

PLANNING AND DEVELOPMENT SERVICES

TO: Municipal Planning Commission
DIVISION: 9
SUBJECT: Development Item: *Stripping and Grading*
USE: Discretionary use, with no Variances

DATE: December 10, 2020
APPLICATION: PRDP20202332

APPLICATION: single-lot regrading and placement of clean fill, for stormwater pond improvements.

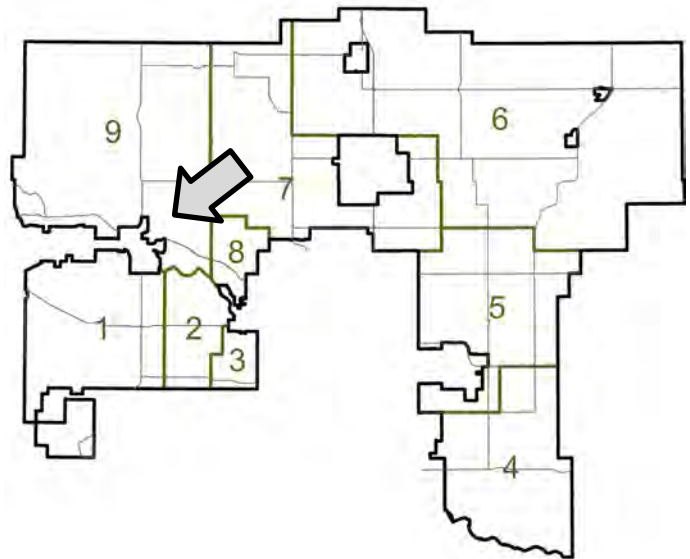
GENERAL LOCATION: Located on the northwest junction of Twp. Rd. 262 and Mountain Glen Close.

LAND USE DESIGNATION: Residential, Rural Parcel District (R-RUR) under Land Use Bylaw C-8000-2020.

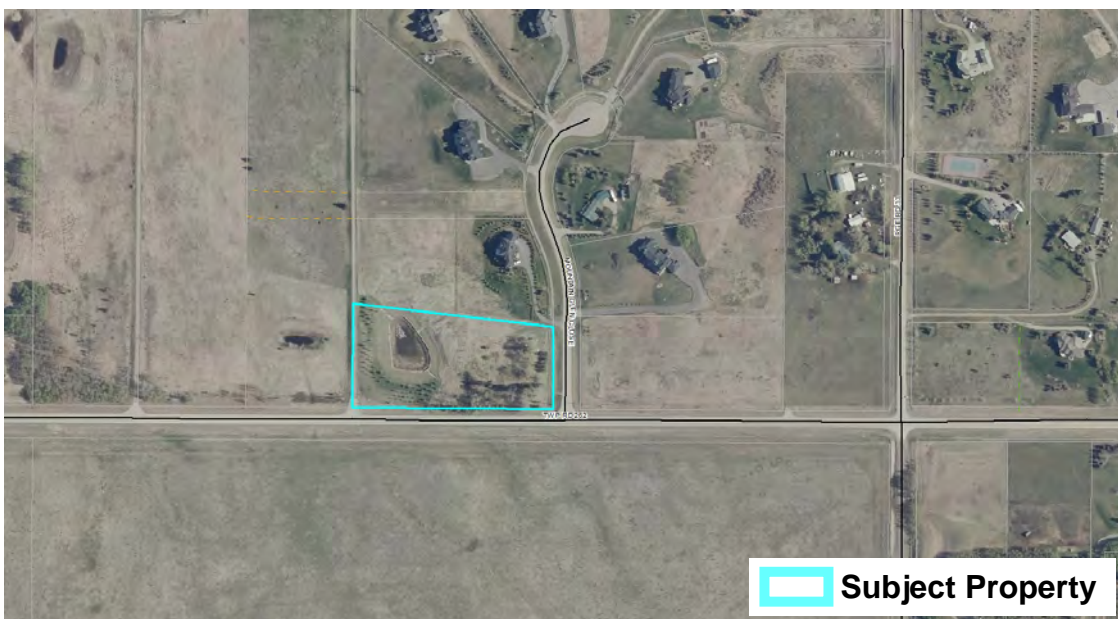
ADMINISTRATION RECOMMENDATION:
Administration recommends Approval in accordance with Option #1.

OPTIONS:

- Option #1: THAT Development Permit Application PRDP20202332 be approved with the conditions noted in the Development Permit Report, attached.
- Option #2: THAT Development Permit Application PRDP20202332 be refused as per the reasons noted.



