

Mud Lake Industrial Park Outline Plan

Town of Rocky Mountain House



Mud Lake Industrial Park Outline Plan

Town of Rocky Mountain House

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1.0 Introduction

1.1 Purpose

The purpose of the Mud Lake Industrial Park Outline Plan is to establish a land use framework and servicing objectives for approximately 19.29 ha (47.67 ac) area.

This Outline Plan specifies the following:

- Vision and Planning principles;
- Manner in which environmental features and natural areas will be incorporated into the development concept;
- Connectivity pattern of roadways and pedestrian walkways;
- Utility infrastructure concept and servicing schemes;
- Implementation and phasing of the development.

1.2 Authority

The Town of Rocky Mountain House East Area Structure Plan was originally adopted by Council in 2001 under Bylaw No. 00/18LU. The Area Structure Plan (ASP) outlines the overall policy framework for land uses, development patterns, and conservation of sensitive environmental features.

1.3 Timeframe

The Mud Lake Outline Plan has been prepared to accommodate demand for industrial development in the Town of Rocky Mountain House. Phase one of Mud Lake has a target completion of 2014 and Phase two completion once the well site is decommissioned.

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1.4 Policy Framework

1.4.1 MDP

In 2012, the Town’s Municipal Development Plan (MDP) was approved by Council providing a vision for Rocky Mountain House until 2035. The East Area Structure Plan advances the MDP’s vision for the Mud Lake area.

This section describes how the Mud Lake Outline Plan advances the vision and goals of the MDP and East Area Structure Plan.

13.1 Industrial Development

The Mud Lake Outline Plan has been developed in tandem with the Transportation Impact Assessment completed in June 2013. The industrial development will provide safe movement within the subdivision and strive to restrict industrial traffic from residential areas.

9.1 Natural Environment

The Mud Lake Outline Plan retains key ecological connections within the Plan area and encourages the use of native and natural plant species in the design of public places. Environmental Reserve is proposed along the shore of Mud Lake. This set back will insure the protection of environmentally sensitive land.

9.6 Land and Resources

The Mud Lake Outline Plan protects significant natural areas and promotes protection of water resources.

5.3 Relationship Clear Water County

The Mud Lake Outline Plan provides suitable transition between the Plan area and Clearwater County. Lands adjacent to the south boundary will be districted General Industrial. Landscaping around the south lots and architecture treatments will be considered to provide a transitional buffer.

1.4.2 East Area Structure Plan

East Area Structure Plan has zoned the subject land as General Industrial. This zoning allows for a range of Industrial development that mitigates the negative impacts on surrounding residential areas.

Transportation

The transportation network provides a hierarchy roadway system providing access throughout the Plan Area.

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**1.4.2
East Area
Structure
Plan**

Trail System

The proposed trail system is intended to provide access to public recreation amenities. There is a walking trail proposed along the west shore of Mud Lake which is intended to connect to the Rocky Mountain House Master Trail.

**1.5
Interpretation**

All map symbols, locations, and boundaries contained within The Mud Lake Outline Plan (referred to as the Plan) shall be interpreted as approximate unless otherwise specified within the Plan.



