The following strategies are intended to guide development of the plan area.

Safe and Efficient Transportation System

A safe and efficient transportation network is critical for the future development of the plan area. It is of further importance that the RM take a lead in this regard to determine the extent of the future municipal road network by establishing land use policy to inform the location and standard of the service road. The policy considers the best and highest use of the land and the allocation of resources, including the total capital costs for construction and maintenance of this infrastructure.

Strategy:

- The RM will work with the Ministry of Highways to ensure safe and efficient access to the provincial highway network through informed plans and studies.
- Provide transparency and confidence to developers by establishing and applying consistent standards for various types and forms of development within the plan area.
- Require the submission of concept plans that align and support the objectives of this sector plan and the OCP to guide planning applications such as rezoning and subdivision.
- Collaborate with neighbouring communities to maximize public investment and promote complementary development.

High Quality Built Environment

Prioritizing high-quality, visually appealing development that preserves and enhances the natural environment of the Qu'Appelle Valley and does not detract from it.

Strategy:

- Protect and preserve natural and environmentally sensitive areas from incompatible development.
- Avoid development on potentially hazardous land.
- Complement the character and appearance of the Qu'Appelle Valley through high-quality design and landscaping that enhances the natural environment.
- Support innovative development practices that provide efficient use of land.
- Ensure that new development is compatible with existing development or mitigates potential conflicts with appropriate buffers or screening.
- Require the inclusion of a parkway corridor to provide both active transportation and public recreation opportunities.

Economic Growth and Diversification

The RM desires to grow its commercial sector by providing opportunities for commercial and light industrial development to do business in the RM and contribute to long term economic stability.

Strategy:

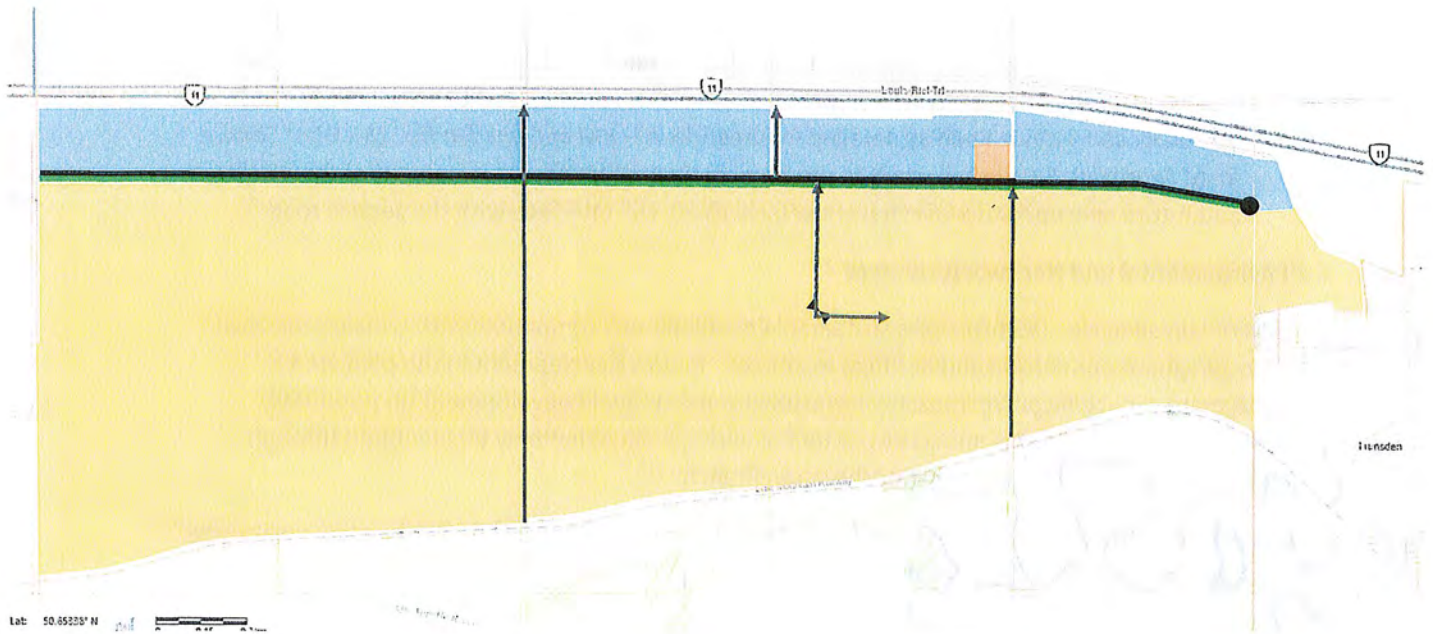
- Attract commercial and light industrial businesses by identifying appropriate locations for development and ensuring safe and adequate access to the provincial highway network.
- Support the expansion of existing businesses in the region and provide opportunities for further economic diversification.
- Market the economic development incentives and programs to encourage growth.

Land Use Concept

This plan envisions the RM 189 West area as a rural extension of the Town of Lumsden with complementary commercial developments and additional housing choice. Residential developments will be high-quality and accessible to the regional area through pathways or trail systems. The commercial sector of the plan aims to attract highway commercial style developments complementary to the variety of services and businesses already available within the Town of Lumsden, that support the regional area. The transportation network is safe and efficient and manages heavy commercial traffic as well maintains volumes and restrictions adjacent to and through residential areas. The community balances the natural environment by complementing the valley views with high-quality landscaping and construction of commercial and residential properties.



Figure 1.9 - Land Use Concept



Lat: 50.65220° N

Legend

- Service Road Corridor
- Collector Roads
- Municipal Buffer
- Commercial
- Residential (Subject to Geotechnical Assessment)
- Public Utility

6. LAND USE POLICY

The design of the plan area should be focused on the development of a “whole” community that is sensitive of natural features, is safe and accessible for multiple modes of transportation, and is interconnected with the surrounding development and creates a high-quality development that enhances the scenery of the Qu’Appelle valley.

6.1 General

The following policies apply to all development within the RM 189 West Sector Plan area:

1. All future development will be required to inform a concept plan that aligns with the direction presented in this plan to guide rezoning and subdivision applications.
2. The location of land uses shall be generally consistent with the Land Use Concept Plan
3. The proposed Service Road as detailed in Appendix A – *RM of Lumsden No. 189 West Service Road Feasibility Study* shall serve as the primary arterial for the development of the plan area and future concept plans will show how local roads will interface with the service road.

