

# SUBDIVISION AND DEVELOPMENT APPEAL BOARD AGENDA

**ROCKY VIEW COUNTY  
COUNCIL CHAMBERS  
262075 ROCKY VIEW POINT  
ROCKY VIEW COUNTY, AB  
T4A 0X2**

**March 13, 2019**

**A CALL MEETING TO ORDER**

**B DEVELOPMENT APPEALS**

## **9:00 AM APPOINTMENTS**

- 1. Division 9 File: 06706019; PRDP20152541 Page 2**  
**Traffic Impact Assessment Page 96**

This is an appeal against the Development Authority's decision to APPROVE a development permit for Funeral Services and Entombment, the construction of an office, prayer hall, gathering hall, and the relaxation of the maximum height requirement at 260144 Mountain Ridge Place, NE-06-26-03-W5M, located approximately 0.41 km (1/4 mile) south of Highway 1A and on the east side of Mountain Ridge Place. This appeal was adjourned sine die on January 27, 2016.

Appellants: Johanna Schiff on behalf of the Residents and Members of Mountain Ridge Place  
Applicant: Khalil Ladan of Cubit Design Group Ltd.  
Owner: Muslim Council of Calgary

## **10:30 AM APPOINTMENTS**

- 2. Division 6 File: 07020010; PRDP20190237 Page 69**

This is an appeal against the Development Authority's decision to REFUSE a development permit for the construction of an accessory building, and the relaxation of the building area and building height requirement at 254020 Township Road 274, NE-20-27-25-W4M, located at the northwest junction of Township Road 274 and Range Road 254.

Applicant/Owner/Appellant: Mary Anne Schwengler

**C CLOSE MEETING**

**D NEXT MEETING: April 3, 2019**

## PLANNING & DEVELOPMENT

**TO:** Subdivision and Development Appeal Board

**DATE:** March 13, 2019 **DIVISION:** 9

**FILE:** 06706019 **APPLICATION:** B-1; PRDP20152541

**SUBJECT:** Funeral Services and Entombment

<b>PROPOSAL:</b> Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.	<b>GENERAL LOCATION:</b> Located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place.
<b>APPLICATION DATE:</b> June 26, 2015	<b>DEVELOPMENT AUTHORITY DECISION:</b> Discretionary – Approved
<b>APPEAL DATE:</b> September 28, 2015	<b>DEVELOPMENT AUTHORITY DECISION DATE:</b> September 15, 2015
<b>LEGAL DESCRIPTION:</b> NE-06-26-03-W05M	<b>GROSS AREA:</b> ± 4.55 hectares (± 11.25 acres)
<b>APPELLANT:</b> Johanna Schiff et al	<b>APPLICANT:</b> Khalil Ladan (Cubit Design Group Ltd.)
<b>LAND USE DESIGNATION:</b> Public Services District (PS)	<b>MUNICIPAL ADDRESS:</b> 260144 Mountain Ridge Place
<b>DISCRETIONARY USE:</b> Funeral Services and Entombment is a discretionary use within the Public Services District.	<b>DEVELOPMENT VARIANCE AUTHORITY:</b> Section 12.2 (c)(ii) allows the Development Officer a 25.00% variance that can be applied to the maximum height requirement. Section 12.2 (c)(iii) allows the Development Officer a variance of 50.00% to the minimum front yard setback when adjacent to a paved road.
<b>PUBLIC SUBMISSIONS:</b> The application was circulated to forty-five (45) adjacent landowners. There were twenty-one (21) signatures submitted by landowners in support of the appeal.	<b>LAND USE POLICIES AND STATUTORY PLANS:</b> <ul style="list-style-type: none"> <li>• County Plan (C-7280-2013)</li> <li>• Land Use Bylaw (C-4841-97)</li> <li>• Glenbow Area Structure Plan</li> </ul>

**EXECUTIVE SUMMARY:**Preliminary Matters*He Who Decided Must Hear*

The appeal was adjourned sine die by the Development Appeal Board, renamed the Subdivision and Development Appeal Board (SDAB or Board), on January 27, 2016, requesting additional information with regard to traffic, storm water management, and water supply (see Appendix A).

As there has been over four years since the adjournment, it should be noted that s 34 of the Appeal and Review Panel Bylaw (Bylaw C-7717-2017) states:

“34 Only members of the Panel present for the entire hearing shall participate in the making of a decision on any matter before it.”

Therefore, if the composition of the Board has changed since the hearing was adjourned on January 27, 2016, it is important that the merits of this hearing be heard in its entirety.

*New Statutory Plan*

Since the application was adjourned, County Council approved the Glenbow Ranch Area Structure Plan (Bylaw C-7667-2017) on July 25, 2017, which was amended on April 24, 2018 by Municipal Government Board Order 024/18. As part of the adoption of the Glenbow Ranch Area Structure Plan, the boundary of the Bearspaw Area Structure Plan was amended. As a result, the subject lands are now located in the Glenbow Ranch Area Structure Plan, not the Bearspaw Area Structure Plan as identified in the Development Permit report included with previous Board Reports.

As a decision has not been rendered by the SDAB, it is important that the Board evaluate the development against the current bylaws and statutory plans in effect and not those in effect at the time of the decision of the Development Authority. This is consistent with a recent decision of the Alberta Court of Appeal, *The Green Company Ltd v Calgary (Subdivision and Development Appeal Board)*, 2019 ABCA 11 at para 18, which states (**bold emphasis added**):

“[18] There is no reasonable basis for Green's assertion that the SDAB is restricted to considering the facts only as they existed at the time of the Development Authority's decision. First, the SDAB reviews the Development Authority's decision *de novo*: *Edith Lake Service Ltd v Edmonton (City)*, 1981 ABCA 328 at para 9; *Stewart v Lac Ste Anne (County) Subdivision and Development Appeal Board*, 2006 ABCA 264 at paras 9-12. The SDAB can hear new evidence on the appeal; for example, in this case, the SDAB heard Green's evidence that the Chinese Academy is not a school site as well as the information that approval had been granted for a competing store near Green's proposed site. Second, **the MGA provides that the SDAB, in determining an appeal, must comply with any applicable land use policies and land use bylaws in effect: ss 687(3)(a.1) and (a.3). If circumstances relevant to the application have changed since the Development Authority's decision was made, the SDAB is entitled to take those circumstances into account.**”

As *The Green Company Ltd v Calgary* case does not deal with a change in statutory plan policy, it should be noted that the decision does not reference ss 687(3)(a.2), which states:

“687(3) In determining an appeal, the subdivision and development appeal board (a.2) subject to section 638, must comply with any applicable statutory plans”

However, as the decision upholds ss 687(3)(a.1) and ss 687(3)(a.3), it can be reasonably inferred that ss 687(3)(a.2) would be upheld and applicable to the appeal.

The Development Authority's assessment of the application with regard to the Glenbow Ranch Area Structure Plan will be presented to the Board at the hearing.

### *Appeal Matter*

An application for *Funeral Services and Entombment* was approved by the Development Authority on September 15, 2015, and subsequently appealed on September 28, 2015. The appeal went forward to the Board initially on October 28, 2015, which was tabled and then returned to the Board on December 9, 2015, and January 27, 2016, and was finally tabled sine die at the January 27, 2016, hearing. The Board had requested further information from the Applicant/Owner in order to gain a better understanding of the complete development on the property, including:

1. A Transportation Impact Assessment (TIA);
2. A decision from Alberta Transportation respecting the Roadside Development;
3. A Site Specific Storm Water Management Plan; and
4. Confirmation of water supply allocation.

Of these items, the Applicant/Owner provided a Traffic Impact Assessment. To the knowledge of the Development Authority, no other documentation requested by the Board has been submitted to date.

### **PROPERTY HISTORY:**

<b>April 24, 2018</b>	Glenbow Area Structure Plan (Bylaw C-7667-2017) was amended by the Municipal Government Board Order 024/18.
<b>July 25, 2017</b>	Glenbow Area Structure Plan (Bylaw C-7667-2017) was adopted by Council and includes the subject land.
<b>March 07, 2017</b>	Response to Alberta Transportation comments about the submitted Transportation Impact Assessment from January 23, 2017.
<b>January 23, 2017</b>	Transportation Impact Assessment submitted by the Applicant to be reviewed by Rocky View County and Alberta Transportation.
<b>January 27, 2016</b>	Appeal of Development Permit PRDP20152541 returned to the Subdivision and Development Appeal Board and was tabled sine die (see attached).
<b>December 9, 2015</b>	Appeal of Development Permit PRDP20152541 returned to the Subdivision and Development Appeal Board and was tabled to January 27, 2016 (see attached).
<b>October 28, 2015</b>	Appeal of Development Permit PRDP20152541 went forward to the Subdivision and Development Appeal Board and was tabled to December 9, 2015 (see attached).
<b>September 28, 2015</b>	Appeal submitted by Appellants.
<b>September 15, 2015</b>	Development application PRDP20152541 was approved by the Development Authority.
<b>June 26, 2015</b>	Development application PRDP20152541 was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.





**APPEAL:**

See attached report and exhibits.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Sean MacLean', written over a horizontal line.

Sean MacLean  
Supervisor, Planning & Development

**APPENDICES:**

- APPENDIX 'A': Letter from SDAB from February 4, 2016
- APPENDIX 'B': Executive Summary from January 27, 2016
- APPENDIX 'C': Executive Summary from December 9, 2015
- APPENDIX 'D': Board Order – Adjournment to December 9, 2015
- APPENDIX 'E': Executive Summary from October 28, 2015
- APPENDIX 'F': Development Permit Report
- APPENDIX 'G': Map Set
- APPENDIX 'H': Green Company v Calgary (SDAB)
- APPENDIX 'I': Notice of Appeal
- APPENDIX 'J': Notice of Decision
- APPENDIX 'K': Application
- APPENDIX 'L': Landowner Comments

**DEVELOPMENT APPEAL BOARD**

February 4, 2016

File: 06706019; PRDP20152541

**APPELLANTS:**Johanna Schiff on behalf  
Residents and Members  
Of Mountain Ridge Place  
[REDACTED]**APPLICANT:**Khalil Ladan  
(Cubit Design Group Ltd.)  
125 2635 37 Avenue NE  
Calgary, AB T1Y 5Z6**OWNER:**Muslim Council of Calgary  
225 – 28<sup>th</sup> Street SE  
Calgary, AB T2A 5K4

Dear Sir/Madam,

**RE: APPEAL HEARING ADJOURNED SINE DIE**

At the conclusion of the Appeal Hearing held on January 27, 2016, the Development Appeal Board adjourned the hearing **sine die** for further information.

In order to render a decision and to gain a better understanding of the complete development on the property, the Board requests that the Applicant/Owner provide the following additional information:

1. The Transportation Impact Assessment (TIA).
2. A decision from Alberta Transportation respecting the Roadside Development.
3. A Site Specific Stormwater Management Plan.
4. A confirmation of water supply allocation.

Once the Applicant/Owner has all the required information as noted above, please contact Administration to have the matter brought before the Development Appeal Board.

Should you have any questions, please contact the writer at 403.230.1401.

Yours truly,

Charlotte Satink  
Clerk of the Development Appeal Board

cc: Development Officer



## PLANNING SERVICES

**TO:** Development Appeal Committee

**DATE:** January 27, 2016 **DIVISION:** 9

**FILE:** 06706019 **APPLICATION:** B-1; PRDP20152541

**SUBJECT:** Funeral Services and Entombment

<b>PROPOSAL:</b> Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.	<b>GENERAL LOCATION:</b> Located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place.
<b>APPLICATION DATE:</b> June 26, 2015	<b>DEVELOPMENT AUTHORITY DECISION:</b> Approved
<b>APPEAL DATE:</b> September 28, 2015	<b>DEVELOPMENT AUTHORITY DECISION DATE:</b> September 15, 2015
<b>APPELLANT:</b> Johanna Schiff et. Al.	<b>APPLICANT:</b> Khalil Ladan (Cubit Design Group Ltd.) <b>OWNER:</b> Muslim Association of Calgary
<b>LEGAL DESCRIPTION:</b> NE-06-26-03-W05M	<b>MUNICIPAL ADDRESS:</b> 260144 Mountain Ridge Place
<b>LAND USE DESIGNATION:</b> Public Services District (PS)	<b>GROSS AREA:</b> ± 4.55 hectares (± 11.25 acres)
<b>PERMITTED USE:</b> Funeral Services and Entombment is not listed as a permitted use in this Land Use Designation.	<b>DEVELOPMENT VARIANCE AUTHORITY:</b> Section 12.2 (c)(ii) allows the Development Officer a 25% variance that can be applied to the maximum height requirement. Section 12.2 (c)(iii) allows the Development Officer a variance of 50% to the minimum front yard setback when adjacent to a paved road.
<b>PUBLIC SUBMISSIONS:</b> The application was circulated to forty-five (45) adjacent landowners. There were twenty-two (22) signatures provided by landowners that are on the appellants list, from those twenty-two (22) signatures, seventeen (17) landowners submitted letters.	<b>LAND USE POLICIES AND STATUTORY PLANS:</b> <ul style="list-style-type: none"> <li>• County Plan</li> <li>• Land Use Bylaw</li> <li>• Bearspaw Area Structure Plan</li> </ul>



## EXECUTIVE SUMMARY:

On January 15, 2016, the appellants (resident representatives of Mountain Ridge Place) and the applicants (representatives from Cubit Design Group & the Muslim Association of Calgary) attended a meeting at the County to discuss the development permit application for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement. County representatives were available at the meeting to respond to any questions about policy and procedure.

The appellants and applicants discussed the application for approximately one (1) hour to attempt to find a resolution to the appellants' concerns with the application. By the end of the meeting, a resolution had not been confirmed and it was determined that representatives of the Muslim Association of Calgary and Mountain Ridge Place would try to meet again to discuss the application prior to the Appeal Board hearing on January 27, 2016. Final reports for the appeal board were due before this second meeting could be held, therefore, details on the second meeting cannot be provided in this report. However, should any new information become available it will be presented to the Appeal Board at the January 27, 2016 presentation.

### *Application and appeal matters:*

The application was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement. The use applied for is a discretionary use listed within the Public Services District (PS).

The subject lands are  $\pm 4.55$  hectares ( $\pm 11.25$  acres) in size and are located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place. The lands presently feature a cemetery and a parking lot (2006-DP-12129 approved for Cemetery and Interment Services, existing, construction (maintenance building), parking lot, and a berm).

The application has been assessed in accordance with the Public Services District (PS). As per Section 63.1 of the Land Use Bylaw, the purpose and intent of the district is for the development of institutional, educational, and recreational uses. This property was rezoned to Public Service District (Public and Quasi-Public District) in April 1985 (Bylaw C-1797-85).

The Applicant/Owner applied for a Funeral Services and Entombment use in order to have a space to hold funeral services to service the growing Muslim community in Calgary and surrounding areas. This use would allow funeral services to occur inside during winter months, as well as provide a formal area to prepare the bodies for the funeral services. The Development Authority approved the application as the proposal met the purpose and intent of the land use district.

On September 28, 2015 the application was appealed by adjacent landowners including the residents of Mountain Ridge Place and members of the Mountain Ridge Place Committee. Details of the appeal are included within the appeal package.

## PROPERTY HISTORY:

<b>December 09, 2015</b>	Development Appeal Board granted a postponement at the request of the appellants in order to give both the appellants and the applicant more time to hold a meeting and for the appeal to return on January 27, 2016.
<b>October 28, 2015</b>	Development Appeal Board granted a postponement request to the hearing for thirty (30) days and for the appeal to return on December 9, 2015.
<b>September 28, 2015</b>	Appeal submitted by Appellants.
<b>September 15, 2015</b>	Development application PRDP20152541 was approved by the Development Authority.



**June 26, 2015**

Development application PRDP20152541 was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.

**APPEAL:**

See attached report and exhibits.

Respectfully submitted,

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Matthew Wilson  
Supervisor Planning Services



## PLANNING SERVICES

**TO:** Development Appeal Committee  
**DATE:** December 9, 2015 **DIVISION:** 9  
**FILE:** 06706019 **APPLICATION:** B-1; PRDP20152541  
**SUBJECT:** Funeral Services and Entombment

<b>PROPOSAL:</b> Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.	<b>GENERAL LOCATION:</b> Located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place.
<b>APPLICATION DATE:</b> June 26, 2015	<b>DEVELOPMENT AUTHORITY DECISION:</b> Approved
<b>APPEAL DATE:</b> September 28, 2015	<b>DEVELOPMENT AUTHORITY DECISION DATE:</b> September 15, 2015
<b>LEGAL DESCRIPTION:</b> NE-06-26-03-W05M	<b>GROSS AREA:</b> ± 4.55 hectares (± 11.25 acres)
<b>APPELLANT:</b> Johanna Schiff et. Al.	<b>APPLICANT:</b> Ladan, Khalil (Cubit Design Group Ltd.) <b>OWNER:</b> Muslim Association of Calgary
<b>LAND USE DESIGNATION:</b> Public Services District (PS)	<b>MUNICIPAL ADDRESS:</b> 260144 Mountain Ridge Place
<b>PERMITTED USE:</b> Funeral Services and Entombment is not a listed permitted use in this Land Use Designation.	<b>DEVELOPMENT VARIANCE AUTHORITY:</b> Section 12.2 (c)(ii) allows the Development Officer a 25% variance that can be applied to the maximum height requirement. Section 12.2 (c)(iii) allows the Development Officer a variance of 50% to the minimum front yard setback when adjacent to a paved road.
<b>PUBLIC SUBMISSIONS:</b> The application was circulated to forty-five (45) adjacent landowners. There were twenty-one (21) signatures provided by landowners submitted in support of the appeal.	<b>LAND USE POLICIES AND STATUTORY PLANS:</b> <ul style="list-style-type: none"> <li>• County Plan</li> <li>• Land Use Bylaw</li> <li>• Bearspaw Area Structure Plan</li> </ul>

### EXECUTIVE SUMMARY:

#### *Preliminary matter for determination:*

This appeal was first brought forward to the Development Appeal Board on October 28, 2015. At that hearing the appellants requested to postpone the hearing for approximately thirty (30) days in order to





have a meeting with the Applicant/Owner, the residents of Mountain Ridge Place (the appellants), and the County. The Development Appeal Board issued a Board Order stating that the requested postponement would be granted for thirty (30) days.

At the time of report preparation a meeting has not been held between the appellants, the Applicant/Owner, and the County. The appellants have made multiple attempts to arrange a meeting date with the Applicant/Owner but have been unsuccessful. The County, as directed by the Development Appeal Board, has always presented that they are able to attend the meeting once notification of a time, date, and place was confirmed; to date these details have not been confirmed.

The appellants are now requesting a postponement to the hearing for a second time to January 27, 2016 in order to hold the meeting and discuss their concerns about the application with the Applicant/Owner.

*Application and appeal matters:*

The application was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement. The use applied for is a discretionary use listed within the Public Services District (PS).

The subject lands are  $\pm 4.55$  hectares ( $\pm 11.25$  acres) in size and are located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place. The lands presently feature a cemetery and a parking lot (2006-DP-12129 approved for Cemetery and Interment Services, existing, construction (maintenance building), parking lot, and a berm).

The application has been assessed in accordance with the Public Services District (PS). As per Section 63.1 of the Land Use Bylaw, the purpose and intent of the district is for the development of institutional, educational, and recreational uses. This property was rezoned to Public Service District (Public and Quasi-Public District) in April 1985 (Bylaw C-1797-85).

The Applicant/Owner applied for a Funeral Services and Entombment use in order to have a space to hold funeral services to service the growing Muslim community in Calgary and surrounding areas. This use would allow funeral services to occur inside during winter months, as well as provide a formal area to prepare the bodies for the funeral services. The Development Authority approved the application as the proposal met the purpose and intent of the land use district.

On September 28, 2015 the application was appealed by adjacent landowners including the residents of Mountain Ridge Place and members of the Mountain Ridge Place Committee. Details of the appeal are included within the appeal package.

**PROPERTY HISTORY:**

<b>October 28, 2015</b>	Development Appeal Board granted a postponement request to the hearing for thirty (30) days and for the appeal to return on December 9, 2015.
<b>September 28, 2015</b>	Appeal submitted by Appellants.
<b>September 15, 2015</b>	Development application PRDP20152541 was approved by the Development Authority.
<b>June 26, 2015</b>	Development application PRDP20152541 was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.

**APPEAL:**

See attached report and exhibits.



Respectfully submitted,

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Matthew Wilson  
Supervisor Planning Services

Board Order No.: 81-15

Hearing Held: October 28, 2015

File No.: 06706019; PRDP20152541

## ROCKY VIEW COUNTY SUBDIVISION & DEVELOPMENT APPEAL BOARD Development Appeal Decision

Chair: R. Ashdown

Board Member: H. George

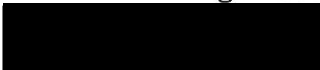
Board Member: O. Channan

Board Member: W. Metzger

Board Member: E. Solberg

Board Member: B. Kendall

**APPELLANTS:**

Johanna Schiff on behalf  
Residents and Members  
Of Mountain Ridge Place  


**APPLICANT:**

Khalil Ladan  
(Cubit Design Group Ltd.)  
125 2635 37 Avenue NE  
Calgary, AB T1Y 5Z6

**OWNER:**

Muslim Association of Calgary  
5615 14<sup>th</sup> Avenue SW  
Box 1602, Stn Main  
Calgary, AB T2P 2L7

**I DECISION:**

Having been satisfied that notice of this hearing was provided in accordance with the *Municipal Government Act*, R.S.A. 2000, Chapter M-26; upon having read the materials provided; and upon having heard the representations from the Appellants and the Development Authority with respect to the appeal filed by the Appellants from the decision of the Development Officer, dated September 15, 2015, to approve a Development Permit for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement in the NE-06-26-03-W5M (the "Lands").

**II PRELIMINARY ISSUE – Appellant's Postponement Request**

Prior to considering the merits of the appeal, the Board had to consider and make a decision with respect to a postponement request made by the Appellants within the Notice of Appeal. The postponement request is to postpone the appeal hearing for 30 days and convene a meeting with the Development Officer, the MAC Cemetery Development Applicant, and the Mountain Ridge Place owners in order to adopt the improvements as listed within the Notice of Appeal.

**The Board accepts the following facts:**

1. The Development Authority reviewed the application based on technical requirements based on the County Servicing Standards and does not have the discretion to negotiate changes to the standards or to the set of conditions. Administration is prepared to continue with the Development Appeal hearing as scheduled.
2. The Development Appeal Board advised that should the postponement be granted, that the newly appointed Development Appeal Board members would be hearing the merits of the

appeal as the new Development Appeal Board members have been appointed effective November 1, 2015.

3. The Board heard the following submissions from affected persons regarding the postponement request:
  - a. Dr. Johanna Schiff, on behalf of the Appellants advised the Board that she is not sure who spoke on her behalf to make a request for a postponement. Although she is prepared to proceed with the hearing as scheduled, she represents an entire neighbourhood and believes in consensus decision making. She withdraws her request for a postponement and wishes to proceed with the Development Appeal hearing as scheduled.
  - b. Rick Sneider, an Appellant advised the Board that the postponement request within the Notice of Appeal was included with the intention of convening a meeting with the Development Officer, the MAC Cemetery, Development Applicant, and the Mountain Ridge Place owners. He would like to know if the Development Officer is a facilitator to conduct such a meeting between the parties.
  - c. Paul Giannelia, an Appellant advised the Board that he would like to sit down with the Cemetery to come up with a solution as to what they are trying to achieve and what he is trying to avoid.
  - d. Khalil Ladan, the Applicant from Cubit Design Group advised the Board that he is against the request for a postponement as he has had a meeting with the Community already. The transportation issues that the community raised are issues that are out of his hands. He does not see any benefit in conducting another meeting with the community.
4. The Board heard that the Development Authority does not provide professional facilitation or mediation. The Development Authority can be involved in discussions but not in a mediator role.
5. The Board advised that the Development Authority is only permitted to comply with the Land Use Bylaw and Procedures.

#### Decision:

The Board determined that the Development Appeal hearing is postponed to **December 9, 2015**. The Board suggests that all affected parties meet to discuss any outstanding issues and/or concerns prior to the December 9, 2015 hearing.


#### CLOSING:

This decision can be appealed to the Court of Appeal on a question of law or jurisdiction. If you wish to appeal this decision you must follow the procedure found in Section 688 of the **Municipal Government Act**, R.S.A. 2000 Chapter M-26 which requires an application for leave to appeal to be filed and served **within 30 days** of this decision.

Dated at the City of Calgary, in the Province of Alberta this 10<sup>th</sup> day of November, 2015 and signed by the Chair of the Development Appeal Committee who agrees that the content of this document

Board Order No.: 81-15  
File No.: 06706019; PRDP20152541  
Page 3

adequately reflects the appeal hearing, deliberations and decision of the Development Appeal Committee.



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R. Ashdown, Chair  
Development Appeal Committee

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**EXHIBIT LIST:**

1. Subdivision and Development Appeal Board Report with attachments (27 Pages).





## PLANNING SERVICES

**TO:** Development Appeal Committee

**DATE:** October 28, 2015

**DIVISION:** 9

**FILE:** 06706019

**APPLICATION:** B-1; PRDP20152541

**SUBJECT:** Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.

<b>PROPOSAL:</b> Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.	<b>GENERAL LOCATION:</b> Located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place.
<b>APPLICATION DATE:</b> June 26, 2015	<b>DEVELOPMENT AUTHORITY DECISION:</b> Approved
<b>APPEAL DATE:</b> September 28, 2015	<b>DEVELOPMENT AUTHORITY DECISION DATE:</b> September 15, 2015
<b>LEGAL DESCRIPTION:</b> NE-06-26-03-W05M	<b>GROSS AREA:</b> ± 4.55 hectares (± 11.25 acres)
<b>APPELLANT:</b> Johanna Schiff et al	<b>APPLICANT:</b> Ladan, Khalil (Cubit Design Group Ltd.)
<b>LAND USE DESIGNATION:</b> Public Services District (PS)	<b>MUNICIPAL ADDRESS:</b> 260144 Mountain Ridge Place
<b>PERMITTED USE:</b> Funeral Services and Entombment is not a listed permitted use in this Land Use Designation.	<b>DEVELOPMENT VARIANCE AUTHORITY:</b> Section 12.2 (c)(ii) allows the Development Officer a 25% variance that can be applied to the maximum height requirement. Section 12.2 (c)(iii) allows the Development Officer a variance of 50% to the minimum front yard setback when adjacent to a paved road.
<b>PUBLIC SUBMISSIONS:</b> The application was circulated to forty-five (45) adjacent landowners. There were twenty-one (21) signatures provided by landowners submitted in support of the appeal.	<b>LAND USE POLICIES AND STATUTORY PLANS:</b> <ul style="list-style-type: none"> <li>• County Plan</li> <li>• Land Use Bylaw</li> <li>• Bearspaw Area Structure Plan</li> </ul>





## EXECUTIVE SUMMARY:

### *Preliminary matter for determination:*

As part of the submitted appeal package, the appellants are requesting the appeal be postponed for thirty (30) days in order to arrange a meeting between the County's Development Officer, the Applicant/Owner (Khalil Ladan, Cubit Design Ltd.), and Mountain Ridge Place residents in order to adopt the improvements listed in the appeal package.

The Applicant/Owner (Khalil Ladan, Cubit Design Ltd.), met with residents of Mountain Ridge Place on September 22, 2015 to hear and discuss their concerns.

The Development Authority reviewed the development application based on technical requirements from the County Servicing Standards. The Development Authority does not have the discretion to negotiate changes to these standards or the set of conditions based on requests from area residents. However, the Development Appeal Board has the discretion to make adjustments to conditions, which are prepared based on County Servicing Standards, and this is generally done through the hearing process.

### *Application and appeal matters:*

The application was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement. The use applied for is a discretionary use listed within the Public Services District (PS).

The subject lands are  $\pm 4.55$  hectares ( $\pm 11.25$  acres) in size and are located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place. The lands presently feature a cemetery and a parking lot (2006-DP-12129 approved for Cemetery and Interment Services, existing, construction (maintenance building), parking lot and a berm).

The application has been assessed in accordance with the Public Services District (PS). As per Section 63.1 of the Land Use Bylaw, the purpose and intent of the district is for the development of institutional, educational and recreational uses. This property was rezoned to Public Service District (Public and Quasi-Public District) in April 1985 (Bylaw C-1797-85).

The Applicant/Owner applied for a Funeral Services and Entombment use in order to have a space to hold funeral services to service the growing Muslim community in Calgary and surrounding areas. This use would allow funeral services to occur inside during winter months, as well as provide a formal area to prepare the bodies for the funeral services. The Development Authority approved the application as the proposal met the purpose and intent of the land use district.

On September 28, 2015 the application was appealed by adjacent landowners including residents of Mountain Ridge Place and members of the Mountain Ridge Place Committee. Details of the appeal are included within the appeal package.

## PROPERTY HISTORY:

<b>September 28, 2015</b>	Appeal submitted by Appellants.
<b>September 15, 2015</b>	Development application PRDP20152541 was approved by the Development Authority.
<b>June 26, 2015</b>	Development application PRDP20152541 was submitted for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.



**APPEAL:**

See attached report and exhibits.

Respectfully submitted,

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Matthew Wilson  
Supervisor Planning Services



## DEVELOPMENT PERMIT REPORT

<b>Application Date:</b> June 26, 2015	<b>File:</b> 06706019
<b>Application:</b> PRDP20152541	<b>Applicant/Owner:</b> Khalil Ladan (Cubit Design Group Ltd) / Muslim Association of Calgary
<b>Legal Description:</b> NE-06-26-03-W05M	<b>General Location:</b> Located approximately 0.41 km (1/4 mile) south of Hwy 1A, on the east side of Mountain Ridge Place.
<b>Land Use Designation:</b> Public Services District (PS)	<b>Gross Area:</b> 11.25 acres
<b>File Manager:</b> Meghan Norman	<b>Division:</b> 9

## PROPOSAL:

The proposal is for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement.

- Previous permit history:
  - 2006-DP-12129 (Cemetery and Interment Services, existing, construction (maintenance building))
  - PRDP20140827 (Placement of clean fill)
- The subject lands are designated Public Services District (PS) where “Funeral Services and Entombment” is a listed discretionary use; however, there is no definition for this use in the Land Use Bylaw.
- Building Design & Site Layout:
  - The building will be for funerals to service the Muslim community of Calgary and the surrounding area.
  - The building will consist of:
    - A cooler room;
    - Body wash area;
    - Meeting room for family members (one (1) for men, one (1) for women);
    - Two (2) offices for the management committee;
    - A prayer hall for men; and
    - A second floor mezzanine for women.
  - There will be a basement that will consist of mechanical and electrical rooms, two (2) gathering halls (one (1) for men, one (1) for women).
  - Signage is proposed but details are not provided at this time.



- Height relaxation:
  - The maximum height requirement for the principle building within the Public Services District (PS) is 10.00 m (32.81 ft.).
    - Section 12.2 (c)(ii) allows the Development Authority a 25.00% variance that can be applied to the maximum height requirement.
    - The application proposes a maximum height requirement of 11.03 m (36.19 ft.); this is within the Development Authority's variance to allow.
- Setbacks:
  - Front yard setback - permitted: 30.00 m (98.43 ft.); proposed: 15.00 m (49.21 ft.).
    - Section 12.2 (c)(iii) allows the Development Authority a variance of 50.00% to the minimum front yard setback when adjacent to a paved road.
    - In this case, the Development Authority has the discretion to allow the relaxation for the minimum front yard setback requirement.
  - Side yard setback - permitted: 6.00 m (19.69 ft.); proposed: 6.00 m (19.69 ft.); permitted: 6.00 m (19.69 ft.); proposed: lots.
    - No relaxation for the minimum side yard setback is being requested.
  - Rear yard setback - permitted: 6.00 m (19.69 ft.); proposed: lots.
    - No relaxation for the minimum rear yard setback is being requested.
- Parking:
  - Schedule 5 in the Land Use Bylaw states that:
  - A religious assembly should provide one (1) space per four (4) fixed seats, plus 20.00 per 100.00 m<sup>2</sup> (1,076.40 ft<sup>2</sup>).
    - $1214.50 \text{ m}^2 / 100 \text{ m}^2 = 12.15 \times 20 = 242.90$
    - 234 spaces to be provided.
  - Schedule 5 determines that parking should be provided on the amount of fixed seats; however, for this development there are no fixed seats being proposed. Therefore, the number of stalls was based on the area provided.
  - The Site Plan provided proposes approximately 270 parking stalls which are sufficient for the proposal.
- Landscaping:
  - LUB Section 26.5, required number of trees = 97 trees (11 acres x 43,560.00 x 0.10 = 47,916.00/495.10 = 96.78)
  - Existing trees on site:

Common Name	Size	Quantity
Existing Spruce	3.00 m height	70
Existing Deciduous	Min. 75.00 mm caliper	85

- Total trees existing on site are 155, no other requirements.

**STATUTORY PLANS:**

The subject lands are located within the Bearspaw Area Structure Plan; this Statutory Plan does not provide any policy guidance on the nature of this application and therefore, the application has been reviewed in accordance with the Land Use Bylaw.

**INSPECTOR'S COMMENTS (July 13, 2015):**

- Existing cemetery;
- No activity/vacant;
- Existing paved parking area – 100+ stalls.

**CIRCULATIONS:** Requested by August 4, 2015Alberta Transportation (July 17, 2015):

- In reviewing the application, it appears that the Applicant/Owner wishes to establish a religious assembly/funeral services building at the above noted location. As this proposal falls within the referral distance of Alberta Transportation, a Roadside Development Permit will be required from this office.
- By copy of this letter we will forward a Roadside Development Application to the Applicant/Owner for completion and return to this office; therefore, we suggest delaying issuance of your permit until such time that a Roadside Development Permit has been received.
- Please note that the Roadside Development Application must identify the means of access from the Highway to the proposed development.

Town of Cochrane:

- No response at the time of report preparation.

Building Services Review:

- BP required using the commercial/institutional checklist requirements including professional schedules and design with stamps/seal.
- At the DP stage, have Applicant/Owner provide 3.2.2 Building Code Analysis to Building Services and Fire Services.
- At the DP stage, have Applicant/Owner provide hydrant location; the hydrant location depends on the 3.2.2 classification.
  - Dimensioned Site Plan with dimensions to the hydrant and Siamese connection/front entry, Access Route Design, and water supply that conform to the ABC 2006 articles below.
- Sections of the building code quoted: 3.2.5.16, 3.2.5.4, 3.2.5.5, 3.2.5.6, 3.2.5.7

Enforcement Services Review (July 29, 2015):

- There were two (2) previous enforcement files on this property - DICE file #1703 - excavation of a trench without DP - closed and DICE-file #1971 - hauling in fill without DP – closed. Construction projects of this type can create enforcement concerns related to garbage confinement and water issues due to lot re-grading. These issues are generally dealt with during the Building Permit process, but perhaps conditions can be added to the Development Permit to mitigate these potential concerns.



### Engineering Services Review (July 28, 2015):

#### **General:**

- The Applicant/Owner will be required to provide payment of \$0.75 sq. m of the building area as the development application engineering review fee in accordance with the Master Rates Bylaw at time of Development Permit.

