#### THE MUNICIPAL DISTRICT OF WILLOW CREEK NO. 26

273129 Sec Hwy 520 West, Claresholm Industrial Area Box 550, Claresholm, Alberta TOL 0TO Phone: (403) 625-3351 Fax: (403) 625-3886

Email: development@mdwillowcreek.com

## NOTICE OF MUNICIPAL PLANNING COMMISSION MEETING

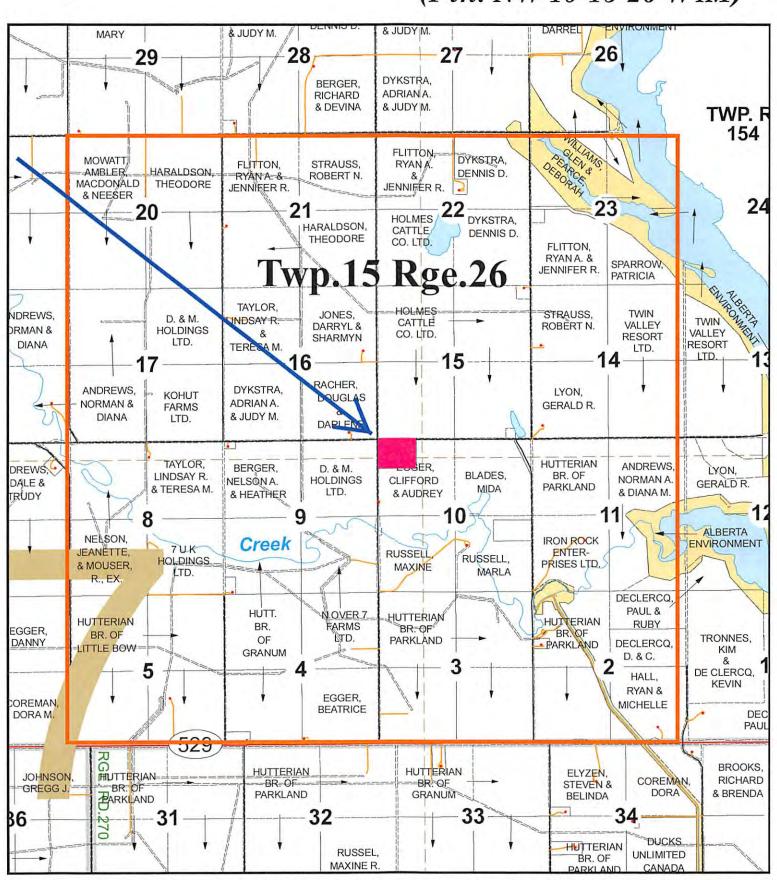
Form B	Application No. 020-20
TO: 2 Mile Radius	
Notice is hereby given that	an application is being made for a development
permit with regard to the fol	lowing:
NAME OF APPLICANT: McNa	lly Contractors (2011) Ltd.
TYPE OF DEVELOPMENT:	Change the classification of the existing Class II sand
and gravel operations to a Clas	ss I sand and gravel operation.
LEGAL DESCRIPTION OF SIT	<b>E:</b> Lot 1; Block 1; Plan 1810276
	(Ptn. NW 10-15-26-W4M)
PLACE OF MEETING:	Municipal Administration Building, Claresholm
TYPE OF MEETING:	Regular Municipal Planning Commission
DATE OF MEETING:	Wednesday April 8, 2020 at 9:20 am
	and all associated information are available for viewing address shown above during normal hours of operation, eek.com.
to the hearing and/or to be p submitted will become availa applicant and appropriate gove of the Freedom of Information	d proposal has the right to present a written brief prior present and be heard at the meeting. Any information able to the public and may also be shared with the ernment/other agencies and is subject to the provisions and Protection of Privacy Act (FOIP). If you have any Municipal District of Willow Creek No. 26.
heard to the development offic	rd at the meeting shall submit a written request to be er not later than:  consecutive days from the date of this notice)
	00/th
<b>DATE:</b> March 27, 2020	SIGNED: Cindy Chisholm

Development Officer

MD of Willow Creek No. 26



# Development Permit No. 020-20 Location: Lt 1; Blk 1; Pln 1810276 (Ptn. NW 10-15-26-W4M)



Applicant: McNally Contractors (2011) Ltd.



april 6, 2020 into: Cindy Chisholm, Newlayment Officer, Moof Willow Ciech Bullynicipal Planning Commission: With regard to application No. 020-20,

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HAC approves this change in classification

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its signific effect. Thankyou for corredoring the above Yours truly, Yerold Lifen Landawner 5 4 4 14-15-26 - Will