6.2 Environmental and Heritage Resources

The RM of Lumsden No. 189 promotes sustainable development compatible with critical ecological areas to safeguard our natural and heritage resources. Future development in the plan area is encouraged to reduce negative impacts on the environment, avoid development on potentially hazardous lands, and mitigate impacts to potential heritage sites that may be identified through additional screening by the Heritage Conservation Branch.

In addition to the polices within the OCP, the following environmental and heritage policies will guide future development within the plan area.

Policy

- In conjunction with the preparation of a Concept Plan, developers shall submit a Phase 1 Environmental Site Assessment for the subject area.
- In conjunction with a subdivision or development permit application on lands exhibiting potential for rare or endangered species, the developer shall conduct a natural area screening consistent with the Species Detection Survey Protocols and the Activity Restriction Guidelines for Sensitive Species to mitigate any potential impacts.

6.3 Transportation

The absence of an east-west Township Road through the plan area inhibits access for future development as it has been determined by the Ministry of Highways that direct access to the Provincial Highway No. 11 will be removed and consolidated along this corridor to the ultimate connections with Provincial Highway No. 54 to the west, and Provincial Highway No. 20 to the east. The policies provided in this plan will focus specifically on the consolidation of access west toward Highway No. 54 and the provision of an east-west service road through the plan area to a future interchange with Highway No. 54.

It is worth noting that the connection east via 8th Avenue may be explored in the future in conjunction with the Town of Lumsden following the adoption of the RM 189 West Sector Plan. Currently 8th Avenue


is legally closed and has not been used by vehicular traffic in many years. At present, 8th Avenue is used as a walking path by local residents offering scenic views of the valley. The road structure has not been maintained and will require significant upgrading. Therefore, any discussions regarding opening and re-constructing 8th Avenue for use by the travelling public will need to be undertaken as a joint venture with the Town of Lumsden, as the jurisdiction of 8th Avenue roadway falls under both municipalities, respectively.

The plan area will transition from the current development form focusing primarily on access from Provincial Highway No. 11 to the proposed service road setback from the highway, with fully integrated commercial and country residential style development. Existing access points to Highway No. 11 will be phased out over time. The main access through the plan area will be the proposed service road, with the main access off Highway No. 11 occurring at the West Central Access. The proposed Service Road Corridor will be designed to the RM's Internal Commercial/Industrial Road standard with a 46 metre Right-of-Way and buffer zone to create separation between the proposed commercial development to the north from the proposed residential development to the south and provide a future utility corridor and active transportation pathway.

Local roads and pedestrian infrastructure will be phased-in as needed to support development proposals and utility services, recognizing that full build-out of the plan area will depend on the timing of individual landowners and their development plans. As a component of any future concept plan for future residential areas, consideration should be given to preparing a traffic impact assessment as well as a circulation plan for both vehicular and pedestrian activity.

Transportation Policy

General Policies

- 
- The location and design specifications of the future service road shall be in accordance with Appendix A – Service Road Feasibility Study. The configuration and linkage of local roads and active transportation infrastructure shall be determined at the concept plan stage and finalized at the subdivision stage.
 - ~~To identify the RM's interest in acquiring the land for the future service road, an interest will be registered on the Title of all affected lands pursuant to section 235 of *The Planning and Development Act*.~~
 - Land for the proposed service road shall be dedicated at the time of subdivision as per section 184 of *The Planning and Development Act*.
 - The developer will be responsible for expanding existing or constructing new infrastructure where required to directly service a proposed subdivision or development application.
 - If it determined that the construction of the service road should proceed prior to development, the RM will determine a funding model to construct the road and may recoup the capital costs through a servicing agreement or a development levy.
 - Prior to subdivision approval, a Transportation Impact Assessment for future development shall be submitted, which provides solutions, satisfactory to the RM and the Ministry of Highways, for traffic management, including the safe and efficient movement of:
 - Vehicles, including lane configuration, intersection design, signalization and traffic control.



- Pedestrian and cycling pathways, including traffic calming (where applicable), pedestrian crossings location and design, etc.
- Landscaping of boulevards/medians as well as the buffer zone are encouraged within the Service Road Corridor to enhance the separation between the commercial and residential areas.
- Physically separated multi-use pathways are encouraged within the buffer zone.

Operational Policies

- Access to the plan area from Provincial Highway No. 11 shall be the West Central Access, until such time as development within the plan area warrants, and the access is required to be removed and consolidated further west, to the West Access, or to the ultimate connection with Range Road 2221 and the intersection of Provincial Highway No. 54.
- Primary access to the plan area will be the West Central Access, which will be a controlled, full-access intersection with stop control on side streets.
- The existing service road along the northern portion of the NE 31 may remain to provide access to the existing commercial properties, with the primary access/egress to Provincial Highway No. 11 being from the West Central Access location.
- The existing Central Access will be removed by the Ministry of Highways as soon as is practical.
- The lands located within the Eastern portion of the plan area, known as Parcel C, Plan 101443823 and the NE 32-19-21-W2 Ext. 123, may continue to use the East Access, as development warrants, or until such time the East Access is removed, at which time, the lands may tie into the eastern limits of the Service road, or an alternative access is available.
- Future development within the NE 36-19-22-W2M, beyond the uses for which the land is currently zoned, will be limited within the Right-of-Way/Interchange area, until a functional study with the location of the interchange and potential land requirements are known.

6.4 Infrastructure Servicing

The plan area does not currently have any municipal infrastructure such as municipal water or sewer systems. Therefore, future development will rely upon on-site systems, as density will allow, or will be required to negotiate the provision of municipal services with the Town of Lumsden, at the discretion of the Town. If the Town agrees to the extension of such services, the developer shall be solely responsible for the financing and construction of all necessary infrastructure to facilitate the connections to the Town's water and wastewater systems. The logical phasing of services would come from the east and be extended westward as development warrants and the Town's municipal system can support.