#### **Geotechnical:**

- That prior to issuance, a Geotechnical Investigation in accordance with the Rocky View County 2013 Servicing Standards is required to verify the site is suitable for the proposed buildings, site works, and deep utilities. For any areas (if any) with greater than 1.2 m of fill a Deep Fill Report shall be required.

#### **Transportation:**

- The Applicant/Owner is required to provide payment of the Transportation Off-Site Levy in accordance with applicable levy at time of Development Permit approval, for the total gross acreage of the lands proposed to be developed.
- ES requires a Transportation Impact Assessment (TIA) be undertaken for this development. The TIA is to be circulated to Alberta Transportation for comments.
  - If the recommendations of the TIA require off-site improvements, then a Development Agreement shall be entered into.
- An AT Waiver and Roadside DP are required as this property is within 800 m of Hwy 1A.

#### **Sanitary/Wastewater:**

- ES requests that the Applicant/Owner provide additional information, such as the size of the facilities required, and how they will tie in with the development layout to confirm the proposal is satisfactory.
  - The County recommends the use of sewage holding tanks for industrial, commercial, and institutional land uses. The County does not permit the use of PSTS for any purpose other than typical wastewater strength and volume wastewater treatment and disposal.

#### **Water Supply and Waterworks:**

- The Applicant/Owner is to provide further information on how the proposed development will source water.
  - Should the Applicant/Owner propose to utilize a cistern and well to service the development, a license must therefore be obtained from Alberta Environmental Protection confirming this proposal is satisfactory.
  - Should the Applicant/Owner has indicated that the development will be serviced by a piped water supply, and therefore, ES requires:
    - Written confirmation of water supply by a piped water supply provider.

#### **Stormwater Management:**

- ES requires a Site Specific Stormwater Management Plan be prepared by a qualified professional engineer licensed by APEGA, in accordance with the County Servicing Standards. The Stormwater Management Plan is to adhere to the West Nose Creek Watershed and the Bears paw-Glenbow Master Drainage Plan.





- The Applicant/Owner is to provide for the implementation and construction of stormwater facilities, if any, in accordance with the recommendations of an approved Stormwater Management Plan and the registration of any Overland Drainage Easements and/or Restrictive Covenants as determined by the Stormwater Management Plan, all to the satisfaction of Alberta Environment and the County.
- Prior to occupancy of the site, the Applicant/Owner shall submit as-built drawings certified by a professional engineer. The as-built drawings shall include verification of as-built pond volumes, liner verification, and any other information that is relevant to the Stormwater Management Plan. Following receiving the as-built drawings from the consulting engineer, Engineering Services shall complete an inspection of the site to verify stormwater has been completed.

#### OPTIONS:

Option #1 (this would grant the Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement)

That the appeal against the decision of the Development Authority to approve a Development Permit for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement on NE-06-26-03-W05M, be denied, that the decision of the Development Authority be upheld, and that a Development Permit be issued, for the reasons that, subject to the following conditions:

#### Description:

1. That a Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement, may occur on the site in general accordance with the Site Plan prepared by Cubit Design Limited dated June 2015, as submitted with the application and includes the following:
2. Construction of a new Funeral Services and Entombment approximately 1,214.5 sq. m (13,073.8 sq. ft.) in area.
3. That the maximum height requirement is relaxed from **10.00 m (32.81 ft.) to 11.03 m (36.19 ft.)**.
4. That the minimum front yard setback requirement is relaxed from **30.00 m (98.43 ft.) to 15.00 m (49.21 ft.)**.

#### Prior to Issuance:

5. That prior to issuance, the Applicant/Owner shall submit payment for the \$0.75 per sq. m development application engineering review fee, in accordance with the Master Rates Bylaw. The total area of the proposed building is 1,214.50 sq. m (13,073.80 sq. ft.); therefore, the development application engineering review fee shall be \$910.88.
6. That prior to issuance, the Applicant/Owner shall confirm acceptance of or refusal to participate in the Voluntary Recreation Contribution for Community Recreation Funding on the form provided by the County and that the contribution, if accepted, is \$9,000.00, calculated at \$800.00 per acre for 11.25 acres.



7. That prior to issuance, the Applicant/Owner shall obtain a Roadside Development Permit through Alberta Transportation, as the proposed development falls within 800.00 m of Highway 1A.
8. That prior to issuance, the Applicant/Owner shall owner shall provide 3.22 Building Code Analysis and a Site Plan that includes dimensions to the hydrant and Siamese connection/front entry, Access Route Design, and water supply.
9. That prior to issuance, the Applicant/Owner shall submit payment of the Transportation Off-Site Levy in accordance with applicable levy at the time of the Development Permit approval, for the total gross acreage of the lands proposed to be developed.
10. That prior to issuance, a Transportation Impact Assessment (TIA) shall be undertaken for this development. The TIA is to be circulated to Alberta Transportation for comments.
  - i. If the recommendations of the TIA require off-site improvements, then a Development Agreement shall be entered into.
11. That prior to issuance, a Geotechnical Investigation shall be submitted in accordance with Rocky View County 2013 Servicing Standards, to verify that the site is suitable for the proposed buildings, site works, and deep utilities. For any areas (if any) with greater than 1.20 m of fill, a Deep Fill Report shall be required.
12. That prior to issuance, the Applicant/Owner shall provide confirmation of piped potable water with a letter on company letterhead stating that:
  - i. The Applicant/Owner has completed all paperwork for water supply allocation;
  - ii. The Applicant/Owner has paid all necessary fees for the purchase of required capacity units for the proposed development;
  - iii. The utility has allocated and reserved the necessary capacity; and
  - iv. The obligations of the Applicant/Owner and/or utility to bring water lines to the development (i.e. water utility to construct water line to limits of development and Applicant/Owner is to construct all internal water lines or, water utility will be responsible for all connections, etc.).
13. That prior to issuance, a Site Specific Stormwater Management Plan shall be submitted in accordance with Rocky View County 2013 Servicing Standards that has been prepared by a qualified professional engineer licensed by APEGA. The Stormwater Management Plan is to adhere to the West Nose Creek Watershed and the Bearspaw-Glenbow Master Drainage Plan.
  - i. The Applicant/Owner shall provide for the implementation and construction of stormwater facilities, if any, in accordance with the recommendations of an approved Stormwater Management Plan and the registration of any Overland Drainage Easements and/or Restrictive Covenants as determined by the Stormwater Management Plan, to the satisfaction of Alberta Environment and the County.

#### **Prior to Occupancy:**

14. That all landscaping and final site surface shall be in place prior to occupancy of the site and/or buildings and shall be maintained in perpetuity thereafter.
15. That should permission for occupancy of the site and/or buildings be requested during the months of October through May inclusive, occupancy shall be allowed without landscaping and final site surface completion provided that an Irrevocable Letter of Credit in the amount of 150.00% of the total cost of completing all the landscaping and final site surfaces required, shall be placed with Rocky View County to guarantee the works shall be completed by the 30th day of June immediately thereafter.



16. That prior to occupancy of the site, the Applicant/Owner shall submit as-built drawings certified by a professional engineer. The as-built drawings shall include verification of as-built pond volumes, liner verification, and any other information that is relevant to the Stormwater Management Plan. Following receiving the as-built drawings from the consulting engineer, Engineering Services shall complete an inspection of the site to verify stormwater has been completed.

**Permanent:**

17. That there shall be a minimum of two-hundred and seventy (270) parking stalls maintained on site at all times.
18. That no topsoil shall be removed from the site. Topsoil shall be stockpiled and spread over the site upon completion.

**Advisory:**

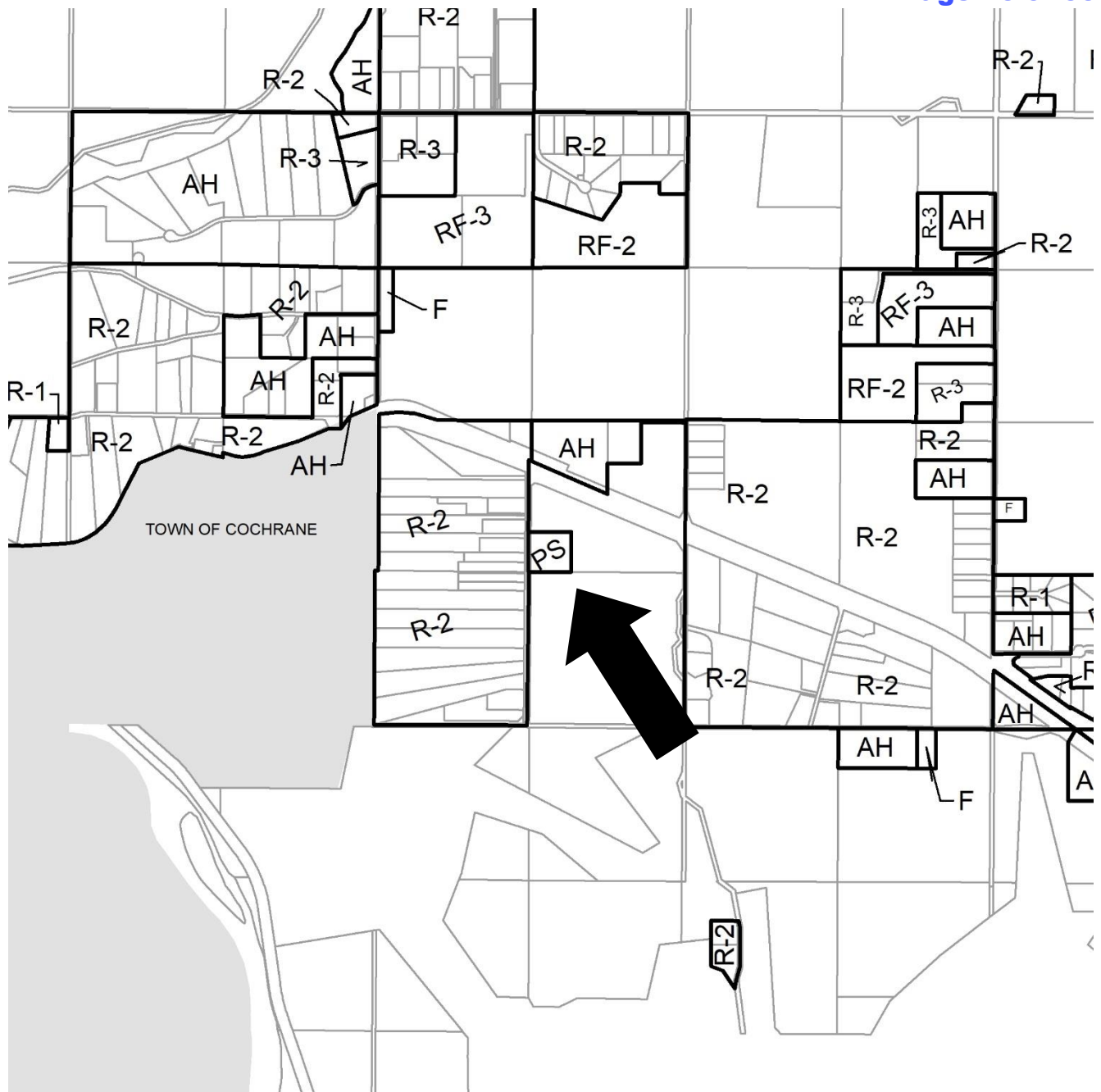
19. That a Building Permit shall be obtained prior to any construction taking place and shall address the following:
  - i. The commercial checklist requirements shall be used, including stamped/sealed architectural, mechanical, electrical, structural, and geotechnical reports, and drawings with professional schedules. Sprinkler and fire suppression drawings including Siamese connection.
20. That any other government permits, approvals, or compliances are the sole responsibility of the Applicant/Owner.
21. That the Applicant/Owner should obtain and review the County's Servicing Standards. The document can be purchased at the County's office or obtained from the County's website at "<http://www.rockyview.ca>".
22. That if the development authorized by this Development Permit is not commenced with reasonable diligence within twelve (12) months from the date of issue, and completed within twenty-four (24) months of the issue, the permit is deemed to be null and void, unless an extension to this permit shall first have been granted by the Development Authority.
23. That this approval shall become null and void if not issued by **July 31, 2016**.

Option #2 (this would not grant the Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement)

That the appeal against the decision of the Development Authority to approve a Development Permit for Funeral Services and Entombment, construction of an office, prayer hall, gathering hall, relaxation of the maximum height requirement, and relaxation of the minimum front yard setback requirement on NE-06-26-03-W05M, be upheld, that the decision of the Development Authority be revoked.



NE-06-26-03-W05M

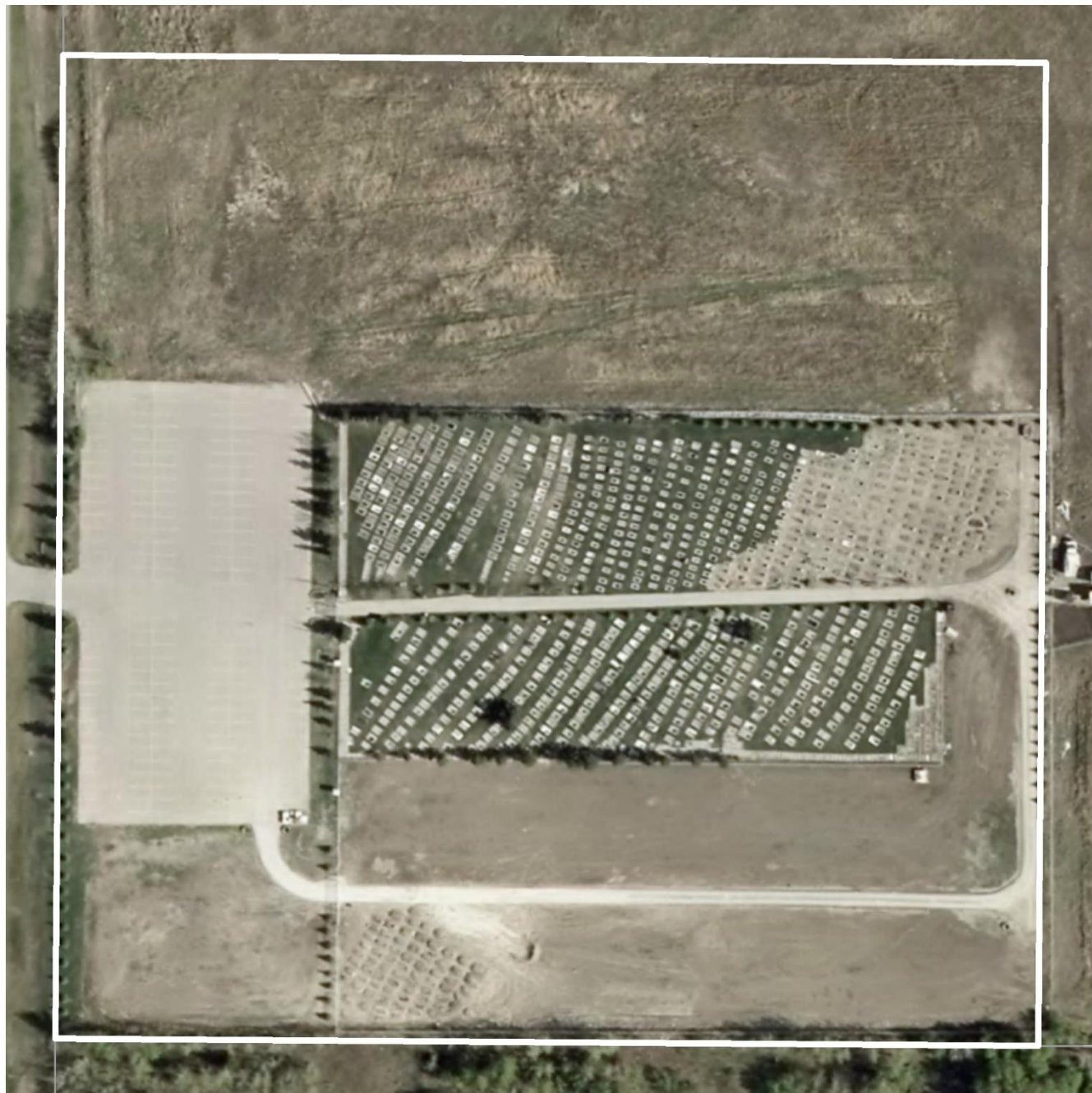


RF2	Ranch and Farm Two	B-1	Highway Business
RF3	Ranch and Farm Three	B-2	General Business
AH	Agricultural Holding	B-3	Limited Business
F	Farmstead	B-4	Recreation Business
R-1	Residential One	B-5	Agricultural Business
R-2	Residential Two	B-6	Local Business
R-3	Residential Three	NRI	Natural Resource Industrial
DC	Direct Control	HR-1	Hamlet Residential Single Family
PS	Public Service	HR-2	Hamlet Residential (2)
		HC	Hamlet Commercial
		AP	Airport

# LAND USE MAP

NE-06-26-03-W05M





Note: Post processing of raw aerial photography may cause varying degrees of visual distortion at the local level.

**AIR PHOTO**

*Spring 2018*



NE-06-26-03-W05M

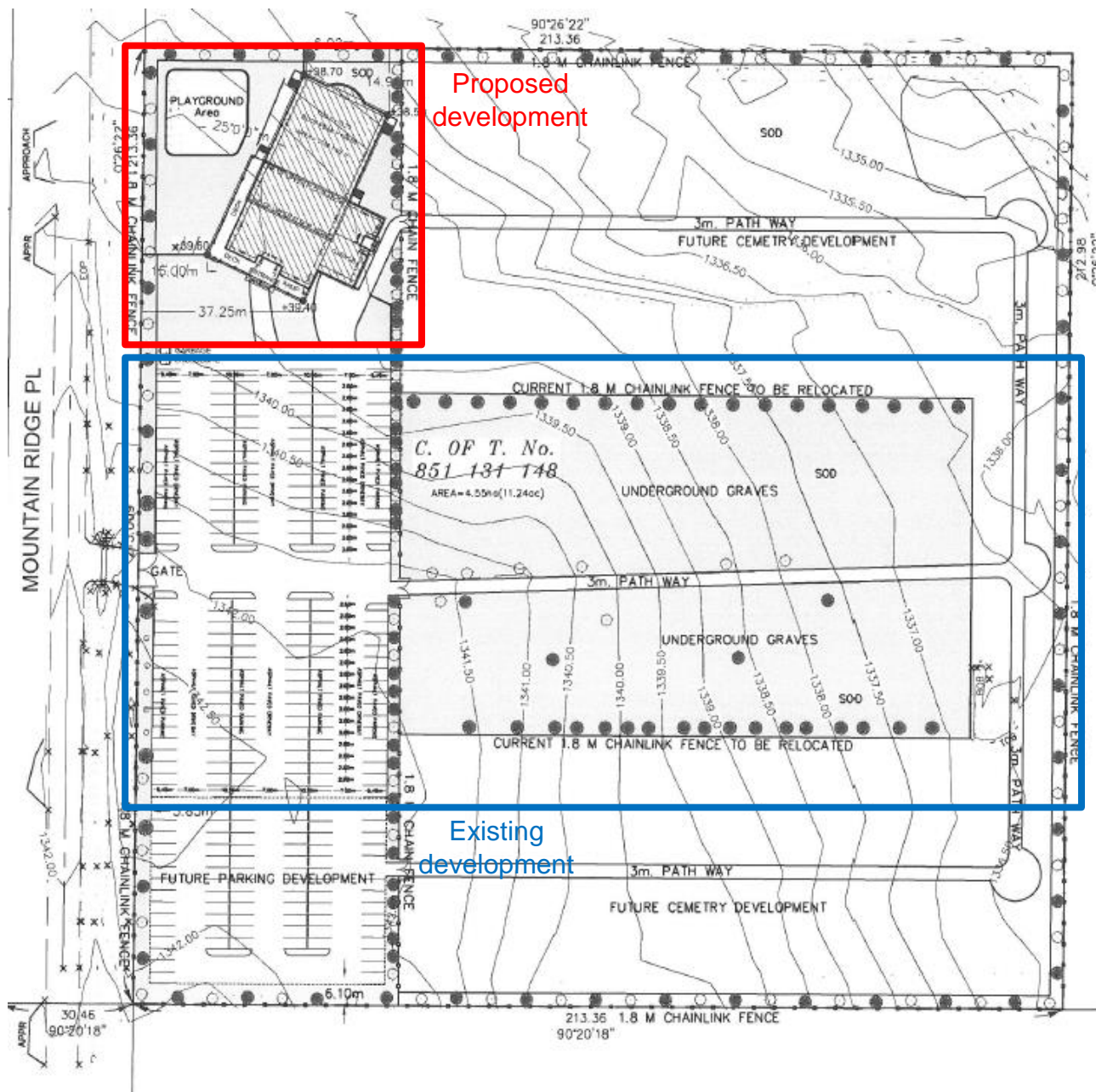
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Division # 9

File: 06706019

**Agenda**  
Page 28 of 172





SITE PLAN

NE-06-26-03-W05M

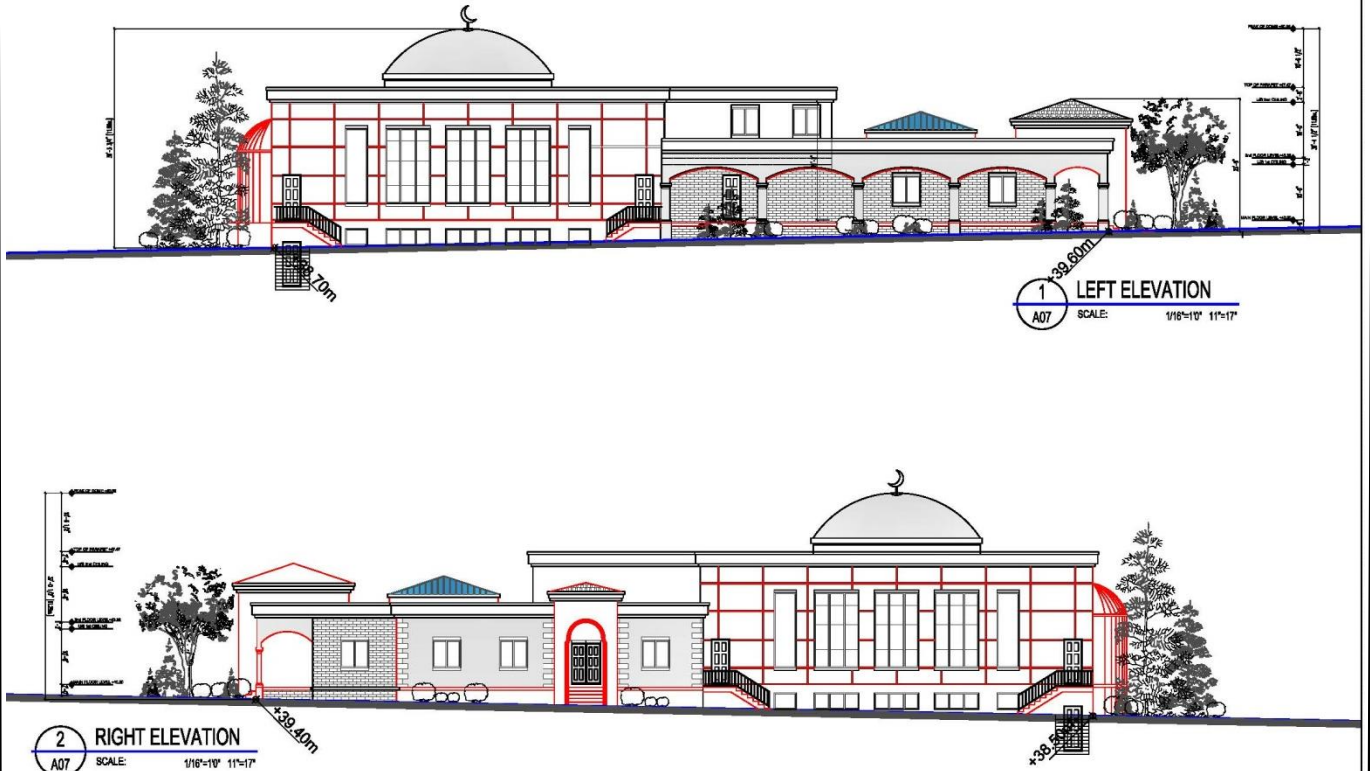
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Division # 9

File: 06706019

Agenda

Page 29 of 172



SITE PLAN

NE-06-26-03-W05M

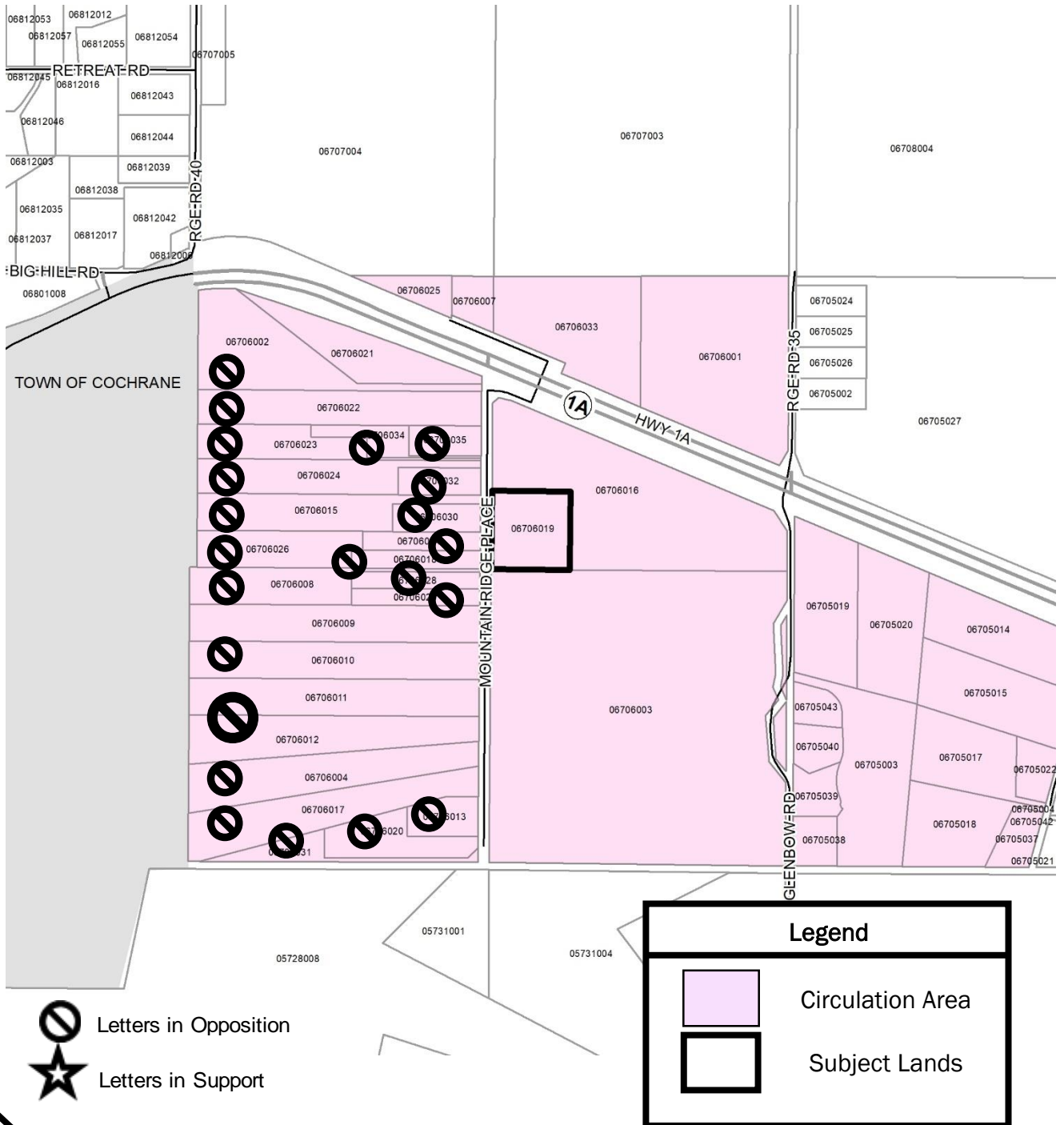


Date: 6-Mar-19

Division # 9

File: 06706019

Agenda  
Page 30 of 172



## LANDOWNER CIRCULATION AREA

NE-06-26-03-W05M

Date: 6-Mar-19

Division # 9

File: 06706019

Agenda  
Page 31 of 172

## **In the Court of Appeal of Alberta**

**Citation: The Green Company Ltd v Calgary (Subdivision and Development Appeal Board), 2019 ABCA 11**

**Date:** 20190115  
**Docket:** 1801-0319AC  
**Registry:** Calgary

**Between:**

**The Green Company Ltd.**

Applicant

- and -

**Subdivision and Development Appeal Board of Calgary and the City of Calgary**

Respondents

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**Reasons for Decision of  
The Honourable Madam Justice Jo'Anne Strekaf**

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Application for Permission to Appeal

2019 ABCA 11 (CanLII)

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**Reasons for Decision of  
The Honourable Madam Justice Jo'Anne Strekaf**

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**I. Introduction**

[1] The applicant, The Green Company Ltd. (Green), seeks permission to appeal a decision of the Calgary Subdivision and Development Appeal Board (SDAB) pursuant to section 688 of the *Municipal Government Act*, RSA 2000, c M-26 (MGA). The SDAB upheld a decision of the Calgary Development Authority to refuse Green's application for a permit to operate a cannabis store. Green's application is dismissed for the reasons that follow.

**II. Background**

[2] On April 24, 2018, Green applied to the Development Authority for a development permit to operate a cannabis store. On the same day-indeed, only a few minutes later-another party applied to operate a competing cannabis store nearby.

[3] The Development Authority considered Green's application first and refused to grant a permit. In its reasons for refusal, it cited the proximity of Green's proposed store both to a school and to the competing cannabis store-even though the competing store had not yet been approved. Section 160.3 of the Land Use Bylaw requires that a cannabis store not be within 150 metres of a school or 300 metres of another cannabis store. Green's proposed store was 92 metres from a school, the Chinese Academy, and 83 metres from the competing cannabis store.

[4] Green appealed the Development Authority's decision to the SDAB. On September 20, 2018, the SDAB issued its decision, dismissing Green's appeal. The SDAB focused on two issues. First, it acknowledged that the Chinese Academy site was not in fact a school but rather an administrative office, and that the Development Authority's decision was mistaken in that regard.

[5] Second, it considered proximity to the competing cannabis store, whose permit had since been approved. Green argued that it would be unfair to now deny it a permit because of the competing store since its application came first, and if the Development Authority had not refused it on the erroneous basis of proximity to the Chinese Academy, Green, and not the competing store, would have received the permit. The SDAB disagreed and concluded that while the Development Authority may have made a mistake, the SDAB must now "consider the application before it as it stands at the appeal stage". Granting Green's application would require an unacceptable relaxation of the separation distance between cannabis stores, and "the Board must base its decision on planning considerations, being the planning merits of the proposed development."

[6] On October 19, 2018, Green filed its application for permission to appeal the SDAB's decision and served notice on the SDAB the same day. Green amended its application to add the

Page: 2

City of Calgary as a respondent on October 24, 2018, and then served the City on October 25, 2018.

[7] Green submits that it satisfies the test for permission to appeal and that its application should be granted. The City of Calgary and the SDAB oppose the application on the merits and submit that, in any event, the application should be dismissed as the City was not served within 30 days as required by section 688 of the *MGA*.

### III. Issues

[8] This application turns on two main issues:

- (a) Did Green serve notice of its application on the City in time?
- (b) Has Green satisfied the test for permission to appeal an SDAB decision?

#### A. *The service issue*

[9] Section 688(2) of the *MGA* requires that an application for permission to appeal an SDAB decision be filed and served within 30 days after the issue of the decision sought to be appealed. The SDAB issued its decision on September 20, 2018. Green served the SDAB with notice of its application for leave to appeal within 30 days, but it did not serve the City until October 25, 2018, that is, 35 days after the SDAB's decision was issued. The question is whether Green was required to serve both the SDAB and the City within 30 days.

[10] Section 688 of the *MGA* states in part:

**688(2)** An application for permission to appeal must be filed and served within 30 days after the issue of the decision sought to be appealed, and notice of the application for permission to appeal must be given to

- (a) the Municipal Government Board or the subdivision and development appeal board, as the case may be, and
- (b) any other persons that the judge directs.

...

**(5)** If an appeal is from a decision of a subdivision and development appeal board, the municipality must be given notice of the application for permission to appeal and the board and the municipality

- (a) are respondents in the application and, if permission to appeal is granted, in the appeal, and



Page: 3

(b) are entitled to be represented by counsel at the application and, if permission to appeal is granted, at the appeal.

[11] Green submits that section 688 requires merely that the SDAB be served within 30 days and that it is sufficient to serve notice on the City within the time limits prescribed in the Rules of Court. However, this interpretation is inconsistent with the approach in *Northern Sunrise (County) v De Meyer*, 2009 ABCA 205, where this court concluded that both the SDAB and the applicable municipality must be served within 30 days after the issue of the decision sought to be appealed. The court stated, at paras 12-15:

**12** Section 688(2) sets out that notice of the application for leave to appeal must be given to "(a) the Municipal Government Board or the subdivision and development appeal board, as the case may be, and (b) any other persons that the judge directs". It is self-evident that the "any other persons" will be those persons whom the judge considers to be interested parties at the leave application. Given the fact that the leave judge will not have the opportunity to deal with this issue until the leave application, it follows that the Legislature did not intend that service on all interested parties within 30 days be a condition precedent to a valid appeal. The Legislature did not mandate that every interested person included within that public at large be identified specifically and served or given notice within the 30 days. The MGA does not contemplate a pre-hearing prior to the leave application.

**13** Instead, it expressly provides that certain parties must be given notice of the leave application. Under s. 688(5):

If an appeal is from a decision of a subdivision and development appeal board, the municipality must be given notice of the application for leave to appeal and the board and the municipality are respondents in the application and, if leave is granted, in the appeal, and ... .

**14** This reflects that the mandatory parties to a leave motion are only the municipality and the Board. The Legislature would have been aware of the need for an appeal to involve sufficient parties to construct a proper framework for legal debate. It would also have been aware that the municipality is the elected body representing the public at large. Since s. 688 applies to appeals by both the municipality and individuals, the Legislature evidently contemplated that an appeal would be properly constituted as long as the parties required by the MGA to be given notice receive that proper and adequate notice within 30 days, and that any other proper respondents could be identified later by a judge on a leave motion.

2019 ABCA 11 (CanLII)

**15** This interpretation of s. 688(2) and (5) of the MGA is fortified by the language of s. 688(4.1) of the MGA which provides that when leave to appeal is granted, "the appeal must proceed in accordance with the practice and procedure of the Court of Appeal". Section 688(4.2) of the MGA provides that the notice of appeal "must be given to the parties affected by the appeal and to the Municipal Government Board or the subdivision and development appeal board, as the case may be". The MGA contemplates that the other "parties affected" will be identified at the leave hearing and notice given to them thereafter. Notably, the legislation does not prescribe any specific time limit within which the notice of appeal must be served. In other words, giving notice to the "parties affected" after the appeal is ongoing is expressly distinguished from the notice of the leave motion which is subject to the 30 day limit.