AIR PHOTO & DEVELOPMENT CONTEXT:





DEVELOPMENT PERMIT REPORT

Application Date: August 13, 2020	File: 06716008
Application: PRDP20202332	Applicant: Ray Sergent Owner: Aaron Renert
Legal Description: SE-16-26-03-W5M Lot: 18, Block: 1, Plan: 0513431 (5 Mountain Glen Close)	General Location: located on the northwest corner of the junction of Twp. Rd. 262 and Mountain Glen Close.
Land Use Designation: Residential, Rural District (R-RUR) under Land Use Bylaw C-8000-2020.	Gross Area: ±1.62 hectares (± 4.00 acres)
File Manager: Wayne Van Dijk	Division: 9

PROPOSAL:

The proposal is for single-lot regrading and the placement of clean fill, for removal of vegetation, placement of a pond liner and filling within a stormwater pond.

The applicant proposes to install a liner within a stormwater pond, remove some adjacent vegetation and also install some sand on the stormwater pond edge, as per application site plan. These improvements would, as per the applicant, make the stormwater pond more of a water feature and more appealing. The storm pond was designed to manage the stormwater run-off for the Mountain Glen subdivision.

The stormwater pond is protected by an Overland Drainage right of way, registered on title under the instrument number #051 381 777. The drainage is registered with Alberta Environment and has been issued the registration number 219832-00-00. Alberta Environment has not expressed any concerns as no changes to the capacity and function of the pond have been proposed.

The Applicant has retained an engineering consultant who has confirmed that the placement of the liner does not impact the drainage of the area and maintains the integrity and design:

- The only work proposed is the installation of a synthetic liner, to prevent stormwater infiltration within the pond,
- All existing infrastructure, inlets and outlets, remain the same,
- No work is proposed to be done on the emergency spill, therefore, elevations remain the same.

PERMIT HISTORY:

- 2002-DP-10073 issued Dec. 13, 2002 for a Animal health care services
- 2004-DP-10988 issued Nov.3, 2004 for stripping and grading of 22 lots
- 2005-DP-11722 refusal for a sign

LAND USE BYLAW:

157 Site stripping, grading, excavation, or fill is discretionary in all land use districts.

- Application is for the stripping and grading for the installation of a liner, within an existing stormwater pond.

273 Site stripping, filling, excavation, grading, and/or re-contouring (including construction of an artificial waterbody, but not a dugout) requires a Development Permit

- The Applicant proposes to excavate the current stormwater pond and install a liner to stop the in-pond infiltration of stormwater. No changes to the current drainage pattern and all elevations are to remain the same, as per drawings submitted (Bears paw Pond Liner, dated November 5, 2020) and accepted by County Engineering Services on November 23, 2020.

STATUTORY PLANS:

- This property falls within the Bears paw Area Structure Plan. This plan does not provide guidance for applications such as this one. This application was assessed in accordance with the Land Use Bylaw C-8000-2020.

INSPECTOR'S COMMENTS:

Inspection: August 24, 2020

- No construction on site
- No water in pond at time of inspection
- No concerns at time of inspection

CIRCULATIONS:

Transportation Services

- Planning should be aware that the pond is part of an existing drainage easement.

Development Compliance

- Development Compliance has no comments or concerns with respect to the attached application.

Utility Services

- No concerns

Agricultural Services

- No agricultural concerns

Planning and Development Services - Engineering Review

- The storm pond is protected by an Overland Drainage right-of-way registered on the title under the instrument number 051 381 777. The storm pond was designed to address the stormwater run-off for the entire subdivision and as such any alternation (including replacement of the liner and adding water) will require it to be engineered to ensure that we are not negatively impacting the upstream run-off. Prior to issuance, the Applicant will be required to hire a Professional Engineer to complete the design of the liner for the stormwater pond. The submission must include detailed engineering drawings and a technical memo to confirm that the proposed improvements to the stormwater facility remain as per the original approved design with similar pond characteristics and adhere to the current release rate;
- A Construction Completion Certificate (CCC). The CCC must be certified by the Consultant Engineer that the stormwater infrastructure has been installed and completed in accordance with the examined drawings prior to occupancy.

Assessment Rational:

- Engineering Services is satisfied with the drawings prepared by Morrison Hershfield and that no major impact to the current drainage pattern is expected.
- A security has been requested, based on reclamation security of \$5,000 per disturbed acre for the construction/installation of the liner is completed to County satisfaction and this protects the County investment in the stormwater pond.
- The approval is for the installation of the liner only and no other disturbance to the stormwater utility right of way is permitted.
- Alberta Environment, responded to an email, dated October 14, 2020, and stated that they required no change to existing approval, or additional approval, for the installation of a liner in a stormwater pond as long as there are no changes to the characteristics of the pond.