Policy

- The specific location, capacity, and standard of services required to support subdivision and/or development shall be confirmed through the preparation of a concept plan.
- New developments may be serviced with onsite systems. Where feasible, connections to the Town of Lumsden's sanitary sewer and water systems are encouraged.
- The provision of Town service extensions is at the Town's discretion. If the Town approves the extension of such services, the rural developer shall be responsible for the financing and construction of all necessary infrastructure required to facilitate the new connection.

- Developments proposing to connect to Town services shall be required to execute a servicing agreement with the Town.
- New public infrastructure shall be designed by a qualified professional engineer licensed to practice in Saskatchewan and shall comply with current adopted municipal standards.

6.5 Commercial and Light Industrial Lands

The RM189 West plan area strives to be a business corridor for the region and provide a range of complimentary commercial and light industrial uses for the area. Demand for larger-scale commercial and light industrial development lands in proximity to the Town of Lumsden has increased over time and continues to increase as local businesses expand and new ones seek to establish themselves in the Lumsden area.

With high visibility and significant traffic volumes along Highway No. 11, the commercial policy area is optimal for meeting the retail and service needs of the travelling public, and the commercial and employment needs of the local and regional residents. Development in these areas will support vehicle-oriented uses and will likely include businesses with variable hours of operation.

It is anticipated that the commercial policy area within the plan will support a mix of commercial and light industrial businesses such as light manufacturing or processing facilities, automotive and recreational vehicle sales and service, warehousing or wholesale and retail.

Policy

- Businesses adjacent to Highway No. 11 and the Service Road shall include high-quality landscaping treatments and screening to enhance the visual appeal of the plan area. Loading areas, outdoor storage of recreational vehicles or unfinished goods and materials shall be screened from adjacent roadways using a combination of landscaping and fencing.
- Businesses and activities that produce smoke, dust or ash, odour, gas, glare or heat or other similar nuisances shall be discouraged, unless it can be demonstrated that such nuisance can be adequately mitigated.

6.6 Residential

The southern half of the plan area will accommodate future residential development. Lands designated for future residential will encourage a variety of housing stock for the region to provide new neighbourhoods that can accommodate a range of incomes and lifestyles. It is anticipated that residential development patterns will be primarily single-family homes. The maximum density for new rural residential subdivisions in the Joint Planning Area with the Town of Lumsden shall not exceed a density of 4.0 dwelling units per hectare. The provision of housing density and location shall be determined at the concept plan stage.

Policy

- Residential development will occur at a density that can be supported by the provision of onsite services or the logical extension of municipal servicing and infrastructure.
- A range of housing types complementary to existing and future residential development in the Town of Lumsden shall be encouraged to support differential residential opportunities and lifestyles within the region.



- Residential development shall be oriented towards local streets, not the service road.
- Roadways in residential areas shall follow the RM's road development standards.

6.7 Community Service, Parks and Recreation

As the plan area develops there will be an increased demand for active transportation and new public recreation facilities to meet the needs of the diverse population. Spaces for public recreation such as trails will be well-designed and accessible throughout the plan area, which includes a designated parkway corridor located directly south of the service road. The designated parkway corridor will serve as a buffer between commercial and residential land uses, but also provide a multi-use path with high quality landscaping to connect residential neighbourhoods to commercial employment areas and other community amenities in the region. Additionally, it may also be used to accommodate utilities as required in the plan area. Additional pathway connections and the provision of local neighbourhood parks will be determined at the concept plan stage.

Policy

- The location of the designated parkway corridor south of the service road shall be in general accordance with this plan. Concept plans shall integrate the designated parkway corridor with other multi-use trail networks, local neighbourhood parks and regional amenities.
- Multi-use pathways may be located along major roadways, utility corridors, or as physical separation between potentially incompatible uses.
- Where it is not practical to dedicate land for parks, cash-in-lieu may be accepted to fund regional recreation projects.
- Local parks should be centralized within new residential areas and include smaller-scale facilities and amenities to serve the recreational needs of the local residents.
- The construction of local parks will be the sole responsibility of the developer.



7. PLAN IMPLEMENTATION

Any future development within the plan area will require the developer to submit a subsequent concept plan in advance of rezoning and/or subdivision. The concept plan must align with the OCP and policies established in this plan. Council may adopt a concept plan as an amendment to the OCP in accordance with section 44 of *The Planning and Development Act, 2007*.

Phasing of Development

The phasing of future development will be based on the availability of services, existing development conditions, and the interest of the landowner. The phasing of development and future service road corridor will be guided by the following:

Policy

- The phasing of development should consider the provision of services required to support the proposed development and align with availability or the logical extension of services.
- Phasing of development shall be logical with respect to available servicing capacity or existing service extensions. Should a landowner wish to proceed with a development in advance of service availability, they shall be responsible for demonstrating the feasibility of providing services and infrastructure to the site through the preparation of a concept plan.
- All developments within the plan area shall dedicate the service road at a location, width and design standard consistent with the West Service Road Feasibility Study.
- If it has been demonstrated through the preparation of concept plan that a proposed development has access to the required servicing, the development process may proceed. Subdivision and development applications will be reviewed on their ability to provide the necessary infrastructure, and on their own individual merits with respect to this plan.

Plan Amendment

From time to time, as required, the municipality may amend this plan. Any proposed amendments must be in accordance with the provisions outlined in *The Planning and Development Act, 2007*. Any amendments must be consistent with the overall intent of the RM's OCP and align with OCP policies.





an Englobe company

Final Report for:

**RM OF LUMSDEN NO. 189
WEST SERVICE ROAD
FEASIBILITY STUDY**

MPE Engineering Ltd.
Unit 122, 103 Marquis Court
Saskatoon, SK
P: (306) 668-1966

Date: April 27, 2023
Project #: 6710-013-00

Jamie Kunz, Engineering Licensee
Project Manager

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www.mpe.ca

CORPORATE AUTHORIZATION

This report has been prepared by MPE Engineering Ltd. (MPE), for the sole use of the Rural Municipality of Lumsden. Any use that a third party makes of this report, or reliance on or decisions made based upon it is the responsibility of the third party. MPE accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions taken based upon this report. This report represents MPE’s best judgement, based on the information available at the time of report preparation.

Respectfully submitted,
MPE ENGINEERING LTD.