[12] Green submits that *Northern Sunrise* is distinguishable, and that the conclusion that a municipality must be served within 30 days is *obiter* because the application for permission to appeal in that case was brought by the municipality. In any event, the reasoning in *Northern Sunrise* is compelling. Sections 688(2) and (5) must be read together. The phrase "filed and served", as it appears in section 688(2), is a legal term of art that should be interpreted as it is commonly used in court procedure: *Northern Sunrise* at para 10. Service means (at a minimum) service *on the parties to the application*. Section 688(5) sets out who those parties are—the SDAB and the municipality, who are the necessary parties to the leave application. Therefore, the City must be served. Section 688(2) identifies the time within which that service must occur, namely, 30 days.

[13] It is well established that this statutory time limit cannot be extended: *Northern Sunrise* at para 7; *Alberta Human Rights Commission (Director) v Vegreville Autobody (1993) Ltd*, 2018 ABCA 246 at paras 6-8.

[14] Green did not serve its application on the City within the time limit prescribed. Its application must therefore be dismissed.

### ***B. The merits of the application for permission to appeal***

[15] While it is not necessary to decide the merits of the application in view of the decision I have made regarding service, I am satisfied that Green has not met the test for permission to appeal. Thus, even if Green's application had been served in time, I would not have granted permission to appeal.

[16] Section 688(3) provides that a judge may grant permission to appeal a decision of an SDAB "if the judge is of the opinion that the appeal involves a question of law of sufficient importance to merit a further appeal and has a reasonable chance of success." The test applied on an application for permission to appeal is well established. The applicant must demonstrate (1) that

Page: 5

the appeal raises a question of law or jurisdiction; (2) that the question of law or jurisdiction is sufficiently important to merit a further appeal; and (3) that the appeal has a reasonable chance of success: *Kullar v Calgary (Subdivision and Development Appeal Board)*, 2018 ABCA 158 at para 8.

[17] The essence of Green's argument is that it was an error of law for the SDAB to dismiss its appeal based on the *fait accompli* of the competing cannabis store's approval at the time of the appeal. Rather, it submits that the SDAB was required to decide its appeal based on the facts existing at the time of the Development Authority's decision. At that time, the competing store had not yet been approved. Green submits that the SDAB should have reversed the Development Authority's decision and granted Green's permit, notwithstanding the fact that its proximity to the competing cannabis store, which had since been approved, would require a significant relaxation of the separation distance between cannabis stores set out in the Land Use Bylaw.

[18] There is no reasonable basis for Green's assertion that the SDAB is restricted to considering the facts only as they existed at the time of the Development Authority's decision. First, the SDAB reviews the Development Authority's decision *de novo*: *Edith Lake Service Ltd v Edmonton (City)*, 1981 ABCA 328 at para 9; *Stewart v Lac Ste Anne (County) Subdivision and Development Appeal Board*, 2006 ABCA 264 at paras 9-12. The SDAB can hear new evidence on the appeal; for example, in this case, the SDAB heard Green's evidence that the Chinese Academy is not a school site as well as the information that approval had been granted for a competing store near Green's proposed site. Second, the MGA provides that the SDAB, in determining an appeal, must comply with any applicable land use policies and land use bylaws in effect: ss 687(3)(a.1) and (a.3). If circumstances relevant to the application have changed since the Development Authority's decision was made, the SDAB is entitled to take those circumstances into account.

[19] Relevant to this case, the Land Use Bylaw requires a minimum separation of 300 metres between cannabis stores: 160.3(f). Green's proposed store was only 83 metres away from the approved competing store. It was appropriate for the SDAB to take this consideration into account when it decided Green's appeal.

[20] The issuance of a permit to Green would have required a relaxation of the Land Use Bylaw's requirements. The SDAB may issue a permit even though a proposed development does not comply with the land use bylaw, if "the proposed development would not (A) unduly interfere with the amenities of the neighbourhood, or (B) materially interfere with or affect the use, enjoyment or value of neighbouring parcels of land...": s 687(3)(d). The SDAB specifically found that "[t]he proposed development, by creating a proliferation of Cannabis Stores, would unduly interfere with the amenities of the neighbourhood, and materially interfere with the use, enjoyment or value of neighbouring parcels of land." While Green may not agree with these findings or with the SDAB's assessment of the planning merits of its proposal, no error of law can be demonstrated. Green's appeal has no reasonable chance of success.

2019 ABCA 11 (CanLII)

Page: 6

#### **IV. Conclusion**

[21] Green's application for permission to appeal is dismissed.

Appeal heard on December 04, 2018

Memorandum filed at Calgary, Alberta  
this 15<sup>th</sup> day of January, 2019

---

Strekaf J.A.

2019 ABCA 11 (CanLII)

Page: 7

**Appearances:**

O. Ho / R.M. Clarke  
for the Applicant

J.D. Sykes  
for the Respondent, Subdivision and Development Appeal Board of Calgary

S.C. Belvedere  
for the Respondent, City of Calgary

2019 ABCA 11 (CanLII)



ROCKY VIEW COUNTY  
Cultivating Communities



Appeal No.: 06706019  
File No.: PRDP20152541

**NOTICE OF APPEAL**

MAIL or DELIVER TO:

The Municipal Secretary  
Subdivision and Development Appeal Board  
911 - 32nd Avenue NE  
CALGARY, Alberta  
T2E 6X6

I/We: Johanna Schiff; and other residents and members of the Mountain Ridge Place Committee

of MAILING ADDRESS: [REDACTED]

TELEPHONE NO.: (home) [REDACTED] (work) [REDACTED] (fax) [REDACTED]

Hereby give Notice of Appeal and do appeal in respect to the Decision ☒ or Order ☐ of the Development Officer whereby the proposed ☒ or existing ☐ development of application made by Khalil Ladan (Cubit Design Group Ltd) on behalf of the landowner, Muslim Association of Calgary; Application #PRDP20152541;

Roll #06706019  
was approved ☒; was refused ☐; was ordered ☐

LEGAL DESCRIPTION: Lot \_\_\_\_\_ Block \_\_\_\_\_ Plan \_\_\_\_\_  
NE 1/4 - Section 06 - Twp. 26 - Range 03 - W 05 M  
(260144 Mountain Ridge Place, Rocky View County, AB)

The grounds for my appeal are as follows:

See particulars outlined on the attached Schedule "A"

(Please use separate sheet or reverse if necessary)

The prescribed fee must accompany this appeal: Appeal (by Owner) of decision to refuse or approve - \$350.00  
Appeal (by Affected Party) of decision - \$250.00  
Order of the Development Officer - \$500.00

DATE: Sept 28, 2015

SIGNATURE OF APPELLANT: Johanna Schiff



**Meghan Norman**

---

**From:** Lois Holloway  
**Sent:** Wednesday, October 28, 2015 3:46 PM  
**To:** Meghan Norman  
**Subject:** FW: Muslim Cemetery  
**Attachments:** MuslimCemeteryAppeal.txt  
  
**Follow Up Flag:** Follow up  
**Flag Status:** Completed

LOIS HOLLOWAY  
 Executive Assistant (acting) | Planning Services ROCKY VIEW COUNTY

-----Original Message-----

**From:** JPJones [REDACTED]  
**Sent:** Wednesday, October 28, 2015 3:08 PM  
**To:** PAA\_Development  
**Subject:** Muslim Cemetery

October 27, 2015

To: Development Appeal Committee,  
 Rocky View County,  
 911 32 Ave. NE  
 Calgary, AB, T2E 6X6

Re: Planned issuance of a Development Permit for the Muslim Cemetery construction on Mountain Ridge Place, in Division 9, Rocky View County.  
 File # PRDP 20152541.

I object to the planned development of the properties. I would also like to know why residents of Mountain Ridge Place were not properly warned before approval of something like this was issued.

I live directly on Mountain Ridge Place. I am also a signatory to the written Appeal, of some 24 neighbors here, to the planned development.

I object to the construction of a large facility like this, planned to accommodate hundreds of visitors from the city, for performance of foreign, alien ceremonies. The impact on parking and traffic, of their sudden arrival in enormous numbers at unscheduled times, has already been seen to be huge.

Importantly there is the issue of safety. Mountain Ridge Place is a residential community (zoned country residential). Children live here. The school bus loads and unloads weekdays. On weekends there are children walking pets, people riding horses, people jogging and people riding bicycles.

I ask that the development as currently planned be modified, both its excessive size and its location. Especially important also: the entrance to the facility is not good. The entrance should be relocated to the north.

I also ask that the Mountain Ridge Place Community be consulted and involved in the planning process for this development.

Sincerely,

James P. Jones,  


Property No. 260049.

--

-  
-  
-

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J.P. Jones, Prof.,  
Dept. Mathematics,  
University of Calgary,  
Calgary, Alberta,  
Canada T2N1N4

[http://math.ucalgary.ca/math\\_unitis/profiles/james-p-jones/](http://math.ucalgary.ca/math_unitis/profiles/james-p-jones/)

<http://people.ucalgary.ca/~jpjones/>

### SCHEDULE "A" ATTACHED TO NOTICE OF APPEAL

1. Mountain Ridge Place is a road designed only for access to a limited number of residences. It has no shoulders whatsoever for street parking and it is used by ~24 private property owners for access to their homes and for walking. Since it is a dead end street all resident traffic must pass the present cemetery entrance and navigate the street parking. The road is not designed for commercial uses, such as funeral services and cemetery where individual events can attract in excess of 500 visitors and create significant congestion. Even with the proposed parking expansion on the property, roadside parking will still be required. The proposed development is currently accessing their property and facilities from the west side of their property. If the proposed development were to access their facilities from the north side of their property, they would eliminate this unsafe and dysfunctional use of Mountain Ridge Place. The north entrance would still be from the beginning of Mountain Ridge Place but separate from any congestion outlined above, as street usage and parking would no longer be required by the cemetery. The north entrance would access any onsite parking areas and the north entrance way could also act as overflow parking along the entrance road shoulders.

The proposed and current access to the property (06706019) approved development (PRDP2015541) uses the Mountain Ridge Place road. This is a primary concern to the residents as the utilization of this road creates:

- a) Significantly increased traffic
- b) Users of the cemetery commonly park on one or both sides of Mountain Ridge Place road (east and west) resulting in restricting traffic flow and access to private roadways.
- c) No speed control of increased traffic.
- d) Increased vehicular noise pollution.
- e) All of these factors result in safety issues to the residential community who utilize this roadway frequently as a walking, exercising, biking and horseback riding corridor.

This concern was discussed with the lead architect and representatives from the Muslim Council of Calgary who were invited to attend a Community Meeting on September 22, 2015. The provision of an alternate access at the entrance of Mountain Ridge Place road was suggested by community residents. The lead architect and the



Muslim Association of Calgary representatives received these recommendations for consideration. There was agreement by them they would prefer to have their access from the north side of their property. We would also be in agreement with such change as it would eliminate our safety, operational and functionality concerns.

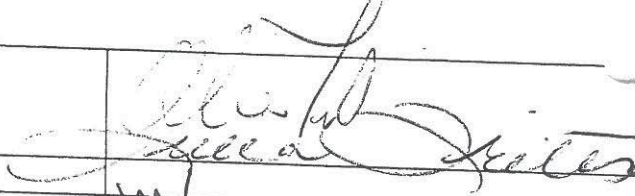
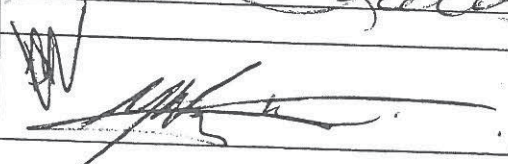
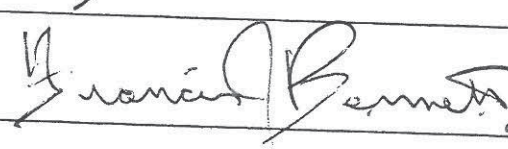
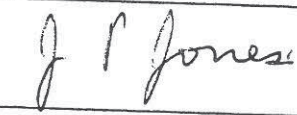
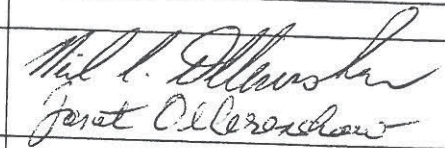


2. In the Notice of Decision, dated Tuesday September 15, 2015; Description 3 - the decision to allow the building proposed was partly arrived at by the improper relaxation of the minimum yard setbacks as specified; the minimum of 30 meter unilaterally reduced to 15 meters. With the new north entrance location proposed in Item #1 above, the best building location would be at the North-East corner versus the North West corner and the setbacks and heights would be a non-issue and allowable.
3. The landowner has connected to the potable water line for the purpose of irrigating landscaped areas without paying all necessary fees as noted in the Notice of Decision, dated September 15, 2015, Prior to Issuance, Item 11 (ii). The water line was constructed and funded by the Appellants. Rocky View County developed a funding formula in agreement with the Appellants for future participants who connected to the water line.
4. The present water system was designed for residential individual home usage. The system is not designed to allow the excessive surge usage required when multiple hundreds of visitors arrive at any event. As a minimum the development needs to have adequate sized on site storage tanks in preparation for any individual large event. With such holding tankage, the system would be workable and pressure losses would not occur.
5. The water line is presently utilized by the appellant group; any additional use by the landowner may potentially reduce water capacity or pressure dependent upon consumption.
6. The appellants rely upon any other grounds that may arise subsequent to the filing of the within appeal, all of which is respectfully submitted.
7. In summary, we would ask you to consider postponing the Appeal hearing for 30 days and convene a meeting with your Development Officer, the MAC Cemetery Development Applicant and the Mountain Ridge Place owners. We are confident with the adoption of the above improvements a lengthy approval process can be avoided.

postponement  
request

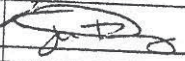
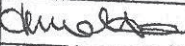
## MOUNTAIN RIDGE PLACE COMMUNITY APPELLANTS LIST: September 28, 2015



NAME	ADDRESS	HOME PHONE	WORK PHONE	FAX	SIGNATURE
Anderson, Brent & Cathrine	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	Anderson
Ellerington, David & Aila	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	D. Ellerington A. P. Ellerington
Keating, Shawn & Crista	Site 9, RR2 Cochrane, AB T4C 1A2			n/a	Shawn Keating
Maes, Micheline	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	Maes
Snyder, Rick & Bev	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	Snyder
Rays, Russ & Denise	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	Rays
Lai, Sing & Theresa	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	Lai


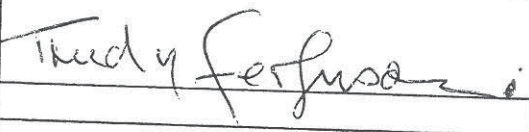

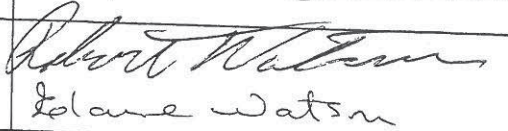


Trites, Allan & Julie	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Wright, Marty & Jean	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Bennett, Frank	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Giannelia, Paul	Site 9, RR2 Cochrane, AB T4C 1A2			n/a	
Jones, Jim	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Ollerenshaw, Neil & Janet	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Boonstra, Keith	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Fyfe, Kip & Brilz, Victoria	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	



Rooney, Jim & Jennifer	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Trudy Ferguson	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Mahta, Nick & Heena				n/a	
Petrovic, Mike & Vesna	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Watson, Rob & Elaine	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	

Trites, Allan & Julie	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Wright, Marty & Jean	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Bennett, Frank	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Glannella, Paul	Site 9, RR2 Cochrane, AB T4C 1A2			n/a	
Jones, Jim	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Ollerenshaw, Neil & Janet	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Boonstra, Kelth	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Fyfe, Kip & Brilz, Victoria	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	

Rooney, Jim & Jennifer	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Trudy Ferguson	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Mehta, Nick & Heena				n/a	
Petrovic, Mike & Vesna	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	
Watson, Rob & Elaine	Site 9, RR2 Cochrane, AB T4C 1A2		n/a	n/a	 Elaine Watson



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

403-230-1401  
questions@rockyview.ca  
www.rockyview.ca

## NOTICE OF DECISION

Khalil Ladan (Cubit Design Group Ltd)  
125 2635 37th Avenue NE  
Calgary, AB T1Y 5Z6

Tuesday, September 15, 2015

**Roll:** 06706019

**RE: Development Permit #PRDP20152541**  
**NE-06-26-03-W05M; (260144 MOUNTAIN RIDGE PLACE)**

The Development Permit application for Funeral Services and Entombment, construction of an office, prayer hall, and gathering hall, relaxation of the maximum height requirement has been approved by the Development Officer subject to the following conditions **(PLEASE READ ALL CONDITIONS)**:

### Description:

1. That a Funeral Services and Entombment, construction of an office, prayer hall, and gathering hall, relaxation of the maximum height requirement, may occur on the site in accordance with the Site Plan prepared by Cubit Design Limited dated June 2015, as submitted with the application and includes the following:
  - i. Construction of a new Funeral Services and Entombment approximately 1,214.50 sq. m. (13,073.80 sq. ft.) in area.
2. That the maximum height requirement is relaxed from **10.00 m (32.81 ft.) to 11.03 m (36.19 ft.)**.
3. That the minimum front yard setback requirement is relaxed from **30.00 m (98.43 ft.) to 15.00 m (49.21 ft.)**.

### Prior to Issuance:

4. That prior to the issuance, the Applicant/Owner shall submit payment for the \$0.75 per sq. m development application engineering review fee, in accordance with the Master Rates Bylaw. The total area of the proposed building is 1,214.50 sq. m. (13,073.80 sq. ft.), therefore, the development application engineering review fee shall be \$910.88.
5. That prior to the issuance, the Applicant/Owner shall confirm acceptance of or refusal to participate in the Voluntary Recreation Contribution for Community Recreation Funding on the form provided by the County and that the contribution, if accepted, is \$9,000.00, calculated at \$800.00 per acre for 11.25 acres.
6. That prior to issuance, the Applicant/Owner shall obtain a Roadside Development Permit through Alberta Transportation, as the proposed development falls within 800.00 m of Highway 1A.
7. That prior to issuance, the Applicant/Owner shall owner shall provide 3.22 Building Code analysis and a Site Plan that includes dimensions to the hydrant and Siamese connection/front entry, Access Route Design, and water supply.
8. That prior to issuance, the Applicant/Owner shall submit payment of the Transportation Offsite Levy in accordance with applicable levy at the time of the Development Permit approval, for the total gross acreage of the lands proposed to be developed.
9. That prior to issuance, a Transportation Impact Assessment (TIA) shall be undertaken for this development. The TIA is to be circulated to Alberta Transportation for comments.
  - i. If the recommendations of the TIA require off-site improvements, then a Development Agreement shall be entered into.



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www.rockyview.ca

Khalil Ladan (Cubit Design Group Ltd)  
**PRDP20152541**

10. That prior to issuance, a Geotechnical Investigation shall be submitted in accordance with Rocky View County 2013 Servicing Standards, to verify that the site is suitable for the proposed buildings, site works, and deep utilities. For any areas (if any) with greater than 1.20 m of fill, a Deep Fill Report shall be required.
11. That prior to issuance, the Applicant/Owner shall provide confirmation of piped potable water with a letter on company letterhead stating that:
  - i. The applicant has completed all paperwork for water supply allocation;
  - ii. The applicant has paid all necessary fees for the purchase of required capacity units for the proposed development;
  - iii. The utility has allocated and reserved the necessary capacity; and
  - iv. The obligations of the applicant and/or utility to bring water lines to the development (i.e. water utility to construct water line to limits of development and applicant is to construct all internal water lines or, water utility will be responsible for all connections, etc.).
12. That prior to issuance, a Site-Specific Storm Water Management Plan shall be submitted in accordance with Rocky View County 2013 Servicing Standards that has been prepared by a qualified professional engineer, licensed by APEGA. The Stormwater Management Plan is to adhere to the West Nose Creek Watershed and the Bearspaw-Glenbow Master Drainage Plan.
  - i. The Applicant/Owner shall provide for the implementation and construction of stormwater facilities, if any, in accordance with the recommendations of an approved Stormwater Management Plan and the registration of any Overland Drainage Easements and/or Restrictive Covenants as determined by the Stormwater Management Plan, to the satisfaction of Alberta Environment and the County.

**Permanent:**

13. That a Building Permit shall be obtained using the commercial/institutional checklist requirements prior to any construction taking place.
14. That no topsoil shall be removed from the site. Topsoil shall be stockpiled and spread over the site upon completion.
15. That there shall be a minimum of two-hundred and forty-three (243) parking stalls maintained on site at all times.
16. That the Applicant/Owner shall connect to a piped potable water supply.
17. That the Applicant/Owner shall install a sewage holding tank and operate on the basis of a pump-out disposal arrangement to an appropriately licensed facility.
18. That the Applicant/Owner shall be responsible for irrigation and maintenance of all landscaped areas including the replacement of any deceased trees, shrubs or plants within 30 days or by June 30th of the next growing season.
19. That the entire site shall be maintained in a neat and orderly manner at all times to the satisfaction of the Development Officer.
20. That all on site Lighting shall be "dark sky" and all private lighting including site security lighting and parking area lighting should be designed to conserve energy, reduce glare and reduce uplift. All development will be required to demonstrate lighting design that reduces the extent of spill-over glare and eliminates glare as viewed from nearby residential properties.
21. That all garbage and waste for the site shall be stored in weatherproof and animal proof containers in garbage bins, and screened from view by all adjacent properties and public thoroughfares.
22. That any future signage will require separate Development Permit approval and shall adhere to Section 35 of the Land Use Bylaw.





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Khalil Ladan (Cubit Design Group Ltd)  
**PRDP20152541**

23. That dust control shall be maintained on the site during construction and that the developer shall take whatever means necessary to keep visible dust from blowing onto adjacent lands.

**Advisory:**

24. That any other government permits, approvals, or compliances are the sole responsibility of the Applicant/Owner.
25. That the Applicant/Owner should obtain and review the County's Servicing Standards. The document can be purchased at the County's office or obtained from the County's website at "<http://www.rockyview.ca>".
26. That if the development authorized by this Development Permit is not commenced with reasonable diligence within twelve (12) months from the date of issue, and completed within twenty-four (24) months of the issue, the permit is deemed to be null and void, unless an extension to this permit shall first have been granted by the Development Officer.
27. That this approval shall become null and void if not issued by **April 30, 2016**.

If Rocky View County does not receive any appeal(s) from you or from an adjacent/nearby landowner(s) by Tuesday, September 29, 2015, a Development Permit may be issued, unless there are specific conditions which need to be met prior to issuance. If an appeal is received, then a Development Permit will not be issued unless and until the decision to approve the Development Permit has been determined by the Development Appeal Committee.

Regards,

Matthew Wilson  
Supervisor Planning  
Phone: 403-520-3903  
Fax: 403-277-3066  
E-Mail: [mwilson@rockyview.ca](mailto:mwilson@rockyview.ca)





ROCKY VIEW COUNTY  
Cultivating Communities

APPLICATION FOR  
COMMERCIAL/OFFICE/INDUSTRIAL  
DEVELOPMENT PERMITS

FOR OFFICE USE ONLY	
Fee Submitted	File Number 06706619
Date of Receipt	Receipt #

Name of Applicant Cubit Design Group Email [REDACTED]  
Mailing Address [REDACTED]  
Telephone (B) [REDACTED] (H) [REDACTED] Postal Code T1X 5T6  
For Agents please supply Business/Agency/ Organization Name [REDACTED] Fax [REDACTED]

Registered Owner (if not applicant) \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
Postal Code \_\_\_\_\_  
Telephone (B) \_\_\_\_\_ (H) \_\_\_\_\_ Fax \_\_\_\_\_

1. LEGAL DESCRIPTION OF LAND

- a) All / part of the North East Section 6 Township 26 Range 3 West of 5th Meridian  
b) Being all / parts of Lot \_\_\_\_\_ Block \_\_\_\_\_ Registered Plan Number \_\_\_\_\_  
c) Municipal Address \_\_\_\_\_  
d) Existing Land Use Designation \_\_\_\_\_ Parcel Size \_\_\_\_\_ Division \_\_\_\_\_

2. APPLICATION FOR

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  
e) Has the Design Guidelines checklist been completed? Yes \_\_\_\_\_ No \_\_\_\_\_  
f) Has supplementary information been provided? (photos, sketches written descriptions etc.) Yes \_\_\_\_\_ No \_\_\_\_\_  
g) Details of additional information \_\_\_\_\_

4. REGISTERED OWNER OR PERSON ACTING ON HIS BEHALF

I KHAHL RADAN 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] Owner's Signature \_\_\_\_\_

Date Jun 23, 2015

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.

\_\_\_\_\_  
Applicant's/Owner's Signature

FOR OFFICE USE ONLY

Application: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

General Location: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

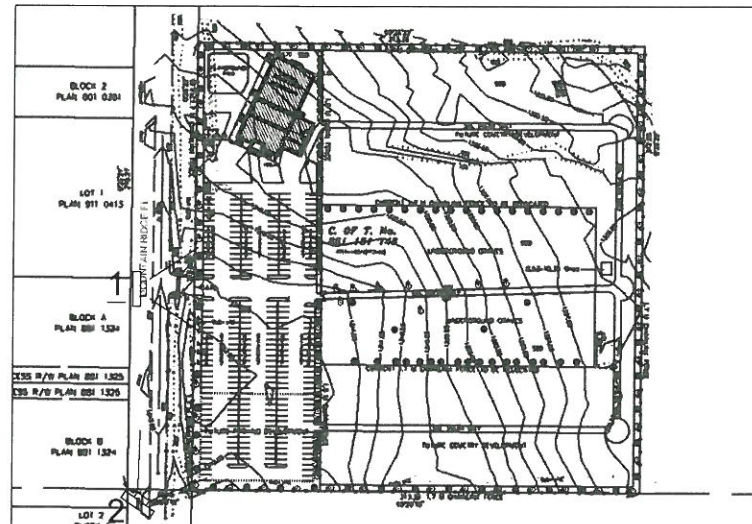




PHOTO 1




PHOTO 2



## KEY PLAN

**THIS DRAWING MUST NOT BE SCALED. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAIL AND LEVELS PRIOR TO COMMENCEMENT OF WORK. ALL ERRORS AND OMISSIONS TO BE REPORTED IMMEDIATELY TO CUBIT DESIGN LTD. VARIATIONS AND MODIFICATIONS TO WORK SHOWN ON THIS DRAWING MUST BE APPROVED BY CUBIT DESIGN LTD. IN WRITTEN PERMISSION FROM CUBIT DESIGN LTD. THESE DRAWINGS SHALL NOT BE CORRED OUT WITHOUT WRITTEN PERMISSION FROM CUBIT DESIGN LTD. THIS DRAWING, AND ITS CONTENTS, ARE PROTECTED BY COPYRIGHT AND SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, WITHOUT EXPRESSED WRITTEN PERMISSION OF CUBIT DESIGN LTD.**



**Cubit Design Ltd.**

DESIGN - PLANNING - DRAFTING - INTERIOR

#109 - 3336 - 379<sup>th</sup> AV. NE - CALGARY, ALBERTA, CANADA T2T 0Z8

PHONE: (403) 261-8274 FAX: (403) 261-8884

E-MAIL: INFO@CUBITDESIGN.COM

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**project**

**6 UNITS 4 STOREY BUILDING**

**2807/44 MOUNTAIN RIDGE PL. NE of SEC 06 T5 S26 R03 W05M**

**CALGARY, ALBERTA**

**drawing**

**PHOTOGRAPHS OF EXISTING STRUCTURE**

**date**

**JUNE 2015**

**scope**

**AS NOTED**

**drawn**

**EA**

**checked**

**KL**

**project no.**

**15-052**

**revisions**

No.	Description	date
1	FOR DEVELOPMENT PERMIT	25 JUNE 2015

**ISSUED FOR**

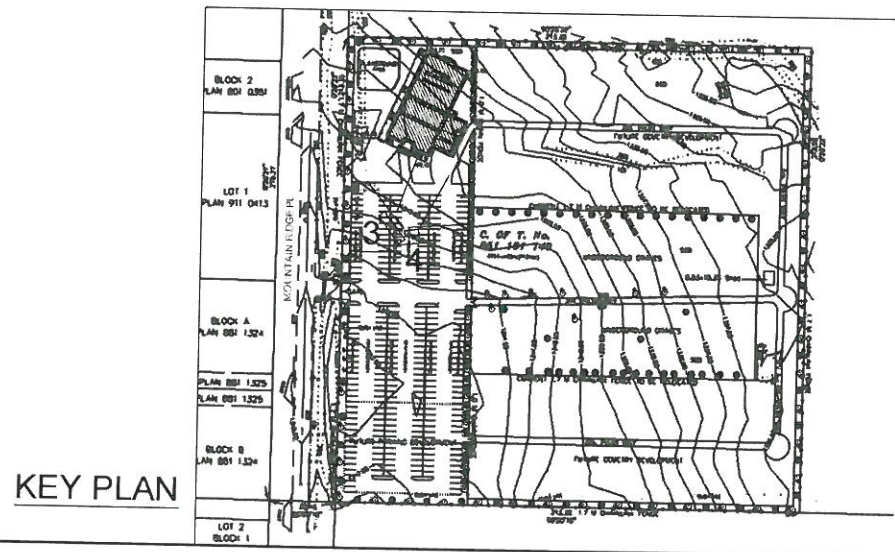




PHOTO 3



PHOTO 4



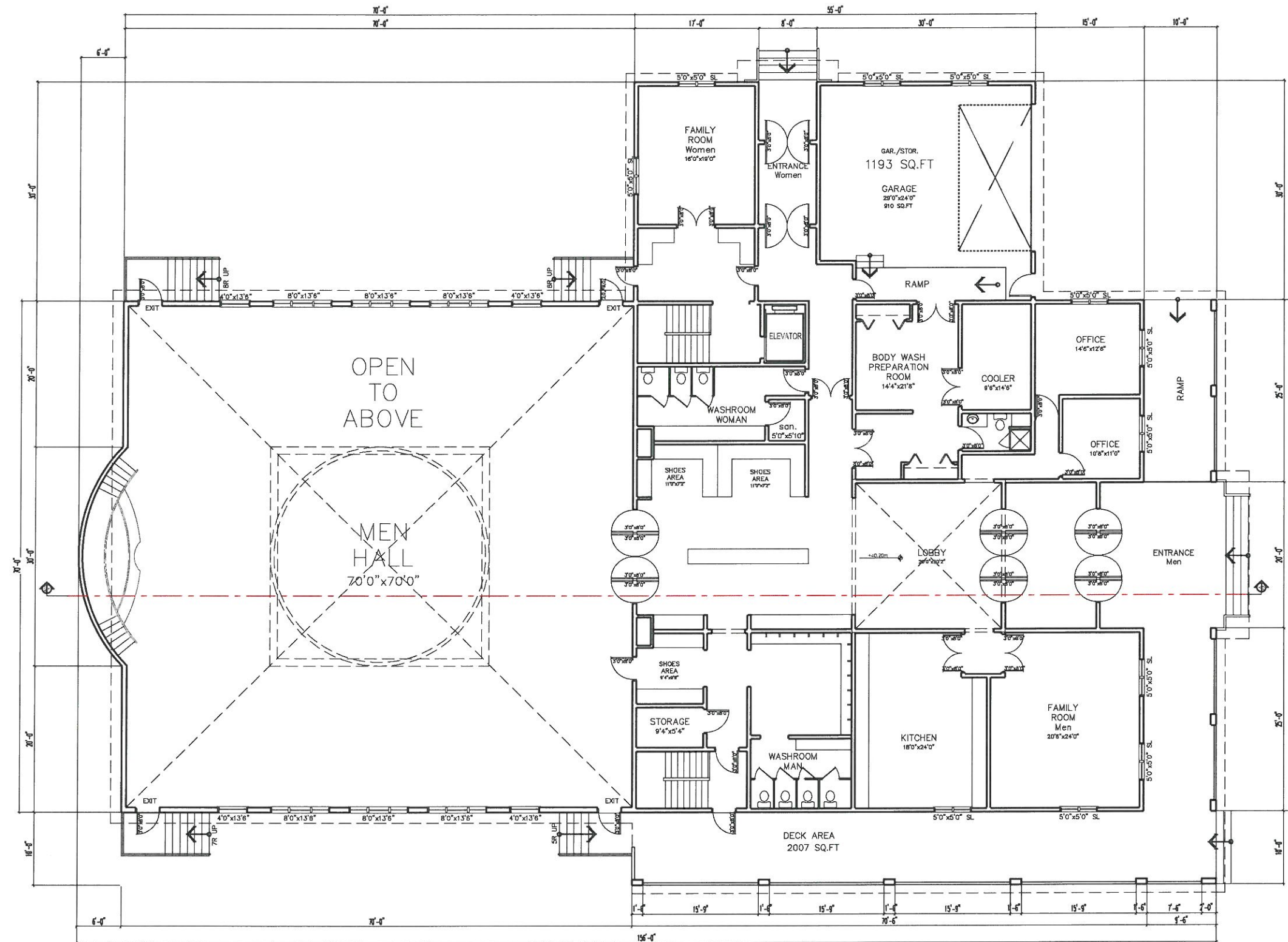
## KEY PLAN

**DESIGN - PLANNING - DRAFTING - INTERIOR**

**PHASES**

PHASE 1: 2000 - 2005, PHASE 2: 2006 - 2010, PHASE 3: 2011 - 2015, PHASE 4: 2016 - 2020, PHASE 5: 2021 - 2025, PHASE 6: 2026 - 2030, PHASE 7: 2031 - 2035, PHASE 8: 2036 - 2040, PHASE 9: 2041 - 2045, PHASE 10: 2046 - 2050, PHASE 11: 2051 - 2055, PHASE 12: 2056 - 2060, PHASE 13: 2061 - 2065, PHASE 14: 2066 - 2070, PHASE 15: 2071 - 2075, PHASE 16: 2076 - 2080, PHASE 17: 2081 - 2085, PHASE 18: 2086 - 2090, PHASE 19: 2091 - 2095, PHASE 20: 2096 - 2100, PHASE 21: 2101 - 2105, PHASE 22: 2106 - 2110, PHASE 23: 2111 - 2115, PHASE 24: 2116 - 2120, PHASE 25: 2121 - 2125, PHASE 26: 2126 - 2130, PHASE 27: 2131 - 2135, PHASE 28: 2136 - 2140, PHASE 29: 2141 - 2145, PHASE 30: 2146 - 2150, PHASE 31: 2151 - 2155, PHASE 32: 2156 - 2160, PHASE 33: 2161 - 2165, PHASE 34: 2166 - 2170, PHASE 35: 2171 - 2175, PHASE 36: 2176 - 2180, PHASE 37: 2181 - 2185, PHASE 38: 2186 - 2190, PHASE 39: 2191 - 2195, PHASE 40: 2196 - 2200, PHASE 41: 2201 - 2205, PHASE 42: 2206 - 2210, PHASE 43: 2211 - 2215, PHASE 44: 2216 - 2220, PHASE 45: 2221 - 2225, PHASE 46: 2226 - 2230, PHASE 47: 2231 - 2235, PHASE 48: 2236 - 2240, PHASE 49: 2241 - 2245, PHASE 50: 2246 - 2250, PHASE 51: 2251 - 2255, PHASE 52: 2256 - 2260, PHASE 53: 2261 - 2265, PHASE 54: 2266 - 2270, PHASE 55: 2271 - 2275, PHASE 56: 2276 - 2280, PHASE 57: 2281 - 2285, PHASE 58: 2286 - 2290, PHASE 59: 2291 - 2295, PHASE 60: 2296 - 2300, PHASE 61: 2301 - 2305, PHASE 62: 2306 - 2310, PHASE 63: 2311 - 2315, PHASE 64: 2316 - 2320, PHASE 65: 2321 - 2325, PHASE 66: 2326 - 2330, PHASE 67: 2331 - 2335, PHASE 68: 2336 - 2340, PHASE 69: 2341 - 2345, PHASE 70: 2346 - 2350, PHASE 71: 2351 - 2355, PHASE 72: 2356 - 2360, PHASE 73: 2361 - 2365, PHASE 74: 2366 - 2370, PHASE 75: 2371 - 2375, PHASE 76: 2376 - 2380, PHASE 77: 2381 - 2385, PHASE 78: 2386 - 2390, PHASE 79: 2391 - 2395, PHASE 80: 2396 - 2400, PHASE 81: 2401 - 2405, PHASE 82: 2406 - 2410, PHASE 83: 2411 - 2415, PHASE 84: 2416 - 2420, PHASE 85: 2421 - 2425, PHASE 86: 2426 - 2430, PHASE 87: 2431 - 2435, PHASE 88: 2436 - 2440, PHASE 89: 2441 - 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3080, PHASE 217: 308





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ort, without expressed written permission of Cubit Design Ltd.