OPTIONS:

Option 1: (this would allow the proposed development)

APPROVAL, subject to the following conditions:

Description:

1. That single-lot regrading and the placement of clean fill, for a stormwater pond improvement, including the installation of a liner, may commence in accordance with the Plan and Sections drawing, as prepared by Morrison Hershfield, Project Name: Bearspaw Pond Liner; dated November 5, 2020.

Prior to Issuance:

2. That prior to issuance of this permit, the Applicant/Owner shall submit a design/drawing, for the liner, prepared and stamped by a professional engineer, that demonstrates that the proposed development (liner) is in accordance with and meets the stormwater targets of the registered drainage (confirm that the proposed improvements do not alter the original, approved design, with similar pond characteristics and adhere to the current release rate), to the satisfaction of the County.
3. That prior to issuance of this permit, the Applicant/Owner shall submit an Erosion and Sedimentation Control (ESC) plan, conducted and stamped by a qualified professional, that provides sediment and erosion control measures and protects the drainage right of way from sediment caused by the proposed development, in accordance with County Servicing Standards.
4. That prior to issuance of this permit, the Applicant/Owner shall submit a Reclamation security of \$5,000 per disturbed acre, in accordance with the County Servicing Standards.

Development Completion/Prior to Occupancy:

5. That upon Development completion/Prior to Occupancy, the Applicant/Owner shall submit a Construction Completion Certificate (CCC) that must be certified, by the Consultant Engineer, that the stormwater infrastructure has been installed and completed in accordance with the examined drawings

Permanent:

6. That any plan, technical submission, agreement, matter or understanding submitted and approved as part of the application, in response, to a prior to issuance condition, shall be implemented and adhered to in perpetuity.
7. The Applicant/Owner shall not alter the drainage right of way and/or stormwater pond in any manner, other than changes approved with this permit approval, that could alter the flow, capacity or appearance of the stormwater drainage.
8. That the Applicant/Owner shall maintain and adhere to all conditions of the drainage right of way, Registered Instrument #051 381 777, and shall not plant and/or alter the drainage, in any manner, that could negatively impact the drainage patterns, surface grades, flow of water and interfere with the County gaining access to drainage right of way for maintenance and other such activities.
9. That the Applicant/Owner shall be responsible for rectifying any adverse effect on adjacent lands and/or adjacent infrastructure from drainage alteration.
10. That the entire site shall be maintained in a neat and orderly manner at all times to the satisfaction of the County.
11. That no native topsoil shall be removed from the subject parcel.
12. That the Reclamation Security shall be held by the County, until the development is completed in its entity.
 - i. Upon completion of the proposal, the County shall complete an inspection and/or obtain written documentation that confirms the development is completed as per the application requirements. If accepted, the Reclamation Security shall be returned to the Applicant/Owner.

Advisory:

13. That the site shall remain free of restricted and noxious weeds and be maintained in accordance with the Alberta Weed Control Act Act [*Statutes of Alberta, 2008 Chapter W-5.1; Current as of December 15, 2017*].
14. That all construction and building materials shall be maintained on-site, in a neat and orderly manner. Any debris or garbage shall be stored/placed in garbage bins and disposed of at an approved disposal facility.
15. That the Applicant/Owner shall adhere to the County's Noise Bylaw (C-5772-2003) at all times.
16. That if the development authorized by this Development Permit is not completed within 12 months of the date of issuance, the permit is deemed to be null and void.
17. That any other government permits, approvals, or compliances are the sole responsibility of the Applicant/Owner
 - i. That the Applicant/Owner shall obtain and conform to all required environmental approvals and regulations, including Alberta Environment and Alberta Health Services, for any recreational use of the stormwater pond.
18. That if this Development Permit is not issued by **August 31, 2021** or the approved extension date, then this approval is null and void and the Development Permit shall not be issued.