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2.0 Plan Context

2.1 Location

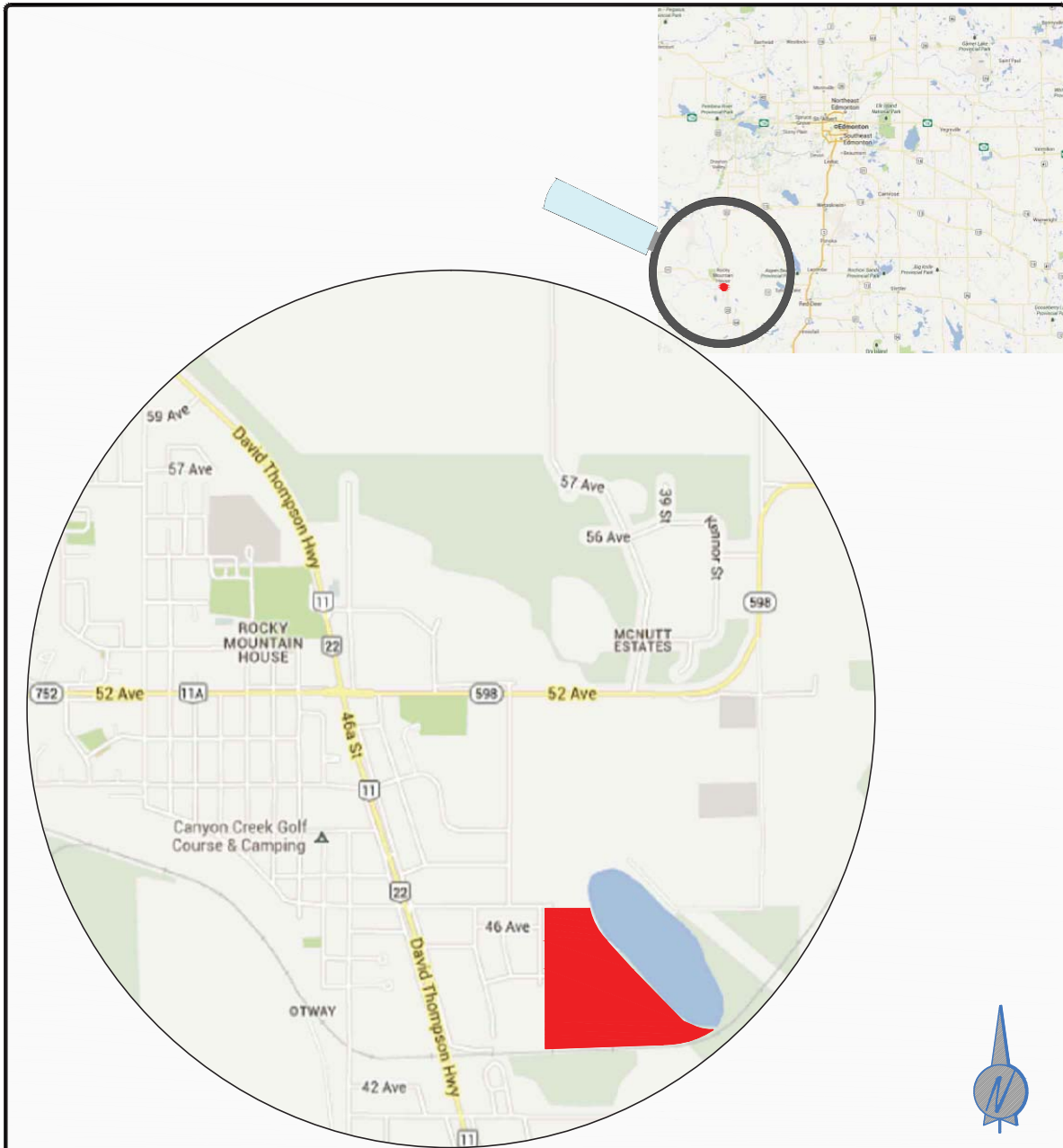
The Mud Lake Outline Plan is located within the south eastern portion of the Town of Rocky Mountain House, north of the Canadian National (CN) rail line and east of 42nd Street (see: Figure 1). The Plan Area is situated within the lands legally known as the S.E. ¼ Section 23-39-7-W5M.

The Plan Area is contained within the following boundary limits:


- Planned future industrial land to the north;
- Mud Lake to the east
- CN rail line to the south; and
- Industrial development to the west.

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Legend:

 Subject Plan Area

Mud Lake Industrial Park Outline Plan
Town of Rocky Mountain House

Figure 1: Location

Ptn. of SE¼ Sec. 23-39-07-W5M
Scale: NTS
July 10, 2013

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2.2 Land Ownership









The lands labelled within Figure 2 - Existing Land Uses are owned by Saba Homes Community Inc. who is committed to creating a high quality, attractive, and successful industrial park while carefully considering the constraints and opportunities of the area.

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Legend:

- | | | | |
|---|----------------------------|---|--|
|  | Pipeline R/W |  | Plan Area |
|  | Existing Gas Well Site |  | Existing Property Line |
|  | Private Owned Property |  | Existing Land Use -
General Industrial (GI)/
Owned by Saba Homes
Community Inc. |
|  | Municipal Reserve (MR) | | |
|  | Environmental Reserve (ER) | | |

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Figure 2: Existing Land Use

Ptn. of SE $\frac{1}{4}$ Sec. 23-39-07-W5M
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2.3 Plan Context

2.3.1 Topography

The topography of the lands within the plan is generally flat with a gentle slope at approximately 1%, from the west to the east towards Mud Lake. Elevations for the site range from 990m in the west central portion to 996m in the south-east corner. An elevated area exists on the western boundary of the Plan Area, but poses no particular constraints to future development. Surface drainage generally flows in a west-east direction towards Mud Lake. See Figure 3 – Topography.












Mud Lake Industrial Park Outline Plan

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Legend:

- | | | | |
|---|------------------------|---|-------------------------------|
|  | Pipeline R/W |  | Plan Area |
|  | Existing Gas Well Site |  | Existing Property Line |
|  | Environmental Reserve |  | 995.00 Existing Major Contour |
|  | Municipal Reserve |  | 995.50 Existing Minor Contour |
| | |  | Storm Major Flow |

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Figure 3: Topography

Ptn. of SE 1/4 Sec. 23-39-07-W5M
Scale: 1:4000
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2.3.1 Bio Physical

Genivar was retained to complete a Bio-Physical study for the Plan Area in May 2013.