Page 56 of 66

**DESIGN – PLANNING – DRAFTING – INTERIOR**

1526, 2030-37 Ave. N.E., Calgary, Alberta, Canada T1Y 5Z9  
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[illegible]

Factor shall verify all dimensions, datum and levels prior to commencing construction. This drawing, and its contents, are the property of Cubitt Design Ltd. and are to be used only for the purpose intended permission from Cubitt Design Ltd.

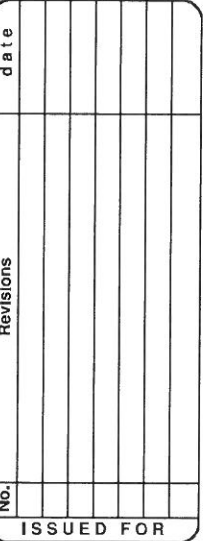
**FUNERAL HOME**  
260144 MOUNTAIN RIDGE PL, NE of SEC 06 TS 26 R 03 W05M  
MD OF ROCKY VIEW, AB

**MAIN FLOOR PLAN**

date JUN 2015  
scale AS NOTED  
drawn AA  
checked KL

15-052

**A02**  
**Agenda**



UPPER FLOOR PLAN

**5-052**

## A03 Agenda

Page 58 of 172

## UPPER FLOOR PLAN

SCALE: 1/16"=1'0" 11"=17"



[illegible]

FUNERAL HOME  
260144 MOUNTAIN RIDGE PL, NE of SEC 06 TS 26 R 03 W05M  
MD OF ROCKY VIEW, AB  
project

BASEMENT PLAN  
drawing

date JUN 2015  
scale AS NOTED  
drawn AA  
checked KL

project no.  
**15-052**

drawing no. **A04**  
**Agenda**

**DESIGN - PLANNING - DRAFTING - INTERIOR**  
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project

FUNERAL HOME  
2801 44 MOUNTAIN RIDGE PL., NE of SEC 06 TS 26 R 03 W05M  
MID OF ROCKY VIEW, AB

drawing

ROOF PLAN

date JUN 2015  
scale AS NOTED  
drawn AA  
checked KL

Project no. 15-052

Agenda  
Page 60 of 172

**Page 59 of 66**

**B-1**

**Cubit Design Ltd.**


**DESIGN - PLANNING - DRAFTING - INTERIOR**

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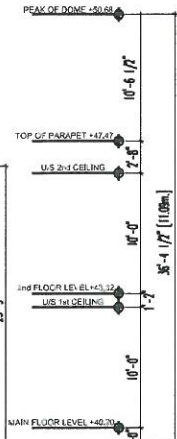
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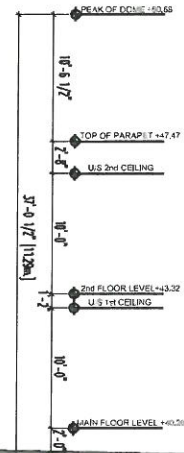








+38.70m



+39.40m

**project** FUNERAL HOME  
260144 MOUNTAIN RIDGE PL., NE of SEC 06 T5 26 R 03 W05M  
MD OF ROCKY VIEW, AB

**drawing** RIGHT & LEFT ELEVATIONS

project no.  
**15-052**

**A07**  
**Agenda**



**FUNERAL HOME**  
260144 MOUNTAIN RIDGE PL, NE of SEC 06 TS 26 R 03 W05M  
MD OF ROCKY VIEW, AB

**BUILDING SECTION**

**A08**  
**Agenda**

This drawing must not be scaled. The general contractor shall verify all dimensions, datum and levels prior to commencement of work. All errors and omissions to be reported immediately to Cubit Design Ltd. Variations and modifications to work shown on this drawing shall be reported immediately to Cubit Design Ltd.





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No.	Revisions	date
1	FOR DEVELOPMENT PERMIT	9FEB2015
ISSUED FOR		

FUNERAL HOME	project
260144 MOUNTAIN RIDGE PL, NE of SEC 06 TS 26 R 03 W05M	
MD OF ROCKY VIEW, ALBERTA	
LANDSCAPE PLAN	drawing

date	FEB 2015
scale	AS SHOWN
drawn	AA
checked	KL

project no.	15-052
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drawing no.	A00
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SITE INFORMATION

LEGAL DESCRIPTION

MUNICIPAL ADDRESS

ZONING

SITE AREA

PRINCIPAL BLDG.

TOTAL LOT COVERAGE

NE of SEC 06 TS 26 R 03 W05M

260144 -MOUNTAIN RIDGE PLACE

MD OF ROCKY VIEW, ALBERTA

PUBLIC SERVICE DISTRICT

45482 SQ. M.(4.55ha)

1204.16 SQ. M.

1204.16 SQ. M./45482 =2.65 %

LANDSCAPE AREA

37474 SQ. M./45482 =75.8%

ALL LANDSCAPING AREA HAS TO BE SPRINKLER.

ALL LANDSCAPING AREA TO BE LOW WATER OPTION.

FLOOR AREA

FLR/LVL	sq.ft.	sq.mts.
GARAGE	899.2	83.5
MAIN FLOOR	10489.8	974.5
2ND FLOOR	2135.6	198.4
TOTAL AREA	13524.2	1256.4

PUBLIC SERVICE (PS) GUIDELINES

	REQUIRED	PROVIDED	VARIANCE
front yard	min. 15.0 m.	15.21 m.	+0.21 m.
side yard	min. 6 m.	14.48 m.	+8.48 m.
rear yard	min. 15 m.	157 m.	142 m.
bdg. height	maximum 10. m.	11.62	+1.62 m.

LANDSCAPING SCHEDULE

TYPE	COMMON NAME	SIZE	QUAN.	TOTAL
A	EXISTING SPRUCE	3M. HT. MIN.	70	200 TREES
A	PROPOSED SPRUCE	3M. HT. MIN.	55	
B	EXISTING Deciduous	MIN. 75MM CALIPER	30	
B	EXISTING Deciduous	MIN. 75MM CALIPER	55	

NOTES: 1. ALL WALKWAYS TO BE AGGREGATE CONCRETE.  
2. ALL LANDSCAPED AREA MUST BE ADEQUATELY IRRIGATED BY UNDERGROUND SPRINKLER SYSTEM  
3. ALL LIGHTING SPOTS WILL STAY IN PROPERTY LINE.  
3. ALL PORTION OF THE CONCRETE PAD ARE STRUCTURALLY CAPABLE OF SUPPORTING 25,000 kg LOAD.

BLOCK 2  
PLAN 801 0381

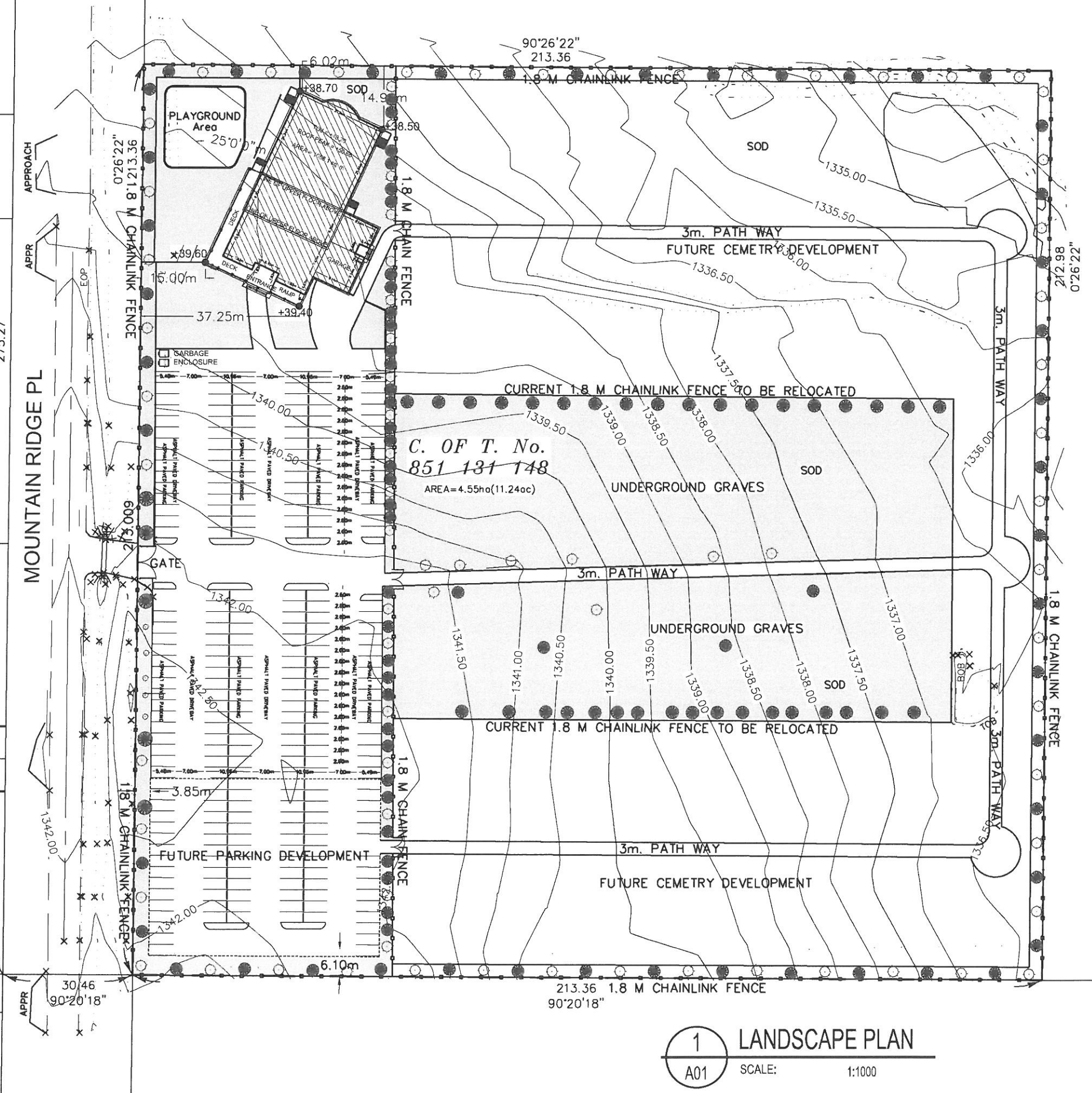
LOT 1  
PLAN 911 0413

BLOCK A  
PLAN 881 1324

W PLAN 881 1325  
/ PLAN 881 1325

BLOCK B  
PLAN 881 1324

LOT 2  
BLOCK 1  
PLAN 891 0903



1

A01

LANDSCAPE PLAN

SCALE: 1:1000



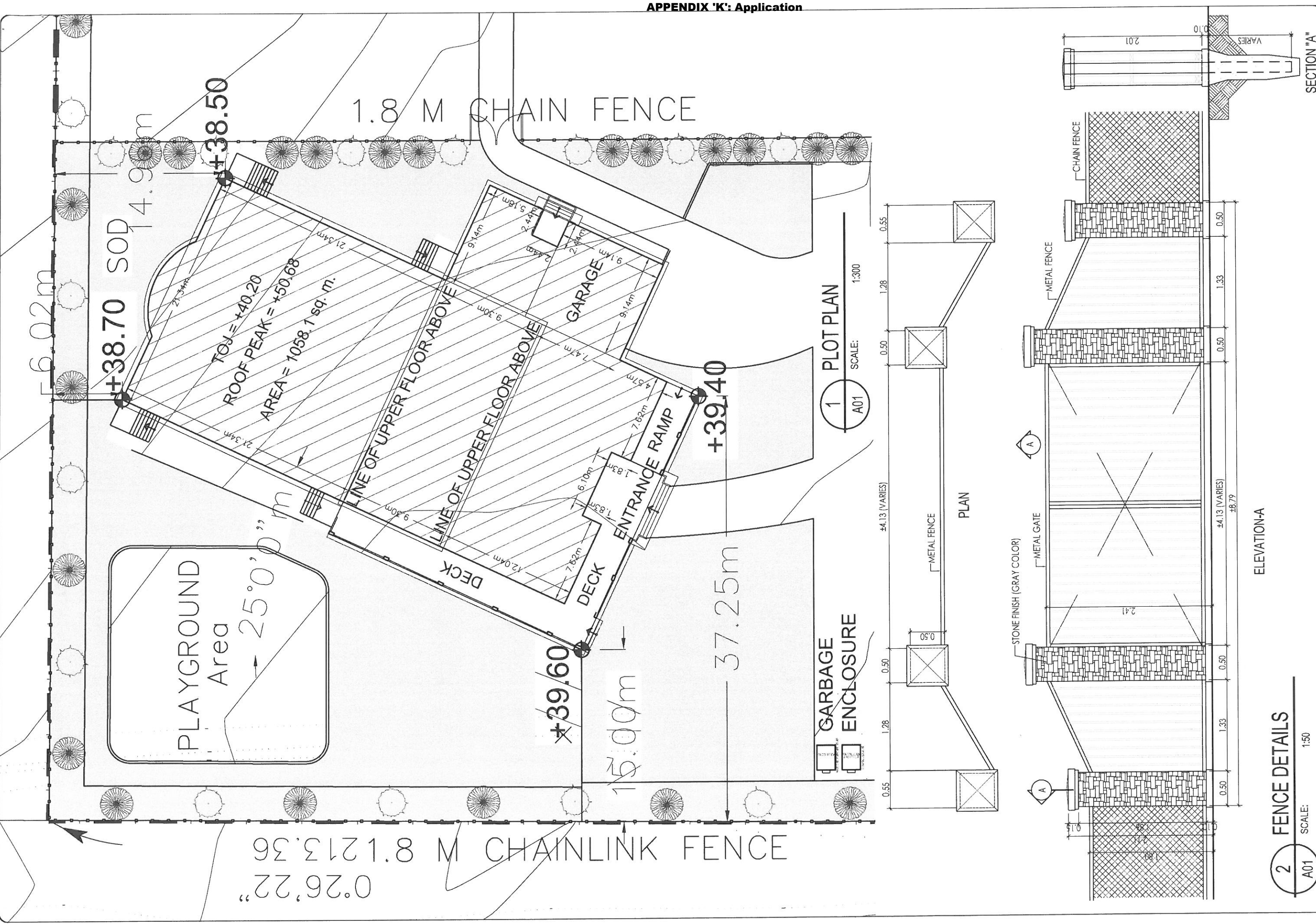
No.	Revisions	date
1	FOR DEVELOPMENT PERMIT	9FEB2015
ISSUED FOR		

project	FUNERAL HOME 260144 MOUNTAIN RIDGE PL. NE of SEC 06 TS 26 R 03 W05M MD OF ROCKY VIEW, ALBERTA
drawing	PLOT PLAN & FENCE DETAILS

date	FEB 2015
scale	AS SHOWN
drawn	AA
checked	KL

project no.	15-052
-------------	--------

drawing no.	A01
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Doug Claggett and Megan McKenzie

18 January 2019

Rocky View County Sub-Division and Development Review Board  
262075 Rocky View Point  
Rocky View County, AB, T4A 0X2  
Attention: Ms. Lisa Mrozek and Ms. Sonya Hope

**Re: File # 06706019; PRDP20152541**

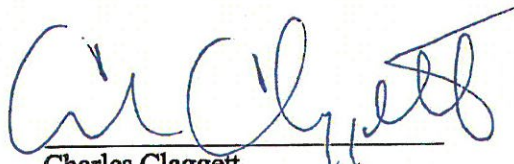
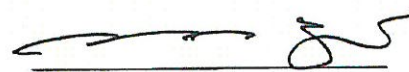
The following is our letter of support for the appeal regarding the reference file.

In August, 2018 we purchased the property (#06706048), located directly across from the proposed development at #06706019. We were only recently made aware of the both the 2015 proposed development and subsequent appeal representing the residents of Mountain Ridge Place of 28 September 2015. We have had an opportunity to review the development proposal and the details of the appeal. We are in full agreement with the appellant and the Mountain Ridge Place Committee, and cite the following reasons:

1. Lack of Due Process within the Decision. It is clear from reviewing the documentation, that the County did not follow Due Process by failing to properly consult the residents of Mountain Ridge Place. This should have been done, given the extent of the variance being proposed (height and setbacks); and the impact on the rural residential community lifestyle at Mountain Ridge Place. Further, we note that that proposed development that does not conform to the County's Land Use designation (residential);
2. Safety. The current use of the cemetery has already impacted the health and safety of the community of Mountain Ridge Place and its 22 residences as a result of increased noise, traffic, and the lack of proper safety measures to control speed. Parking along the verges, ditches and in some cases on private property, has impeded regular transportation (such as school buses) but more importantly, could restrict the free flow of emergency service vehicles. The road and its allowances are not engineered to accommodate the scope of this proposed expansion to the business' operation and places the residents at risk;
3. Circulation and Access to Hwy 1A. The access points to Mountain Ridge Place from Hwy 1A is design to support the residences along the road and is the singular point to enter and exit. This suits the land use designation as a residential area. The approval of an expansion of this magnitude would significantly restrict the residences use of this access point by operating a business supporting up to an additional 500 vehicles;
4. Water. The expansion of current water supply system is paid for by the Mountain Ridge Place Community and is specifically designed for their purpose. We were informed by our neighbors that the applicant tied into this water line, without contributing to any of the shared costs related to this piped water to the residents of Mountain Ridge Place. Any

additional load on this system will likely impact pressure, volume, and distribution of water to the residences. Further, we were not able to find any evidence to indicate that the applicants of the proposed expansion would address the ongoing issue of their responsibility to share in the initial building costs, or be solely responsible for any additional costs associated with expansion of the water lines, should the proposal be supported. In our opinion, this needs to be resolved before any further consideration by the County is given to the proposal. Lastly, the residents of Mountain Ridge Place Community place pay \$600 annually for the basic costs of water distributed by Rocky View Water Co-op, this does not include consumption costs. Having a neighbor who has either chosen or is not required to share in these costs, does not demonstrate either good will or intention, and we find this worrisome.

As noted within the appeal of 28 September 2015, proper and due consultation, consideration, and process regarding the original decision was not done by the County prior to approving the development of such a large business within a residential community. Therefore we support this appeal as submitted.

  
Charles Claggett  
Megan McKenzie

Dated 18 January 2019

260141 Mountain Ridge Place  
Cochrane, AB



January 23 2019

The Municipal Clerk  
Rocky View County  
262075 Rocky View Point  
Rocky View County, Alberta


Dear Sir/Madam:

Subdivision and Development Appeal Board File: 067067019/ 20152541

I object to the grant of a Development Permit for the following reasons –

1. Initially a cemetery should not have been approved in the residential area. Since it is in existence so let it be there.
2. There are 2 Funeral Homes in Cochrane, 2 in Canmore, and many in Calgary. The bodies can be entombed at these existing facilities.
3. There had been no demand in the past for the construction of an office (and what for) or for a prayer hall.
4. The cemetery in question is meant for catering for the residents of Rocky View Division 4 and/or immediate neighboring Divisions.
5. The fact is that the cemetery has been used for the burials of bodies from the City of Calgary. It should be stopped. Mayor H. Nenshi of the City of Calgary can and must allocate facility in Calgary for those passed away in Calgary. Like wise Cochrane, Airdrie, Chestermere and Langdon municipalities should be approached for make burial facilities for those who had resided in those municipalities.
6. Under no circumstances an alternative access to this cemetery should be considered.
7. There is hardly a significant number of members of this community live in Division 4 and surrounding immediate neighboring Divisions that warrant for what the applicant is asking for.
8. There are mosques, prayer halls in malls/strips and business places in the City of Calgary and other near about cities and towns.

Truly,

  
Besant Singh  
Rocky View County





## PLANNING & DEVELOPMENT

**TO:** Subdivision and Development Appeal Board

**DATE:** March 13, 2019 **DIVISION:** 06

**FILE:** 07020010 **APPLICATION:** B-2; PRDP20190237

**SUBJECT:** Accessory Building

<b>PROPOSAL:</b> Accessory building, and relaxation of building height and building area requirements	<b>GENERAL LOCATION:</b> Located at northwest junction of Township Road 274 and Range Road 254.
<b>APPLICATION DATE:</b> January 23, 2019	<b>DEVELOPMENT AUTHORITY DECISION:</b> Discretionary – Refused
<b>APPEAL DATE:</b> February 12, 2019	<b>DEVELOPMENT AUTHORITY DECISION DATE:</b> February 7, 2019
<b>APPELLANT:</b> Mary Anne Schwengler	<b>APPLICANT:</b> Mary Anne Schwengler
<b>LEGAL DESCRIPTION:</b> NE 20-27-25-W04M	<b>MUNICIPAL ADDRESS:</b> 254020 Township Road 274
<b>LAND USE DESIGNATION:</b> Farmstead District (F)	<b>GROSS AREA:</b> ± 2.99 hectares (± 7.4 acres)
<b>DISCRETIONARY USE:</b> An accessory building is a discretionary use in accordance with Section 47 of the Land Use Bylaw.	<b>DEVELOPMENT VARIANCE AUTHORITY:</b> The requested amount of relaxation is beyond variance discretion of the Development Authority.
<b>PUBLIC SUBMISSIONS:</b> The application was circulated to five (5) adjacent landowners. No letters in support or opposition were received.	<b>LAND USE POLICIES AND STATUTORY PLANS:</b> <ul style="list-style-type: none"> <li>County Plan (C-7280-2013)</li> <li>Land Use Bylaw (C-4841-97)</li> </ul>

### EXECUTIVE SUMMARY:

The application is for an accessory Building, and relaxation of the building height and building area requirements. The property contains a dwelling and an attached garage. The Applicant proposes to construct a new shop to store farm equipment and conduct repairs and maintenance within the new shop.

The application was assessed in accordance with Section 12 and Section 47 of the Land Use Bylaw. As the proposed building height and building area exceed the maximum requirement outlined in Section 47, and are beyond the variance discretion of the Development Authority defined in Section 12, the application was refused on February 7, 2019.





The reasons for refusal are as follows:

1. The proposed building area for the accessory building exceeds the maximum permitted amount as defined in Section 47.3 of Land Use Bylaw C-4841-97.

**Permitted: 223 sq. m (2,400.35 sq. ft.);**

**Proposed: 376.07 sq. m (4,048.00 sq. ft.);**

**Variance Required: 143.07 sq. m (1,539.99 sq. ft.) or 68.64%**

2. The proposed building height for the accessory building exceeds the maximum permitted amount as defined in Section 47.7 of Land Use Bylaw C-4841-97.

**Permitted: 5.50 m (18.04 ft.);**

**Proposed: 8.53 m (28.00 ft.);**

**Variance Required: 3.03 m (9.94 ft.) or 55.09%**

On February 12, 2019, the Applicant/Appellant appealed the decision of the Development Authority for the following reasons:

- 1) the existing Accessory Building (shop) on the owner's other property is not large enough to accommodate machinery, so a new large shop is required on the subject land;
- 2) the owner needs to store machinery inside the new Accessory Building (shop) due to safety concerns; and
- 3) the new Accessory Building (shop) would not affect adjacent landowners.

#### APPEAL:

See attached report and exhibits.

Respectfully submitted,

Sean MacLean  
Supervisor, Planning & Development

XD/rp

## DEVELOPMENT PERMIT REPORT

<b>Application Date:</b> January 23, 2019	<b>File:</b> 07020010
<b>Application:</b> PRDP20190237	<b>Applicant:</b> Mary Anne Schwengler <b>Owner:</b> Mary Anne Schwengler
<b>Legal Description:</b> NE 20-27-25-W04M	<b>General Location:</b> Located at northwest junction of Township Road 274 and Range Road 254.
<b>Land Use Designation:</b> Farmstead District (F)	<b>Gross Area:</b> ± 2.99 hectares (± 7.4 acres)
<b>File Manager:</b> Xin Deng	<b>Division:</b> 06

### PROPOSAL:

The application is for an accessory building, and relaxation of the building height and building area requirements.

- The property contains a dwelling and attached garage and can be accessed through the existing approach along Range Road 254;
- The Applicant proposes to build an accessory building, which is 376.07 sq. m. (4,048.00 sq. ft.) in size in total, and 8.53 m (28.00 ft.) high;
- The proposed accessory building will be sided with metal, and will be used to store agricultural equipment and conduct repairs and maintenance to farm machinery and farm welding.

### Land Use Bylaw (C-4841-97):

#### *Section 12 Decisions on Development Permit Applications*

*12.1(b) Upon review of a completed application for a Development Permit for a use, permitted, the Development Authority shall decide upon an application for a Development Permit, notwithstanding that the proposed development does not comply with required yard, front, yard, side, yard, rear or building height dimensions set out in this Bylaw, if, in the opinion of the Development Authority the granting of a variance would not:*

- i) unduly interfere with the amenities of the neighbourhood;*
- ii) materially interfere with or affect the use, enjoyment, or value of the neighbouring properties and the amount of the variance does not exceed 25% of the required distance or height, or does not exceed 10% of the required maximum building area for an accessory building or does not exceed 10% of the required maximum floor area for an Accessory Dwelling Unit;*

#### *Section 47 Farmstead District (F)*

##### *47.3 Uses, Discretionary*

*Accessory buildings in excess of 80.00 sq. m (861.00 sq. ft.) but no more than 223.0 sq. m (2,400.35 sq. ft.)*

- The proposed 376.07 sq. m. (4,048.00 sq. ft.) accessory building is considered a discretionary use, but the building area exceeds the maximum requirement.

**Reason for refusal.**



#### 47.5 Minimum Requirements

##### (b) Front yard setback (from the county road to the east):

- **Required:** 45.00 m (147.64 ft.);
- **Proposed:** 54.86 m (180.00 ft.), which meets the requirement.

##### (c)(i) Side yard setback (from the county road to the south):

- **Required:** 45.00 m (147.64 ft.)
- **Proposed:** 45.42 m (149.00 ft.), which meets the requirement.

##### (c)(iii) Side yard setback (from the subdivision road to the north)

- **Required:** 15.00 m (49.21 ft.)
- **Proposed:** > 15.00 m (49.21 ft.), which meets the requirement.
  - There is an open county road allowance to the north of the subject land. Due to topographic constraints with creeks, this road allowance has never been used. Instead, the county road was constructed to the south of the subject land and named Township Road 274. This road allowance would be considered an internal subdivision road for assessment purposes only.

##### (d)(ii) Rear yard setback (from the other lands to the west):

- **Required:** 15.00 m (49.20 ft.);
- **Proposed:** Lots, which meets the requirement.

#### 47.7 Maximum height of buildings

##### (b) Accessory buildings:

- **Required:** 5.50 m (18.04 ft.)
- **Proposed:** 8.53 m (28.00 ft.)
  - The proposed building height exceeds the maximum requirement, with a variance request of 55.21%. This amount is beyond the variance discretion of the Development Authority under Section 12, that being up to 25.00% of the required maximum building height. **Reason for Refusal**

#### Additional Information:

##### Planning Application History:

- None.

##### Development Permit History:

- 2003-DP-10323: Development Permit for "Construction of a dwelling, single detached, relaxation of the minimum side yard setback requirement" was issued by Board Order #39-03 on July 10, 2003.

##### Building Permit History:

- 2004-BP-17469: Building Permit for the single family dwelling was issued on June 29, 2004.

#### **STATUTORY PLANS:**

The subject land does not fall under any Area Structure Plan, or Intermunicipal Development Plan; therefore, the application was evaluated in accordance with the Land Use Bylaw.



### INSPECTOR'S COMMENTS:

- No construction activity;
- A lot of flat area where building could go;
- All adjacent properties are agricultural, so impacts of an overheight building would be minimal;
- No dwellings on nearby properties in proximity to the proposed building.

### CIRCULATIONS:

#### Building Services, Rocky View County

- Full Drawings and Engineering are required for a Building Permit.

#### Municipal Enforcement, Rocky View County

- Recommend that construction debris be contained at all times during construction.

#### Fire Services & Emergency Management, Rocky View County

- No comment.

### OPTIONS:

#### Option #1 (this would approve the accessory buildings)

That the appeal against the decision of the Development Authority to refuse to issue a Development Permit for accessory building at NE 20-27-25-W04M (254020 Township Road 274) be upheld, that the decision of the Development Authority be revoked, and that a Development Permit be issued, subject to the following conditions:

#### **Description:**

- 1) That the proposed accessory building may take place on the subject land, in general accordance with the approved site plan and the conditions of this permit.
- 2) That the maximum building area for the accessory building is relaxed from **223.0 sq. m (2,400.35 sq. ft.) to 376.07 sq. m. (4,048.00 sq. ft.)**.
- 3) That the maximum building height for the accessory building is relaxed from **5.50 m (18.04 ft.) to 8.53 m (28.00 ft.)**.

#### **Permanent:**

- 4) That the accessory building (oversize barn) shall not be used for commercial purpose at any time, except for a Home-Based Business Type I.
- 5) That the accessory buildings shall not be used for residential occupancy purpose at any time.
- 6) That any plan, technical submission, agreement, or other matter submitted and approved as part of the Development Permit application, or submitted in response to a Prior to Issuance or Occupancy condition, shall be implemented and adhered to in perpetuity.

#### **Advisory:**

- 7) That during construction, 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.
- 8) That during construction, the County's Noise Bylaw C-5772-2003 shall be adhered to at all times.
- 9) That a Building Permit/Farm Building Location Permit shall be obtained through Building Services prior to any construction taking place.

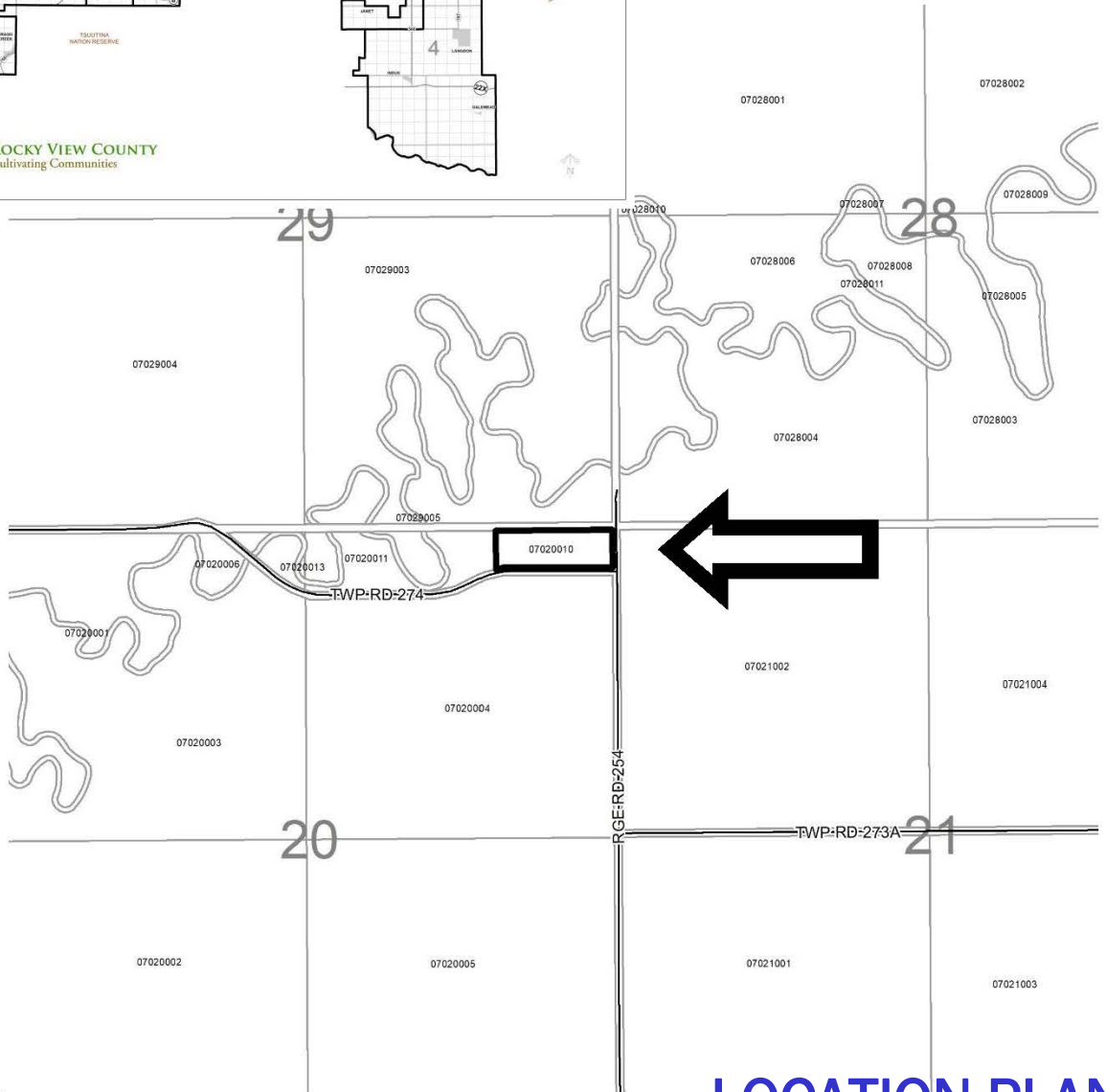
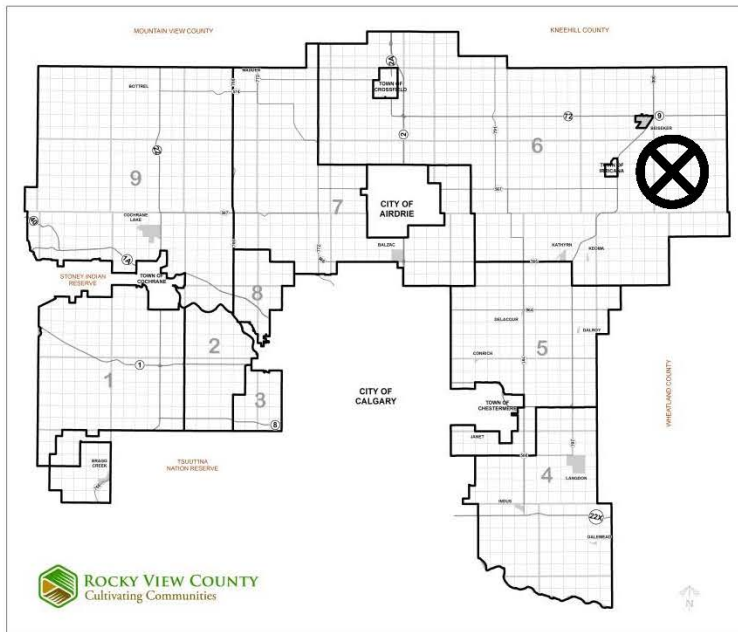


- 10) That any other government permits, approvals, or compliances are the sole responsibility of the Applicant/Owner.
- 11) That if the development authorized by this Development Permit is not commenced with reasonable diligence within 12 months from the date of issue, and completed within 24 months of the issue, the permit is deemed to be null and void, unless an extension to this permit shall first have been granted by the Development Authority.