Prepared by:



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Association of Professional Engineers & Geoscientists of Saskatchewan		
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Permission to Consult held by:		
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CIVIL	37882	

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1 INTRODUCTION

This report presents the results of a feasibility study conducted by MPE Engineering Ltd. (MPE), for the proposed West Service Road located immediately west of the Town of Lumsden within the Rural Municipality of Lumsden No. 189 (RM). The intent of this feasibility study is to supplement the concepts outlined in the *RM of Lumsden – RM 189 West Sector Plan*.

2 PROJECT DETAILS

The RM would like to build a service road adjacent and South of Highway 11 between Highway 54 and the Town of Lumsden and is therefore looking into the feasibility and geometrics. This area is seen as a potential future multi lot industrial/commercial and residential development that will allow connectivity to Highway 11 for businesses and scenic views of the Qu'Appelle River Valley for residences. For the purposes of this feasibility study, the focus is specific to the proposed roadway. Infrastructure such as water and sewer are not reviewed as part of this assessment. A site plan can be found in **Appendix A**.

As part of the feasibility study, MPE completed the following tasks:

- Traffic Analysis.
- Pavement Structure Analysis.
- Geometric Analysis.
- Cost Analysis.

2.1 BACKGROUND INFORMATION

The following items have been reviewed and taken into consideration for this report:

- Grand Valley Acres Concept Plan (July 2020) by GeoVerra.
- Emshay Enterprises Ltd. – Norm & Laura Colhoun Grand Valley Development Concept Plan (May 2018) by Altus Group.
- RM of Lumsden Road Development Policy (April 2020).
- RM of Lumsden – RM 189 West Sector Plan.
- Grand Valley Developments Inc., Dowalo Holdings Ltd., Norm Colhoun and Wayne Goodsman – Traffic Impact Assessment (May 2017) by KGS Group.

3 TRAFFIC ANALYSIS

3.1 BACKGROUND DOCUMENT REVIEW

The RM provided various policies, studies and transportation planning documents that have been completed for the study area. The planning studies and documents are both historical and current dating back to 2017. The following are relevant to the traffic analysis:

Grand Valley Developments Inc., Dowalo Holdings Ltd., Norm Colhoun and Wayne Goodsman Traffic Impact Assessment, KGS Group Consulting Engineers, May 2017 (2017 TIA): This study addresses the potential traffic impacts of the proposed mixed land-use development of the lands located at N.W. ¼ Section 32 – 19 – 21 W2M, E ½ Section 31 – 19 – 21 W2M, and Parcel C Plan 101443823. The study assumed an east-west service corridor connected to 8th Avenue and two accesses at Highway 11. The

study looks at the proposed development Phase 1, full development by the 10-year horizon, and 20-year horizon.

RM of Lumsden – RM 189 West Sector Plan: The most recent concept plan, also known as RM189 West, for approximately 348.702 ha of land located south of the Provincial Highway 11 between the Highway 11 and Highway 54 junction, and the corporate boundary at the Town of Lumsden; which includes NW ¼ 36-19-22-W2, NE ¼ 36-19-22-W2, NW ¼ 31-19-21-W2, Parcel A Plan 96R08987 Ext. 0, NE ¼ 31-19-21-W2 Ext. 137, SE ¼ 31-19-21-W2 Ext. 293, Parcel A Plan 101443586 Ext. 134, Parcel D Plan 102253902 Ext. 0, Parcel C Plan 102253902 Ext. 0, NW ¼ 32-19-21-W2 Ext. 1, Parcel C Plan 101443823 Ext. 127, as presented in the report. The concept plan presents the proposed land uses, connectivity, and transportation assumptions. It does not provide many subdivision details for the site lands or total future traffic estimates.

Grand Valley Acres Concept Plan, GeoVerra Inc., July 2020: The most recent concept plan for 23.9 ha of lands located at E ½ Section 31 – 19 – 21 W2M. The report presents the proposed subdivision, design rationale, proposed land uses, connectivity and transportation, phasing, and serviceability of the project. The assumed transportation system is based on the 2017 TIA report.

Rural Municipality of Lumsden NO.189, Bylaw No. 2 – 2018: A proposed bylaw to amend Bylaw No.6 – 2012 known as the Official Community Plan of the RM. *It should be noted that this bylaw was never granted Ministry approval and was eventually repealed by the RM.* However, the draft bylaw provides insight to concept plans for various lands located at N.W. ¼ Section 32 – 19 – 21 W2M, E ½ Section 31 – 19 – 21 W2M, and Parcel C Plan 101443823. The bylaw presented proposed subdivision, design rationale, proposed land uses, connectivity and transportation, phasing, and serviceability of the project. The assumed transportation system is based on the 2017 TIA report.

3.2 ASSUMPTIONS AND ANALYSIS

MPE reviewed the background traffic and planning information. The purpose of this analysis is to estimate the Annual Average Daily Traffic volume anticipated along the service road corridor based on the proposed land uses. The 2017 TIA serves as basis for our traffic generation assumptions while the RM189 West Draft Report provides the development anticipated land use types. The Grand Valley Acres Concept Plan provided the concept plan for these lands and provided input to the assumptions for commercial and residential development rates. Estimating traffic volumes from the new development site was done based on trip generation rates from the Institute of Transportation Engineers (ITE) publishes the *Trip Generation Manual*¹ (TGM).

The following are the project assumptions:

- New highway commercial areas are assumed to be zone classification C2 and have a development density of 1.41 commercial subdivision units per ha. Each commercial subdivision unit is assumed to have one standing alone building. The nature of the commercial businesses can range from low traffic businesses, agriculture centres and dealerships to high traffic businesses such as service stations, fast food restaurants and hotels. The type of commercial development is unknown at

¹ Institute of Transportation Engineers. *Trip Generation Manual 10th Edition*. Washington, D.C.

this time and therefore conservative design volumes have been calculated in Table 3.1.