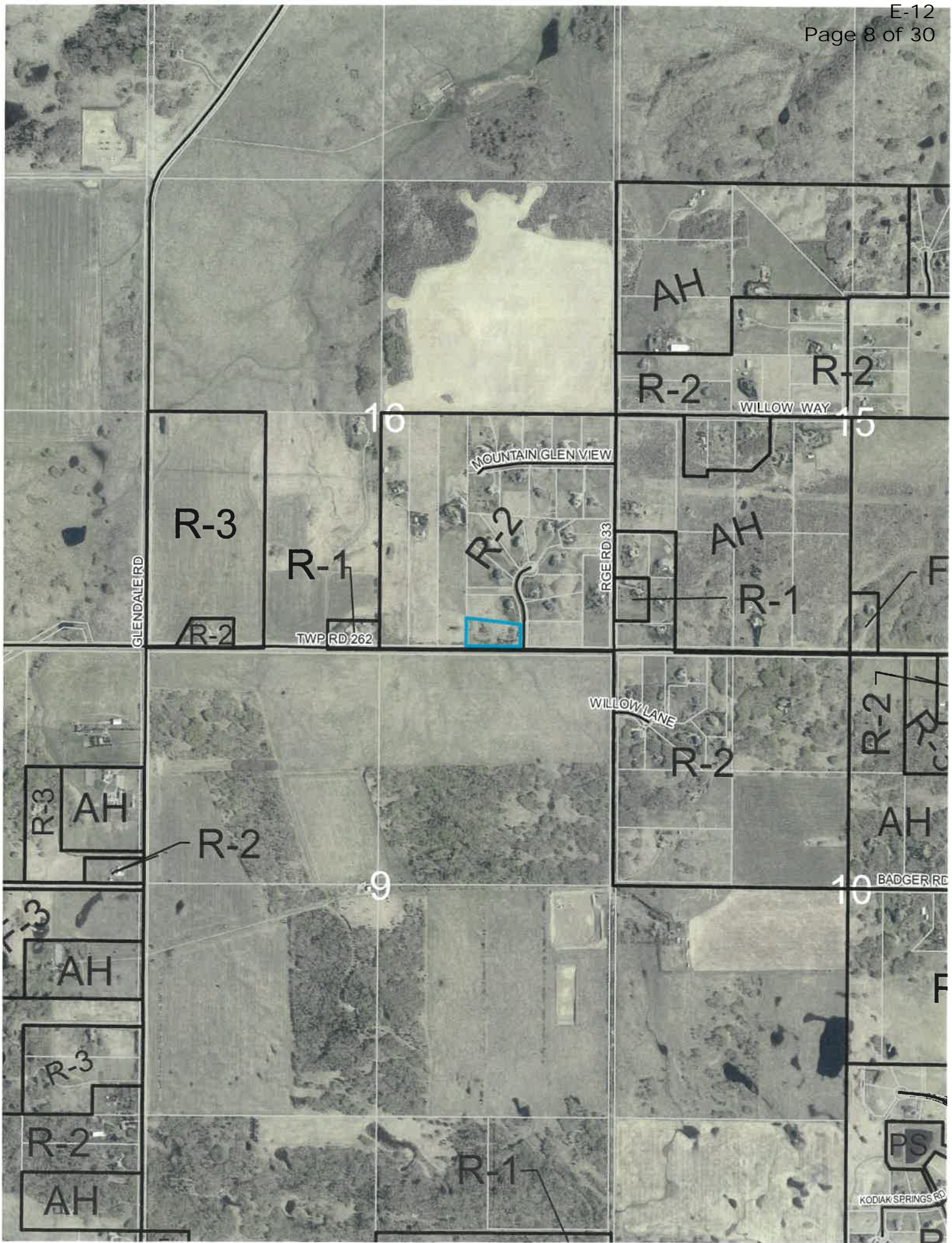
Option 2: (this would not allow the proposed development)

REFUSAL, for the following reasons:

1. In the opinion of the Municipal Planning Commission, the development unduly interferes with the amenities of the neighbourhood and materially interferes with and affects the use, enjoyment, and value of neighbouring parcels of land.



TWP/ RD/ 262





ROCKY VIEW COUNTY
Cultivating Communities

20202332

APPLICATION FOR A DEVELOPMENT PERMIT

FOR OFFICE USE ONLY	
Fee Submitted \$450.00	File Number 06716008
Date of Receipt Aug 13, 2020	Receipt # 2020025052

Name of Applicant Ray & Janelle Sergent

For Agents please supply Business/Agency/ Organization Name _____

Registered Owner (if not applicant) Aaron Renert

1. LEGAL DESCRIPTION OF LAND

- a) All / part of the SE $\frac{1}{4}$ Section 16 Township 26 Range 3 West of 5 Meridian
- b) Being all / parts of Lot 18 Block 1 Registered Plan Number 513431
- c) Municipal Address 5 Mountain Glen Close
- d) Existing Land Use Designation R1 Parcel Size 4 AC Division _____

2. APPLICATION FOR

Remove weeds, bushes and debris from inside the pond area that are preventing it from being a usable space. Add a pond liner, water and fountain to existing dry storm pond.

3. ADDITIONAL INFORMATION

- a) Are there any oil or gas wells on or within 100 metres of the subject property(s)? Yes _____ No X
- b) Is the proposed parcel within 1.5 kilometres of a sour gas facility? Yes _____ No X
(Sour Gas facility means well, pipeline or plant)
- c) Is there an abandoned oil or gas well or pipeline on the property? Yes _____ No X
- d) Does the site have direct access to a developed Municipal Road? Yes _____ No X

4. REGISTERED OWNER OR PERSON ACTING ON HIS BEHALF

I RAY SERGENT hereby certify that _____ I am the registered owner
(Full Name in Block Capitals)

X I am authorized to act on the owner's behalf

and that the information given on this form
is full and complete and is, to the best of my knowledge, a true statement
of the facts relating to this application.