Option #2 (this would not approve the accessory buildings)

That the appeal against the decision of the Development Authority to refuse to issue a Development Permit for accessory building at NE 20-27-25-W04M (254020 Township Road 274) be denied, and the decision of the Development Authority be upheld.





**LOCATION PLAN**

**NE-20-27-25-W04M**

Date: **6-Mar-19**

Division # **6**

File: **PRDP20190237 - 07020010**

Existing  
Dwelling



Proposed  
New Shop



Proposed building area: 376.07 sq. m (4,048 sq. ft.)  
Proposed building height: 8.53 m (28 ft.)

TWP-RD-274

RGE RD 254

**SITE PLAN**

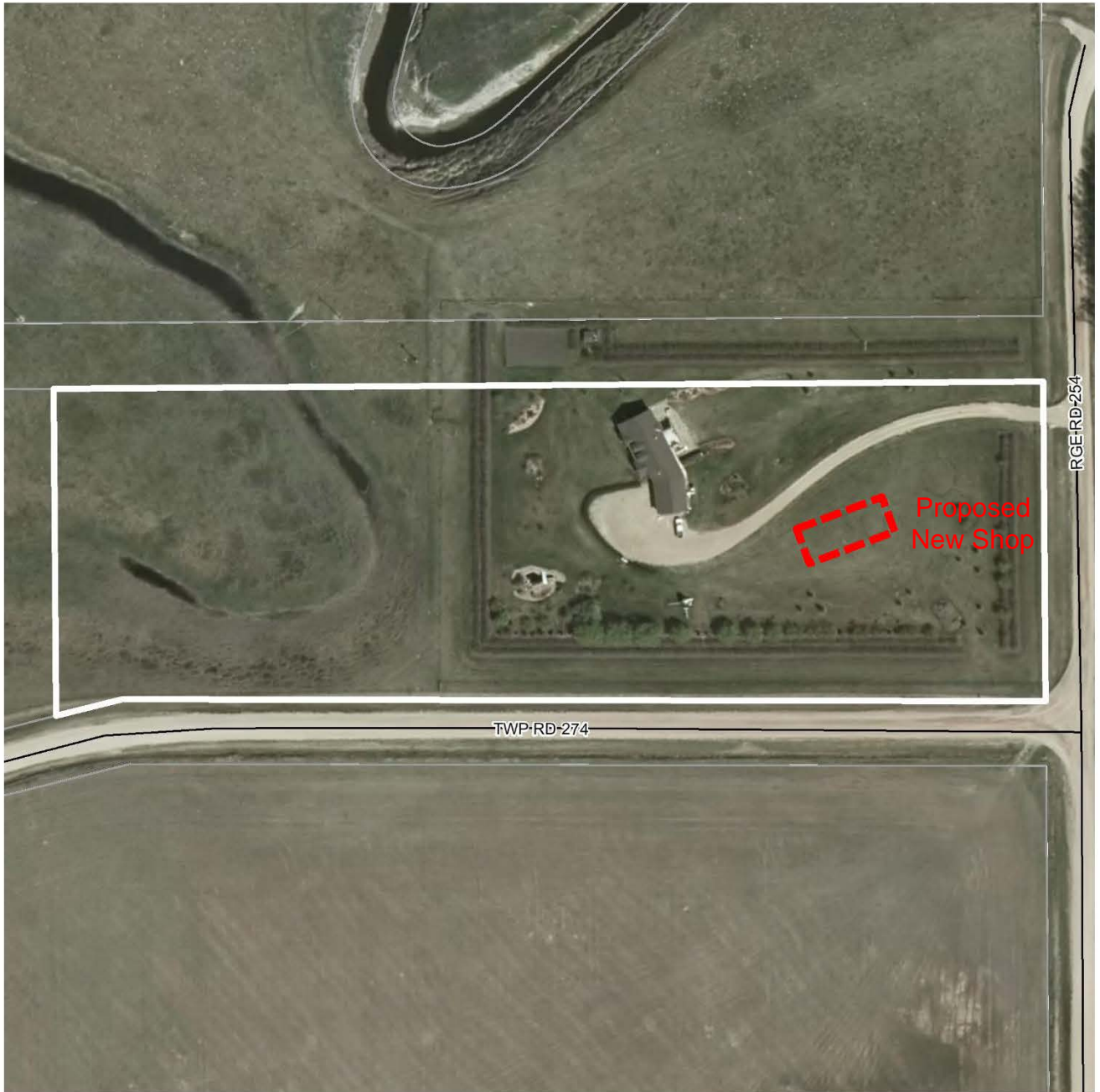
**NE-20-27-25-W04M**



Date: 6-Mar-19

Division # 6

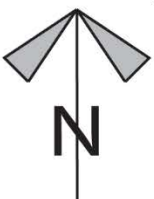
File: PRDP20190237 - 07020110



Note: Post processing of raw aerial  
photography may cause varying degrees  
of visual distortion at the local level.

**AIR PHOTO**  
*Spring 2018*

**NE-20-27-25-W04M**



Date: 6-Mar-19

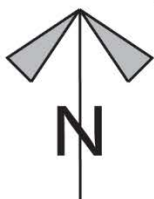
Division # 6

File: PRDP20190237 - 07020010

**Agenda**  
**Page 77 of 172**



## Site Photos (Feb 27, 2019)

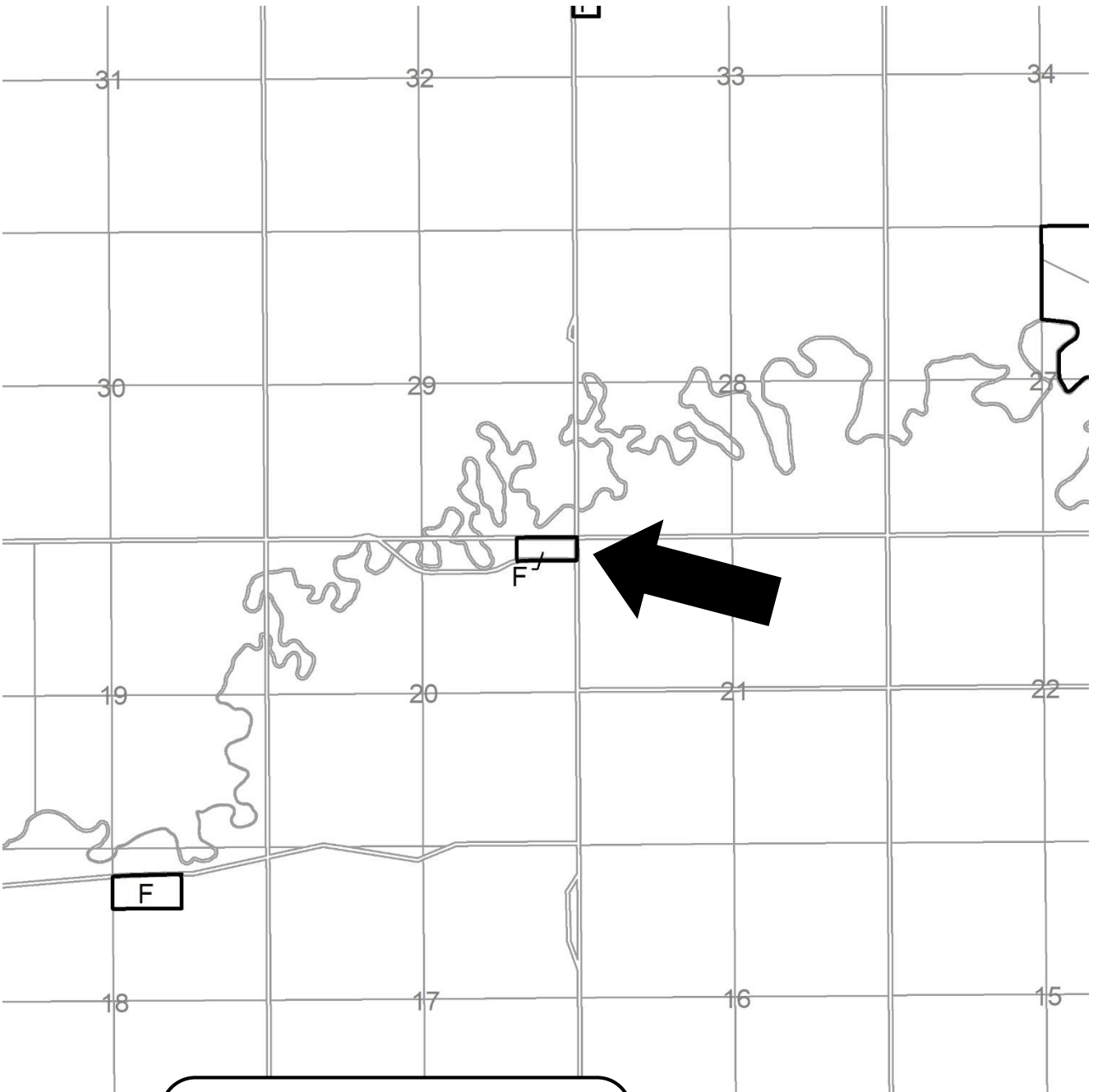


NE-20-27-25-W04M

Date: 6-Mar-19

Division # 6

File: PRDP20190237 - 0702010



Ranch and Farm	B-1 Highway Business
RF2 Ranch and Farm Two	B-2 General Business
RF3 Ranch and Farm Three	B-3 Limited Business
AH Agricultural Holding	B-4 Recreation Business
F Farmstead	B-5 Agricultural Business
R-1 Residential One	B-6 Local Business
R-2 Residential Two	NRI Natural Resource Industrial
R-3 Residential Three	HR-1 Hamlet Residential Single Family
DC Direct Control	HR-2 Hamlet Residential (2)
PS Public Service	HC Hamlet Commercial
	AP Airport

LAND USE MAP

NE-20-27-25-W04M





Contours are generated using 10m grid points, and depict general topographic features of the area. Detail accuracy at a local scale cannot be guaranteed. They are included for reference use only.

**TOPOGRAPHY**  
*Contour Interval 2 M*

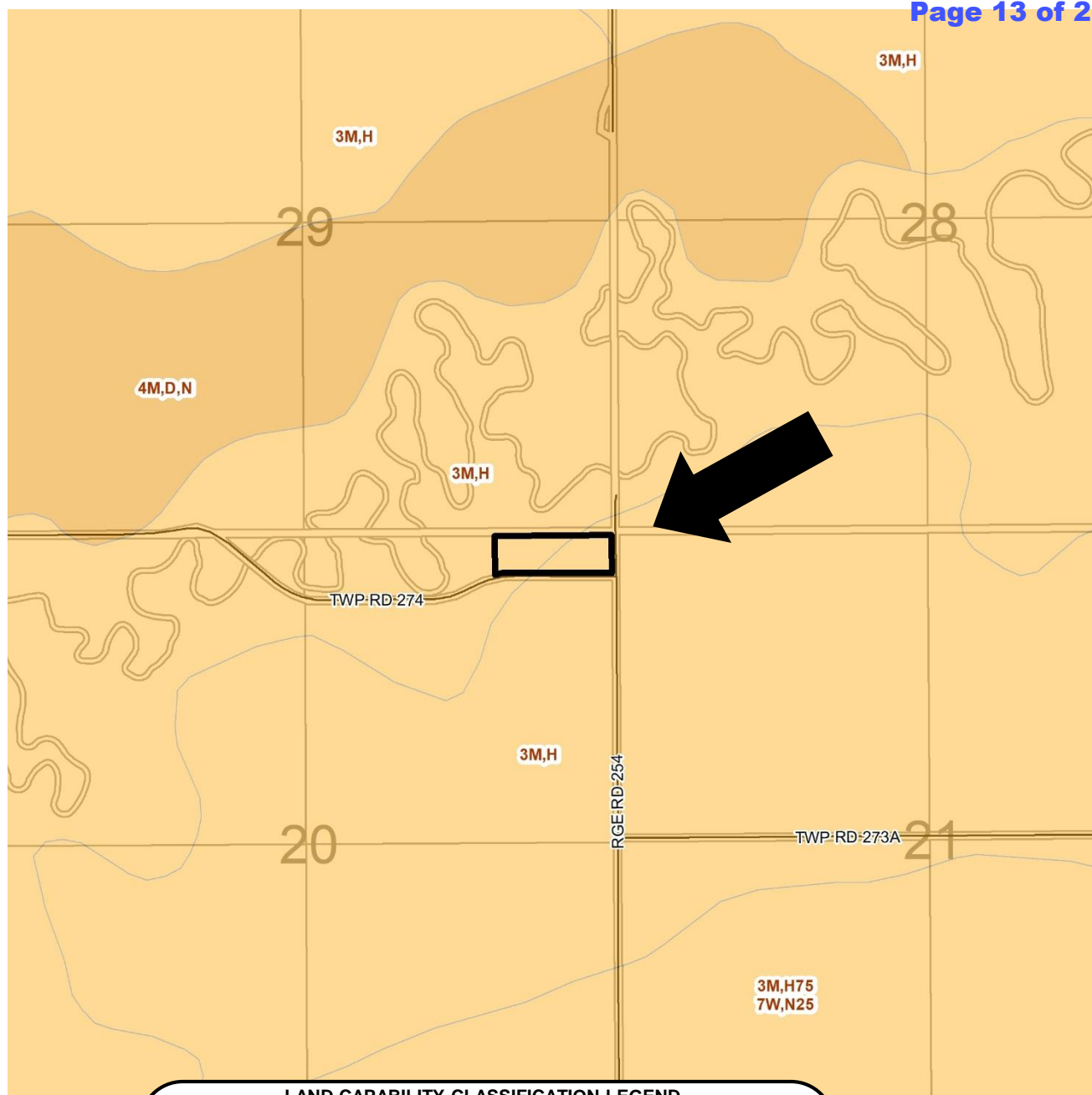


**NE-20-27-25-W04M**

Date: 6-Mar-19

Division # 6

File: PRDP20190237 - 0702010



### LAND CAPABILITY CLASSIFICATION LEGEND

*Limitations refer to cereal, oilseeds and tame hay crops*

#### CLI Class

- 1 - No significant limitation
- 2 - Slight limitations
- 3 - Moderate limitations
- 4 - Severe limitations
- 5 - Very severe limitations
- 6 - Production is not feasible
- 7 - No capability

#### Limitations

- |   |                                     |
|---|-------------------------------------|
| B - brush/tree cover                      | N - high salinity                   |
| C - climate                               | P - excessive surface stoniness     |
| D - low permeability                      | R - shallowness to bedrock          |
| E - erosion damage                        | S - high sodicity                   |
| F - poor fertility                        | T - adverse topography              |
| G - Steep slopes                          | U - prior earth moving              |
| H - temperature                           | V - high acid content               |
| I - flooding                              | W - excessive wetness/poor drainage |
| J - field size/shape                      | X - deep organic deposit            |
| K - shallow profile development           | Y - slowly permeable                |
| M - low moisture holding, adverse texture | Z - relatively impermeable          |

# SOIL MAP

## NE-20-27-25-W04M

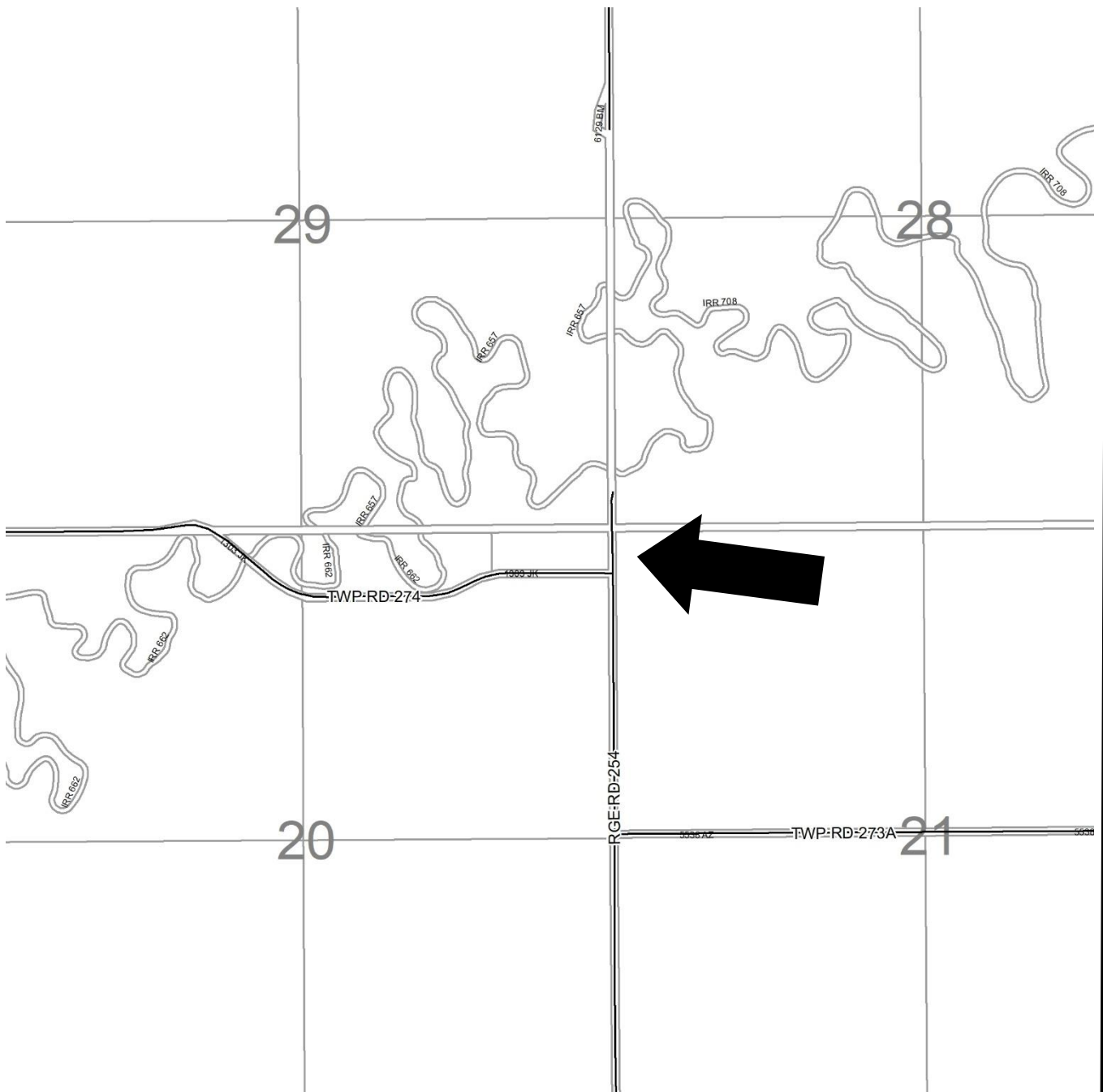
Date: 6-Mar-19

Division # 6

File: PRDP20190237 - 0702010

Agenda

Page 81 of 172



**Legend – Plan numbers**

- First two numbers of the Plan Number indicate the year of subdivision registration.
- Plan numbers that include letters were registered before 1973 and do not reference a year

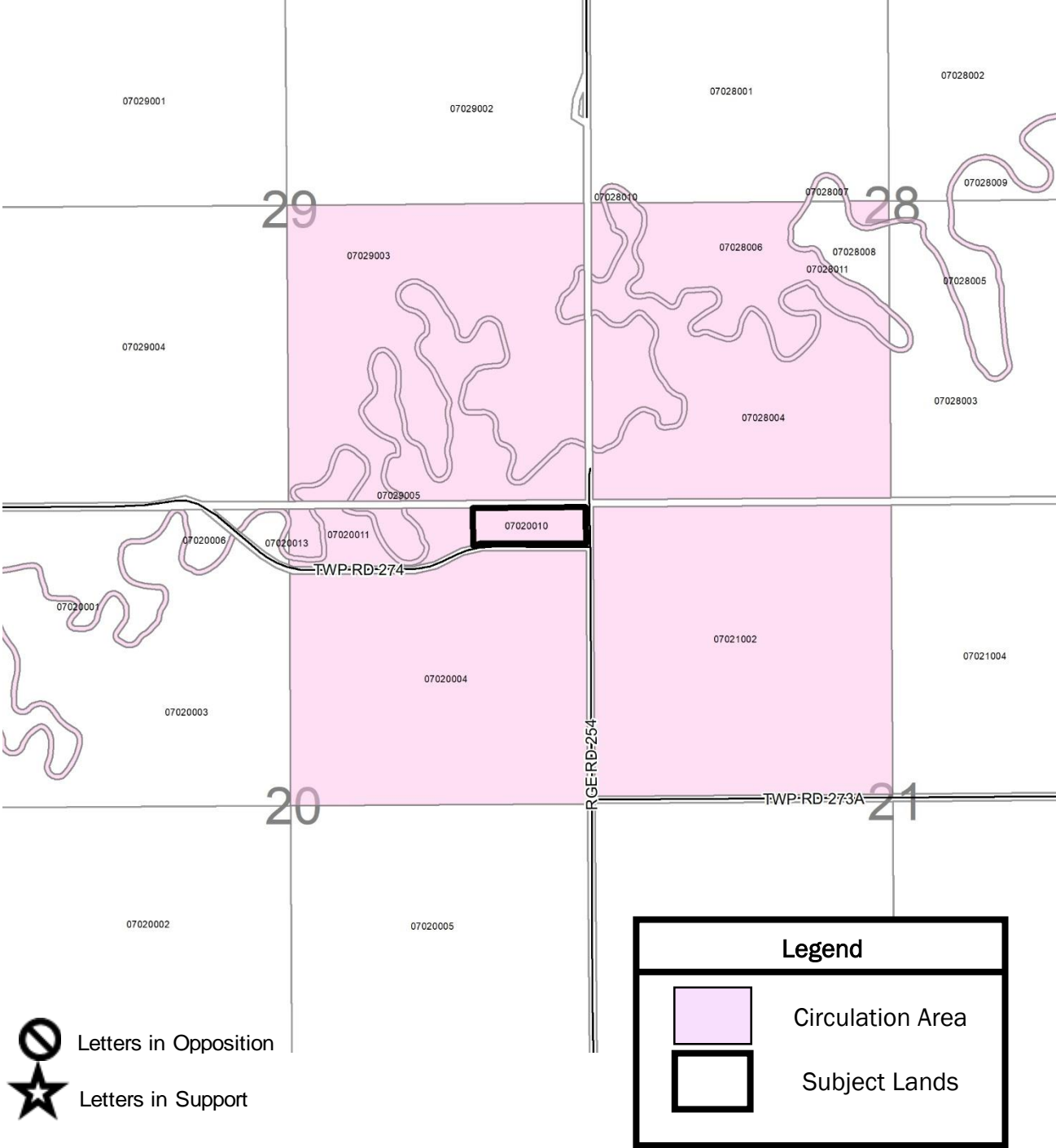
## HISTORIC SUBDIVISION MAP

**NE-20-27-25-W04M**

Date: 6-Mar-19

Division # 6

File: PRDP20190237 - 07020010



# LANDOWNER CIRCULATION AREA

NE-20-27-25-W04M





# **Notice of Appeal** **Subdivision and Development Appeal Board** **Enforcement Appeal Committee**

<b>Appellant Information</b>			
Name of Appellant(s) <i>Mary Anne Schwenger</i>			
Municipality	Municipality	Province	Postal Code
[Redacted]	[Redacted]	[Redacted]	[Redacted]
Main Phone #	Alternate Phone #	Email Address	
[Redacted]	[Redacted]	[Redacted]	
<b>Site Information</b>			
Municipal Address <i>274016</i>		Legal Land Description (lot, block, plan OR quarter-section-township-range-meridian) <i>NE202725 W4</i>	
Property Roll # <i>07020010</i>	Development Permit, Subdivision Application, or Enforcement Order # <i>PRDP 20190237</i>		
<b>I am appealing: (check one box only)</b>			
<b>Development Authority Decision</b> <input type="checkbox"/> Approval <input type="checkbox"/> Conditions of Approval <input checked="" type="checkbox"/> Refusal	<b>Subdivision Authority Decision</b> <input type="checkbox"/> Approval <input type="checkbox"/> Conditions of Approval <input type="checkbox"/> Refusal	<b>Decision of Enforcement Services</b> <input type="checkbox"/> Stop Order <input type="checkbox"/> Compliance Order	
<b>Reasons for Appeal</b> (attach separate page if required)			
<div data-bbox="906 1102 1247 1444" data-label="Image"> </div>			

This information is collected for the Subdivision and Development Appeal Board or Enforcement Appeal Committee of Rocky View County and will be used to process your appeal and to create a public record of the appeal hearing. The information is collected in accordance with the *Freedom of Information and Protection of Privacy Act*. If you have questions regarding the collection or use of this information, contact the Municipal Clerk at 403-230-1401.

*[Signature]*  
Appellant's Signature

*Feb 12/2019*  
Date

Appeal of refusal of development permit #: PRDP20190237

**Reasons for Appeal:**

- there are no out buildings on our property.
- our current repair shop is located on our farm property and is full of machinery used to operate our farm. In the winter it houses equipment needed daily to look after our livestock, leaving no room to put in machinery that needs maintenance and repairs.
- a shop of the size we requested is needed to perform these repairs and maintenance. The size of farm machinery continues to increase, and the space needed to house these also continues to grow.
- a shop nearer to our residence is preferred.
- with the incidence of rural crime increasing we feel the need to house expensive machinery inside under lock and key.
- as we own all the land adjacent to the proposed building there would be no opposition to the size or height of the building.



# ROCKY VIEW COUNTY

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

403-230-1401  
questions@rockyview.ca  
www.rockyview.ca

## REFUSAL

MaryAnne Schwengler

Development Permit #: PRDP20190237

Date of Issue: February 7, 2019

Roll #: 07020010

Your Application dated January 23, 2019 for a Development Permit in accordance with the provisions of the Land Use Bylaw C-4841-97 of Rocky View County in respect of:

**Accessory building, relaxation of building area and building height requirement**

at NE 20-27-25-W04M (254020 Township Road 274, Rocky View County AB)

has been considered by the Development Authority and the decision in the matter is that your application be **REFUSED** for the following reasons:

- 1) The proposed building area for the accessory building exceeds the maximum permitted amount as defined in Section 47.3 of Land Use Bylaw C-4841-97.  
**Permitted – 223 sq. m (2,400.35 sq. ft.); Proposed – 376.07 sq. m (4,048.00 sq. ft.)**
- 2) The proposed building height for the accessory building exceeds the maximum permitted amount as defined in Section 47.7 of Land Use Bylaw C-4841-97.  
**Permitted – 5.50 m (18.04 ft.); Proposed – 8.53 m (28.00 ft.)**

  
**Matthew Wilson**  
Manager, Planning & Development Services

**NOTE:** An appeal from this decision may be made to the Subdivision and Development Appeal Board of Rocky View County. Notice of Appeal to the Subdivision and Development Appeal Board from this decision shall be filed with the requisite fee of \$350.00 with Rocky View County no later than 14 days following the date on which this Notice is dated.

Hello MaryAnn,

Your Development Permit application (PRDP20190237) for "Accessory building, relaxation of building area and building height requirement" was assigned to me on Feb 4, 2019. I will be happy to work with you throughout the process.

As you are aware that the proposed building area and building height exceed the maximum requirement defined under Farmstead District within the Land Use Bylaw, this application is refused. Please see the attached letter of decision.

If you wish to appeal to the Development Appeal Board, please complete the attached Appeal Application Form, and contact our Appeal and Policy Coordinator - Sonya Hope (403-520-8196 [SHope@rockyview.ca](mailto:SHope@rockyview.ca)). She will help you for the appeal process.

If you have any question, please feel free to contact me. Thank you.

**XIN DENG** MPlan, RPP, MCIP  
Municipal Planner | Planning Services

**Rocky View County**

262075 Rocky View Point | Rocky View County | AB | T4A 0X2  
Phone: 403-520-3911

[xdeng@rockyview.ca](mailto:xdeng@rockyview.ca) | [www.rockyview.ca](http://www.rockyview.ca)





# ROCKY VIEW COUNTY

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

403-230-1401  
questions@rockyview.ca  
www.rockyview.ca

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**Permitted – 5.50 m (18.04 ft.); Proposed – 8.53 m (28.00 ft.)**

**Matthew Wilson**  
Manager, Planning & Development Services

**NOTE:** An appeal from this decision may be made to the Subdivision and Development Appeal Board of Rocky View County. Notice of Appeal to the Subdivision and Development Appeal Board from this decision shall be filed with the requisite fee of \$350.00 with Rocky View County no later than 14 days following the date on which this Notice is dated.



**ROCKY VIEW COUNTY**  
Cultivating Communities

20190237

## APPLICATION FOR A DEVELOPMENT PERMIT

FOR OFFICE USE ONLY	
Fee Submitted \$280.00	File Number 07020010
Date of Receipt Jan 23/19	Receipt # 2019019699

Name of Applicant MaryAnne Schwengler Email [REDACTED]  
 Mailing Address [REDACTED] Postal Code [REDACTED]  
 Telephone (B) [REDACTED] (H) [REDACTED] Fax [REDACTED]  
 For Agents please supply Business/Agency/ Organization Name \_\_\_\_\_

Registered Owner (if not applicant) Same  
 Mailing Address \_\_\_\_\_  
 Postal Code \_\_\_\_\_  
 Telephone (B) \_\_\_\_\_ (H) \_\_\_\_\_ Fax \_\_\_\_\_

### 1. LEGAL DESCRIPTION OF LAND

- a) All / part of the NE ¼ Section 20 Township 27 Range 25 West of 04 Meridian  
 b) Being all / parts of Lot E1008' Block \_\_\_\_\_ Registered Plan Number \_\_\_\_\_  
 c) Municipal Address \_\_\_\_\_  
 d) Existing Land Use Designation Farmstead Parcel Size 7.4 acres Division \_\_\_\_\_

### 2. APPLICATION FOR

- Farm storage / maintenance building  
 - over sized, over height

### 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 MARYANNE SCHWENGLER hereby certify that ✓ I am the registered owner  
 (Full Name in Block Capitals)

\_\_\_\_\_ 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 Jan 15/19

Owner's Signature [Signature]  
 Date Jan 15/19


## 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.

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

  
Signature  
Date





FOR OFFICE USE ONLY	
Fee Submitted	File Number
Date Received	Receipt #

## APPLICATION FOR AN ACCESSORY BUILDING

Name of Applicant Mary Anne Schwender Email [REDACTED]  
 Mailing Address [REDACTED]  
 Telephone (B) [REDACTED] (H) [REDACTED] Postal Code [REDACTED] Fax [REDACTED]

### 1. DETAILS OF ACCESSORY BUILDING

	<i>Bylaw</i>	<i>Proposed</i>
Accessory building size maximum	861.11	3680
Accessory building height	18 ft	18 ft
Number of existing accessory buildings on site	0	0
Total size of all accessory buildings	< 2400.35 sq/ft	3680 sqft

4048 sq/ft.