A summary of their findings are provided below:

- No major limitations on the proposed development based on accepted environmental standards.
- No species at risk were noted or recorded in the area.
- No significant risk by future development.
- Planning and construction methodology can assure that the development of the lands can occur in a manner that assures minimal impact on the surrounding ecosystem.

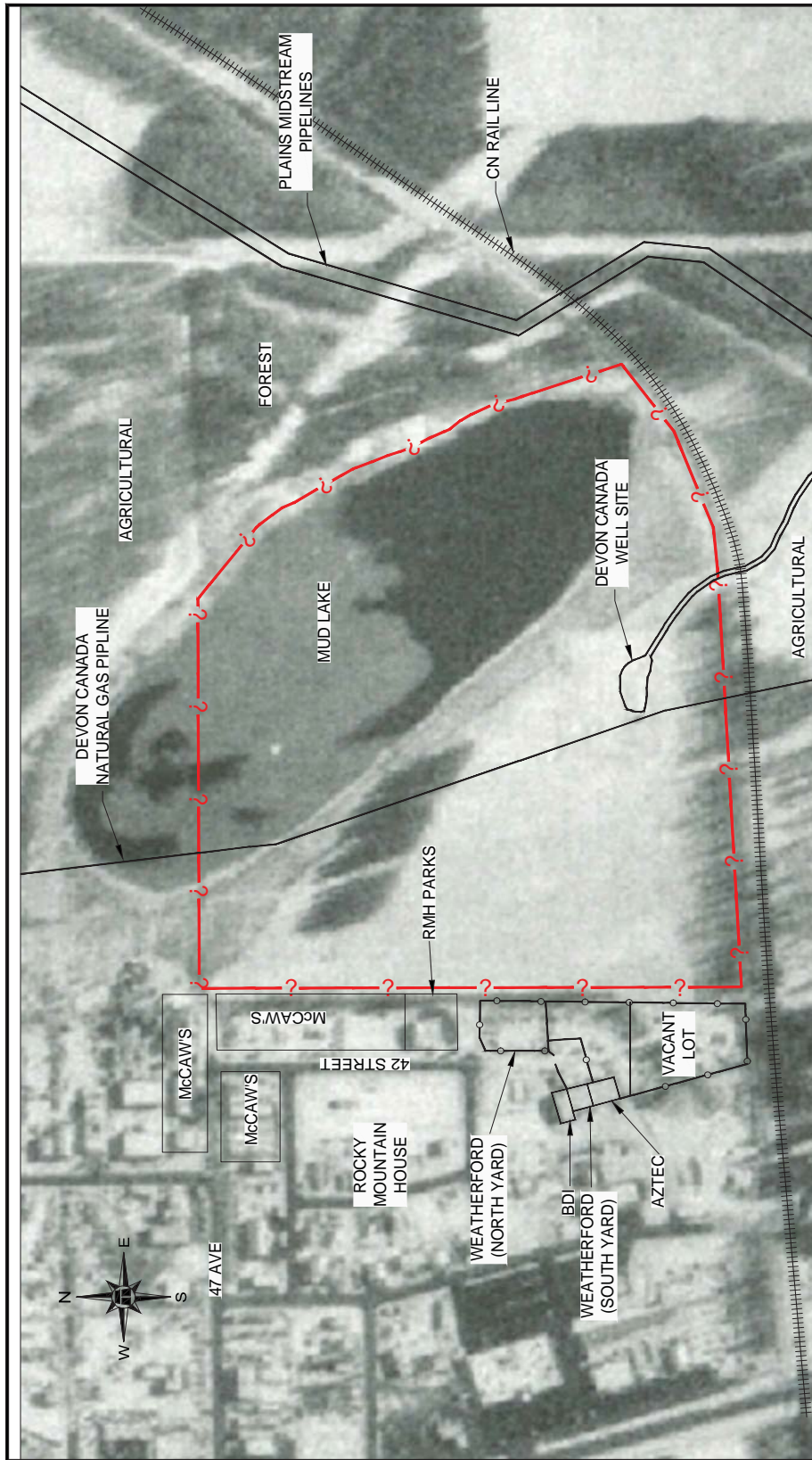
A full report is provided under separate cover.

2.3.2 Environmental Site Assessment

Thurber Engineering LTD. was retained to complete the Phase 1 Environmental Site Assessment (ESA) for the Plan area an initial ESA was completed in November 2004; with an update completed in June 2013. The Phase 1 ESA did not find any historical evidence indicating that the Plan Area had been impacted by contaminants above the generally accepted levels associated with sites of this nature. One area of potential environmental concern is the natural gas well site located in the south east portion of the Plan area.