#### THE MUNICIPAL DISTRICT OF WILLOW CREEK NO. 26 FOR OFFICE USE ONLY Box 550, Claresholm, AB T0L 0T0 MPC - April 8/2020 Fax (403) 625-3886 Phone (403) 625-3351 www.mdwillowcreek.com RC# 3187.200 APPLICATION FOR A DEVELOPMENT PERMIT IMPORTANT: This information may also be shared with appropriate government/other agencies (e.g. Alberta Agriculture, Food and Rural Development; Alberta Environment; the regional health authority), and may also be kept on file by those agencies. This information may also be used by and for any or all municipal programs and services. The application and related file contents will Application No. 020-20 become available to the public and are subject to the provisions of the Freedom of Information and Protection of Privacy Act (FOIP). If you have any questions about the collection of this Fees Submitted: \$ information, please contact The Municipal District of Willow Creek No. 26. Site Inspection: Form A APPLICANT: McNally Contractors (2011) Ltd Telephone: Fax: ADDRESS: Bus/Cell: MUNICIPAL ADDRESS: REGISTERED OWNER: Cliff and Audrey Egger Telephone: LEGAL DESCRIPTION: Lot(s) 1 Block 1 Plan 1810276 Ouarter NW Section 10 Township 15 Range 26 w4 M with in: PR: EXISTING USE: Class II gravel operation PROPOSED USE: Class I gravel operation PARTICULARS OF PROPOSED DEVELOPMENT: The application is made to upgrade our current Class II gravel pit to a Class I gravel pit. Please see attached Code of Practise with Alberta Environment and Parks Additional information or clarification can be helpful in processing the application without delay. You may wish to use the back of this form, or attach a separate sheet with such information. Please fill out the Right of Entry authorization on reverse. REGISTERED OWNER OR PERSON ACTING ON BEHALF OF: I/we agree to the collection and sharing of this information contained in this application, and any other information may be required to verify and evaluate this application as explained above. I have submitted particulars concerning the completion of the proposed development and agree to comply in all respects with any conditions that may be attached to any development permit that is issued and with any other bylaws that are applicable. I am aware I may be required to pay for all local improvement costs, which include drainage, sidewalks, road construction, street lighting, water and sewer main extensions, utility connection fees and installation costs at the present established rate. I have read and understand the terms noted on the reverse side of this form and hereby apply for permission to carry out the development described above and/or on the attached ristered owner(s) of the land described above is aware of this applica DATE: March 27, 2020 SIGNED:

IMPORTANT: See Over

AD	DIT	TONAL INFORMATION:	
	-		
_			
IM	POF	RTANT:	
1.	Sub "de	bject to the provisions of the Land Use Bylaw of evelopment" includes any change in the use of buildir	The Municipal District of Willow Creek No. 26, the term ags or land.
2.	Although the Development Officer is in a position to advise on the principle or details of any proposals, such advise must not be taken in any way as an official consent, and is without prejudice to the decision in connection with the formal application. It must be clearly understood any development by the applicant within 21 days after receipt of Development Permit is at his own risk.		
3.	Please submit a plan or drawing showing locations of existing and proposed buildings, roads, services, boundaries etc. in sufficient detail to ensure proper consideration of the application. Measurements may be metric or imperitunits. It is desirable the plans and drawings should be on scale appropriate to the development, as follows:		
		Site plans – ratio of 1:1000 or 1:1500 Other drawings – ratio of 1:100 or 1:200	
	or dra	as required by the Development Officer. However, awings to be professionally prepared.	unless otherwise stipulated, it is not necessary for plans and
4.	the	a decision is not made within 40 days from the date of applicant may exercise his right of appeal as thoughters an agreement for a time extension has been entered	of the receipt of the application in its complete and final form the had been mailed a refusal at the end of the 40-day period red into with the municipality.
		RIGHT OF ENTRY:	
		I hereby authorize representatives of The Municipa the purpose of conducting a site inspection in conn	l District of Willow Creek No. 26 to enter my land for ection with this application.
		This right is granted pursuant to Section 542(1) of	the Municipal Government Act.
		DATE: SIGNED:	
			Registered Landowner(s)
			registered Landowner(s)

## **Development Permit Report**

**Submitted to:** 

M.D. of Willow Creek

By

McNally Contractors (2011) Ltd.

On

Lot 1, Block 1, Plan 1810276 Within NW 10-15-26-W4M

Rural Industrial

March 31, 2020

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APPENDIX A Land Title, Land Use

APPENDIX B Conservation and Reclamation Plans

#### 1 Introduction

McNally Contractors (2011) Ltd. (McNally) is applying for a development permit to operate a Class 1 pit. McNally's exploration, reclamation and excavations exceeded 5 ha, so Alberta Environment and Parks requires McNally to submit a Code of Practice for Pits (COP). McNally decided to submit a new development permit application to include operations within the entire subdivided lot. The COP application will be submitted concurrently with this Development Permit Application.

The site of the proposed development is located on Lot 1, Block 1, Plan 1810276 within NW 10-15-26-W4M. The land use designation for this location is currently Rural Industrial.

McNally is a community minded company who cares about the communities where they work. They committed to being good neighbors and working with the community to minimize the impacts to local residents.

It is anticipated that the pit will operate for approximately 15 years.

#### 1.1 Location

The site is located approximately 6 miles directly east of the Hamlet of Parkland. It is within a subdivision Lot 1, Block 1, Plan 1810276 within NW 10-15-26-W4M. The subdivision lot is owned by Clifford and Audrey Egger of Stavely, AB (**Appendix 1**).

#### 1.2 Existing Land Use

The existing land use is pasture with an existing open excavation. The subdivision is designated as Rural Industrial (**Appendix A**) There is another gravel pit within the remaining quarter section operated by AECON. There are no well sites or pipelines located on the subdivision lot or the remaining quarter section parcel.

M.D. of Willow Creek

## 1.3 Surrounding Land Use

The area is a mix of agriculture with a few gravel pits in the area. The surrounding area is designated as Rural General with 3 quarter sections to the northeast also designated as Rural Industrial.

This location is approximately 2 miles north of Hwy 529 along Rge. Rd. 263.

There are approximately 10 residences within a 2 mile radius of the pit and the haul route (Rge. Rd. 263). There is one residence is along the haul route and another residence is kitty-corner, northwest of the site.

### 1.4 Topographic Features

The site is located flat to slightly undulating land. Topography drops approximately <sup>3</sup>/<sub>4</sub> mile south of the site in the Mosquito Creek valley.

## 2 Operations

#### 2.1 Type of Extraction

Sand will be extracted from the site. The total average excavation depth will be 5 m. The pit will be a "dry pit" meaning all excavations will occur above the elevation of the water table. Screening will occur but no crushing is proposed.

#### 2.2 Size of Disturbance Area

The pit is currently 4.7 ha in size. McNally is proposing to disturb a maximum area within the subdivision of 10.5 ha. The site will be progressively reclaimed and there will be no more than 5 ha open at any one time. Please see attached Figure 1 (**Appendix B**) which illustrates the phasing of the pit.