#### Description of Accessory Buildings:

- a) Building materials wood & steel siding
- b) Exterior colour red
- c) Please include why relaxations for buildings are needed (location, storage needs, tidy property, etc.)  
Storage needs & location set back restrictions
- d) Date when building permits were issued for existing buildings \_\_\_\_\_
- e) If no permits were issued - list age of buildings \_\_\_\_\_

### 2. DESCRIBE THE USE OF THE ACCESSORY BUILDING

Storage for Farm machinery  
repairs of Farm machinery

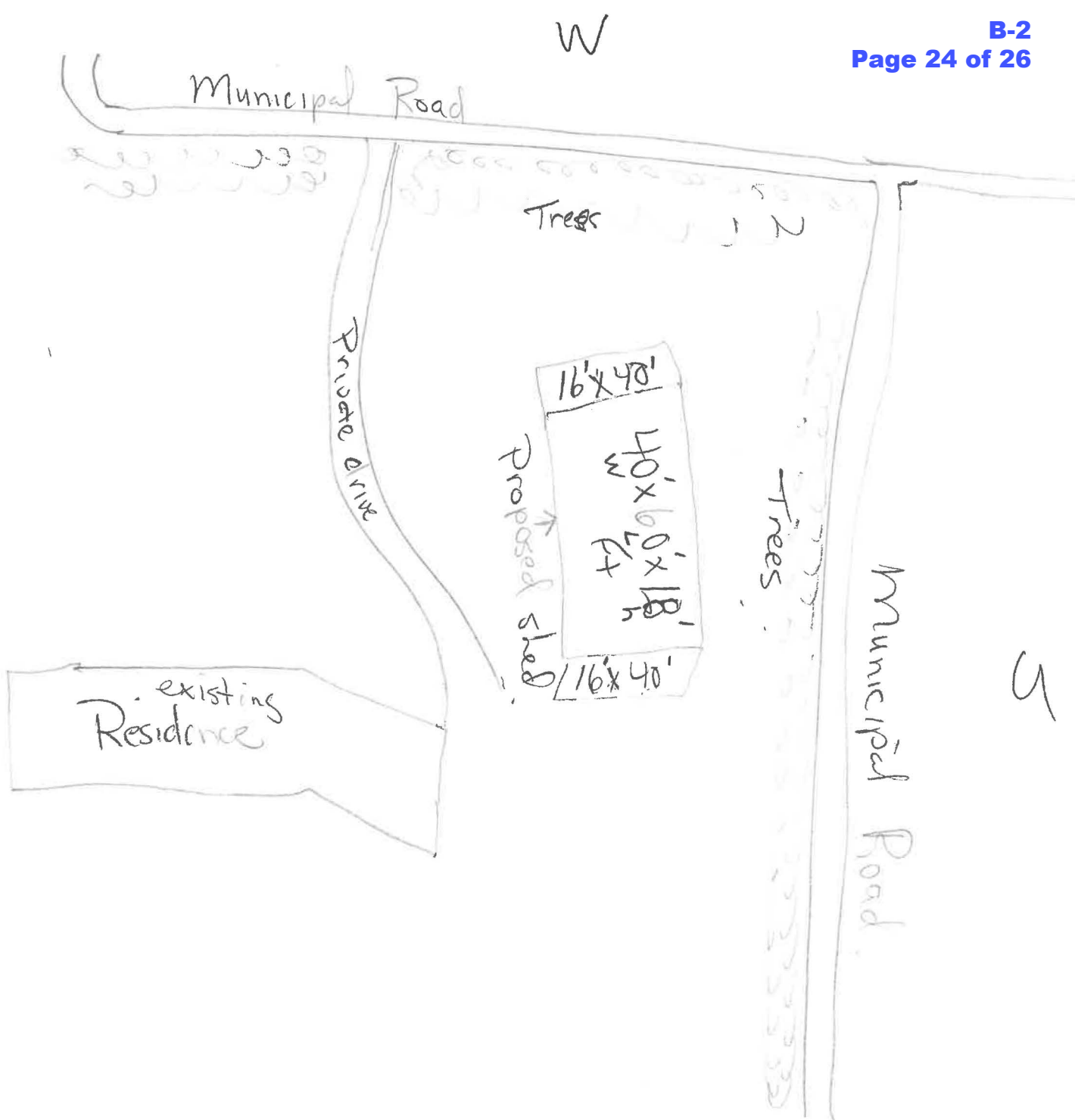
### 3. ADDITIONAL REQUIREMENTS

The following items must be provided in addition to your application:

- ☐ Elevation drawing(s) / floor plan(s)
- ☐ Site plan(s) showing all dimensions and setbacks

Signature of Applicant [Signature] Date: Jan 15 / 19



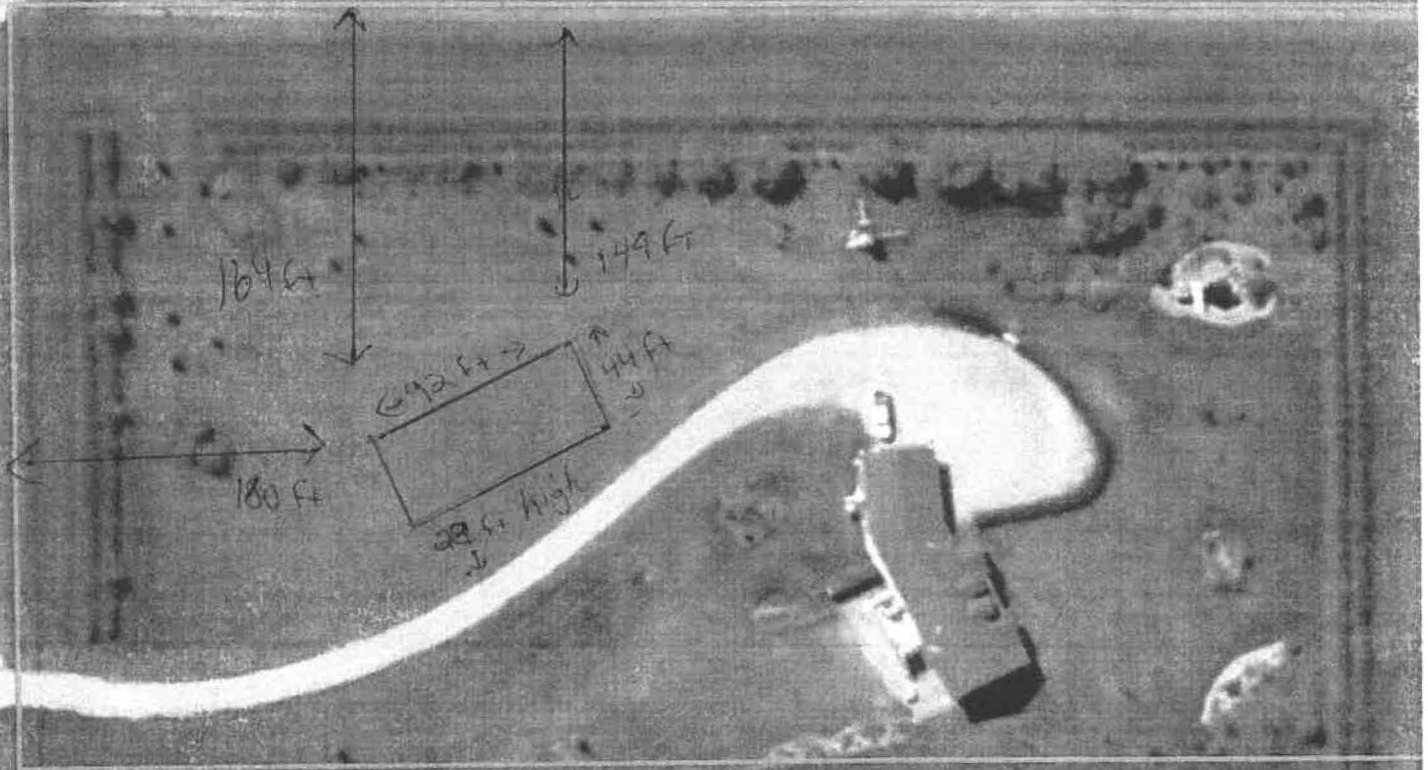


Zoned Farm Stead<sup>W</sup>

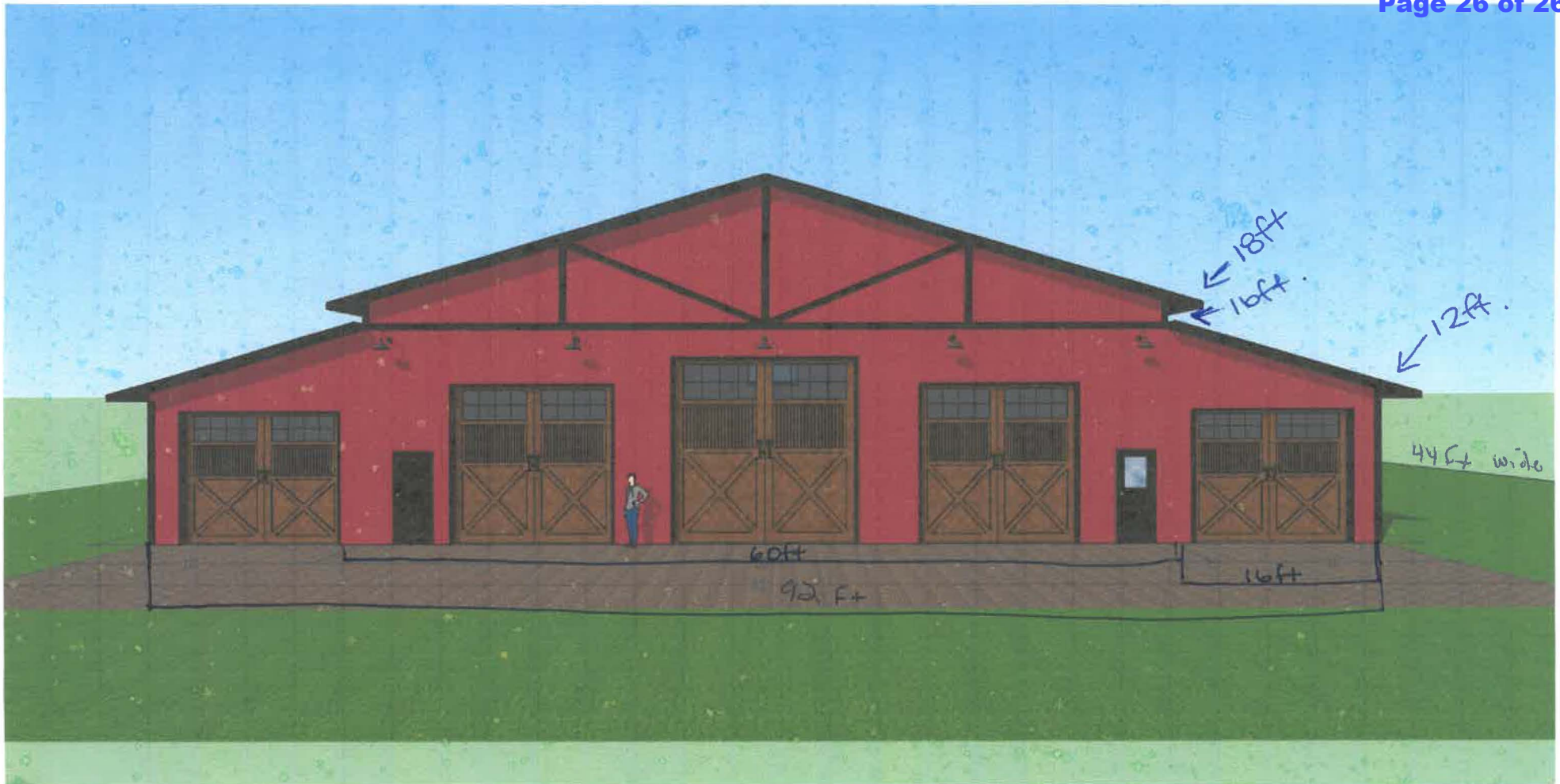
Closest Neighbour is 1.5 miles away  
we own all land adjacent to property  
on all 4 sides

RGE RD 254

TWP RD 274







height 28 ft  
width 44 ft  
length 92 ft.

**Division 9      File: 06706019; PRDP20152541**  
**Traffic Impact Assessment**

This is an appeal against the Development Authority's decision to APPROVE a development permit for Funeral Services and Entombment, the construction of an office, prayer hall, gathering hall, and the relaxation of the maximum height requirement at 260144 Mountain Ridge Place, NE-06-26-03-W5M, located approximately 0.41 km (1/4 mile) south of Highway 1A and on the east side of Mountain Ridge Place. This appeal was adjourned sine die on January 27, 2016.

Appellants:      Johanna Schiff on behalf of the Residents and Members of Mountain Ridge Place  
Applicant:      Khalil Ladan of Cubit Design Group Ltd.  
Owner:          Muslim Council of Calgary





## **Muslim Funeral Hope Traffic Impact Assessment Final Report**

---

Prepared for: Cubit Design Group

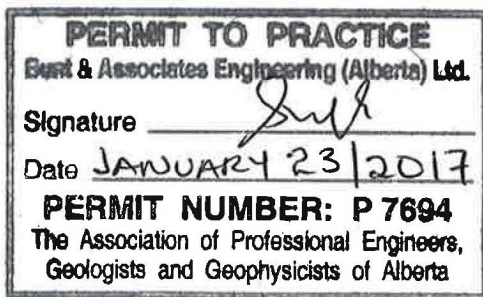
Date: January 23<sup>rd</sup>, 2017

Prepared by: Bunt & Associates Engineering (Alberta) Ltd.

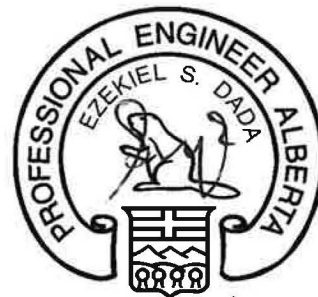
Project No.: 1634-01

## CORPORATE AUTHORIZATION

This document entitled “*Muslim Funeral Home Traffic Impact Assessment*” was prepared by Bunt & Associates for the benefit of the client to whom it is addressed. The information and data in the report reflects Bunt & Associates best professional judgement in light of the knowledge and information available to Bunt & Associates at the time of preparation. Except as required by law, this report and the information and the data contained are to be treated as confidential and may be used and relied upon only by the client, its officers, and employees. Any use which a third party makes of this report, or any reliance on or decisions based on it, are the responsibilities of such third parties. Bunt & Associates accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.



APEGA Permit to Practice



JANUARY 23/2017

Responsible Engineer

## TABLE OF CONTENTS

1. EXECUTIVE SUMMARY .....	1
2. INTRODUCTION .....	2
2.1 SCOPE OF WORK .....	2
2.2 SITE CONTEXT .....	2
3. EXISTING TRAFFIC CONDITIONS .....	5
3.1 ROAD NETWORK .....	5
3.2 CONFIGURATIONS & TRAFFIC CONTROL.....	5
3.3 EXISTING TRAFFIC VOLUMES .....	5
3.4 INTERSECTION CAPACITY ANALYSIS .....	7
4. PROPOSED DEVELOPMENT .....	9
4.1 LAND USE .....	9
4.2 TRIP GENERATION .....	9
4.3 TRIP DISTRIBUTION & ASSIGNMENT .....	10
5. POST DEVELOPMENT TRAFFIC CONDITIONS .....	12
6. 20-YEAR ANALYSIS FOR POST DEVELOPMENT TRAFFIC CONDITIONS.....	14
7. SENSITIVITY ANALYSIS .....	15
7.1 TRIP GENERATION .....	15
7.2 INTERSECTION CAPACITY ANALYSIS .....	15
7.2.1 Opening Day Post Development Analysis .....	15
7.2.2 20 Year Post Development Analysis .....	16
7.3 SENSITIVITY ANALYSIS CONCLUSION .....	17
8. IMPACT OF FUNERAL PROCESSION .....	18
9. ALBERTA WARRANTS .....	19
9.1.1 Illumination Warrant.....	19
9.2 SIGHT DISTANCE REQUIREMENTS .....	19
9.3 COLLISION DATA .....	21
9.3.1 Highway 1A Location Intersections .....	21
9.4 TRUCK TURNING ANALYSIS .....	21
9.5 ROAD LINK ANALYSIS.....	24
10. PARKING.....	25
11. CONCLUSION.....	26

## APPENDIX A Scope Correspondence

## APPENDIX B AT Warrants

## APPENDIX C Traffic Counts

## APPENDIX D Synchro Outputs

## EXHIBITS

Exhibit 2.1 Site Context .....	3
Exhibit 2.2 Site Plan.....	4
Exhibit 3.1 Existing Traffic Volumes .....	6
Exhibit 4.1 Site Traffic Volumes .....	11
Exhibit 5.1 Opening Day Post Development Traffic Volumes .....	13
Exhibit 9.1 Vehicle Turning Analysis – Garbage and Firetruck Truck Manoeuvre.....	22
Exhibit 9.2 Vehicle Turning Analysis –Firetruck Truck Manoeuvre .....	23

## TABLES

Table 3.1: HCM Level of Service Summary .....	7
Table 3.2: Existing Intersection Capacity Analysis .....	8
Table 4.1: Vehicular Trip Generation.....	10
Table 4.2: Vehicular Trip Distribution & Assignment .....	10
Table 5.1: Post Development Intersection Capacity Analysis.....	12
Table 6.1: 20-Year Post Development Intersection Capacity Analysis (Site Peak) .....	14
Table 7.1: Vehicular Trip Generation.....	15
Table 7.2: Post Development Intersection Capacity Analysis.....	16
Table 7.3: 20-Year Post Development Intersection Capacity Analysis .....	17
Table 9.1: Post Development Illumination Warrant Summary.....	19
Table 9.2: Intersection Sight Distance .....	21
Table 9.3: Highway 1A/Mountain Ridge Intersection Collisions (2004 to 2013) .....	21
Table 9.4: Road Link Analysis (Opening Day and 20-year) .....	24
Table 10.1: Rocky View County Parking Guidelines .....	25



## 1. EXECUTIVE SUMMARY

Cubit Design Group is seeking a Traffic Impact Study for a site located at 260040 Mountain Ridge Pl, Cochrane, AB T4C 1W5 in Rocky View County. The proposed development will be a Funeral Home of about 14,000 sq. ft.

Bunt & Associates completed a Traffic Impact Analysis to address the impacts of the proposed development on vehicular traffic.

Capacity analysis at Highway 1A/Mountain Ridge Place for existing as well as post development scenarios show that the intersection is working within its optimum operational conditions to accommodate the development. Further analysis for 20 year horizon also shows that the intersection is working within its optimum operational conditions to accommodate the development.

Illumination warrant results at the intersection of Mountain Ridge/Site access indicates no lighting required till the intersection is signalised in the 20 year horizon.

Site Distance analysis results indicates that the Site Access/Highway 1A intersection meets all minimum sight distance requirements.

The bylaw motor vehicle parking requirement is 100 stalls, which is lower than the 273 stalls proposed for the site. Therefore, the proposed parking supply meets the County's bylaw parking requirement.

## 2. INTRODUCTION

### 2.1 Scope of Work

The scope of work for this study was confirmed to include the following:

1. Complete a TIA in accordance to the Rocky View County and Alberta Transportation's guidelines
2. Develop trip generation rate for the funeral for the Opening Day and 20 year horizons based on first principles and consistent with arrival and departure patterns at the funeral.
3. Complete turning movement counts at the intersection of Highway 1A/Mountain Ridge PI
4. Complete capacity analysis for the existing traffic conditions at the intersection of Highway 1A/Mountain Ridge PI
5. Complete post development capacity analysis for the Opening Day as well as 20 year horizon traffic conditions at the intersection of Highway 1A/Mountain Ridge PI and site access
6. Complete illumination warrant analysis at the site access as well as the intersection of Range Road 23/Township Road 261A and site access
7. If necessary, provide recommendations to mitigate any present or future deficiencies in capacity and geometry
8. Determine bylaw parking requirement and comment on the appropriateness of proposed parking supply
9. Complete truck sweep path for garbage truck at the site access
10. If data is available, evaluate traffic safety in the vicinity of the site for both existing and future traffic conditions

The study scope correspondence is included in **Appendix A**.

### 2.2 Site Context

The site is located in the Rocky View County at 260040 Mountain Ridge PI, Cochrane, AB T4C 1W5. It is located in the northeast corner of Mountain Ridge PI and Highway 1A.

Vehicular access to the development will be provided from Mountain Ridge PI.

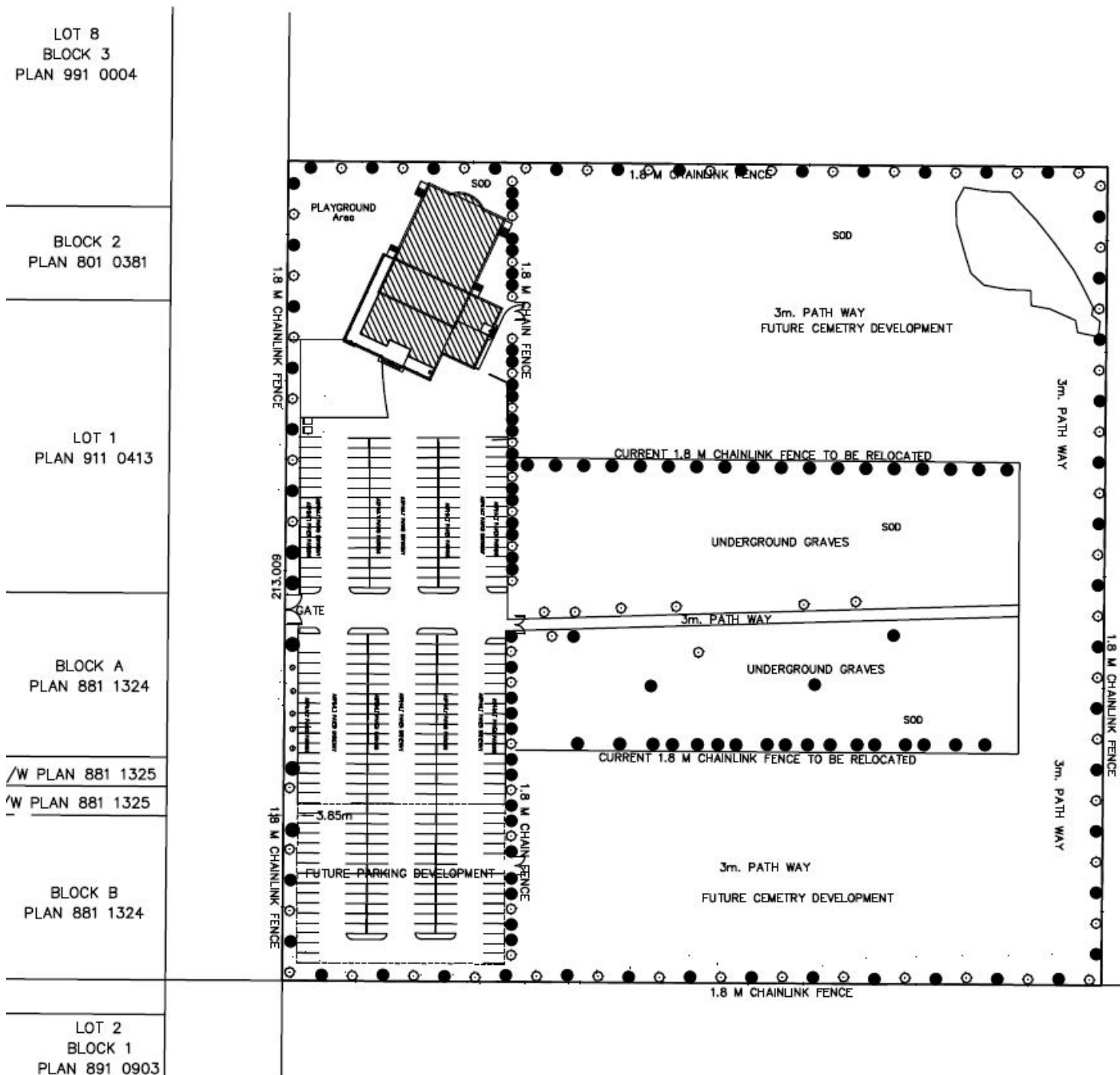
The study area and adjacent external road network is illustrated in **Exhibit 2.1**. The site plan is illustrated in **Exhibit 2.2**.



Base Map Source: CITYonline Map Viewer

**Exhibit 2.1**  
**Site Context**





Base Map Source: Cubit Design Group

## Exhibit 2.2 Site Plan





### 3. EXISTING TRAFFIC CONDITIONS

#### 3.1 Road Network

The following roadways are located in the vicinity of the site:

- **Highway 1A** is a multi-lane divided provincial highway that runs in the east-west direction from Canmore to Calgary. The posted speed limit is 100 km/hr adjacent to the site.
- **Mountain Ridge Place** is an 8 metres roadway classified as Regional Low Volume within Rocky View County Roadway Servicing Standards. This roadway currently has no speed limit posted, which means by default it will 50 km/hr. The roadway can accommodate 2 lanes in the north/south direction. Although no parking is observed it is unlikely it can accommodate parking. This means efforts have to be made to ensure parking occurs on-site.

#### 3.2 Configurations & Traffic Control

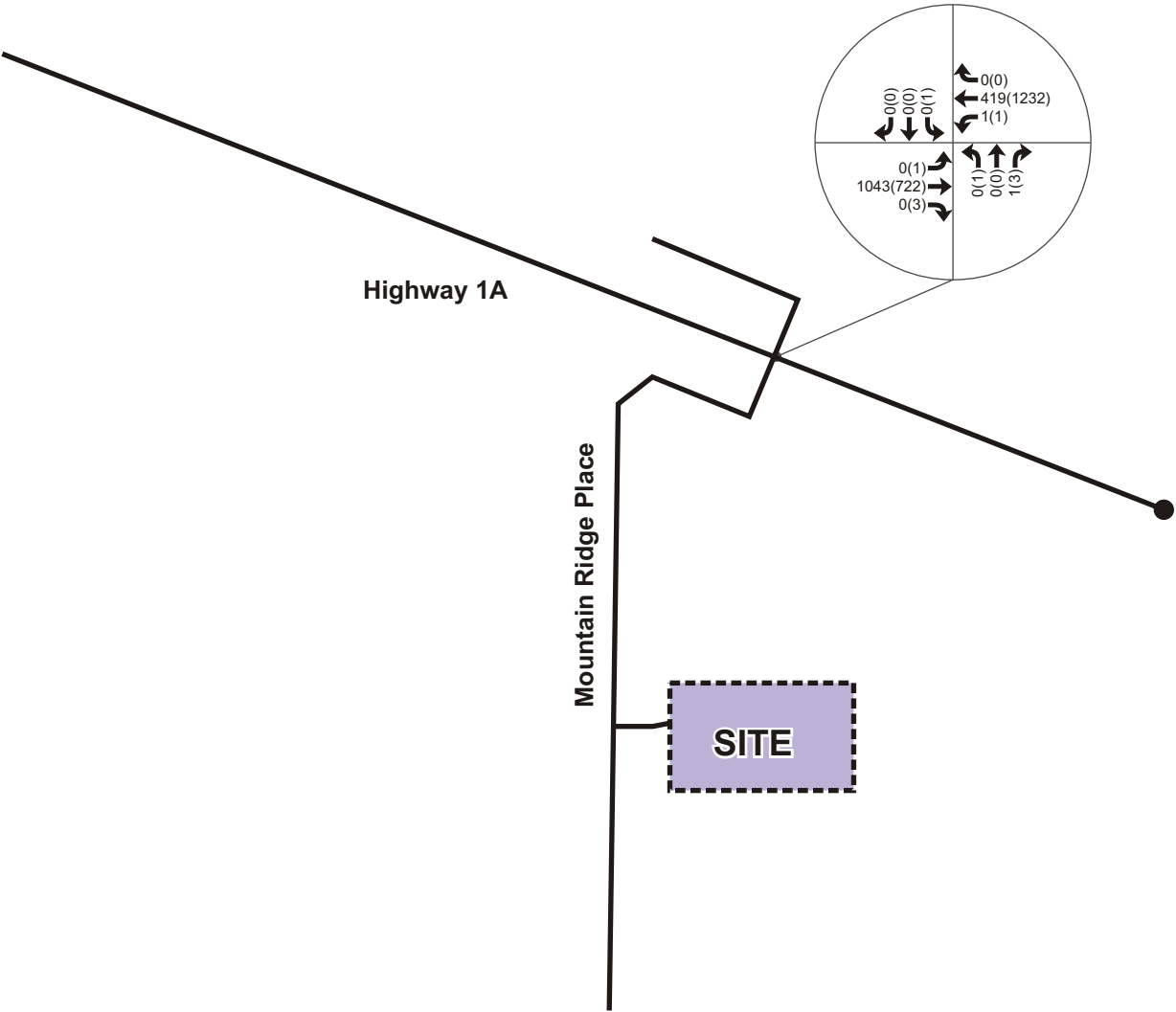
The following lane configurations and traffic control are in place at study area intersections:

- **Highway 1A & Mountain Ridge Place** – This intersection is unsignalized with stop control in the north-south direction.

#### 3.3 Existing Traffic Volumes

Six-hour turning movement counts were conducted 6<sup>th</sup> December, 2016 by Bunt & Associates to determine existing vehicle, pedestrian, and cyclist movements at the intersection of Highway 1A & Mountain Ridge Place.

Existing turning movement volumes are summarized in **Exhibit 3.1**. Traffic count data is provided in **Appendix C**.



**LEGEND**

↶ ↷ ↸ Vehicle Volumes

XX AM Peak Hour

(ZZ) PM Peak Hour

Exhibit 3.1  
Existing Traffic Volumes



### 3.4 Intersection Capacity Analysis

Intersection capacity analysis was undertaken for the study area intersections using Synchro 9, a traffic analysis software package based on the methods outlined in the Highway Capacity Manual (HCM) 2000. This methodology uses standard procedures to determine Volume to Capacity ratio (v/c) and corresponding delay-based traffic Level of Service (LOS) for movements at intersections.

For unsignalized intersections, the LOS methodology considers intersection geometry, traffic volumes, speed limit, and type of intersection control. Delays range from LOS 'A' conditions with representing minimal delay to LOS 'F' representing significant control delay. The LOS criteria for unsignalized and signalized intersections are summarized in **Table 3.1**.

**Table 3.1: HCM Level of Service Summary**

Level of Service (LOS)	Average Control Delay for Unsignalized Intersection Movements	Average Control Delay for Signalized Intersection Movements
A	≤ 10 seconds per vehicle	≤ 10 seconds per vehicle
B	> 10 – 15 seconds per vehicle	> 10 – 20 seconds per vehicle
C	> 15 – 25 seconds per vehicle	> 20 – 35 seconds per vehicle
D	> 25 – 35 seconds per vehicle	> 35 – 55 seconds per vehicle
E	> 35 – 50 seconds per vehicle	> 55 – 80 seconds per vehicle
F	> 50 seconds per vehicle	> 80 seconds per vehicle

The results of the intersection capacity analysis are based on expected traffic volumes, traffic control, and lane configuration at study area intersections.

The volume to capacity ratio, level of service, average control delay (in seconds), and 95<sup>th</sup> percentile queues (in metres) are summarized in the body of this report. Synchro output summaries are provided in **Appendix D**.

The results of existing intersection capacity analysis for both AM Peak Hour and PM Peak Hour are summarized in **Table 3.2**.

**Table 3.2: Existing Intersection Capacity Analysis**

Intersection	Movement & # of Lanes		AM Peak hour				PM Peak hour			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (N-S Stop)	EBL	1	-	-	-	-	<0.01	B	12	<5
	EBT	2	0.32	A	0	<5	0.22	A	0	<5
	EBR	1	-	-	-	-	<0.01	A	0	<5
	WBL	1	<0.01	B	11	<5	<0.01	A	9	<5
	WBT	2	0.13	A	0	<5	0.38	A	0	<5
	WBR	1	-	-	-	-	-	-	-	-
	NBL/T	1	-	-	-	-	<0.01	C	21	<5
	NBR	1	<0.01	B	13	<5	<0.01	B	11	<5
	SBL/T	1	-	-	-	-	<0.01	D	31	<5
	SBR	2	-	-	-	-	-	-	-	-
	Int. Summary		-	A	1	-		A	2	-

The results of existing analysis indicate that the intersection is currently operating within acceptable capacity parameters therefore no changes are recommended to accommodate existing traffic volumes.



## 4. PROPOSED DEVELOPMENT

### 4.1 Land Use

The site is currently a cemetery, but an approximately 1,300 square metres (14,000 square feet) funeral home is now planned so that body preparation and prayer for the deceased can now take place in a covered environment. Currently, corpses are prepared for burial outside of the cemetery and brought to the cemetery for burial. This means funeral procession may occur, which could at times slow traffic on Highway 1A. With the funeral home on-site, there would not be any need for traffic-slowing procession on Highway 1A.

### 4.2 Trip Generation

#### **Vehicular Trip Generation**

Discussions with the Cubit Design Group confirmed that the number of attendees for the funeral can range from 10 attendees to as many as 300 attendees. The number of attendees depends of the popularity of the deceased. Also, it was confirmed that the vehicle occupancy varies between 2-3 people per car.

For analysis purpose, it is assumed that there will be an average of 200 attendees and vehicle occupancy of 2 passenger/vehicle. Bunt & Associates also has in-house vehicle occupancy count data for a Friday noon prayer at Baitun Nur Mosque, which shows around 2.09 cars/vehicle.

Muslims bury after the Zuhr prayers, which takes place around 1:00 pm (prayer time is depended on the seasons of the year and usually the Zuhr prayer takes place anytime between 1:00 pm to 1:30 pm). All funeral attendees perform this prayer before the burial at the funeral home. The burial process starts shortly after finishing the prayer around 1:30 and is about half an hour long. The funeral attendees then start leaving the cemetery after the burial after 2:00 pm.

For the post-development conditions, 2 sets of weekday site peak hours were analysed. One peak hour is for the pre-burial at 1:00 to 2:00 pm, which is for all the inbound trips to the funeral home and the second peak hour is for the post-burial which is from 2:00- 3:00 pm for the outbound trip from the funeral home.

It is understood that only 1 person will be working at the funeral home. This will generate only 1 trip coming in and out every day and this trip will not fall into the pre burial or post burial peak hour.

Vehicular trip generation rate used in this study is as follows:

Pre-Burial Peak Hour: 0.5 trips per attendee (100% In, 0% Out)

Post-Burial Peak Hour: 0.5 trips per attendee (100% In, 0% Out)

The expected vehicular trip generation for the proposed development is summarized in **Table 4.1**.

Table 4.1: Vehicular Trip Generation

Land Use	Number of Attendees	Pre-Burial Peak Hour			Post-Burial Peak Hour		
		Total	In	Out	Total	In	Out
Funeral Home	200	100	100	0	100	0	100

### 4.3 Trip Distribution & Assignment

#### Vehicular Trip Distribution

Vehicle trips are assigned to the network based on population and expected location of the funeral attendees. Vehicular trip distribution is summarized in **Table 4.2**.

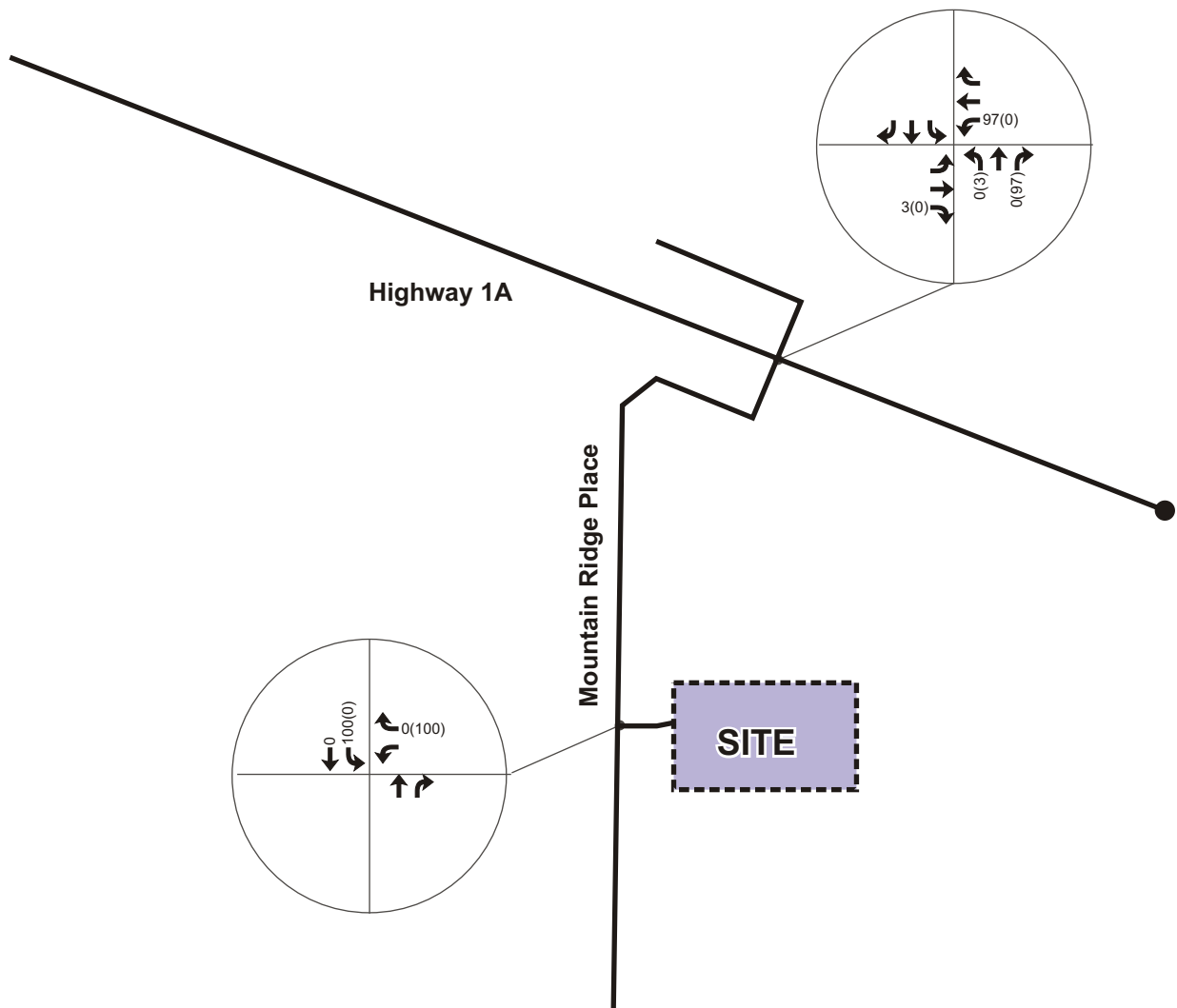
Table 4.2: Vehicular Trip Distribution &amp; Assignment

Direction	Pre-Burial Peak Hour		Post-Burial Peak Hour	
	In	Out	In	Out
To/from the east of Highway 1A	93%	0%	0%	93%
To/from the west of Highway 1A	3%	0%	0%	3%
<b>Total</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>	<b>100%</b>

It is expected that most of the commuters will come from Calgary from the east of Highway 1A. Around 3% is assigned from the west of Highway 1A to account for the Cochrane residents

All vehicular trips were assigned to the site access based on the distribution summarized in **Table 4.2**.