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LEGEND

- ? APPROXIMATE SUBJECT PROPERTY BOUNDARY
- FENCE LINE



 THURBER ENGINEERING LTD.		DRAWN BY ML
		DESIGNED BY JIM
PHASE I ESA - PORTION OF SE 1/4 23-39-7 W5M ENVIRONMENTAL REPORT UPDATE		APPROVED BY NHF
		SCALE APPROX. 1:6000
SITE PLAN		DATE JUNE 2013
		FILE No. 19-6464-0B
HASCO DEVELOPMENT CORPORATION		DWG No. 19-6464-0B-1

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2.3.3 Historical Resources

Bison Historical Services Ltd. conducted a Historical Resources Impact Assessment (HRIA) for the Plan Area, in June 2013. The HRIA identified a possible historical resource site. This site includes lithic artifacts, and is of moderate historical significance. The developer recognizes the importance of the area and will preserve the area by designating it as an Environmental Reserve. As a result, the possible historical resource site will not be impacted by any future proposed development. Bison Historical advises that no further historical investigations are warranted, and it is recommended that Rocky Mountain House Mud Lake Industrial Park be given Historical Resource Act (HRA) clearance to proceed with development. Environmental Reserve area is 12 sq.m. The area is located in the south east radius of the well site, as shown on Figure 4 - Site Plan. A full report will be provided in a separate cover.



2.3.3 Geotechnical Evaluation

A geotechnical evaluation was completed by Thurber Engineering in December 2004 with an update to the original report in June 2013. The Plan Area will require consideration to the presence of clayey sands at relatively shallow depths combined with ground water varying between 1-3 m below existing ground. The Plan Area has been found to be suitable for industrial development. A full report will be provided under separate cover.

2.3.3 Well Sites

Devon Canada Corporation operates a natural gas well site in the south east portion of the Plan Area. A 100 m set back area has been established around the well site as per the Energy Resource Conservation Board (ERCB) regulation. The well site is expected to be in operation for the next 10-20 years. The well site radius will be respected and future development integrated with this feature.

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3.0 Land Use

3.1 Visions and Principles

Mud Lake Industrial Park is envisioned as a Business Park that has been designed to maintain a mix of industrial and office uses that will address the town's current and future needs.

3.2 Plan Concept

3.2.1 Site Design

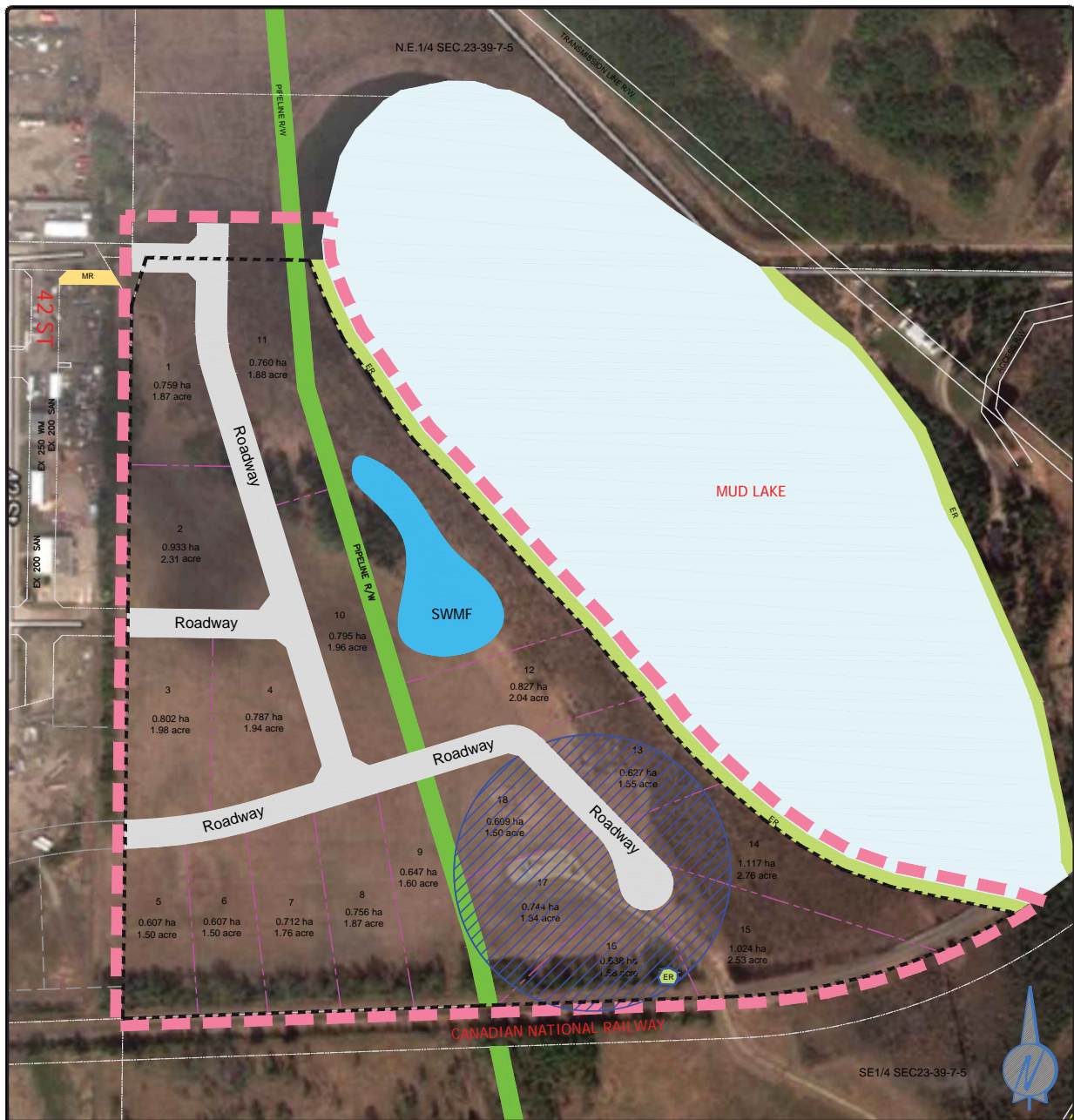
The development concept for the Plan area is to create an industrial and business park. The proposed land uses are consistent with the East ASP requirements to provide industrial development and open spaces.