A 75 feet undisturbed buffer of will be maintained along municipal road allowances. A 3 m undisturbed buffer will be maintained along other property boundaries.

#### 2.3 Hours of Operation

Operations will occur year round. Regular hours of operation, including stripping, stockpiling, aggregate extraction, screening, loading, hauling, and truck traffic will be from:

- During the summer months, mining, screening and hauling operations will be from 7 am to 7 pm during weekdays and from 7 am to 5 pm on Saturdays.
- During the winter months, mining, screening and hauling operations will be from 7 am to 5 pm from Monday to Saturday.

No operations of the pit will occur on Sundays or Statutory Holidays.

#### 2.4 Access Road, Haul Route and Highways

Existing access to the site is approximately 180 m of the intersection of Twp.Rd. 152 and Rge Rd. 263. No new access is proposed.

M.D. of Willow Creek

The haul route, loaded and empty, will be south along Rge. Rd. 263, approximately 2 miles south to Hwy 529.

Trucks will travel no faster than 80 km/hr on municipal roads and the posted speed limits on highways.

## 2.5 Traffic

McNally intends to stockpile screened sand and remove it within a 10-15 day period, once a year.

## 2.6 Site Security

The lot is surrounded by fence and there is a secure locked gate at the entrance.

#### 3 Environmental Considerations

#### 3.1 Soil Conservation

There is approximately 15 cm of topsoil and 10 cm of subsoil. Soils will be stripped and stockpiled as described in the Code of Practice for Pits.

#### 3.2 Noise/Dust/Environmental Disturbance

Dust control will be conducted to the satisfaction of the municipality. Water or a calcium dust suppressant will be used on internal pit roads and the municipal road allowance as necessary. Noise will be controlled by ensuring equipment is in good running conditions (i.e. mufflers) and pit activities will largely occur within the excavated pit and surrounded with pit walls.

All drainage will be directed into the pit to avoid surface water erosion.

#### 3.3 Groundwater and Surface Water

The water table has not been encountered. The elevation is estimated to be approximately 970-975 m asl based on the elevation of water bodies to the east and the elevation of Mosquito Creek to the south, respectively. Excavations will stay well above 975 m asl.

The only surface water feature near the pit is Mosquito Creek to the south.

#### 3.4 Reclamation Plan

The site will be progressively reclaimed as excavations continue. As excavations move south, topsoil and subsoil will be stripped and stockpiled. An overburden encountered will be directly placed into previously depleted areas.

Progressive reclamation will include contouring pit slopes to 3:1. Subsoil and topsoil will then be replaced. The seedbed will be prepared and the reclaimed area will be seeded to pasture.

Please refer to attached figures (**Appendix B**) illustrating reclaimed slopes and drainage.

## 3.5 Weeds

The site will be monitored for weeds. Weeds will be sprayed or mowed as necessary. Operations will comply with the Alberta Weed Control Act.

## Appendix A Land Title, Land Use Designation



#### LAND TITLE CERTIFICATE

s

LINC SHORT LEGAL TITLE NUMBER 0037 851 615 1810276;1;1 181 026 213

LEGAL DESCRIPTION

DESCRIPTIVE PLAN 1810276

BLOCK 1 LOT 1

EXCEPTING THEREOUT ALL MINES AND MINERALS AREA: 12 HECTARES (29.65 ACRES) MORE OR LESS

ATS REFERENCE: 4;26;15;10;NW

ESTATE: FEE SIMPLE

MUNICIPALITY: MUNICIPAL DISTRICT OF WILLOW CREEK NO. 26

REFERENCE NUMBER: 821 189 443

-----

REGISTERED OWNER(S)

REGISTRATION DATE (DMY) DOCUMENT TYPE VALUE CONSIDERATION

181 026 213 31/01/2018 DESCRIPTIVE PLAN

OWNERS

CLIFFORD ALEXANDER EGGER (FARMER)

AND

AUDREY RUTH EGGER

\_\_\_\_\_\_

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION

NUMBER DATE (D/M/Y) PARTICULARS

811 180 653 24/09/1981 UTILITY RIGHT OF WAY

CRANTER - ALBERTA COMPRIMENT TELEBRO

GRANTEE - ALBERTA GOVERNMENT TELEPHONES.

-----

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION

NUMBER DATE (D/M/Y) PARTICULARS

081 464 862 17/12/2008 CAVEAT

RE : ROYALTY AGREEMENT

CAVEATOR - AECON TRANSPORTATION WEST LTD.

ATTN: SCOTT J HAMMEL

C/O 2700, 10155-102 STREET

**EDMONTON** 

ALBERTA T5J4G8

AGENT - R BARRY MISKUSKI

(DATA UPDATED BY: CHANGE OF NAME 151132385)

TOTAL INSTRUMENTS: 002

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN ACCURATE REPRODUCTION OF THE CERTIFICATE OF TITLE REPRESENTED HEREIN THIS 6 DAY OF MARCH, 2020 AT 01:00 P.M.

ORDER NUMBER: 38957541

CUSTOMER FILE NUMBER:



PAGE 2

# 181 026 213

#### \*END OF CERTIFICATE\*

THIS ELECTRONICALLY TRANSMITTED LAND TITLES PRODUCT IS INTENDED FOR THE SOLE USE OF THE ORIGINAL PURCHASER, AND NONE OTHER, SUBJECT TO WHAT IS SET OUT IN THE PARAGRAPH BELOW.

THE ABOVE PROVISIONS DO NOT PROHIBIT THE ORIGINAL PURCHASER FROM INCLUDING THIS UNMODIFIED PRODUCT IN ANY REPORT, OPINION, APPRAISAL OR OTHER ADVICE PREPARED BY THE ORIGINAL PURCHASER AS PART OF THE ORIGINAL PURCHASER APPLYING PROFESSIONAL, CONSULTING OR TECHNICAL EXPERTISE FOR THE BENEFIT OF CLIENT(S).