The resulting site generated traffic volumes are illustrated in **Exhibit 4.1**.



**LEGEND**

↶ ↷ ↸ Vehicle Volumes

XX Pre-Burial Peak

(ZZ) Post Burial Peak

Exhibit 4.1

## Site Traffic Volumes



## 5. POST DEVELOPMENT TRAFFIC CONDITIONS

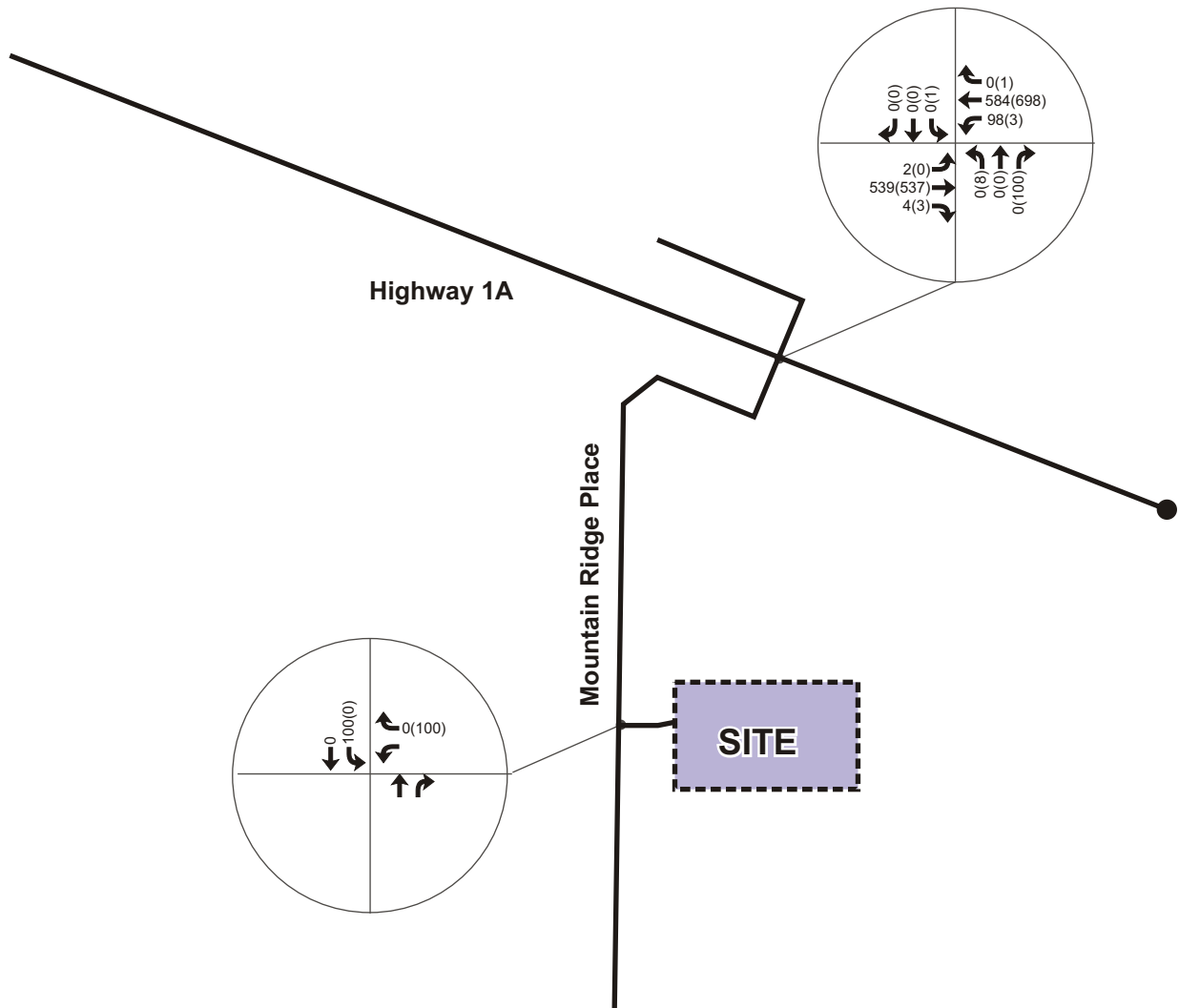
Opening Day Post Development traffic volumes are summarized in **Exhibit 5.1**. The Opening Day Post Development intersection capacity analysis is summarized in **Table 5.1**.

**Table 5.1: Post Development Intersection Capacity Analysis**

Intersection	Movement & # of Lanes		Pre-Burial Peak hour (1 pm-2pm)				Post-Burial Peak hour(2pm-3pm)			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (N-S Stop)	EBL	1	<0.01	-	-	-	-	-	-	-
	EBT	2	0.17	A	9	<5	0.17	A	0	<5
	EBR	1	-	-	-	-	<0.01	A	0	<5
	WBL	1	<0.01	A	9	<5	<0.01	A	9	<5
	WBT	2	0.13	A	0	<5	0.22	A	0	<5
	WBR	1	-	-	-	-	<0.01	A	0	<5
	NBL-T	1	-	-	-	-	0.02	C	17	<5
	NBR	1	-	-	-	-	0.15	B	11	<5
	SBL-T	1	<0.01	C	20	<5	-	-	-	-
	SBR	2	-	-	-	-	-	-	-	-
	Int. Summary		-	A	1	-	-	A	1	-
Mountain Ridge Place & Site Access (Westbound Stop)	WBL-R	1	-	-	-	-	0.10	A	9	<5
	NBT-R	1	-	-	-	-	-	-	-	-
	SBL-T	1	0.06	A	7	<5	<0.01	A	0	<5
	Int. Summary		-	A	7	-	-	A	9	-

The Opening Day Post Development analysis indicates that all the intersections will operate within acceptable capacity parameters, therefore no changes are recommended to accommodate the proposed development.





**LEGEND**

↶ ↷ ↸ Vehicle Volumes

XX Pre-Burial Peak

(ZZ) Post Burial Peak

Exhibit 5.1

## Opening Day Post Development Traffic Volumes



## 6. 20-YEAR ANALYSIS FOR POST DEVELOPMENT TRAFFIC CONDITIONS

A 20-year analysis is completed to confirm that the intersection of Highway 1A/Mountain Ridge Place work at optimum conditions in the long-term horizon. The existing traffic volumes were factored up by 2.0% per year for a 40% increase, to obtain the 20-year traffic volumes on Highway 1. This is consistent with previously approved TIA in the area. This intersection is assumed to be signalized at the 20-year horizon based on previous TIA that included this intersection (Glendale Mountain View TIA). Note that our analysis considered the funeral home's peak traffic demand hours and not the traditional AM/PM peak hours.

**Table 6.1: 20-Year Post Development Intersection Capacity Analysis (Site Peak)**

Intersection	Movement & # of Lanes		Pre-Burial Peak hour (1pm-2pm)				Post-Burial Peak hour(2pm-3pm)			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (Signalised)	EBL	1	0.01	B	19	<5	-	-	-	-
	EBT	2	0.27	A	8	<5	0.28	A	8	30
	EBR	1	<0.01	A	0	<5	<0.01	A	0	<5
	WBL	1	0.34	C	21	6	0.02	B	18	<5
	WBT	2	0.20	A	4	<5	0.34	A	7	24
	WBR	1	-	-	-	-	<0.01	A	0	<5
	NBL-T	1	-	-	-	-	0.04	B	16	<5
	NBR	1	-	-	-	-	0.24	A	4	7
	SBL-T	1	-	-	-	-	-	-	-	-
	SBR	2	-	B	-	-	-	-	-	-
	Int. Summary		-	A	1	-	-	A	1	-

The 20-year Post Development analysis indicates that Highway 1A & Mountain Ridge Place will operate within acceptable capacity parameters, therefore no changes are recommended to accommodate the proposed development.

## 7. SENSITIVITY ANALYSIS

In our discussion with Cubit Design Group, it was found out that the attendees range can be anywhere from 10 to 300. In order to verify that the intersection of highway 1A/Mountain Ridge Place works within acceptable conditions, a second set analysis is completed assuming 300 attendees will attend the funeral. While 300 attendees is a rare event, it is necessary to check if the intersection of Highway 1A/ Mountain Ridge Place can accommodate the maximum funeral traffic.

### 7.1 Trip Generation

#### Vehicular Trip Generation

The expected vehicular trip generation for the proposed development is summarized in **Table 4.1**.

**Table 7.1: Vehicular Trip Generation**

Land Use	Number of Attendees	Pre-Burial Peak Hour			Post-Burial Peak Hour		
		Total	In	Out	Total	In	Out
Funeral Home	300	150	150	0	150	0	150

#### Trip Distribution and Assignment

The distribution remains consistent with the previous analysis. The distribution is again a 3% from West of Highway 1A and 97% from East of Highway 1A.

### 7.2 Intersection Capacity Analysis

#### 7.2.1 Opening Day Post Development Analysis

The Opening Day Post Development intersection capacity analysis is summarized in **Table 7.2**.

Table 7.2: Post Development Intersection Capacity Analysis

Intersection	Movement & # of Lanes		Pre-Burial Peak hour (1pm-2pm)				Post-Burial Peak hour(2pm-3pm)			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (N-S Stop)	EBL	1	<0.01	-	-	-	-	-	-	-
	EBT	2	0.17	A	9	<5	0.17	A	0	<5
	EBR	1	-	-	-	-	<0.01	A	0	<5
	WBL	1	0.15	A	5	<5	<0.01	A	9	<5
	WBT	2	0.18	A	0	<5	0.22	A	0	<5
	WBR	1	-	-	-	-	<0.01	A	0	<5
	NBL-T	1	-	-	-	-	0.03	C	16	<5
	NBR	1	-	-	-	-	0.22	B	11	<5
	SBL-T	1	<0.01	C	20	<5	-	-	-	-
	SBR	2	-	-	-	-	-	-	-	-
	Int. Summary		-	A	1	-		A	1	-

The Opening Day Post Development analysis indicates that Highway 1A & Mountain Ridge Place will operate within acceptable capacity parameters if there are 300 attendees at any funeral, therefore no changes are recommended to accommodate the proposed development.

### 7.2.2 20 Year Post Development Analysis

The 20-year Post Development intersection capacity analysis is summarized in **Table 7.3**.



**Table 7.3: 20-Year Post Development Intersection Capacity Analysis**

Intersection	Movement & # of Lanes		Pre-Burial Peak hour (1pm-2pm)				Post-Burial Peak hour(2pm-3pm)			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (Signalised)	EBL	1	0.01	B	19	<5	-	-	-	-
	EBT	2	0.33	A	8	33	0.34	A	9	30
	EBR	1	0.01	A	0	<5	<0.01	A	0	<5
	WBL	1	0.44	C	21	31	0.02	B	18	<5
	WBT	2	0.20	A	4	32	0.40	A	7	24
	WBR	1	-	-	-	-	<0.01	A	0	<5
	NBL-T	1	-	-	-	-	0.04	B	16	<5
	NBR	1	-	-	-	-	0.35	A	7	13
	SBL-T	1	0.22	B	16	<5	-	-	-	-
	SBR	1	-	-	-	-	-	-	-	-
	Int. Summary		-	A	7	-		A	9	-

The 20-year Post Development analysis indicates that Highway 1A & Mountain Ridge Place will operate within acceptable capacity parameters even if 300 people were to attend funeral service at the site, therefore no changes are recommended to accommodate the proposed development.

### 7.3 Sensitivity Analysis Conclusion

The analysis shows that even with 300 attendees at a funeral/burial at this site, the intersection of Highway 1A & Mountain Ridge place will operate with acceptable capacity parameters at the Opening Day and 20\_year Post Development horizons, therefore, no changes are proposed to the current geometry or planned signalization at this location.

## 8. IMPACT OF FUNERAL PROCESSION

The existing Muslim Cemetery has no current funeral home. The deceased body is first taken to a different location from the hospital where the body is cleaned and prepared for burial. It is thereafter brought to the cemetery for prayer and burial. The deceased body usually arrives with a funeral procession. This funeral procession also requires 4-6 RCMP cars to control the adjacent traffic. As a result, this causes substantial delays and queues.

When the proposed funeral home is built, the deceased body will come directly from the hospital to the funeral home without a procession. The body processes will take place in the funeral home before the actual funeral service begins. This means there will be no funeral procession to bring the deceased body into the cemetery, as the body will already be at the funeral home right by the cemetery. As a result, no funeral simulation is necessary to analyse the impacts of funeral procession on capacity of Highway 1A/Mountain Ridge Place.

## 9. ALBERTA WARRANTS

### 9.1.1 Illumination Warrant

An illumination warrant was completed at Highway 1A/Mountain Ridge Place based on the Transportation Association of Canada's (TAC) *Illumination of Isolated Rural Intersections* guide. The warrant for illumination is used to determine if lighting at an intersection is required based on several different factors such as geometrics, operations, environmental issues, and collision history. Currently this intersection is not illuminated.

TAC guidelines state full illumination is warranted at unsignalized intersections where a total score of 240 or more points is achieved. Partial or delineation lighting may be considered at intersections with a score of 120 points or more (partial illumination if 80/120 points achieved in Geometric score; delineation lighting if 120+ points achieved in Operational score). For signalised intersection, lighting will be warranted by default.

The illumination warrant result is summarized in **Table 9.1** and are attached in **Appendix B**.

**Table 9.1: Post Development Illumination Warrant Summary**

Intersection	Post Development Horizon	Comment
Opening Day		
Highway 1A & Mountain Ridge Place	The warrant score is 31	Lighting is not warranted
20- Year Horizon		
Highway 1A & Mountain Ridge Place	Signalized	Lighting is automatically warranted

Lighting analysis confirms that illumination is not warranted at this intersection at the Opening Day, but lighting is automatically provided with signalization, assumed to be in place at the 20-year horizon.

## 9.2 Sight Distance Requirements

### Sight Distance Requirements

A sight distance review was undertaken at study area intersections based on the *TAC Geometric Design Guide for Canadian Roads* to confirm the safety of turning movements and through movements on Cimarron Boulevard. The site distance requirements are based on the following:

*Minimum Stopping Sight Distance (SSD)*, which is the distance a vehicle travels from the instant the driver sights an object and decides to stop, to the instant the vehicle comes to a complete stop after applying breaks. SSD includes a perception/reaction time of 2.5 seconds + braking distance. This distance is usually sufficient to allow reasonably competent and alert drivers to come to a hurried stop under ordinary conditions. The minimum stopping sight distance based on travel speeds are as follows:

40 km/h = 45 metres

50 km/h = 65 metres

60 km/h = 85 metres

*Decision Sight Distance (DSD)*, which is utilized in complex situations and is the distance required for a driver to detect an information source or hazard that is difficult to perceive in a roadway environment that might be visually cluttered, recognize the hazard or its threat potential, selection an appropriate action, and complete the manoeuvre safely and efficiently. A range of distances is provided with lower ranges appropriate for less complex situations and the higher range appropriate for more complex situations. Decisions sight distance based on design speeds are as follows:

40 km/h = 110 to 160 metres

50 km/h = 140 to 190 metres

60 km/h = 170 to 230 metres

*Intersection Sight Distance (ISD)*, which is defined as the sight distance required for a vehicle to complete either a crossing or turning manoeuvre safely. Intersection sight distances based on travel speeds and vehicle types are as follows:

40 km/h = 85 metres for passenger vehicle and 110 metres for a single-unit truck design vehicle

50 km/h = 105 metres for passenger vehicle and 135 metres for a single-unit truck design vehicle

60 km/h = 125 metres for passenger vehicle and 160 metres for a single-unit truck design vehicle

Assuming a design speed of 50 km/h (there is no posted speed limit) along Mountain Ridge Place, the sight distance requirements at the study area intersections are outlined in **Table 9.2**.



**Table 9.2: Intersection Sight Distance**

Intersection	Design Speed (km/hr)	Required Sight Distance		Available Sight Dist.	
		Car	Truck	To South	To North
Mountain Ridge Place/Site Access	50	105	135	170	300

The Site Access/Mountain Ridge Place intersection meets all minimum sight distance requirements.

### 9.3 Collision Data

Safety performance along the adjacent road network and study area intersection of Highway 1A/Mountain Ridge Place was reviewed based on collision data obtained from Alberta Transportation from between 2004 and 2013 (included in **Appendix B**).

#### 9.3.1 Highway 1A Location Intersections

There are several local road intersections along Highway 1A within the study area. Collisions that occurred at these intersections are summarized in **Table 9.3**.

**Table 9.3: Highway 1A/Mountain Ridge Intersection Collisions (2004 to 2013)**

Intersections	Number of Collisions	Type of Collisions Reported
Mountain Ridge Place/Highway 1A	7	Animal collision, Read end, Changing manoeuvre, Striking no fixed object

The number of collision reported at Mountain Ridge Place/Highway 1A was 7 in 10 years from 2004-2013. These collisions range from striking animals or fixed objects to rear-ending other vehicles. This means there is less than 1 collision per year at this intersection. Furthermore, no fatal or injury collision has been reported at this intersection. If this trend continues, it is not expected that the modest change in daily traffic volumes as a result of the funeral home would result in any drastic change in collision frequency at this intersection.

### 9.4 Truck Turning Analysis

Bunt & Associates completed truck sweep path for garbage truck as well as fire truck at the site access and it is shown in **Exhibit 9.1** and **Exhibit 9.2**

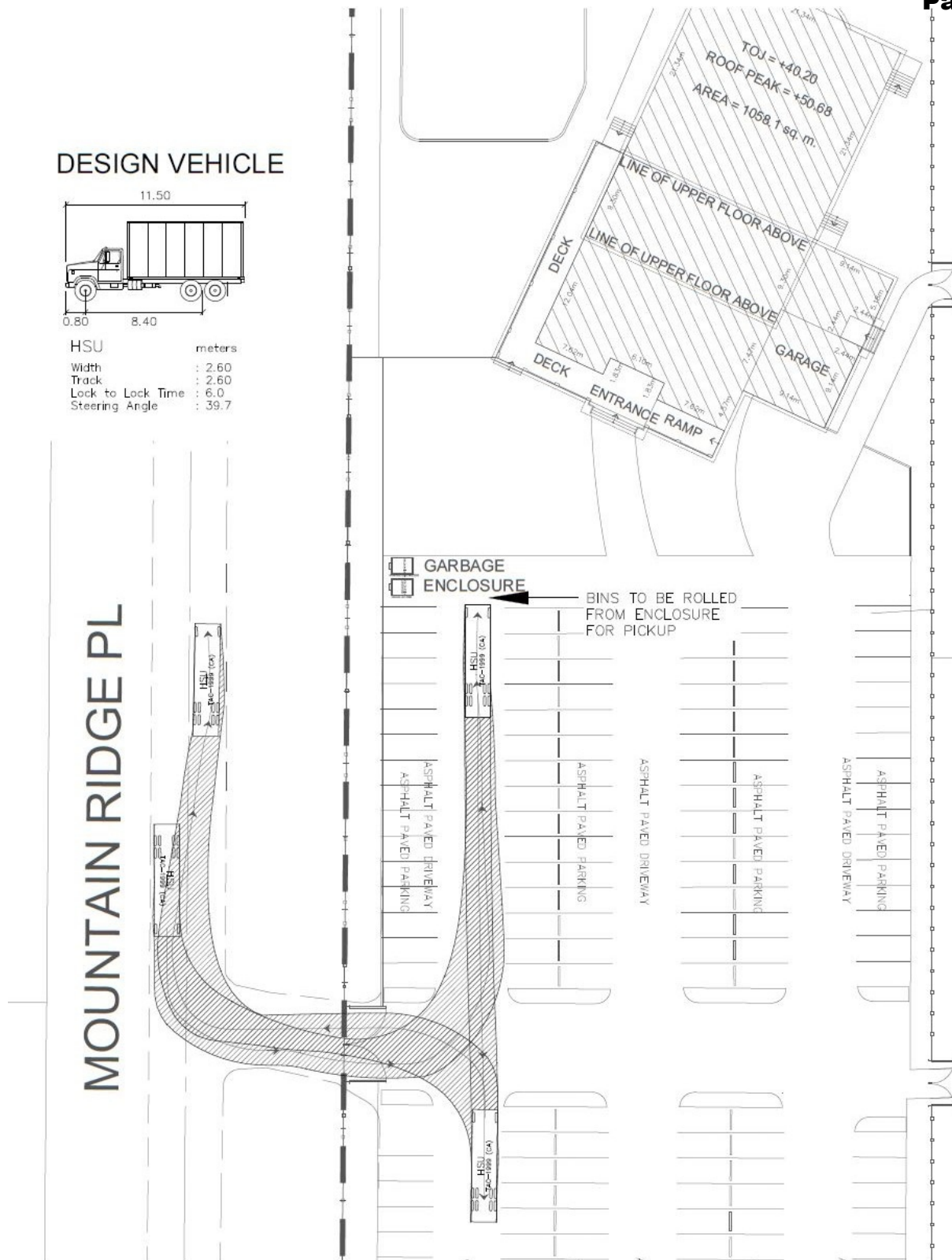


Exhibit 9.1

## Vehicle Turning Analysis - Garbage Truck Manoeuvre





## 9.5 Road Link Analysis

Daily traffic on a roadway is one of the factors that aids in determining road classifications and lane requirements. To confirm whether existing and future traffic can be accommodated by the road capacity, daily traffic volumes were calculated in vehicles per day (vpd) and compared to the County's environmental capacity guidelines. The environmental guidelines represent the limit of comfortable operation of the roadway under most conditions.

The daily volumes for the Mountain Ridge is calculated based on a frequency of once a week funeral service. If the maximum attendees of 300 is assumed, there will be 150 cars coming in and out based on a vehicle occupancy of 2 cars/vehicle. Therefore a total of 300 cars will be on the roadway per week. There are 52 weeks, there fore 15,600 cars for the whole year. To calculate the daily traffic based on the 15,600 cars, we have to divide the 15,600 by 360. This gives about 43 cars per day in the average annual daily traffic. The equation is shown below for clarity.

$$\frac{300 \text{ cars}}{365 \text{ days}} * 52 \text{ weeks} = 43 \text{ cars} - \text{it is rounded to 50 cars.}$$

The results of the daily link analysis are summarized in **Table 9.4**.

**Table 9.4: Road Link Analysis (Opening Day and 20-year)**

Roadway Link	Classification	Environmental Capacity (vpd)	Daily Traffic Volumes (vpd) Existing (post-burial)	Average Annual Daily Traffic Volumes (vpd)	Daily Traffic Volumes (vpd) Post Development	Comment
Highway 1A	4-Lane Highway	<31,000	12,500	970	14,500	Within Capacity
Mountain Ridge Place	2-lane Low Volume Regional	200	10	50	60	Within Capacity

The daily volume analysis confirms all roadway links in the study area will continue to operate within their respective environmental guidelines.



## 10. PARKING

The proposed parking supply was compared with the Rocky View County parking requirement to determine any differences between the number required by the Bylaw and number of spaces provided.

### Motor Vehicle Parking

The bylaw motor vehicle parking exercise is summarized in **Table 10.1**.

**Table 10.1: Rocky View County Parking Guidelines**

Uses	Maximum Number of Attendees	Bylaw Requirement	
		Parking Ratio	# of Stalls
Funeral Home	610	1 per 3 seating spaces	203
Total Supply			273

The bylaw motor vehicle parking requirement is 203 stalls, which is lower than the 273 stalls proposed for the site. Therefore, the proposed parking supply meets the County's bylaw parking requirement.

It is our understanding that currently the funeral home attendees are parking on the street on Mountain Ridge Place instead of the parking lot. This is mainly to avoid the surge of traffic leaving the funeral parking lot after the burial service. In order to mitigate this on-street parking problem the following solutions are proposed:

- Install "don't park here" signage about 100 metres north and south of the site access on Mountain Ridge Place near the signs to stop people from parking.
- Install "free funeral parking" sign with an arrow before and at the site access to show there are spaces in the parking lots.
- During busy funeral days, employ traffic controller or patrol for pre-burial and post-burial peak hours to direct vehicles into the parking lot.

With this changes in place, more attendees will park in the parking lot.

## 11. CONCLUSION

Cubit Design Group is seeking a Traffic Impact Study for a site located at 260040 Mountain Ridge Pl, Cochrane, AB T4C 1W5 in Rocky View County. The proposed development will be a 11,300 square metres (14,000 square feet) Funeral Home.

Bunt & Associates completed a Traffic Impact Analysis to address the impacts vehicular traffic generated by the proposed development on Mountain Ridge Place and its intersection of Highway 1A.

Capacity analysis at Highway 1A/Mountain Ridge Place for existing as well as post development scenarios show that the intersection can accommodate the development's traffic without any changes to the existing geometry or controls. The intersection will operate within acceptable capacity parameters at 20-year horizon with this development traffic volumes.

Illumination warrant results at the intersection of Mountain Ridge/Site access indicates no lighting required until the intersection is signalised in the 20 year horizon.

Site Distance analysis results indicates that the Site Access/Highway 1A intersection meets all minimum sight distance requirements.

The bylaw motor vehicle parking requirement is 203 stalls for a maximum of 300 attendees, which is lower than the 273 stalls proposed for the site. Therefore, the proposed parking supply meets the County's bylaw parking requirement.

# APPENDIX A

## Scope Correspondence

Wednesday, January 18, 2017 at 3:11:23 PM Mountain Standard Time

**Subject:** FW: Funeral Home**Date:** Wednesday, January 18, 2017 at 3:08:36 PM Mountain Standard Time**From:** Ezekiel Dada**To:** Nazia Ahsan

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**From:** "MHabrylo@rockyview.ca" <MHabrylo@rockyview.ca>**Date:** Friday, December 2, 2016 at 4:32 PM**To:** Ezekiel Dada <edada@bunteng.com>, Trevor Richelhof <Trevor.Richelhof@gov.ab.ca>**Cc:** "clarke.bullock@gov.ab.ca" <clarke.bullock@gov.ab.ca>, "Jerry.Lau@gov.ab.ca" <Jerry.Lau@gov.ab.ca>, "khalil@cubitdesign.com" <khalil@cubitdesign.com>, Amrit Uppal <auppal@bunteng.com>**Subject:** RE: Funeral Home

Hello Ezekiel,

Thank you for your email. Your summary of the application is correct.

I would also include in your scope the existing condition of Mountain Ridge Place and the ability of this road to provide road parking, if not please provide recommendations of what should be done to prevent this? (i.e. no parking signs), which ties into insuring that the site has enough parking with in.

Thank you,

**MICHELE HABRYLO, E.I.T.**

Municipal Engineer | Engineering Services

**ROCKY VIEW COUNTY**

911 - 32 Avenue NE | Calgary | AB | T2E 6X6

Phone: 403-520-7279

mhabrylo@rockyview.ca | [www.rockyview.ca](http://www.rockyview.ca)

-  
This e-mail, including any attachments, may contain information that is privileged and confidential. If you are not the intended recipient, any dissemination, distribution or copying of this information is prohibited and unlawful. If you received this communication in error, please reply immediately to let me know and then delete this e-mail. Thank you.

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**From:** Ezekiel Dada [<mailto:edada@bunteng.com>]**Sent:** Thursday, December 1, 2016 3:11 PM**To:** Trevor Richelhof; Michele Habrylo**Cc:** Clarke Bullock; Jerry Lau; Khalil Ladan; Amrit Uppal**Subject:** Funeral Home

Hi Trevor and Michele,

We have just been asked to provide a TIA for a funeral home located on Mountain Ridge Place, on the south side of Highway 1A. Our understanding is that the DP was approved by Rocky View County but appealed by residents of Mountain Ridge Place. As part of the condition to continue with the appeal hearing, the Development Appeal Board (DAB) requested a TIA and a decision from AT respecting the roadside development. I attached the site plan and DAB decision for your reference.

Our plan is to complete a TIA consistent with the County and AT's guidelines. We will analyze the intersection of Highway 1A/Mountain Ridge Place and site access for Existing and Opening Day horizons. We will comment on the adequacy of proposed parking supply and recommend how to manage traffic and parking on occasions where more than 100 cars show up at the funeral home.



We note that this is an existing site where gathering for funeral has been taking place without a shelter. The funeral home is to provide a sheltered place for mourners, away from the elements. Funeral services and burial will continue to occur between 1 and 3 PM, outside of the PM peak hour. The frequency of burial ceremony is maximum of once a week (usually less frequently)

Please let me know what Alberta Transportation and the County would like to see in the TIA.

Cheers,

**Ezekiel Dada, Ph.D., P.Eng. | Senior Associate**

**Bunt & Associates Engineering (Alberta) Ltd.**

Suite 400 - 11012 Macleod Trail SE, Calgary, AB, Canada T2J 6A5

p 587.349.7571 f 403.252.3323 | [www.bunteng.com](http://www.bunteng.com)

Wednesday, January 18, 2017 at 3:11:37 PM Mountain Standard Time

**Subject:** FW: Funeral Home**Date:** Wednesday, January 18, 2017 at 3:08:54 PM Mountain Standard Time**From:** Ezekiel Dada**To:** Nazia Ahsan

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**From:** Trevor Richelhof <[Trevor.Richelhof@gov.ab.ca](mailto:Trevor.Richelhof@gov.ab.ca)>**Date:** Friday, December 2, 2016 at 10:00 AM**To:** Ezekiel Dada <[edada@bunteng.com](mailto:edada@bunteng.com)>, "MHabrylo@rockyview.ca" <[MHabrylo@rockyview.ca](mailto:MHabrylo@rockyview.ca)>**Cc:** Clarke Bullock <[clarke.bullock@gov.ab.ca](mailto:clarke.bullock@gov.ab.ca)>, Jerry Lau <[Jerry.Lau@gov.ab.ca](mailto:Jerry.Lau@gov.ab.ca)>, Khalil Ladan <[khalil@cubitdesign.com](mailto:khalil@cubitdesign.com)>, Amrit Uppal <[auppal@bunteng.com](mailto:auppal@bunteng.com)>**Subject:** RE: Funeral Home

Ezekiel, the Alberta Transportation TIA Guideline should be the basis for preparing your traffic impact assessment, as well as identifying any special requirements to accommodate funeral processions.

This would not supersede / override any requirements of Rocky View County.

Thanks,

---

**Trevor Richelhof**

Development / Planning Technologist

Delivery Services, Southern Region

Alberta Transportation

Government of Alberta

2<sup>nd</sup> Floor, 803 Manning Road NE, Calgary AB T2E 7M8

Tel 403-297-6311

Fax 403-297-7682

[Trevor.Richelhof@gov.ab.ca](mailto:Trevor.Richelhof@gov.ab.ca)**511 Alberta - Alberta's Official Road Reports**Go to [511.alberta.ca](http://511.alberta.ca) and follow [@511Alberta](https://twitter.com/511Alberta)

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**From:** Ezekiel Dada [<mailto:edada@bunteng.com>]**Sent:** Thursday, December 01, 2016 3:11 PM**To:** Trevor Richelhof; [MHabrylo@rockyview.ca](mailto:MHabrylo@rockyview.ca)**Cc:** Clarke Bullock; Jerry Lau; Khalil Ladan; Amrit Uppal**Subject:** Funeral Home

Hi Trevor and Michele,

We have just been asked to provide a TIA for a funeral home located on Mountain Ridge Place, on the south side of Highway 1A. Our understanding is that the DP was approved by Rocky View County but appealed by residents of Mountain Ridge Place. As part of the condition to continue with the appeal hearing, the Development Appeal Board (DAB) requested a TIA and a decision from AT respecting the roadside development. I attached the site plan and DAB decision for your reference.

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Please let me know what Alberta Transportation and the County would like to see in the TIA.

Cheers,

**Ezekiel Dada, Ph.D., P.Eng. | Senior Associate**

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<http://511.alberta.ca/ab/en.html>

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# APPENDIX B

AT Warrants



## Illumination of Isolated Rural Intersections

### LIGHTING WARRANT SPREADSHEET

This spreadsheet is to be used in conjunction with *Illumination of Isolated Rural Intersections*, Transportation Association of Canada, February 2001.