- New residential areas are assumed to have a development density of 1.02 dwelling units per ha. This development density is being assumed based on the number of lots shown in the historical planning reports reviewed as part of this assessment. The average development density considers higher density units and lots (2.5 units per ha.) at the east end of the service area, closer to the Town of Lumsden, where the proposed lot sizes are smaller and lower density units and lots (<1.0 units per ha.) extending further west as the development trends towards larger acreage lots.
- The ITE TGM land use 710 (ITE LU 710), General Office, is assumed for estimating highway commercial trips. It is also assumed that each commercial subdivision unit will have, on average, 3 employees. Therefore, the independent variable for trip generation is the number of employees.
- The ITE TGM land use 210 (ITE LU 210), Single-Family Detached Housing, is assumed for estimating residential trips.
- It is assumed that existing trips are minimal. Therefore, future trips are those resulting from the trip generation assessment.
- Full development is assumed by the 10-year horizon. No further developments are anticipated in the study area within the 20-year horizon; however, it was assumed that full development traffic volumes will increase by the 20-year horizon applying a Growth Factor of 1.1, to be conservative. The design volumes are the anticipated traffic volumes by the 20-year horizon.

Site trip generation estimates by the 20-year horizon are presented in Table 3.1 – Design Volumes.

Table 3.1: Design Volumes

Area	Land Use	Total Units ¹	10-Y AADT ²	20-Y AADT ²
C, Plan 101443823	Highway Commercial	1	10	10
	Residential	15	142	160
NW 1/4 32-19-21W2	Highway Commercial	19	187	210
	Residential	48	453	500
E 1/2 31-19-21 W2 Plans A, C, and D	Highway Commercial	11	108	120
	Residential	75	708	780
NW 1/4 31-19-21W2 A Plan 96R08987	Highway Commercial	25	246	270
	Residential	27	255	280
NE 1/4 36-19-21W2	Highway Commercial	25	246	270
	Residential	27	255	280
NW1/4 36-19-21W2	Highway Commercial	25	246	270
	Residential	27	255	280
Total Area	Highway Commercial	106	1043	1150
	Residential	219	2067	2270
TOTAL			3100	3,400
Notes:				
1. Commercial subdivisions for highway commercial land use; and dwelling units for residential land use.				
2. Annual Average Daily Traffic (AADT) in vehicles per day.				

3.3 FINDINGS

A Traffic Impact Assessment has not been completed for the proposed concept plan of the approximately 348.702 ha of land located south of the Provincial Highway 11 between the Highway 11 and Highway 54

junction, and the corporate boundary at the Town of Lumsden, also known as RM189 West; including current transportation system assumptions.

Based on the high-level traffic analysis, the proposed development is anticipated to include approximately 106 commercial subdivisions and 219 dwelling units at full development. The proposed development is anticipated to generate 3,400 vehicles per day by the 20-year horizon (full development).

4 PAVEMENT STRUCTURE ANALYSIS

4.1 GEOTECHNICAL DATA

No geotechnical investigation was completed in the development of this report. An existing geotechnical report by Ground Engineering was utilized from the *Grand Valley Acres Concept Plan* (July 2020) by GeoVerra. The site investigated was limited to the east end of the proposed area.

4.2 PAVEMENT DESIGN

Pavement structure recommendations are provided in the following subsections. Recommendations provided in this report are based on the assumption that soil conditions are similar to the conditions represented by the nearby borehole data. Additional geotechnical investigation is recommended to confirm that these assumptions are reasonable.

MPE takes no liability for work performed where MPE is not retained to provide adequate construction supervision services. Construction supervision should include full-time monitoring and compaction testing for earthworks and asphalt testing during paving.

MPE conducted a pavement structure design based on available data, as summarized in this report. The pavement design was based on the American Association of State Highway Transportation Officials (AASHTO), 1993.

4.2.1 Traffic Loading

Based on the data provided and the proposed development, the average annual growth rate and truck traffic percentage of AADT was assumed as 3.0%. Assuming a 20-year design life, the design ESALs will be 6.73×10^5 .

4.2.2 Design Inputs

The following design inputs were selected for the pavement design analysis:

- Reliability: 85%
- Standard Deviation (S_o): 0.45
- Initial Serviceability Index of 4.2
- Terminal Serviceability Index of 2.5
- Drainage Coefficient: 1.0
- Structural Layer Coefficients:
 - Asphalt Concrete (ACP): 0.40
 - Granular Base Course (GBC): 0.14
 - Granular Subbase Course (GSBC): 0.10

4.2.3 Subgrade Support Characterization

For design purposes, a subgrade resilient modulus (M_R) of 35 MPa has been assumed. This assumed value is conservative based on the data provided and reviewed. The use of a woven geotextile may be used as needed to provide both separation and reinforcement of the subgrade/granular base course interface.

4.3 RECOMMENDED PAVEMENT STRUCTURES

Based on the design inputs and assumptions described, MPE's proposed pavement structure is as detailed in Table A below:

Table A – Proposed Pavement Structure

Parameter	Design Thickness (mm)
Required Structural Number for 6.73×10^5 ESALs	93
Actual Structural Number	93
Asphalt Surface Course (16 mm)	90
Granular Base Course (25 mm minus)	150
Granular Subbase Course (80 mm minus)	360
Subgrade Preparation	300
Road Classification	Internal Commercial/Industrial Subdivision Road

The asphalt concrete paving materials and their placement should also conform to Saskatchewan Ministry of Highways Surfacing Manuals and Specifications, unless otherwise approved by the Engineer. Asphalt mix and binder types should be assessed and approved during detailed design.

5 GEOMETRIC ANALYSIS

5.1 LAND FUNCTION

Currently, most of the land for the proposed roadway functions as uncultivated pasture with minimal vegetation cover or cultivated agricultural land. Generally, the area is relatively flat and uses overland drainage from Highway 11, South towards the Qu'Appelle Valley.

For the land parcels that have developed residential and commercial properties, coordination with the existing facilities and private roads will be needed to determine altered accessibility.

5.2 STANDARDS

MPE reviewed Transportation Association of Canada (TAC), Saskatchewan Ministry of Transportation and RM of Lumsden Development Standards during the feasibility study design process. A summary of the assumed design parameters used can be found in the next section.