Affix Corporate Seal
here if owner is listed
as a named or
numbered company

Applicant's Signature [Signature]

Date July 24, 2020

Owner's Signature Aaron Renert

Date _____

DocuSigned by:

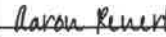
Aaron Renert

D864B87C3B8C473 July 26, 2020 | 8:29 PM MT

5. RIGHT OF ENTRY

I hereby authorize Rocky View County to enter the above parcel(s) of land for purposes of investigation and enforcement related to this Development Permit application.

DocuSigned by:



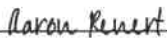
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Applicant's/Owner's Signature

Please note that all information provided by the Applicant to the County that is associated with the application, including technical studies, will be treated as public information in the course of the municipality's consideration of the development permit application, pursuant to the Municipal Government Act, R.S.A 2000 Chapter M-26, the Land Use Bylaw and relevant statutory plans. By providing this information, you (Owner/Applicant) are deemed to consent to its public release. Information provided will only be directed to the Public Information Office, 262075 Rocky View Point, Rocky View County, AB, T4A 0X2; Phone: 403-520-8199.

I, Aaron Renert, hereby consent to the public release and disclosure of all information contained within this application and supporting documentation as part of the development process.

DocuSigned by:

D864B87C3B8C473...
Signature

July 26, 2020 | 8:29 PM MDT

Date

Hi Evan,

Here is the info you requested as well I have attached a copy of the land titles. If you have any further questions or need more info please let us know. For payment of the permit please call my cell 403-369-3131 and I can give you the credit card info at that time.

Picture Legend - for Pond Development at 5 Mountain Glen.

RED: these piles of rocks circled in red are full of weeds and debris and we would clear them out

BLUE: this area would be opened to allow for entry into the pond. Either through building rock steps into the pond or creating a light slope inside the pond so that one could access the water for such activities as paddle boarding or kayak, etc.

BEIGE: this small area we would like to add some sand to create a "beach" area by the pond

WHITE: This is just for perspective on where our new build site maybe and that the pond is in view of our living area/deck area. We would like to create a nice clean area to view from our deck and back yard.

***At this time we are not requesting a change to the grade or slope into the pond so we don't foresee any changes to the water flow.

***Any changes to grade or slope on this lot could be addressed at the time we submit a new home build application and the grading required for the home site. Currently, we need to know if the inside of the pond can be improved and made into a usable space. This will impact if we want to proceed with a firm sale on this property.



Thank you,

Ray Sargent



November 24, 2020

File: 2100004

Rocky View County
262075 Rocky View Point
Rocky View County, AB, T4A 0X2,

Attn: Jeannette Lee, P.Eng., PMP

Re: Bearspaw Subdivision Pond Liner – Rocky View County, AB

Morrison Hershfield Ltd. prepared the design of the liner for the pond to hold water in the pond. A Geosynthetic Clay Liner (GCL) is recommended for this site with a cover of native Silty Clay Till of 300mm in thickness.

Installation of GCL will be installed below existing pond bottom in a way that:

- 1) There is no change to the existing pond bottom, shape, or size of the pond.
- 2) Pond design and storage capacity will remain as existing.
- 3) There will not be any change to inlet, outlet, or release rate of the pond.
- 4) Location, elevation, and shape of the emergency spillway will remain as existing.
- 5) ESC will be implemented as required to carry out the construction

We hope this clarifies design assumptions and will help you accept the pond liner.

Yours truly,
Morrison Hershfield Limited

Irshad Ahmad. P.Eng.
Project Manager

Enclosure
cc: Luis Narvaes



LAND TITLE CERTIFICATE

S
LINC SHORT LEGAL TITLE NUMBER
0031 320 476 0513431;1;18 141 102 773

LEGAL DESCRIPTION
PLAN 0513431
BLOCK 1
LOT 18
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 1.62 HECTARES (4 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE
ATS REFERENCE: 5;3;26;16;SE

MUNICIPALITY: ROCKY VIEW COUNTY

REFERENCE NUMBER: 121 073 991

REGISTERED OWNER(S)				
REGISTRATION	DATE (DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
141 102 773	01/05/2014	TRANSFER OF LAND	\$355,000	CASH

OWNERS
AARON RENERT



ENCUMBRANCES, LIENS & INTERESTS		
REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
761 141 577	17/11/1976	ZONING REGULATIONS SUBJECT TO SPRINGBANK AIRPORT ZONING REGULATIONS
051 381 775	11/10/2005	UTILITY RIGHT OF WAY GRANTEE - TELUS COMMUNICATIONS INC. 10020 - 100 STREET EDMONTON ALBERTA T5J0N5