The design of Mud Lake Industrial Park was conducted to incorporate the lake as a focal point. With the lake in close proximity the design process proceeded based on environmentally friendly and ecological planning and design concepts. The transportation system allows for three access points this allows a circulation pattern that promotes safety for a variety of different vehicles.

The plan will accommodate a variety of parcel sizes (minimum 1.5 acres). The size of parcels will be driven by market demand and will be confirmed during the subdivision stage. Industrial development will be compatible with the existing industrial uses to the west and will aim to reduce any off site impacts to the residential area south of the CN Railway. See Figure 4 - Site Plan.

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Legend:

- Pipeline R/W
- Existing Gas Well Site
- Environmental Reserve
- Municipal Reserve
- Proposed SWMF
- Plan Area
- Proposed Property Line
- Proposed Parcel Line
- Proposed Road R/W

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Figure 4: Site Plan

Ptn. of SE¼ Sec. 23-39-07-W5M

Scale: 1:4000

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**3.2.2
Rezoning
and
Subdivision**

The East Area Structure Plan designates the Subject lands as General Industrial. The plan describes this as “Industrial development will be undertaken in a manner that mitigates the impact of industrial uses on surrounding residential areas.” The Outline plan complies with this land use designation.











The Mud Lake Industrial Park will be subdivided into smaller parcels. The Subdivision will occur at the redistricting stage. See Figure 5 - Proposed Land Uses.

Mud Lake Industrial Park Outline Plan

Town of Rocky Mountain House



Legend:

- | | | | |
|---|----------------------------|---|--------------------------|
|  | Pipeline R/W |  | Plan Area |
|  | Existing Gas Well Site |  | Existing Property Line |
|  | Environmental Reserve (ER) |  | General Industrial (GI) |
|  | Municipal Reserve (MR) |  | Public Utility Lot (PUL) |
|  | Proposed Road R/W |  | Proposed SWMF Boundary |

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Figure 5: Proposed Land Uses

Ptn. of SE 1/4 Sec. 23-39-07-W5M

Scale: 1:4000

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3.2.3 Connectivity

A trail system in the Mud Lake Industrial Park is proposed to provide connectivity to Mud Lake, the storm pond and industrial areas. It will be constructed to standards defined by the Trails Master Plan and Town of Rocky Mountain House Engineering Standards. The general connectivity is shown in Figure 6 - Connectivity.

The major multi-use trail system is planned along the west boundary of Mud Lake. This trail consists of two portions: The north portion is located in the proposed storm water management public utility line to provide connectivity to future north trails along the lake and to west proposed 47 Avenue extensions. The south portion will be located inside the environmental reserve to provide intergration into the existing natural environment.

3.3 Public Consultation

In preparation of the Mud Lake Outline Plan, a public meeting will be held between various Municipal Departments, the public and stakeholders. The public meeting will be held after the first reading at Council.

Mud Lake Industrial Park Outline Plan

Town of Rocky Mountain House



Legend:

- | | | | |
|--|------------------------|--|---|
| | Pipeline R/W | | Plan Area |
| | Existing Gas Well Site | | Proposed Property Line |
| | Environmental Reserve | | Proposed Parcel Line |
| | Municipal Reserve | | Proposed SWMF |
| | Proposed Road R/W | | Conceptual Multi-Use Trail Connection |
| | | | Conceptual Concrete Sidewalk Connection |

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Figure 6: Connectivity

Ptn. of SE¼ Sec. 23-39-07-W5M
Scale: 1:4000
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4.0 Servicing

4.1 Transportation

Access

The site will be accessed by two existing roadways, 47 Avenue and 45 Avenue located along the west boundary of Plan Area. An additional access is proposed on the extension of the future 44 Avenue. This access will facilitate the efficient movement of traffic generated from the second phase of the industrial development. Sidewalks will be proposed on one side of roadway, providing access throughout the industrial area. The multi-use trail and associated walkways will be designed within the dedicated Environmental Reserve easement along the west boundary of Mud Lake, which will provide additional pedestrian access.