5.3 GEOMETRIC DATA

For design purposes, MPE assumed the horizontal alignment outlined in the draft *RM of Lumsden – Highway No. 11 South Corridor Concept Plan and Mixed Land-Use Feasibility Study* and discussed in preliminary concept drawings for the Grand Valley Development. For the vertical alignment, MPE used Softree Optimizer to provide insight for the development of an efficient and balanced roadway design using the following assumptions:

- 4.8km Roadway.
- Design speed 80km/h, posted speed 70km/h

- Road cross section selected as Internal Commercial/Industrial Subdivision Road from R.M. of Lumsden Development Policy.
- 4:1 side slopes and 5:1 back slopes.
- -5% to +5% minimum and maximum design gradient grades.
- Minimum K values for vertical curves assumed 35 for crest curves and 35 for sag curves to provide proper stopping sight distances and ride comfort control.
- Minimum vertical curve length of 120m and minimum tangent length of 90m.
- Common excavation soil shrinkage assumed to be 25%.
- Topsoil stripping up to 200mm depth.

Based on these inputs, MPE predicts a roadway with a tie in point to the intersection of Highway 11 and 54, a 90 degree turn heading East, a cul-de-sac design large enough for commercial/industrial vehicles, and a vertical alignment that follows the terrain as best as possible with approximately 14 vertical curves and 60,500m³ of common excavation over 4.8kms.

It should be noted that, at this time, a connection to 8th Avenue has not been assessed as part of this feasibility study at the request of the RM of Lumsden.

Additional concept plans will need to be developed for the phasing of the road construction to better align with development approvals and development construction schedules. Based on initial discussions with the Ministry of Highways, it is anticipated that all highway points of access servicing the area are to be removed between Highway 54 and the Town of Lumsden. Consideration for phasing the removal of the accesses should be discussed with the Ministry which would help maintain a reasonable flow of traffic during the project development stages.

5.4 PHASING

As part of this report, MPE has prepared one (1) phasing option that would provide the RM some flexibility in phasing the construction of the service road given that the current proposed development plans for the area are at the east end of the service road nearest the Town of Lumsden. The first phase would see the construction of the service road between the “West Central Access” and the east cul-de-sac. This option would require that the “West Central Access” be maintained during the first phase of the project. It would allow for the closure of the “Central Access” and any other farm access points along the corridor. The east access would be maintained as a right in right out until 8th avenue feasibility study has been completed with the town. This would also allow for staging of future development of the service road to the West, as required to provide access to future development.

The second phase would see the construction of the service road between the “West Access” and “West Central Access”. This option would require that the “West Access” be maintained during the first phase of the project. It would allow for the closure of the “West Central Access” and any other farm access points along the corridor. The east access would be maintained as a right in right out until 8th avenue feasibility study has been completed with the town. This would also allow for staging of future development of the service road to the West, as required to provide access to future development.

The third phase would see the construction of the service road between the “Highway 54 Access” and the “West Access”. It would allow for the closure of the “West Access” and any other farm access points along the corridor. The east access would be maintained as a right in right out until 8th avenue feasibility study has been completed with the town. This would also allow for staging of future development of the service road to the West, as required to provide access to future development.

See **Appendix A** for a site plan of the proposed phasing option.

5.5 LAND NEEDS

The land needs for this project will be a cost that will need to be considered in the overall feasibility of this project. For this study and the cost analysis below, an allowance for the purchase of pastureland has been made through the road right of way. Assumptions of land cost for this report have been made using prices from the FCC Farmland Values report from 2020. Costs may increase based on potential land use valuations for commercial, industrial, country residential or farmland.

To meet the standards of a full Internal Commercial/Industrial Subdivision Road, a total right of way of 46m should be acquired. This would require roughly 55 acres (22 hectares) of land to be purchased for the new road right of way. If feasible, it is recommended that land acquisitions for the entire service road be purchased regardless of potential phasing plans. Purchasing the entire ROW helps mitigate the risk of inflation of land prices due to demand and appreciation as well as provide flexibility should the RM decide to move forward with the full development of the access road.

6 COST ANALYSIS

6.1 GENERAL COST ASSUMPTIONS

Assumptions for the feasibility study cost analysis include:

- General requirements 6% of construction costs.
- Extra work allowance 15% of construction costs.
- Unit rates assumed from similar scope of work and constructed in 2023.
- No allowance for environmental services.
- No allowance for relocation or modifications of existing shallow utilities or conflicts.
- No allowance for electrical and lighting upgrades.
- No allowance for water or sewer servicing.
- G.S.T. and P.S.T. not included.
- Unit prices are an opinion of probably costs and is a function of factors that can change with time and hence must not be relied upon for actual cost.

6.2 INTERNAL COMMERCIAL/INDUSTRIAL ROADWAY

Based on the assumptions above and an Internal Commercial/Industrial Roadway cross section, MPE's anticipated order of magnitude cost is, Construction \$6,504,350, Extra Work Allowance \$975,700, Engineering and Geotechnical Services \$845,600 for a total project total of **\$8,325,650**. A detailed break down of the cost analysis can be found in **Appendix B**.

7 DISCUSSION

7.1 CONSTRUCTION PHASING OPTIONS

It is understood that the current accesses from Highway 11, between Highway 54 and the main Town access, need to be closed. This understanding is based on discussions between the RM and the Ministry of Highways.

There are several factors that need to be reviewed when developing the next steps and considering phasing. The following are a highlighted few for consideration:

- Ministry of Highways access closure requirements.
- Location of development approvals.
- Traffic impacts for each proposed development.
- Cul-de-sac length and emergency access.
- Capital costs for the construction of the service road.
- Servicing and development fees.

This report looked at one (1) phasing options. The first phase including the construction of the new service road between the “West Central Access” and the east cul-de-sac. The second phase including the construction of the new service road between the “West Central Access” and “West Access”. The third phase includes the construction of the new service road between “Highway 54 Access” and the “west Access”. The following is a high-level cost breakdown for each phase:

- Phase 1 West Central Access - \$3,187,058
- Phase 2 West Access - \$1,879,321
- Phase 3 Highway 54 Access to West Access - \$3,259,271

Section 16(5) of the Subdivision Regulations states that a cul-de-sac shall not exceed 150m without an access or 260m if an emergency access is provided. The ultimate plan and development will eventually include a loop road and additional residential accesses and exits. In the meantime, it is recommended the RM work with the Ministry of Highways through detailed design and discuss the possibility of maintaining East access as an emergency exit to satisfy safety expectations for the cul-de-sac.