(CONTINUED)

ENCUMBRANCES, LIENS & INTERESTS

PAGE 2
141 102 773

REGISTRATION

NUMBER DATE (D/M/Y) PARTICULARS

GRANTEE - ATCO GAS AND PIPELINES LTD.
909 11TH AVENUE S.W.
CALGARY
ALBERTA T2P1L8
GRANTEE - FORTISALBERTA INC.
320-17 AVE SW
CALGARY
ALBERTA T2S2V1
GRANTEE - THE MUNICIPAL DISTRICT OF ROCKY VIEW NO.
44.
911-32 AVE NE
CALGARY
ALBERTA T2E6X6
AS TO PORTION OR PLAN:0513432

051 381 776 11/10/2005 UTILITY RIGHT OF WAY
GRANTEE - THE MUNICIPAL DISTRICT OF ROCKY VIEW NO.
44.
AS TO PORTION OR PLAN:0513433

051 381 777 11/10/2005 AGREEMENT
EASEMENT, RESTRICTIVE COVENANT & UTILITY RIGHT OF
WAY (SEE INSTRUMENT).

051 381 781 11/10/2005 ENCUMBRANCE
ENCUMBRANCEE - MOUNTAIN GLEN ESTATES HOMEOWNERS
ASSOCIATION.
7140 - 40TH STREET SE
CALGARY
ALBERTA T2C2B6

051 381 782 11/10/2005 RESTRICTIVE COVENANT

051 417 535 05/11/2005 RESTRICTIVE COVENANT

TOTAL INSTRUMENTS: 007

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN
ACCURATE REPRODUCTION OF THE CERTIFICATE OF
TITLE REPRESENTED HEREIN THIS 29 DAY OF JUNE,
2020 AT 10:20 A.M.

ORDER NUMBER: 39605159

CUSTOMER FILE NUMBER: 367-001



END OF CERTIFICATE

(CONTINUED)

PAGE 3
141 102 773

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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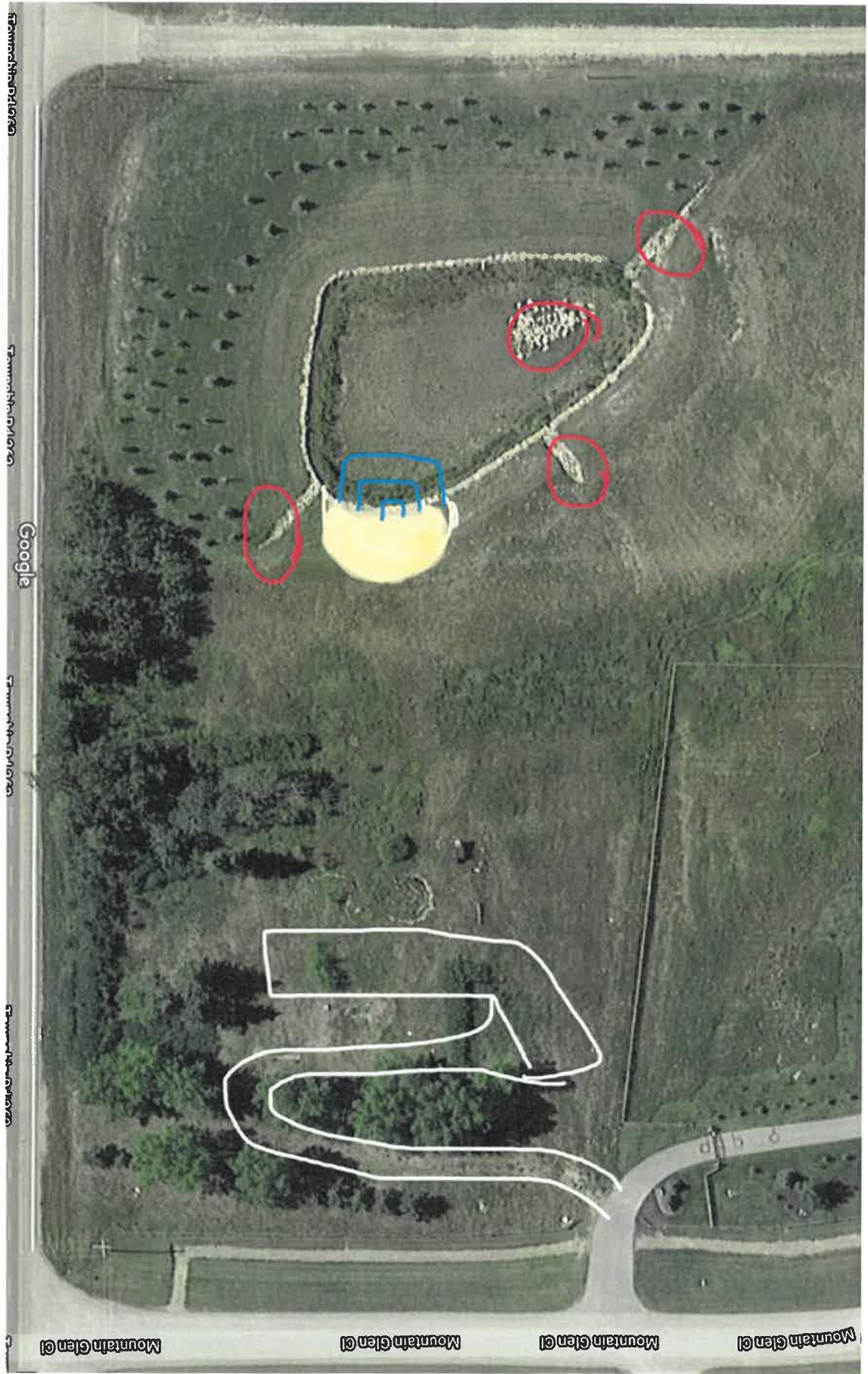