## MUNICIPAL DISTRICT OF WILLOW CREEK NO.26

LAND USE BYLAW # 1826 April 24, 2019

MAP # 44

NW 1/4 SEC 10, TWP 15, RGE 26, W 4 M

#### LAND USE DISTRICTS





MAP PREPARED BY

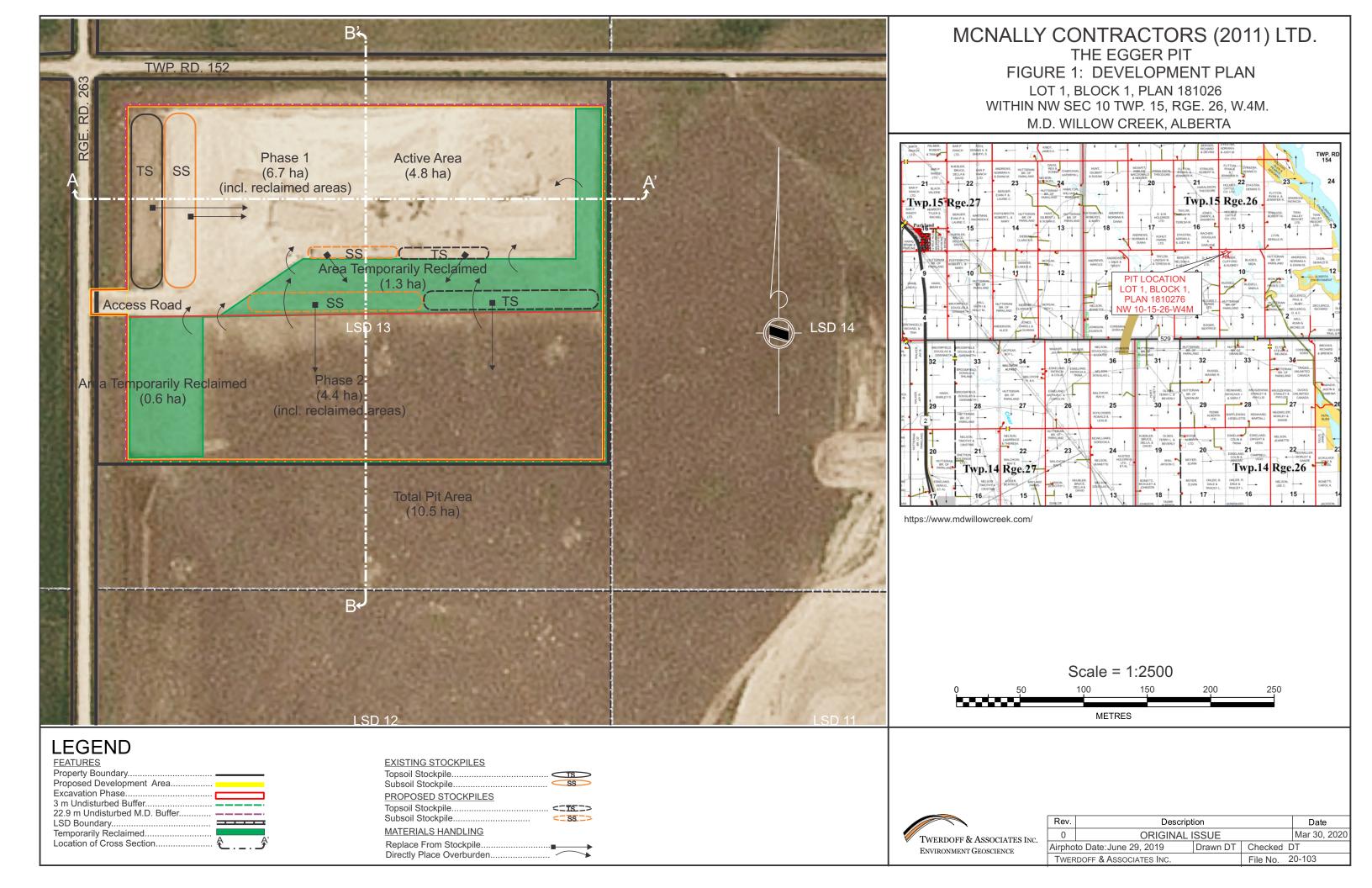
OLDMAN RIVER REGIONAL SERVICES C OLMISSION
3105 169: AVENUE NORTH LETHERIDGE, ALBERTA. THI SEB
TEL. 403-326-1344
"NOT RESPONSILE FOR ERRORS OR OMISSIONS"