8 CONCLUSIONS & RECOMMENDATIONS

8.1 CONCLUSIONS

The following conclusions can be made based on the feasibility study of the proposed West Service Road:

- The proposed service road will be approximately 4.8kms long with a cul-de-sac at the east end that will be connected to the residential sub-division in future development construction.
- The proposed development will have both industrial/commercial lots and residential lots. Through traffic analysis, MPE has determined the ultimate AADT to be approximately 3400 vehicles.
- The proposed pavement structure should have a structural number of 93 or higher at ultimate design. Phasing the asphalt with the needs and progress of the development should be considered.

- The horizontal alignment for the roadway was based off concept maps provided by RM. The vertical alignment has been optimized for construction efficiency and feasibility based on constraints from applicable standards.
- Land acquisitions for the new service road is approximately 55 acres.
- The service road is considered constructable and feasible to provide adequate access to the proposed area.

8.2 RECOMMENDATIONS

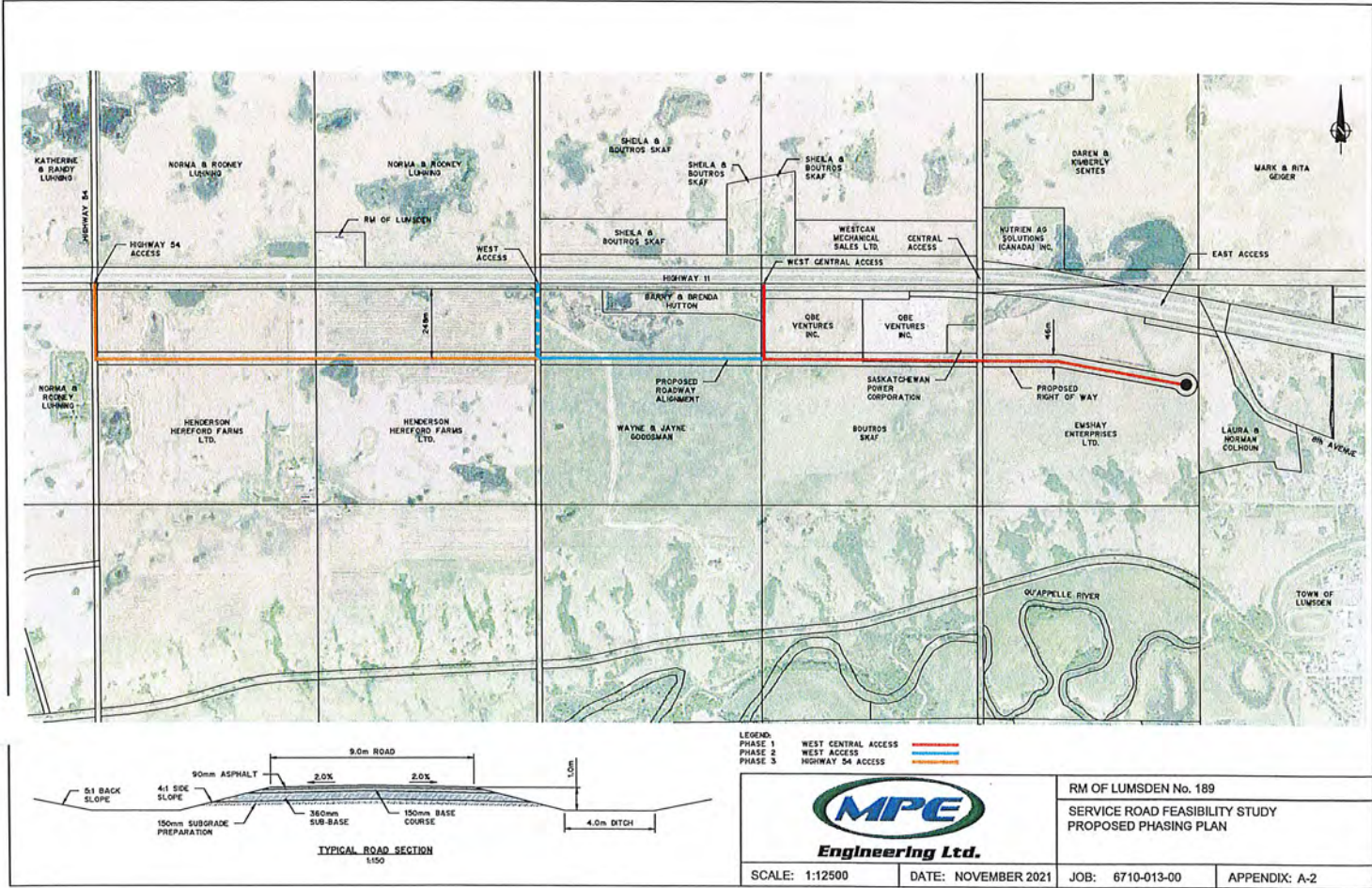
The following recommendations can be made:

- An ultimate pavement structure of 90mm of asphalt, 150mm of granular base and 360mm of granular subbase should be considered for the roadway. For feasibility, an asphalt phasing plan should be considered and developed with MPE to meet the needs of the development as it gets larger.
- Review phasing options for the proposed service road based on development interest and on-going discussions with the Ministry of Highways regarding access closure requirements.
- Include the findings of this report as supplemental feasibility level support to the *RM of Lumsden – RM 189 West Sector Plan*.