October 15, 2020

Rocky View County
262075 Rocky View Point
Rocky View County, AB T4A 0X2

Attention: Jeannette Lee, P.Eng., PMP
Senior Municipal Engineer

Reference: Mountain Glen Estates – SE16-26-03-W5M
Your File No. 2004086
South Storm Pond

The existing south storm pond, outlined in red in the attached drawing is not holding water. The developer would like to add a liner to ensure that water does not infiltrate into the subsoils and water is detained as per the original design. The approved Stormwater Management Plan was prepared by Morrison Hershfield in association with Operational Solutions Ltd. on May 16, 2003 and the Pond drawings were prepared by Morrison Hershfield on March 21, 2005.

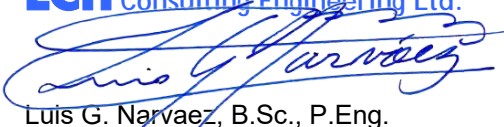
The plan is to add a liner as recommended by a Professional Geotechnical Engineer ensuring that the final pond remains as per the original approved design; this is, maintaining the design elevations, volume and shape.

As requested by you, I contacted Alberta Environment and Parks to request information of any approvals required to perform this change. Attached is a copy of the email I received from Aster Wang, Water Approvals Team Lead – Calgary. In it, she indicates that no approvals are required from Alberta Environment to install a liner without changing the pond characteristics. They only require copies of the updated drawings with the liner to be added.

Once we receive approval from your office, we will consult with a Professional Geotechnical Engineer on the appropriate liner for this pond, prepare updated pond drawings and submit them for your approval.

I am available, at your convenience, to discuss any aspect of the proposed change. Please call me if you require additional information or clarification.

Yours sincerely,

LGN Consulting Engineering Ltd.

Luis G. Narvaez, B.Sc., P.Eng.
Senior Stormwater Engineer

Inarvaez@lgneng.ca

From: Aster Wang <Aster.Wang@gov.ab.ca>
Sent: October 14, 2020 4:15 PM
To: Inarvaez@lgneng.ca
Subject: RE: Pond liner

Hello Luis,

You don't need to obtain any approval from Alberta Environment to install a liner in a stormwater pond without changing the characteristics of the pond, but we would like to be informed. Please email me an updated drawings including the liner. I will add it to our file.

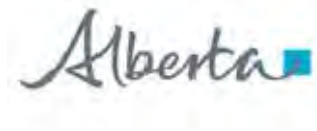
Regards,

Aster Wang

Water Approvals Team Lead - Calgary
Southern Region
Alberta Environment and Parks

2938 – 11 Street NE
Calgary, AB T2E 7L7

Tel 403-297-5891
Fax 403-297-2749
aster.wang@gov.ab.ca



Classification: Protected A

From: Inarvaez@lgneng.ca <Inarvaez@lgneng.ca>
Sent: October 7, 2020 12:26 PM
To: Aster Wang <Aster.Wang@gov.ab.ca>
Subject: Pond liner

CAUTION: This email has been sent from an external source. Treat hyperlinks and attachments in this email with care.

Good afternoon Aster,

The pond outlined in the attached drawing was constructed back in 2005 and registered with Alberta Environment. This pond was designed and constructed without a liner. The pond is not holding water as was intended; therefore, the developer would like to install a synthetic liner. The intent is to obtain the proper recommendation from a geotechnical

engineer for a liner design. The pond shape and characteristics (volume, depth, etc.) will remain as per the approved Stormwater Management report.