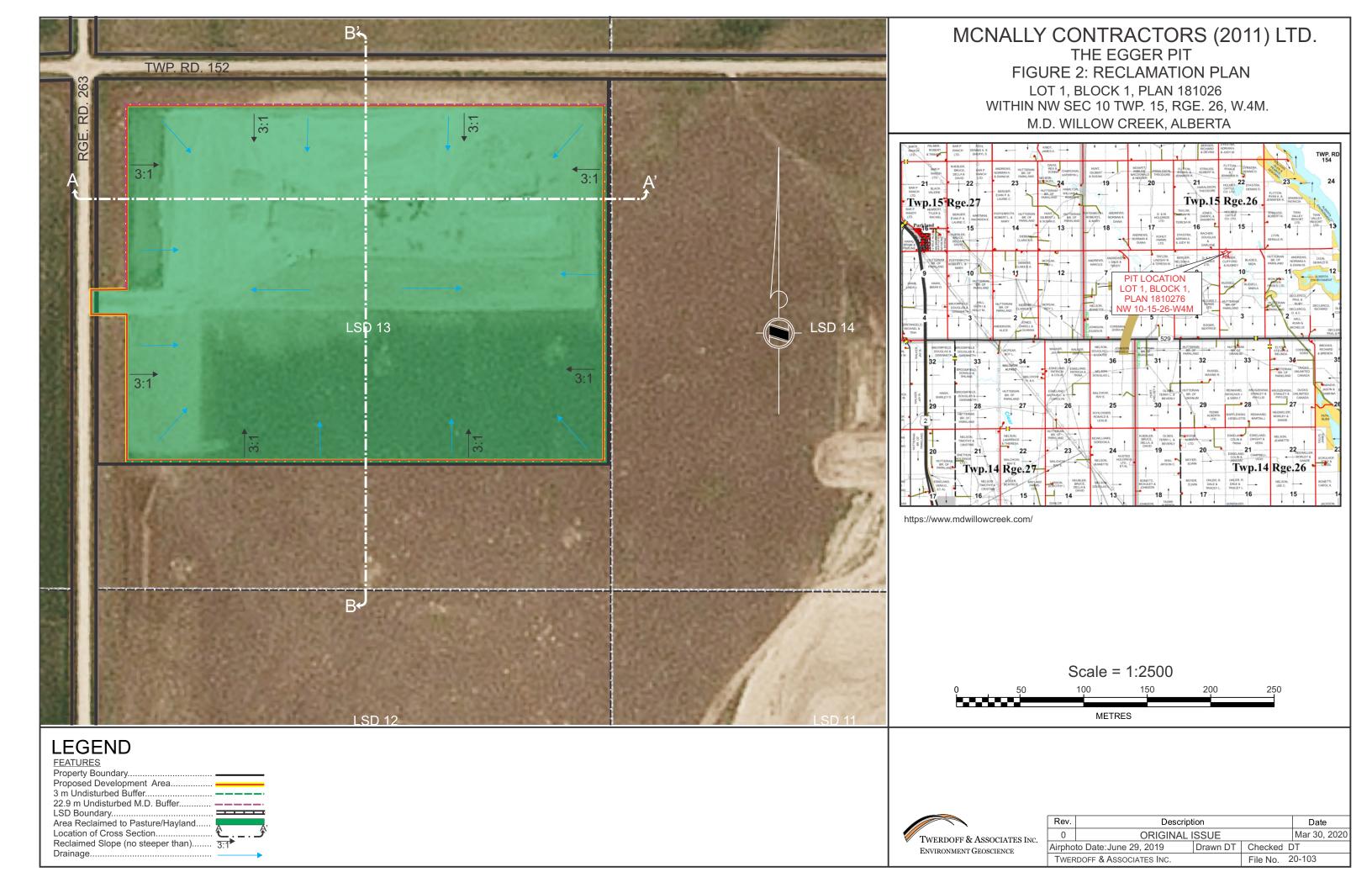


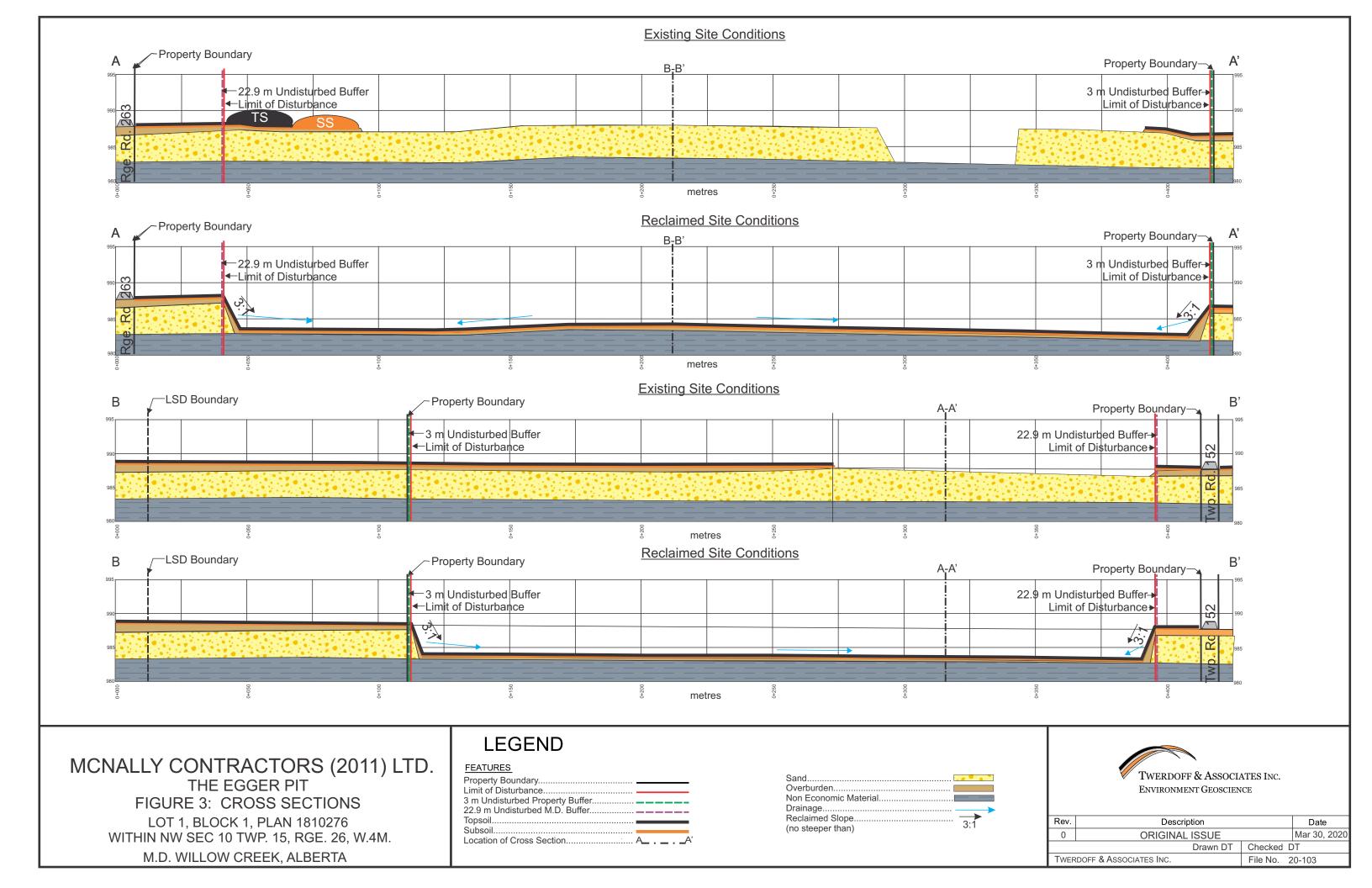


OLDMAN RIVER REGIONAL SERVICES COMMISSION May 02, 2019 N:Williow-Creek-MD/Willow-Creek-MD-LUD & Land Use Redesignations: Willow Creek MD\_LUB\_1826 April 24 2019 (LUD Maps Amended to Bylaw xxxx).dwg

# **Appendix B Conservation and Reclamation Plans**







## Code of Practice for Pits Sand and Gravel

For McNally Contractors (2011) Ltd.

On LOT 1, BLOCK 1, PLAN 1810276 WITHIN NW 10-15-26 W4M The Egger Pit

## **Prepared By:**

TWERDOFF & ASSOCIATES INC.

Dennis Twerdoff, M.Sc., P.Geol., P.Ag. Senior Project Manager

March 2020



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Appendix 1 Land Title

Appendix 2 Conservation and Reclamation Plans

# SCHEDULE 1 REGISTRATION INFORMATION

Date: March 30, 2020
Previous Environmental Protection and Enhancement Act Approval Number: New
Water Act authorization required? ☐ Yes ☐ No If Yes,or current Water Act authorization Number:
Name of Applicant (company or person in whose name the pit will be registered):
McNally Contractors (2011) Ltd.
Address:
Phone:
Name of Person Submitting Application: <u>Dennis Twerdoff</u>
Company Name: TWERDOFF & ASSOCIATES INC.
Job Title: Senior Project Manager
Address:
Phone: Facsimile:
e-mail:
Signature:

Name of Primary Contact for Pit: <u>Toine Timmerman</u>		
Job Title: Facility Coordinator		
Address:		
Phone:_	Facsimile:	

Pit Location	Registered Owners	Occupants
Municipal Address or 1/4-Sec-Twp-Rge-Mer	Name, Address and Phone Number	Name, Address and Phone Number
Lot 1, Block 1 Within NW 10-15-26-W4M	Clifford and Audrey Egger	None

# SCHEDULE 2 ACTIVITIES PLAN

#### Part 1 Information

## 1.1 Aggregate Type

• Sand

#### 1.1.1 Current Size of Pit

• 6.7 ha (4.8 ha active area + 1.9 ha temporarily reclaimed)

## 1.2 Average Thickness

• Topsoil: <u>0.15 m</u>

• Subsoil: <u>0.10 m</u>

• Overburden 0.15 m

• Aggregate <u>4.5 m</u>

• Total <u>4.9 m</u>

#### 1.2.1 Soil Series

- Agrasid Polygon number 6138
- Whitney Series: Orthic Dark Brown Chernozem developed on glaciolacustrine parent material. Medium to fine textured and well drained.
- Whitney-ZR Series: Rego Dark Brown Chernozem glaciolacustrine parent material. Medium to fine textured and well drained.