APPENDIX A:

DRAWINGS

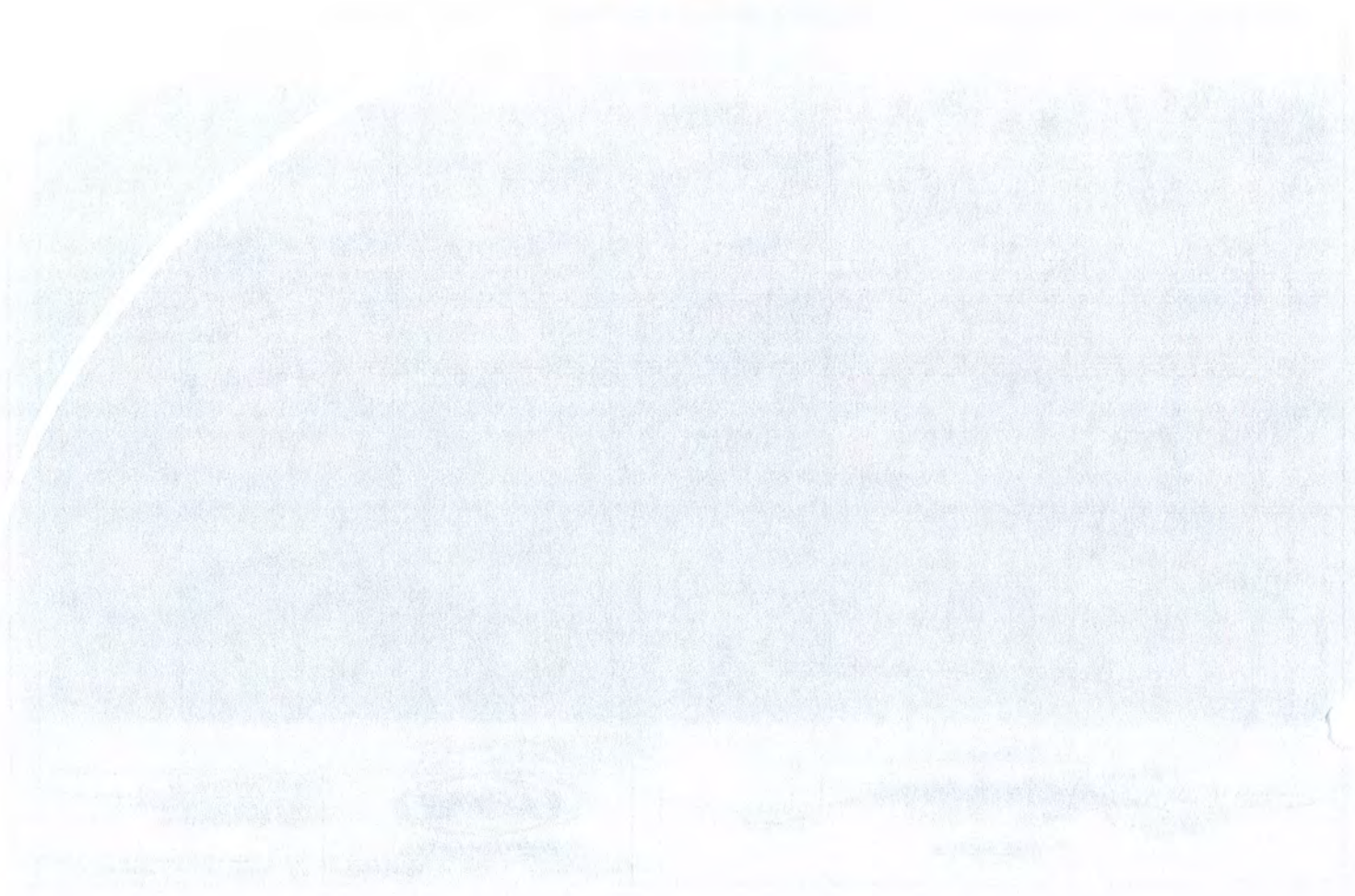




		RM OF LUMSDEN No. 189 SERVICE ROAD FEASIBILITY STUDY PROPOSED PHASING PLAN	
SCALE: 1:12500	DATE: NOVEMBER 2021	JOB: 6710-013-00	APPENDIX: A-2

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APPENDIX B:
COST ANALYSIS



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R.M. of Lumsden
Service Road Feasibility Study
Internal Commercial/Industrial Cross Section

ORDER OF MAGNITUDE COST ESTIMATE

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	COST
General Items				
1 General Requirements	1	L.S.	\$ 354,200.00	\$ 354,200.00
2 Hydro Excavation	22	hours	\$ 300.00	\$ 6,600.00
3 Topsoil Stripping	187,000	m2	\$ 0.75	\$ 140,250.00
4 Common Excavation	60,500	m3	\$ 12.00	\$ 726,000.00
5 Waste Excavation	1,000	m3	\$ 14.00	\$ 14,000.00
6 Subgrade Preparation	66,000	m2	\$ 1.00	\$ 66,000.00
7 360mm Granular Subbase Crush	53,000	m2	\$ 27.00	\$ 1,431,000.00
8 150mm Granular Base Crush	47,000	m2	\$ 15.00	\$ 705,000.00
9 Prime Coat	44,000	m2	\$ 1.20	\$ 52,800.00
10 90mm Hot Mix Asphalt	44,000	m2	\$ 58.00	\$ 2,552,000.00
11 Topsoil Placement, Hydro Mulch and Dryland Seed	143,000	m2	\$ 1.00	\$ 143,000.00
12 Culvert Allowance	220	m	\$ 300.00	\$ 66,000.00
13 Land Acquisition Allowance	55	ac	\$ 4,500.00	\$ 247,500.00
CONSTRUCTION SUB-TOTAL				\$ 6,504,350.00
EXTRA WORK ALLOWANCE (15%)				\$ 975,700.00
ENGINEERING AND GEOTECHNICAL SERVICES (13%)				\$ 845,600.00
GRAND SUBTOTAL				\$ 8,325,650.00

General Assumptions

- General requirements 6% of construction costs.
- Extra work allowance at 15%.
- Engineering services at 13%.
- No allowance for Environmental services.
- No allowance for relocation/modification of existing shallow utilities or conflicts.
- No allowance for electrical and lighting upgrades.
- Assumed \$4,500 per acre of pasture land.
- Roadway assumed to be 4.8kms.
- Roadway structure includes 90mm ACP, 150mm GBC, 360mm GSBC, 300mm Subgrade Preparation, 600mm Subcut
- Design speed 80km/h, posted speed 70km/h
- Road cross section selected as Internal Commercial/Industrial Subdivision Road from R.M. of Lumsden Development Policy.
- 4:1 side slopes and 5:1 back slopes.
- Minimum K values 35 for crest curves and 35 for sag curves.
- Minimum vertical curve length of 120m and minimum tangent length of 90m.
- Soil shrinkage assumed to be 25%
- Topsoil stripping depth up to 200mm
- G.S.T. not included.
- Unit prices are an opinion of probable costs and is a function of factors that can change with time and hence must not be relied upon for actual cost.