I spoke with Rocky View County and they requested a letter from me indicating that the pond characteristics will not change from the approved report and construction drawings. My question to you is what process do I need to follow to obtain approval from Alberta Environment to install the liner.

Your help is appreciated, thank you,

LGN Consulting Engineering Ltd.

Luis G. Narvaez, B.Sc., P.Eng.

Senior Stormwater Engineer

(403) 975-0598

 Please consider the environment before printing this email



NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES PRIOR TO CONSTRUCTION.
2. ANY DEVIATION OR INCONSISTENCIES FROM THIS PLAN SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. DIMENSIONS SHOWN ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. ALL DIMENSIONS ARE IN METERS, AND DECIMALS THEREOF UNLESS OTHERWISE NOTED.
5. GEOSYNTHETIC CLAY LINER IS AS PER THE ALMOR TESTING LTD. RECOMMENDATIONS.
6. CONSTRUCTION TO BE COMPLETED PER GEOTECHNICAL GUIDANCE.

1	2025-11-04	ISSUED FOR APPROVAL
	YYYYMMDD	SUBMISSION INFORMATION

DISCLAIMER:
THIS DRAWING IS PROTECTED BY COPYRIGHT LAW, AND SHOULD NOT BE REPRODUCED IN ANY MANNER, OR FOR ANY PURPOSE, EXCEPT BY WRITTEN PERMISSION OF MORRISON HERSHFIELD LIMITED. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND REPORT ANY ERRORS AND/OR OMISSIONS TO MORRISON HERSHFIELD LIMITED.

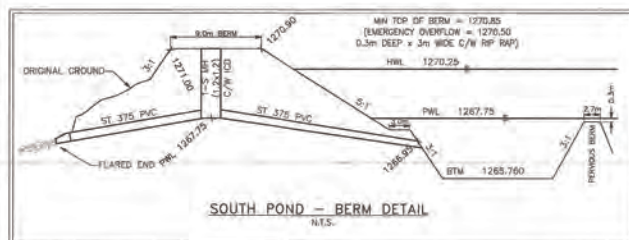
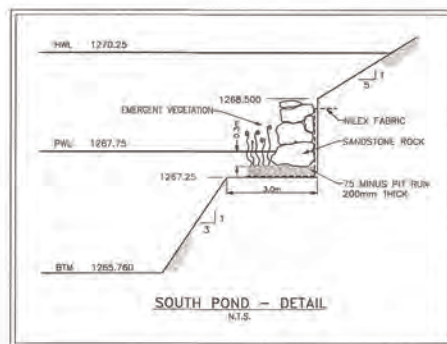











PROJECT

Bears paw Pond Liner

DRAWING
Plan & Sections

DESIGN IA	DATE Nov. 5, 2020	SCALE As Shown
DRAWN WP	PROJECT NO. -	
CHECKED	DRAWING NO	VERSION
APPROVED	-	1



- | | |
|-------------------------------------------------------------------------------------|------------------------------------------|
|  | BLOCK PROFILE DRAWING NUMBER |
|  | CONSTRUCTION BOUNDARY |
|  | FLOW DIRECTION |
|  | ROAD ELEVATION |
|  | OVERLAND FLOWS |
|  | DISCHARGE
VELOCITY
DEPTH
VOLUME |
|  | OVERLAND ESCAPE ROUTE |
|  | INLET CONTROL DEVICE |
|  | LIMIT OF 3:1 SLOPE |

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7	03/05	ISSUED FOR REVISED FINAL	TAE
6	01/05	SOUTH POND LOCATION CHANGE	TAE
5	05/05	LEGAL CHANGE & NEW SOUTH ROAD LAYOUT	TAE
4	07/04	SUBDIVISION AND ROAD NAME CHANGE	TAE
3	04/06	ISSUED FOR WATER CO-OP REVIEW	TAE
2	06/04	ISSUED FOR SRM REPORT	TAE
1	04/04	ISSUED FOR TENDER	TAE
0	04/04	ISSUED FOR CLIENT REVIEW	TAE
NO	DATE	REVISION	BY



PERMIT TO PRACTICE

MORRISON HERSCHELD LINE

Signature: [Signature]
Date: 21 MAR 05

PERMIT NUMBER: P 227

The Association of Professional Engineers, Geologists and Geophysicists of Alberta

THEORY

THEOLOGIAN

MANAGEMENT

RISON HERSHFELD

CONTAIN GLEN ES

FDL AND BRAIN

VERLAND DRAIN

PLAN

[illegible]

JULY 2004

PROJECT NO.	303401302
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	DRAWING NO.
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