Traffic Impact











ISL Engineering was retained to complete a Traffic Impact Analysis (TIA) for the Plan Area in June 2013. The TIA recommends intersections at Highway 11/ 47 Avenue, Highway 11/ 45A Avenue, Highway 11/ Co-op access, and 47 Avenue/ 43 Street remain as is for near future. An updated TIA for the area is recommended in 2034. Full TIA report will be provided under separate cover.

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Legend:

- | | | | |
|---|------------------------|---|------------------------|
|  | Pipeline R/W |  | Plan Area |
|  | Existing Gas Well Site |  | Proposed Property Line |
|  | Environmental Reserve |  | Proposed Parcel Line |
|  | Municipal Reserve |  | Proposed Road R/W |
|  | Proposed SWMF |  | Proposed Concrete Walk |

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Figure 7: Transportation

Ptn. of SE¼ Sec. 23-39-07-W5M

Scale: 1:4000

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4.2 Storm Water Management

Stormwater management for the Mud Lake Industrial Park will be based on the natural drainage pattern. The system will consist of underground piped system and retained in a stormwater management facility located in the north-east portion of the Plan Area, as illustrated on Figure 8 – Stormwater Management.

The piped system will be utilized as the minor storm system to transport the stormwater to the facility via an inlet pipe, and further east into the Mud Lake through an outlet pipe. The proposed development shall be graded such that the major storm system will direct the overland flow to the management facility, and ultimately discharge into the Mud Lake. As indicated in the East Area Structure Plan (Parkland Community Planning Services, 2011), storm run-off will be further discharged from Mud Lake into a drainage channel along the railway tracks and connecting to the 44 Street culvert towards Trappers Creek.

Storm sewer trunks will be placed within the proposed road right-of-way and connected by storm manholes at intersections. Runoff from the roadway and individual parcels will drain to the storm trunk via curb and gutter and swales and discharge into the stormwater management facility.

Stormwater management facility will be designed as a constructed wet pond to provide storage for the 1 in 100 year event. The pond will intercept and pre-treat the stormwater flow from the development prior to release into the existing watercourse – Mud Lake. A water level control structure will be installed along the outlet pipe to ensure the discharge rate is consistent with the predevelopment flow rates for Mud Lake. The storm pond will also provide important wildlife habitat and enhance the dedicated Environmental Reserve area along the west boundary of Mud Lake. The storm pond will be landscaped according to regulations in the Land Use Bylaw 11-11LU. The design of this facility will be in compliance with Town of Rocky Mountain House Design Guidelines (see attached Figure 9 – Wet Pond Cross Section).

Vehicle access will be provided on the north side of the storm pond for maintenance purposes. Location of access will be decided during design of Stormwater management facility.

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Legend:

- Pipeline R/W
- Existing Gas Well Site
- Environmental Reserve
- Municipal Reserve
- Proposed SWMF
- Proposed Road R/W
- Plan Area
- Proposed Property Line
- Proposed Parcel Line
- Proposed Storm Servicing
- Existing Catchbasin
- Existing Storm Manhole
- Proposed Storm Manhole