#### 1.2.2 Overburden and Aggregate

- Overburden Volume (original): <u>0 m<sup>3</sup></u>
- Aggregate Volume (original): 500,000 m<sup>3</sup>

#### 1.3 Texture

- Topsoil: Sandy loam, Silt Loam
- Subsoil: Sandy Loam, Silt Loam

#### 1.4 Erosion and Dust Control Techniques

#### **Erosion Control:**

- During construction and operation, physical barriers such as straw bales and silt fences will be utilized to minimize erosion when necessary.
- Surface water will be directed into the center of the pit.

#### Stockpiles:

- Will be separated from each other by at least 3 m, they will be vegetated and will be contoured with shallow slopes.
- Stockpile site locations will be prepared so that:
  - o stockpiles are placed on stable ground;
  - o topsoil piles are placed directly on topsoil;
  - o subsoil piles are placed directly on subsoil;
  - screenings will be placed in areas where topsoil and subsoil have been stripped;
  - o topsoil and subsoil are placed in locations unaffected by pit activities;
  - o aggregate material is placed in areas where soil has been stripped;
  - o soil stockpiles are stabilized to minimize erosion.
- Topsoil and subsoil salvage will not occur under wet, frozen, adverse field conditions or high wind velocities that will result in admixing, loss, compaction or degradation of topsoil.
- Topsoil will be salvaged a minimum of 5 m ahead of pit faces.
- Subsoil will be salvaged a minimum of 3 m ahead of pit faces.

#### **Dust Control:**

• The site is remote with few residences in the area. Dust control on municipal road allowances will be conducted to the satisfaction of the municipality.

#### 1.5 Air Monitoring Initiatives

• No air monitoring is planned for this area.

#### 1.6 Inactive Pit Conservation & Reclamation Techniques

- The pit will be clearly identified by signs that indicate danger and discourage trespassing.
- Slopes surrounding structures and equipment will be stabilized and sloped no steeper than 3:1 to ensure stable safe ground conditions.
- During periods of inactivity of over 1 year, pit faces will be sloped no steeper than 2:1.
- Stockpiles will be vegetated.
- Weeds will be sprayed and mowed as necessary.

• The site will be monitored bi-annually to ensure soil reclamation material is stable, weeds are controlled and the site is secure.