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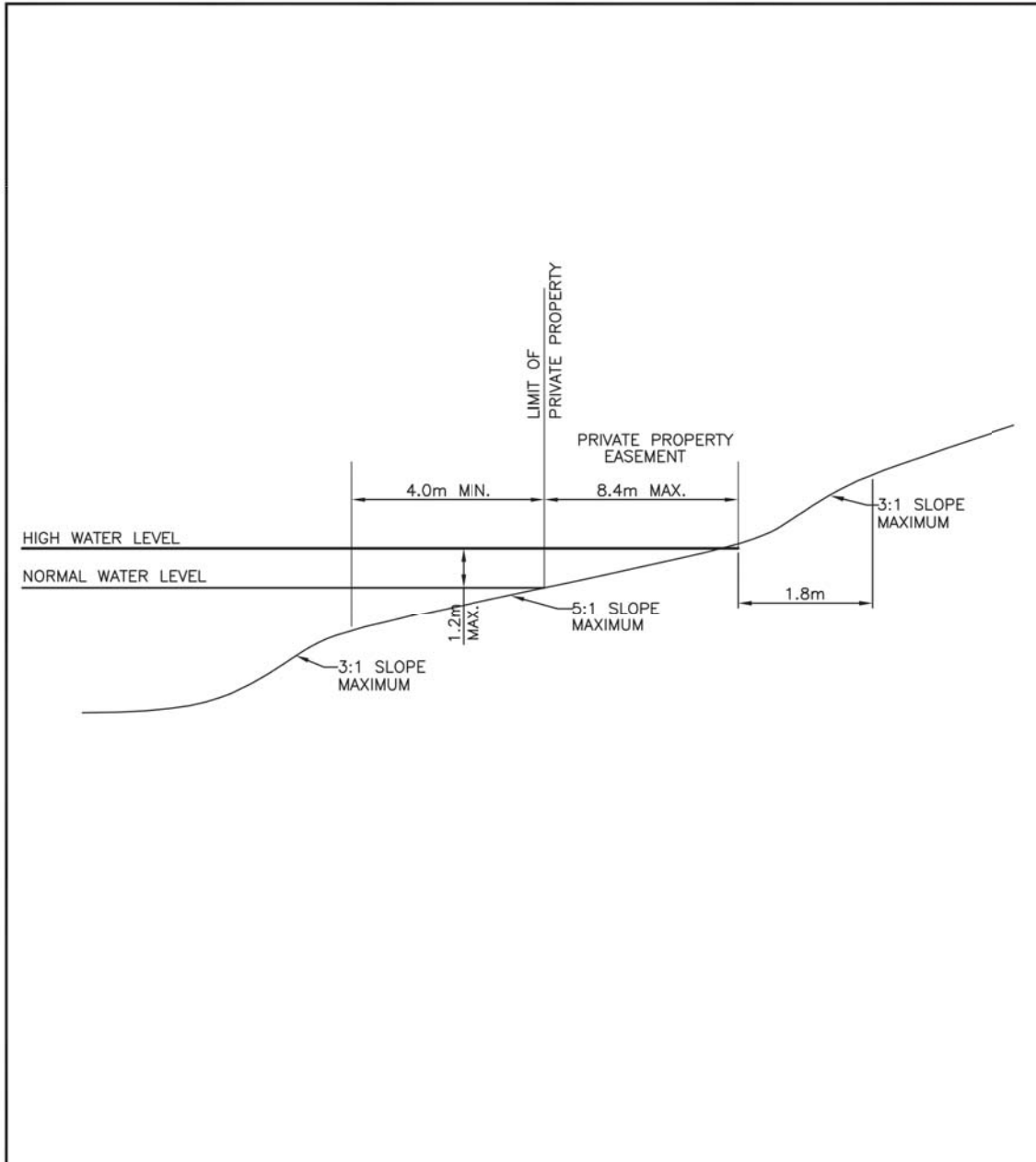
Figure 8: Stormwater Management

Ptn. of SE 1/4 Sec. 23-39-07-W5M
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File Name: 3-07-WET POND CROSS SECTION.dwg

Rev. By: -	Rev. Date: -
No.	Revision



TOWN OF ROCKY MOUNTAIN HOUSE

DESIGN GUIDELINE DRAWINGS
Stormwater Management Design

**Figure 9: WET POND
CROSS SECTION**

DRAWING NO.	3-03
REVISION NO.	

Ptn. of SE¼ Sec. 23-39-07-W5M
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4.3 Sanitary Servicing

Sanitary servicing for the plan area will consist of series of a 200 mm sewer trunks that flow by gravity from north, east and south-west within the public road right-of-way the sanitary trunk will connect at the intersection at 45 Avenue and the proposed minor collector roadway. At this point the sanitary flow will be directed and tied into the existing sanitary structure located at the intersection of 45 Avenue and 42 Street, as shown on Figure 10 – Sanitary Servicing.

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Legend:

- | | | | |
|---|------------------------|---|-----------------------------|
|  | Pipeline R/W |  | Plan Area |
|  | Existing Gas Well Site |  | Proposed Property Line |
|  | Environmental Reserve |  | Proposed Parcel Line |
|  | Municipal Reserve |  | Proposed Sanitary Servicing |
|  | Proposed SWMF |  | Existing Sanitary Manhole |
|  | Proposed Road R/W |  | Proposed Sanitary Manhole |

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Figure 10: Sanitary Servicing

Ptn. of SE¼ Sec. 23-39-07-W5M
Scale: 1:4000
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4.4 Water Servicing

Water servicing for the plan area will be proposed within the public road right-of-way and extended from the existing 250 mm water mains located on 47 Avenue and 45 Avenue. Additional looping to 44 Street will be provided through the potential future 44 Avenue, as shown on Figure 11 – Water Servicing. 250 mm water mains will be proposed to provide peak hour flows and fire flows for General Industrial. The north-south watermain size is a proposed 300 mm and may extend to south beyond the CN Railway for future development considerations.

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Legend:

- Pipeline R/W
- Existing Gas Well Site
- Environmental Reserve
- Municipal Reserve
- Proposed SWMF
- Proposed Road R/W
- Plan Area
- Proposed Property Line
- Proposed Parcel Line
- Proposed Water Main
- Existing Fire Hydrant
- Existing Valve

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Figure 11: Water Servicing

*Watermain sizes shown are conceptual only and will be confirmed during detailed design

Ptn. of SE¼ Sec. 23-39-07-W5M
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5.0 Implementation

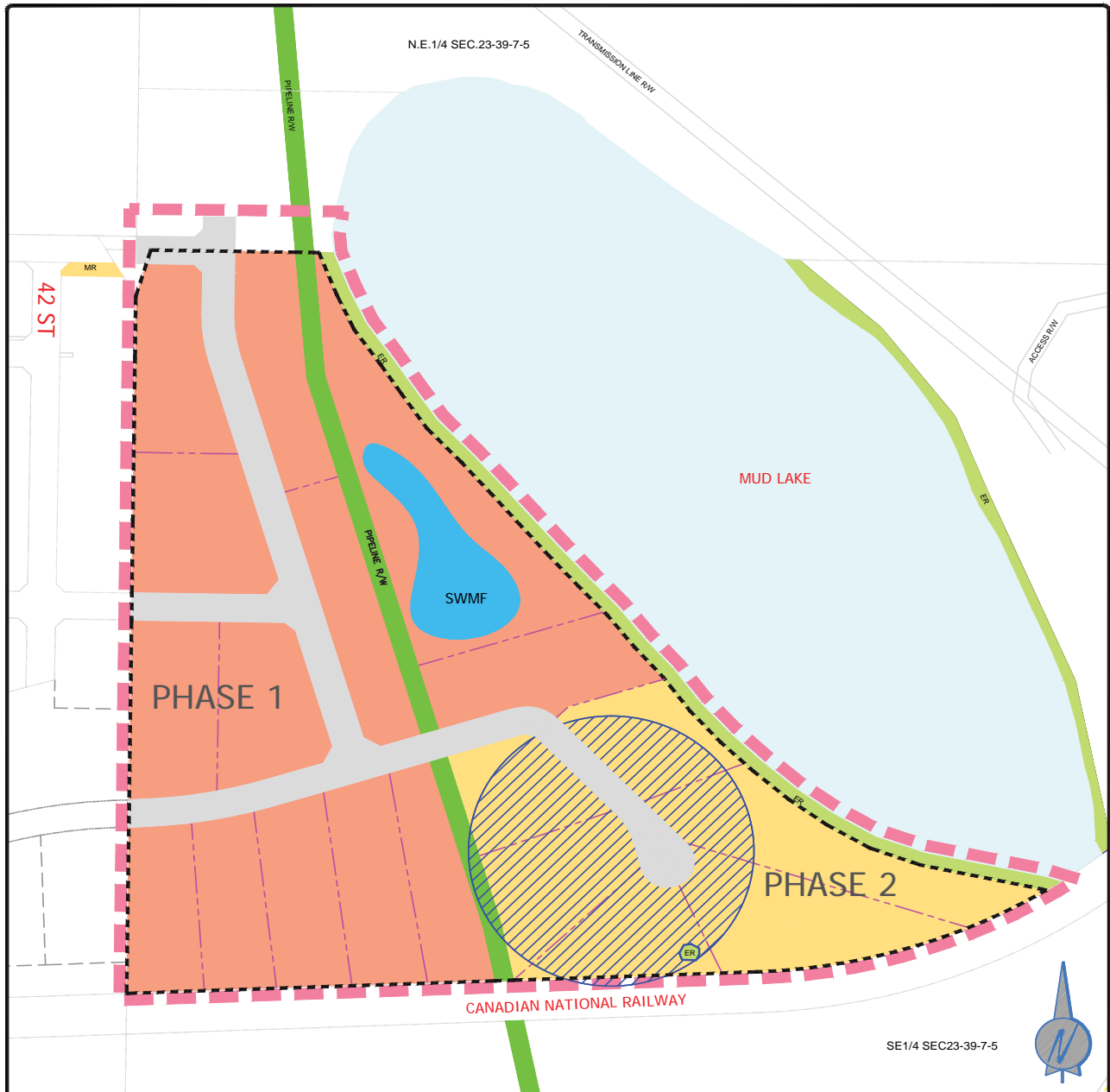
5.1 General Staging

Development will commence from the west and proceed in an easterly manner through the logical extension of infrastructure and financial resources (See Figure 10 – Phasing). The specific staging of the project will be decided and implemented based on the market demand, economy and other factors at the time of development.








The establishment of phases will take into account the need to provide looping for water systems, temporary and permanent secondary vehicle access and logical extension of municipal services.

Mud Lake Industrial Park Outline Plan

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Legend:

- | | | | |
|---|------------------------|---|------------------------|
|  | Pipeline R/W |  | Plan Area |
|  | Existing Gas Well Site |  | Proposed Property Line |
|  | Environmental Reserve |  | Proposed Parcel Line |
|  | Municipal Reserve |  | Proposed Phase 1 |
|  | Proposed SWMF |  | Proposed Phase 2 |
|  | Proposed Road R/W | | |

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Figure 12: Phasing

Ptn. of SE 1/4 Sec. 23-39-07-W5M
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