#### 1.7, 1.8 Scale Drawings (Existing, Operational & Reclaimed conditions)

• See attached Conservation and Reclamation Plans (**Appendix 2**).

#### Part 2 Information

#### 1.9 Maximum Pit Size

• 10.5 ha

### 1.10 Depth to Groundwater

• The water table is estimated at approximately 975 m asl based on the elevation of Mosquito Creek to the south.

#### 1.11 Pit Activities

- Dry pit excavations
- Crushing and screening

#### 1.11.1 Wet Pit Excavations

• No wet pit excavations are proposed.

#### 1.11.2 Use of Alternative Reclamation Material

• No alternative reclamation material will be used.

#### 1.11.3 Aggregate Washing

• Aggregate washing will not occur.

#### 1.12 Mitigative Measures

#### Surface Water Management:

• Any surface water due to run-off will be confined within the pit and will be directed into the pit.

#### Bulk Fuel Storage:

- All fuel storage sites will be constructed in a manner that follows the *Guidelines* for Secondary Containment for Above Ground Storage Tanks, Alberta Environmental Protection, May, 1997<sup>2</sup> and comply to part 4 of the Alberta Fire Code 2006 for tank registrations.
- Fuel tanks will be double lined "Envirotank" to ensure there is no leakage.
- All machinery maintenance supplies will be kept in a designated storage facility.

#### Spills:

 Any spills within or beyond the bermed area of the above ground storage tanks will be controlled immediately using various techniques including diking and containing.

- Spills will be collected using sorbent pads and vacuum trucks and/or excavated with a tracked hoe.
- All waste material/soil will be disposed of at an approved waste management facility.
- If pit operations interfere with the immediate spill response, pit operations will be suspended until complete cleanup occurs.
- If a spill occurs, it will be reported according to Alberta Environment's "A Guide to Release Reporting", 2005, and the site will be remediated to Alberta Environment Criteria.

Asphalt Mixing and Asphalt Truck Box Spraying:

• No asphalt mixing and truck box spraying will occur.

### 1.13 Proposed Reclaimed Land Use

Hayland / Pasture: 100%

Water Body: 0%

#### 1.13.1 Agricultural Lands

CLI Soil Capability for Agriculture:

- The pit is located within 3 agricultural capability classes: Class 2<sup>70</sup><sub>T</sub>, 3<sup>40</sup><sub>T</sub>, 4<sup>10</sup><sub>W</sub>.
- Class 2<sup>70</sup><sub>T</sub> Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices. The soils are deep and hold moisture will. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately high to high in productivity for a fairly wide range of crops. The "T" subclass indicates topography is a limitation both the percent of slope and the pattern or frequency of slopes in different directions affect the cost of farming and the uniformity of growth and maturity of crops as well as the hazard of erosion.
- 3<sup>40</sup><sub>T</sub> Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices. The limitations are more severe than for class 2 soils. They affect one or more of the following practices: timing and ease of tillage, planting and harvesting, choice of crops, and methods of conservation. Under good management they are fair to moderately high in productivity for a fair range of crops. The improvement practices may include clearing of bush, cultivation, seeding, fertilizing, or water control. The "T" subclass indicates topography is a limitation both the percent of slope and the pattern or frequency of slopes in different directions affect the cost of farming and the uniformity of growth and maturity of crops as well as the hazard of erosion.
- 4<sup>10</sup><sub>W</sub> Soils in this class have severe limitations that restrict the range of crops or require special conservation practices, or both. The limitations seriously affect one or more of the following practices: timing and ease of tillage, planting and harvesting, choice of crops, and methods of conservation. The soils are low to fair

in productivity for a fair range of crops but may have high productivity for a specially adapted crop. The "W" subclass indicates excess water - this subclass includes soils where excess water other than brought about by inundation is a limitation to agricultural use. Excess water may result from inadequate soil drainage, a high water table, seepage or from runoff from surrounding areas.

#### 1.14 Release of Pit Water

• There will be no release of pit water.

#### Topsoil:

• All available topsoil will be used for reclamation. Topsoil will be replaced to a minimum depth of 15 cm.

#### Subsoil:

• All available topsoil will be used for reclamation. Subsoil will be replaced to a minimum depth of 10 cm.

#### 1.16 Scale Drawings of Site Conditions after Reclamation

• See attached Conservation and Reclamation Plans (**Appendix 2**).

#### 1.17 Cross-Section Drawing of Site Conditions after Reclamation

• See attached Conservation and Reclamation Plans (Appendix 2).

## 1.18 Surface Water Bodies in Reclaimed Landscape

• There will not be a surface water body in the reclaimed landscape.

•

#### **Additional Information**

#### Boundaries:

• An extraction setback of (4.9 m x 1.5) 7.35 m will be maintained to ensure there is sufficient material available to create 3:1 slopes along property boundaries and undisturbed buffers. If there is sufficient material available to rebuild these slopes, an extraction setback will be relaxed.

#### Landuse:

• The land use is currently designated Rural Industrial (**Appendix 1**). For the purposes of this application, reclamation will be to pasture/hayland.

#### Revegetation:

- The disturbed area will be reseeded to pasture/hayland mix:
- 50% Meadow Brome
- 25% Pubescent Wheat Grass
- 15% Tall Fescue
- 5% Slender Wheat Grass
- 5% Alfalfa

Estimated pit life is approximately 15 years.

#### **Buffers**

- A 3 meter undisturbed buffer will be maintained between the pit and all property boundaries.
- A 22.9 m undisturbed buffer will be maintained between the pit and property boundaries adjacent to developed road allowances as per M.D of Willow Creek development permit conditions.

#### **Reclaimed Slopes:**

• Reclaimed slopes along property boundaries and buffers will be no steeper than 3:1.

## **Activities Plan (Schedule 2 Form)**

Part 1 Information
Aggregate Type (Check off all that apply):  Gravel  Sand  Clay  Marl
Current Size of Pit: <u>6.7 ha</u>
Average Thickness (indicate meters or centimeters for each one):  Topsoil 0.15 m Subsoil 10 m Overburden 0 m Aggregate 4.5 m
Topsoil Texture (check all that apply):  ☐ organic soil ☑ mineral soil ☐ clay loam ☑ silty loam ☐ sand ☑ sandy loam ☐ loam ☐ clay ☐ silt ☐ other
Description of techniques to prevent wind and water erosion, and to limit the movement of dust from the pit: <u>See Report.</u>
Participation in local or regional air monitoring initiative: No
Inactive pit conservation and reclamation techniques: See report.
Scale drawings and cross-sections of existing pit conditions and planned sequence of operation attached.
Part 2 Information
Maximum planned size of pit: 10.5 ha
Depth to groundwater (meters) in test holes (indicate each depth if multiple holes): Groundwater is estimated to be approximately 975 m asl based on the elevation of Mosquito Creek to the south.
Planned activities at the pit (check off all that apply):  wet pit excavation concrete production mixing salt and aggregate mixing asphalt with aggregate spraying truck boxes aggregate washing use of alternative materials for reclamation
Mitigative measures for all of the above activities: See report
Proposed land uses for reclaimed pit (check all appropriate boxes):  cultivation%

Senior Project Manager

TWERDOFF & ASSOCIATES INC.

Pit water release (rationale for release, techniques and discharge points): No pit water will be released.
Average topsoil replacement depth (cm): <u>15 cm</u> Average topsoil replacement depth (cm): <u>10 cm</u>
Scale drawings and cross-sections of reclaimed pit conditions attached.
Intended use: <u>Hayland/Pasture.</u>
Water elevation at full supply level: N/A  Slope of land one meter above full supply level: N/A  Slope of land one meter below full supply level: N/A
Signature and title of person who developed Activities Plan:
Dennis Twerdoff, M.\$c., P.Ag., P.Geol.
2011110 1 01 0011, 1.1.001, 1.1.151, 1.1.0011

## References

- 1. Government of Alberta, Alberta Agriculture and Food (2007). *Agriculture Region of Alberta Soil Inventory Database*. from http://abadata.abacusdatagraphics.com
- 2. Alberta Environmental Protection, Industrial Waste and Wastewater Branch. (1997). *Guidelines for Secondary Containment for Above Ground Storage Tanks*.
- 3. Government of Alberta, Spin 2 Spatial Information Systems. *Soils Capability for Agriculture*. http://abadata.abacusdatagraphics.com
- 4. Alberta Roadbuilder and Heavy Construction Association. 2019. 2019 Equipment Rental Rates Guide & Membership Roster.

Appendix 1 Land Title



#### LAND TITLE CERTIFICATE

s

LINC SHORT LEGAL TITLE NUMBER 0037 851 615 1810276;1;1 181 026 213

LEGAL DESCRIPTION

DESCRIPTIVE PLAN 1810276

BLOCK 1 LOT 1

EXCEPTING THEREOUT ALL MINES AND MINERALS AREA: 12 HECTARES (29.65 ACRES) MORE OR LESS

ATS REFERENCE: 4;26;15;10;NW

ESTATE: FEE SIMPLE

MUNICIPALITY: MUNICIPAL DISTRICT OF WILLOW CREEK NO. 26

REFERENCE NUMBER: 821 189 443

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REGISTERED OWNER(S)

REGISTRATION DATE (DMY) DOCUMENT TYPE VALUE CONSIDERATION

181 026 213 31/01/2018 DESCRIPTIVE PLAN

OWNERS

CLIFFORD ALEXANDER EGGER (FARMER)

AND

AUDREY RUTH EGGER

\_\_\_\_\_\_

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION

NUMBER DATE (D/M/Y) PARTICULARS

811 180 653 24/09/1981 UTILITY RIGHT OF WAY

CRANTER - ALBERTA COMPRIMENT TELEBRO

GRANTEE - ALBERTA GOVERNMENT TELEPHONES.

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ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION

NUMBER DATE (D/M/Y) PARTICULARS

081 464 862 17/12/2008

)

PAGE 2

# 181 026 213

TOTAL INSTRUMENTS: 002

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN ACCURATE REPRODUCTION OF THE CERTIFICATE OF TITLE REPRESENTED HEREIN THIS 6 DAY OF MARCH, 2020 AT 01:00 P.M.

ORDER NUMBER: 38957541

CUSTOMER FILE NUMBER:



#### \*END OF CERTIFICATE\*

THIS ELECTRONICALLY TRANSMITTED LAND TITLES PRODUCT IS INTENDED FOR THE SOLE USE OF THE ORIGINAL PURCHASER, AND NONE OTHER, SUBJECT TO WHAT IS SET OUT IN THE PARAGRAPH BELOW.

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## MUNICIPAL DISTRICT OF WILLOW CREEK NO.26

LAND USE BYLAW # 1826 April 24, 2019

MAP # 44

NW 1/4 SEC 10, TWP 15, RGE 26, W 4 M

#### LAND USE DISTRICTS





MAP PREPARED BY

OLDMAN RIVER REGIONAL SERVICES C OLMISSION
3105 169: AVENUE NORTH LETHERIDGE, ALBERTA. THI SEB
TEL. 403-326-1344
"NOT RESPONSILE FOR ERRORS OR OMISSIONS"





OLDMAN RIVER REGIONAL SERVICES COMMISSION May 02, 2019 N:Williow-Creek-MD/Willow-Creek-MD-LUD & Land Use Redesignations: Willow Creek MD\_LUB\_1826 April 24 2019 (LUD Maps Amended to Bylaw xxxx).dwg

## Appendix 2 Conservation and Reclamation Plans