Please enter information in the cells with yellow background

#### INTERSECTION CHARACTERISTICS

Highway 1A	Main Road
Mountain Ridge Place	Minor Road
Rocky View County	City/Town

Date 15-12-2016

Other 20 yr Analysis

#### GEOMETRIC FACTORS

	Value	Rating	Weight	Comments	Check	Score
Channelization Rating	Descriptive	0		Refer to Table 1(A) to determine rating value	OK	
Presence of raised channelization? ( Y / N )	n				OK	
Highest operating speed on raised, channelized approach (km/h)	0		5		OK	
Channelization Factor					OK	0
Approach Sight Distance on most constrained approach (%)	300	0	10	Relative to the recommended minimum sight distance	OK	0
Posted Speed limit (in 10's of km/h)	100				OK	
Radius of Horizontal Curve (m)	T			Enter "T" for tangent (no horizontal curve at the intersection)	OK	
Posted Speed Category =		0				
Posted Speed Category =	B	0				
Posted Speed Category =		0				
Posted Speed Category =		0				
Horizontal Curvature Factor		0	5		OK	0
Angle of Intersection (10's of Degrees)	90	0	5		OK	0
Downhill Approach Grade (x.x%)	0.0	0	3	Rounded to nearest tenth of a percent	OK	0
Number of Intersection Legs	4	2	3	Number of legs = 3 or more	OK	6
Geometric Factors Subtotal						6

#### OPERATIONAL FACTORS

Is the intersection signalized ? ( Y / N )	y			Illumination is Warranted		
AADT on Major Road (2-way)	28,000	4	10		OK	40
AADT on Minor Road (2-way)	200	0	20	Either Use the two AADT inputs OR the Descriptive Signalization	OK	0
Signalization Warrant	Descriptive		30	Warrant (Unused values should be set to Zero) Refer to Table 1(B) for description and rating values for signalization warrant.	OK	0
Night-Time Hourly Pedestrian Volume	0	0	10	Refer to Table 1(B), note #2, to account for children and seniors	OK	0
Intersecting Roadway Classification	Descriptive	2	5	Refer to Table 1(B) for ratings.	OK	10
Operating Speed or Posted Speed on Major Road (km/h)	100	4	5	Refer to Table 1(B), note #3	OK	20
Operating Speed on Minor Road (km/h)	50	0	5	Refer to Table 1(B), note #3	OK	0
Operational Factors Subtotal						70

#### ENVIRONMENTAL FACTOR

Lighted Developments within 150 m radius of intersection	0	0	5	Maximum of 4 quadrants	OK	0
Environmental Factor Subtotal						0

#### COLLISION HISTORY

Average Annual night-time collision frequency due to inadequate lighting (collisions/yr, rounded to nearest whole # )	0.0	0	0	Enter either the annual frequency (See Table 1(C), note #4) OR	OK	0
OR				the number of collisions / MEV (Unused	OK	0
Collision Rate over last 3 years, due to inadequate lighting (/MEV)	0	0	0	values should be set to Zero)	OK	0
Is the average ratio of all night to day collisions >= 1.5 (Y/N)	n	0			OK	
Collision History Subtotal						0

Check Intersection Signalization:  
Intersection is Signalized

**FULL ILLUMINATION WARRANTED**

#### SUMMARY

Geometric Factors Subtotal	6
Operational Factor Subtotal	70
Environmental Factor Subtotal	0
Collision History Subtotal	0

**TOTAL POINTS 76**

# APPENDIX C

## Traffic Counts

# Intersection Turning Movement Count Summary:

**N/S Road:** Mountain Ridge Place  
**E/W Road:** Highway 1A  
**Count Date:** December 13, 2016 Tuesday  
**Weather:** Cloudy  
**Road Cond:** Good  
**Project #:** 1634-01

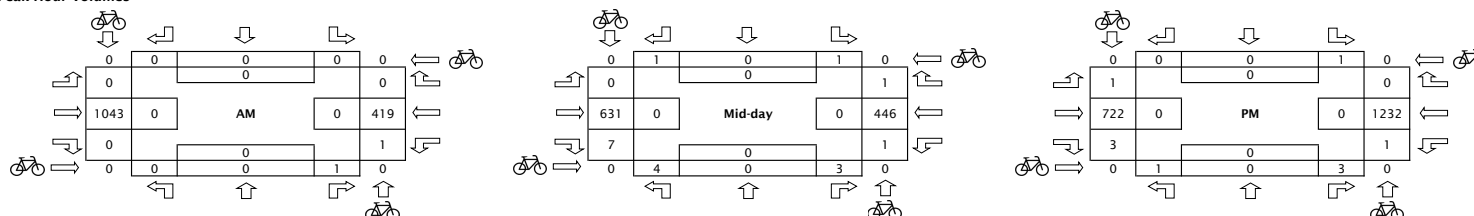
**Mountain Ridge Place & Highway 1A**  
**AM Peak Hr:** 7:00 AM to 8:00 AM  
**Mid-day Peak Hr:** 11:00 AM to 12:00 PM  
**PM Peak Hr:** 4:30 PM to 5:30 PM

**PHF (AM Peak Hr):** 0.95  
**PHF (Mid-day Peak Hr):** 0.91  
**PHF (PM Peak Hr):** 0.98

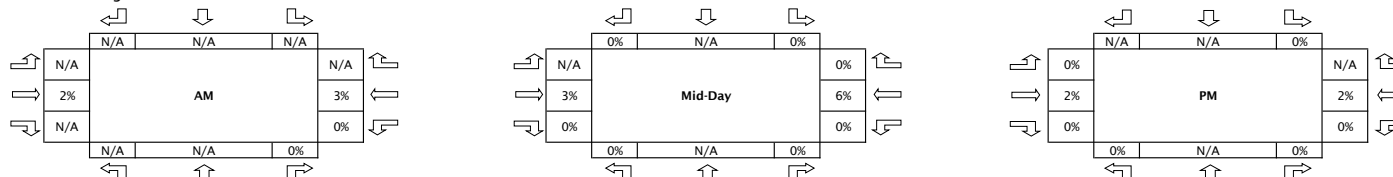


	Mountain Ridge Place														Highway 1A														Total Vehicles			
Time Starting	Northbound (South Leg)							Southbound (North Leg)							Eastbound (West Leg)							Westbound (East Leg)										
	Left		Through		Right		-	Left		Through		Right		-	Left		Through		Right		-	Left		Through		Right		-				
	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Cycle	Peds	15 Min	Hourly		
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	291	7	0	0	0	0	61	3	0	0	0	0	363	
7:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	276	8	0	0	0	0	93	2	0	0	0	0	380	
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	6	0	0	0	0	108	2	0	0	0	0	336	
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	233	2	0	0	0	0	145	5	0	0	0	0	385	
8:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	205	3	1	0	0	0	115	4	0	0	0	0	330	
8:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	205	1	0	0	0	0	1	1	150	14	0	0	373	
8:30	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	158	0	0	0	0	0	159	17	0	0	0	0	338	
8:45	1	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	0	1	187	5	1	0	0	0	1	1	133	8	0	0	0	342
2 hr Total	3	0	0	0	1	6	0	0	0	1	0	0	0	0	1	0	0	2	1775	32	2	0	0	0	3	2	964	55	0	0	0	0
2 hr Total Veh	3	0	0	0	1	6	0	0	0	1	0	0	0	0	1	0	0	2	1807	32	2	0	0	0	5	2	1019	55	0	0	0	2847
Peak hr Total	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1020	23	0	0	0	0	1	0	407	12	0	0	0	0
Peak hr Total Veh	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1043	23	0	0	0	0	1	0	419	12	0	0	0	1464
11:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	144	3	1	0	0	0	1	0	91	7	0	0	0	248
11:15	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	167	11	2	0	0	0	0	0	111	5	1	0	0	300
11:30	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	151	2	1	0	0	0	0	0	95	5	0	0	0	256
11:45	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	149	4	3	0	0	0	0	0	122	10	0	0	0	291
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	6	0	0	0	0	1	0	108	2	0	0	0	237
12:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	5	0	0	0	0	0	0	111	4	0	0	0	279
12:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	139	3	1	0	0	0	0	0	113	5	0	0	0	262
12:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	114	7	0	0	0	0	0	0	130	5	1	0	0	258
2 hr Total	5	0	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	1142	41	8	0	0	0	2	0	881	43	2	2	0	0
2 hr Total Veh	5	0	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	1183	41	8	0	0	0	2	0	924	43	2	2	0	2131
Peak hr Total	4	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	611	20	7	0	0	0	1	0	419	27	1	1	0	0
Peak hr Total Veh	4	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	631	20	7	0	0	0	1	0	446	27	1	1	0	1095
16:00	1	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	163	11	2	1	1	0	0	0	262	5	0	0	0	450
16:15	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	145	3	5	0	0	0	0	0	331	6	0	0	0	493
16:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	168	3	0	0	0	0	0	0	287	8	0	0	0	467
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	2	0	0	0	0	0	1	307	12	0	0	0	502
17:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	164	2	2	0	0	0	0	0	323	1	0	0	0	494
17:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	199	4	1	0	0	0	0	0	293	1	0	0	0	501
17:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	150	2	0	0	0	0	0	0	279	2	0	0	0	434
17:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	169	6	1	0	0	0	0	1	174	0	0	0	0	353
2 hr Total	3	0	0	0	11	1	0	0	0	2	0	0	0	0	0	0	0	1	1338	33	11	1	1	0	2	2	2256	35	0	0	0	0
2 hr Total Veh	3	0	0	0	12	1	0	0	0	2	0	0	0	0	0	0	0	1	1371	33	12	1	1	0	2	2	2291	35	0	0	0	3694
Peak hr Total	1	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	1	711	11	3	0	0	0	1	0	1210	22	0	0	0	0
Peak hr Total Veh	1	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	1	722	11	3	0	0	0	1	0	1232	22	0	0	0	1964
6 hr Total	11	0	0	1	22	1	0	0	0	4	0	0	0	0	0	0	0	3	4255	106	21	1	1	0	7	2	4101	133	2	2	0	0
6 hr Total Veh	11	0	0	1	23	1	0	0	0	4	0	0	0	0	0	0	0	3	4361	106	22	1	1	0	9	2	4234	133	2	2	0	8672

Peak Hour Volumes



Heavy Vehicle Percentage





**Intersection Turning Movement Count Summary:**

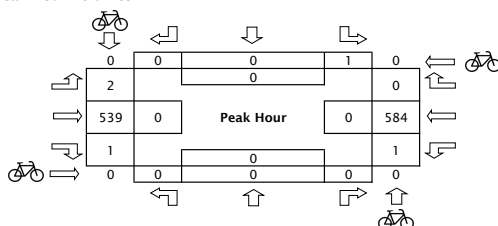
**N/S Road:** Mountain Ridge Place  
**E/W Road:** Highway 1A  
**Count Date:** December 13, 2016 Tuesday  
**Weather:** Cloudy  
**Road Cond:** Good  
**Project #:** 1634-01

**Mountain Ridge Place & Highway 1A**

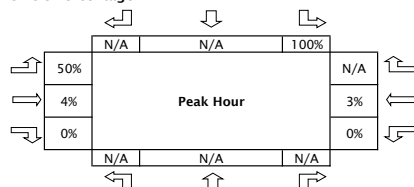
**Peak Hour:** 1:00 PM to 2:00 PM  
**Overall PHF:** 0.94  
**Count Period:** 12:00 PM to 4:00 PM

Time Starting	Mountain Ridge Place																Highway 1A																Total Vehicles	
	Northbound (South Leg)								Southbound (North Leg)								Eastbound (West Leg)								Westbound (East Leg)									
	Left		Through		Right				Left		Through		Right				Left		Through		Right				Left		Through		Right					
	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Cycle	Peds				
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	9	0	0	0	0	0	0	137	7	0	0	0	0		
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	137	3	1	0	0	0	0	0	140	5	0	0	0	0		
13:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	121	7	0	0	0	0	0	0	0	144	4	0	0	0	0		
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	4	0	0	0	0	1	0	143	4	0	0	0	0	0		
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4 hr Total	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	1	516	23	1	1	0	0	0	1	1	564	20	0	0	0	
4 hr Total Veh	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2	539	23	1	1	0	0	1	1	584	20	0	0	0	0		
Peak hr Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	2	1	516	23	1	1	0	0	1	1	564	20	0	0	0	0	
Peak hr Total Veh	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2	539	23	1	1	0	0	1	1	584	20	0	0	0	0		

**Peak Hour Volumes**



**Heavy Vehicle Percentage**







Intersection Turning Movement Count Summary:

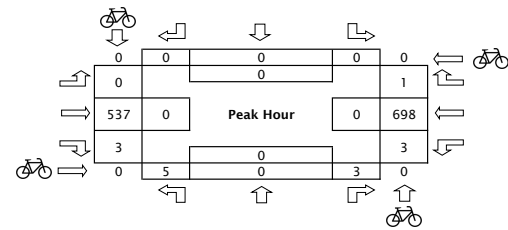
N/S Road: Mountain Ridge Place  
E/W Road: Highway 1A  
Count Date: December 13, 2016 Tuesday  
Weather: Cloudy  
Road Cond: Good  
Project #: 1634-01

Mountain Ridge Place & Highway 1A

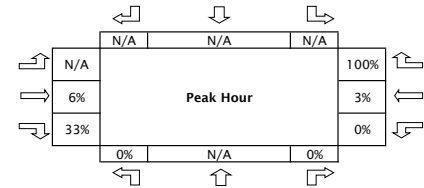
Peak Hour: 2:00 PM to 3:00 PM  
Overall PHF: 0.91  
Count Period: 1:00 PM to 5:00 PM

Time Starting	Mountain Ridge Place																Highway 1A																Total Vehicles	
	Northbound (South Leg)								Southbound (North Leg)								Eastbound (West Leg)								Westbound (East Leg)									
	Left		Through		Right		-		Left		Through		Right		-		Left		Through		Right		-		Left		Through		Right		-			
	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Cycle	Peds				
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	9	0	0	0	0	0	0	137	7	0	0	0	0	301	Hourly
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	137	3	1	0	0	0	0	0	140	5	0	0	0	0	287		
13:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	121	7	0	0	0	0	0	0	144	4	0	0	0	0	278		
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	4	0	0	0	0	1	0	143	4	0	0	0	0	262		
14:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	7	1	1	0	0	1	0	137	6	0	0	0	0	275		
14:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	126	6	0	0	0	0	1	0	174	8	0	0	0	0	316		
14:30	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	130	9	1	0	0	0	1	0	168	3	0	0	0	0	315		
14:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	12	0	0	0	0	0	0	200	2	0	1	0	0	344		
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	975		
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	659		
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	344		
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4 hr Total	5	0	0	0	3	0	0	0	0	1	0	0	0	0	0	1	1	1019	57	3	1	0	0	4	0	1243	39	0	1	0	0	0	0	
4 hr Total Veh	5	5	0	0	3	3			1	0	0	0	0	0	2	2	1076	57	4	4	0	0	4	0	1282	39	1	1	0	0	0	2378	0	
Peak hr Total	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	503	34	2	1	0	0	3	0	679	19	0	1	0	0	0	0	
Peak hr Total Veh	5	5	0	0	3	3			0	0	0	0	0	0	0	0	0	537	34	3	1	0	0	3	3	698	1	0	0	0	0	1250	0	

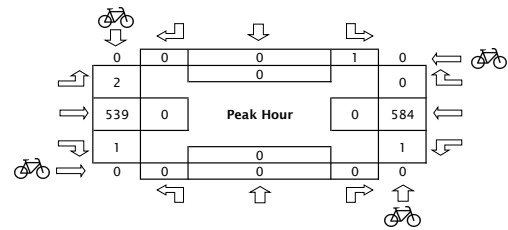
Peak Hour Volumes 2:00:00 PM to 3:00 PM



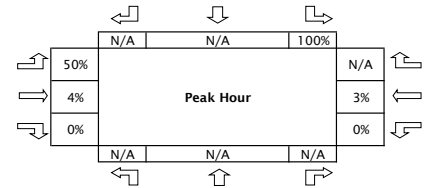
Heavy Vehicle Percentage



Peak Hour Volumes 1:00 PM to 2:00 PM



Heavy Vehicle Percentage



Intersection Turning Movement Count Summary:

N/S Road: Mountain Ridge Place  
E/W Road: Highway 1A  
Count Date: December 13, 2016 Tuesday  
Weather: Cloudy  
Road Cond: Good  
Project #: 1634-01

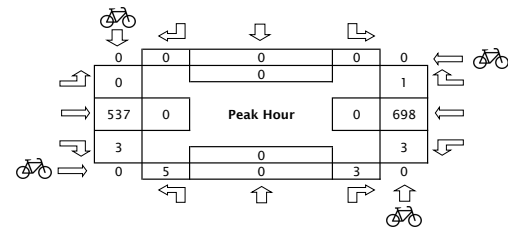
Mountain Ridge Place & Highway 1A

Peak Hour: 2:00 PM to 3:00 PM  
Overall PHF: 0.91  
Count Period: 12:00 PM to 4:00 PM

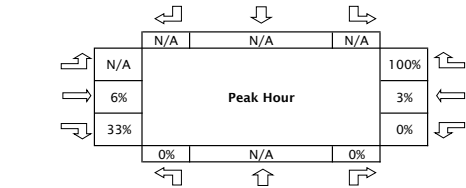


Time Starting	Mountain Ridge Place																Highway 1A																Total Vehicles	
	Northbound (South Leg)								Southbound (North Leg)								Eastbound (West Leg)								Westbound (East Leg)									
	Left		Through		Right		-		Left		Through		Right		-		Left		Through		Right		-		Left		Through		Right		-			
	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds	Car	Truck	Car	Truck	Car	Truck	Cycle	Peds		
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	7	1	1	0	0	1	0	137	6	0	0	0	0	275	
14:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	126	6	0	0	0	0	1	0	174	8	0	0	0	0	316	
14:30	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	130	9	1	0	0	0	1	0	168	3	0	0	0	0	315	
14:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	12	0	0	0	0	0	0	200	2	0	1	0	0	344	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	975	
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	659	
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	344	
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 hr Total	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	503	34	2	1	0	0	3	0	679	19	0	1	0	0		
4 hr Total Veh	5	0	0	0	3	0			0	0	0	0	0	0			0	0	537		3				3		698		1				1250	
Peak hr Total	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	503	34	2	1	0	0	3	0	679	19	0	1	0	0		
Peak hr Total Veh	5	0	0	0	3	0			0	0	0	0	0	0			0	0	537		3				3		698		1				1250	

Peak Hour Volumes



Heavy Vehicle Percentage












# APPENDIX D

## Synchro Outputs

1: Mountain Ridge PI  
1/18/2017



























Post-Burial Analysis (2pm-3pm)  
Long Term Post Development -Sensitivity

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	100	11	0	0	0
Future Volume (Veh/h)	0	100	11	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	105	12	0	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	12	12			12	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	12	12			12	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1000	1060			1587	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	105	12	0			
Volume Left	0	0	0			
Volume Right	105	0	0			
cSH	1060	1700	1700			
Volume to Capacity	0.10	0.01	0.00			
Queue Length 95th (m)	2.6	0.0	0.0			
Control Delay (s)	8.8	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	8.8	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		7.9				
Intersection Capacity Utilization		16.4%		ICU Level of Service		A
Analysis Period (min)		15				















2: Mountain Ridge PI & Hwy 1A  
1/18/2017

Post-Burial Analysis (2pm-3pm)  
Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	0	752	4	4	977	1	12	0	149	0	0	0
Future Volume (vph)	0	752	4	4	977	1	12	0	149	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	1781	4863	1514	1692	4863	1514	0	1692	1514	0	1781	1781
Flt Permitted				0.950				0.757				
Satd. Flow (perm)	1781	4863	1514	1692	4863	1514	0	1349	1514	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			121			157			
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	792	4	4	1028	1	13	0	157	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	792	4	4	1028	1	0	13	157	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm			Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)		22.8	22.8	7.1	24.8	24.8		10.2	10.2			
Actuated g/C Ratio		0.48	0.48	0.15	0.53	0.53		0.22	0.22			
v/c Ratio		0.34	0.01	0.02	0.40	0.00		0.04	0.35			
Control Delay		8.7	0.0	18.0	7.2	0.0		15.8	6.3			
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay		8.7	0.0	18.0	7.2	0.0		15.8	6.3			
LOS		A	A	B	A	A		B	A			
Approach Delay		8.7			7.3			7.1				
Approach LOS		A			A			A				
Queue Length 50th (m)		12.3	0.0	0.3	16.9	0.0		0.8	0.0			
Queue Length 95th (m)		29.7	0.0	2.5	23.5	0.0		4.8	12.4			

2: Mountain Ridge PI & Hwy 1A  
1/18/2017

Post-Burial Analysis (2pm-3pm)  
Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)	576.0			701.0			436.1			41.0		
Turn Bay Length (m)	130.0			130.0			130.0			10.0		
Base Capacity (vph)	4812			1499			364			4618		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.16			0.00			0.01			0.22		

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 47.2

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 7.8







Intersection LOS: A

Intersection Capacity Utilization 37.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Mountain Ridge PI & Hwy 1A










 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s

1: Mountain Ridge PI

Pre-Burial Analysis (1pm-2pm)

1/18/2017

Long Term Post Development -Sensitivity



























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	100	1
Future Volume (Veh/h)	0	0	0	0	100	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	0	105	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	211	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	211	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			93	
cM capacity (veh/h)	720	1076			1604	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	0	0	106			
Volume Left	0	0	105			
Volume Right	0	0	0			
cSH	1700	1700	1604			
Volume to Capacity	0.00	0.00	0.07			
Queue Length 95th (m)	0.0	0.0	1.7			
Control Delay (s)	0.0	0.0	7.3			
Lane LOS	A		A			
Approach Delay (s)	0.0	0.0	7.3			
Approach LOS	A					
Intersection Summary						
Average Delay		7.3				
Intersection Capacity Utilization		9.1%		ICU Level of Service		A
Analysis Period (min)		15				

## 2: Mountain Ridge PI &amp; Hwy 1A

## Pre-Burial Analysis (1pm-2pm)













1/18/2017

Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	3	755	6	146	818	0	0	0	0	1	0	0
Future Volume (vph)	3	755	6	146	818	0	0	0	0	1	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected	0.950			0.950							0.950	
Satd. Flow (prot)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1692	1781
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73									
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	3	795	6	154	861	0	0	0	0	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	795	6	154	861	0	0	0	0	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm			Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	7.2	23.0	23.0	9.7	41.0						10.2	
Actuated g/C Ratio	0.15	0.49	0.49	0.21	0.88						0.22	
v/c Ratio	0.01	0.33	0.01	0.44	0.20						0.00	
Control Delay	18.7	8.7	0.0	20.7	3.6						16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0						0.0	
Total Delay	18.7	8.7	0.0	20.7	3.6						16.0	
LOS	B	A	A	C	A						B	
Approach Delay		8.7			6.2						16.0	
Approach LOS		A			A						B	
Queue Length 50th (m)	0.2	11.6	0.0	9.4	0.0						0.1	
Queue Length 95th (m)	2.2	32.7	0.0	30.6	32.1						1.2	

2: Mountain Ridge PI & Hwy 1A  
1/18/2017

Pre-Burial Analysis (1pm-2pm)  
Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		576.0			701.0			436.1			41.0	
Turn Bay Length (m)	130.0		130.0	130.0								
Base Capacity (vph)	595	4823	1502	371	4611						391	
Starvation Cap Reductn	0	0	0	0	0						0	
Spillback Cap Reductn	0	0	0	0	0						0	
Storage Cap Reductn	0	0	0	0	0						0	
Reduced v/c Ratio	0.01	0.16	0.00	0.42	0.19						0.00	

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 46.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 7.3







Intersection LOS: A

Intersection Capacity Utilization 46.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Mountain Ridge PI & Hwy 1A























 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s



3: Mountain Ridge Place & Highway 1A

1/18/2017

























Baseline

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1043	0	1	419	0	0	0	1	0	0	0
Future Volume (Veh/h)	0	1043	0	1	419	0	0	0	1	0	0	0
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1098	0	1	441	0	0	0	1	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised			Raised								
Median storage veh	1			1								
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	441			1098			1320	1541	549	993	1541	220
vC1, stage 1 conf vol							1098	1098		443	443	
vC2, stage 2 conf vol							222	443		550	1098	
vCu, unblocked vol	441			1098			1320	1541	549	993	1541	220
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1130			643			195	222	485	331	221	790
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	0	549	549	0	1	220	220	0	0	1	0	0
Volume Left	0	0	0	0	1	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0	0	0	1	0	0
cSH	1700	1700	1700	1700	643	1700	1700	1700	1700	485	1700	1700
Volume to Capacity	0.00	0.32	0.32	0.00	0.00	0.13	0.13	0.00	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	12.4	0.0	0.0
Lane LOS				B						A	B	A
Approach Delay (s)	0.0				0.0				12.4		0.0	
Approach LOS							B			A		
Intersection Summary												
Average Delay				0.0								
Intersection Capacity Utilization				39.6%	ICU Level of Service						A	
Analysis Period (min)				15								

3: Mountain Ridge Place & Highway 1A

1/18/2017

Baseline



























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	1	722	3	1	1232	0	1	0	3	1	0	0
Future Volume (Veh/h)	1	722	3	1	1232	0	1	0	3	1	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	760	3	1	1297	0	1	0	3	1	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		Raised			Raised							
Median storage veh		1			1							
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1297			763			1412	2061	380	1684	2064	648
vC1, stage 1 conf vol							762	762		1299	1299	
vC2, stage 2 conf vol							650	1299		385	765	
vCu, unblocked vol	1297			763			1412	2061	380	1684	2064	648
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	99	100	100
cM capacity (veh/h)	541			859			225	159	624	141	159	418
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	1	380	380	3	1	648	648	0	1	3	1	0
Volume Left	1	0	0	0	1	0	0	0	1	0	1	0
Volume Right	0	0	0	3	0	0	0	0	0	3	0	0
cSH	541	1700	1700	1700	859	1700	1700	1700	225	624	141	1700
Volume to Capacity	0.00	0.22	0.22	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.01	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0
Control Delay (s)	11.7	0.0	0.0	0.0	9.2	0.0	0.0	0.0	21.0	10.8	30.7	0.0
Lane LOS	B				A				C	B	D	A
Approach Delay (s)	0.0				0.0				13.4		30.7	
Approach LOS									B		D	
Intersection Summary												
Average Delay			0.1									
Intersection Capacity Utilization			45.0%		ICU Level of Service				A			
Analysis Period (min)			15									

## 2: Mountain Ridge PI &amp; Hwy 1A

## Pre-Burial Analysis (1pm-2pm)

1/18/2017













Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	3	755	4	98	818	0	0	0	0	1	0	0
Future Volume (vph)	3	755	4	98	818	0	0	0	0	1	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected	0.950			0.950							0.950	
Satd. Flow (prot)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1692	1781
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73									
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	3	795	4	103	861	0	0	0	0	1	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	795	4	103	861	0	0	0	0	0	1	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm			Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	7.2	27.3	27.3	8.1	39.9						10.2	
Actuated g/C Ratio	0.16	0.60	0.60	0.18	0.88						0.23	
v/c Ratio	0.01	0.27	0.00	0.34	0.20						0.00	
Control Delay	18.3	7.4	0.0	20.2	3.6						16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0						0.0	
Total Delay	18.3	7.4	0.0	20.2	3.6						16.0	
LOS	B	A	A	C	A						B	
Approach Delay		7.4			5.4						16.0	
Approach LOS		A			A						B	
Queue Length 50th (m)	0.2	9.6	0.0	6.1	0.0						0.1	
Queue Length 95th (m)	2.2	32.7	0.0	21.7	32.1						1.2	

\\servercal3\Project Files\1634 Cubit Design Group\01 Funeral Home at Mountain Ridge Place TIA\A\Synchro\2036 PD\LT Post Development\Pre-Burial.syn  
 Synchro 9 Report NA

2: Mountain Ridge PI & Hwy 1A  
1/18/2017

Pre-Burial Analysis (1pm-2pm)  
Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		576.0			701.0			436.1			41.0	
Turn Bay Length (m)	130.0		130.0	130.0								
Base Capacity (vph)	612	4828	1504	382	4685						403	
Starvation Cap Reductn	0	0	0	0	0						0	
Spillback Cap Reductn	0	0	0	0	0						0	
Storage Cap Reductn	0	0	0	0	0						0	
Reduced v/c Ratio	0.00	0.16	0.00	0.27	0.18						0.00	

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 45.2

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 6.3







Intersection LOS: A

Intersection Capacity Utilization 44.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Mountain Ridge PI & Hwy 1A










 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s

1: Mountain Ridge PI

Pre-Burial Analysis (1pm-2pm)

1/18/2017

Long Term Post Development

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	100	1
Future Volume (Veh/h)	0	0	0	0	100	1
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	0	105	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	211	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	211	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			93	
cM capacity (veh/h)	720	1076			1604	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	0	0	106			
Volume Left	0	0	105			
Volume Right	0	0	0			
cSH	1700	1700	1604			
Volume to Capacity	0.00	0.00	0.07			
Queue Length 95th (m)	0.0	0.0	1.7			
Control Delay (s)	0.0	0.0	7.3			
Lane LOS	A		A			
Approach Delay (s)	0.0	0.0	7.3			
Approach LOS	A					
Intersection Summary						
Average Delay		7.3				
Intersection Capacity Utilization		9.1%		ICU Level of Service		A
Analysis Period (min)		15				












1: Mountain Ridge PI

Post-Burial Analysis (2pm-3pm)

1/18/2017



























Long Term Post Development

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	100	11	0	0	0
Future Volume (Veh/h)	0	100	11	0	0	0
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	105	12	0	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	12	12			12	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	12	12			12	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1000	1060			1587	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	105	12	0			
Volume Left	0	0	0			
Volume Right	105	0	0			
cSH	1060	1700	1700			
Volume to Capacity	0.10	0.01	0.00			
Queue Length 95th (m)	2.6	0.0	0.0			
Control Delay (s)	8.8	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	8.8	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		7.9				
Intersection Capacity Utilization		16.4%		ICU Level of Service		A
Analysis Period (min)		15				



2: Mountain Ridge PI & Hwy 1A  
1/18/2017













Post-Burial Analysis (2pm-3pm)  
Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	0	752	4	4	977	1	10	0	101	0	0	0
Future Volume (vph)	0	752	4	4	977	1	10	0	101	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	1781	4863	1514	1692	4863	1514	0	1692	1514	0	1781	1781
Flt Permitted				0.950				0.757				
Satd. Flow (perm)	1781	4863	1514	1692	4863	1514	0	1349	1514	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			121			145			
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	792	4	4	1028	1	11	0	106	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	792	4	4	1028	1	0	11	106	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm			Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)		26.7	26.7	7.1	28.6	28.6		10.1	10.1			
Actuated g/C Ratio		0.58	0.58	0.15	0.62	0.62		0.22	0.22			
v/c Ratio		0.28	0.00	0.02	0.34	0.00		0.04	0.24			
Control Delay		7.9	0.0	18.0	6.2	0.0		15.7	3.9			
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay		7.9	0.0	18.0	6.2	0.0		15.7	3.9			
LOS		A	A	B	A	A		B	A			
Approach Delay		7.9			6.3			5.0				
Approach LOS		A			A			A				
Queue Length 50th (m)		12.3	0.0	0.3	16.9	0.0		0.7	0.0			
Queue Length 95th (m)		29.7	0.0	2.5	23.5	0.0		4.3	6.6			

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Synchro 9 Report

2: Mountain Ridge PI & Hwy 1A  
1/18/2017







Post-Burial Analysis (2pm-3pm)  
Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)	576.0			701.0			436.1			41.0		
Turn Bay Length (m)	130.0			130.0	130.0			10.0				
Base Capacity (vph)	4863			1514	371	4710	1470	296			445	
Starvation Cap Reductn	0			0	0	0	0	0			0	
Spillback Cap Reductn	0			0	0	0	0	0			0	
Storage Cap Reductn	0			0	0	0	0	0			0	
Reduced v/c Ratio	0.16			0.00	0.01	0.22	0.00	0.04			0.24	

#### Intersection Summary























Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 46	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 6.8	Intersection LOS: A
Intersection Capacity Utilization 37.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Mountain Ridge PI & Hwy 1A

 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s

3: Mountain Ridge Place & Highway 1A  
1/18/2017










Post-Burial Post Development  
Post-Burial (2PM-3PM)-Sensitivity

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	537	3	3	698	1	10	0	148	0	0	0
Future Volume (Veh/h)	0	537	3	3	698	1	10	0	148	0	0	0
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	565	3	3	735	1	11	0	156	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised			Raised								
Median storage veh	1			1								
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	736			568			938	1307	282	1180	1309	368
vC1, stage 1 conf vol							565	565		741	741	
vC2, stage 2 conf vol							374	742		438	568	
vCu, unblocked vol	736			568			938	1307	282	1180	1309	368
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	78	100	100	100
cM capacity (veh/h)	879			1014			346	284	721	239	283	635
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	0	282	282	3	3	368	368	1	11	156	0	0
Volume Left	0	0	0	0	3	0	0	0	11	0	0	0
Volume Right	0	0	0	3	0	0	0	1	0	156	0	0
cSH	1700	1700	1700	1700	1014	1700	1700	1700	346	721	1700	1700
Volume to Capacity	0.00	0.17	0.17	0.00	0.00	0.22	0.22	0.00	0.03	0.22	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	6.2	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	15.7	11.4	0.0	0.0
Lane LOS				A						C	B	A
Approach Delay (s)	0.0				0.0				11.7	0.0		
Approach LOS							B			A		
Intersection Summary												
Average Delay				1.3								
Intersection Capacity Utilization				31.3%	ICU Level of Service			A				
Analysis Period (min)				15								



7: Funerall Access & Mountain Ridge Place  
1/18/2017

Post-Burial Post Development  
Post-Burial (2PM-3PM)-Sensitivity


























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	100	0	0	0	2
Future Volume (Veh/h)	0	100	0	0	0	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	105	0	0	0	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	2	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1021	1085			1623	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	105	0	2			
Volume Left	0	0	0			
Volume Right	105	0	0			
cSH	1085	1700	1623			
Volume to Capacity	0.10	0.00	0.00			
Queue Length 95th (m)	2.4	0.0	0.0			
Control Delay (s)	8.7	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	8.7	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		8.5				
Intersection Capacity Utilization		16.4%		ICU Level of Service		A
Analysis Period (min)		15				

## 3: Mountain Ridge Place &amp; Highway 1A

## Post-Burial Post Development










1/18/2017

Post-Burial (2PM-3PM)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	0	537	3	3	698	1	8	0	100	0	0	0
Future Volume (Veh/h)	0	537	3	3	698	1	8	0	100	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	565	3	3	735	1	8	0	105	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised			Raised								
Median storage veh	1			1								
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	736			568			938	1307	282	1128	1309	368
vC1, stage 1 conf vol							565	565		741	741	
vC2, stage 2 conf vol							374	742		388	568	
vCu, unblocked vol	736			568			938	1307	282	1128	1309	368
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	85	100	100	100
cM capacity (veh/h)	879			1014			346	284	721	260	283	635
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	0	282	282	3	3	368	368	1	8	105	0	0
Volume Left	0	0	0	0	3	0	0	0	8	0	0	0
Volume Right	0	0	0	3	0	0	0	1	0	105	0	0
cSH	1700	1700	1700	1700	1014	1700	1700	1700	346	721	1700	1700
Volume to Capacity	0.00	0.17	0.17	0.00	0.00	0.22	0.22	0.00	0.02	0.15	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	3.9	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	15.6	10.8	0.0	0.0
Lane LOS					A				C		B	A
Approach Delay (s)	0.0				0.0				11.2		0.0	
Approach LOS									B		A	
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			29.8%		ICU Level of Service				A			
Analysis Period (min)			15									

7: Site Access & Mountain Ridge Place  
1/18/2017










Post-Burial Post Development  
Post-Burial (2PM-3PM)

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	100	0	0	0	2
Future Volume (Veh/h)	0	100	0	0	0	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	105	0	0	0	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	2	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1021	1085			1623	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	105	0	2			
Volume Left	0	0	0			
Volume Right	105	0	0			
cSH	1085	1700	1623			
Volume to Capacity	0.10	0.00	0.00			
Queue Length 95th (m)	2.4	0.0	0.0			
Control Delay (s)	8.7	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	8.7	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		8.5				
Intersection Capacity Utilization		16.4%		ICU Level of Service		A
Analysis Period (min)		15				

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Synchro 9 Report

7: Funeral Access & Mountain Ridge Place  
1/18/2017























Pre-Burial Post Development  
Pre-Burial (1PM-2PM)-Sensitivity

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	100	0	0	0	2
Future Volume (Veh/h)	0	100	0	0	0	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	105	0	0	0	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	2	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1021	1085			1623	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	105	0	2			
Volume Left	0	0	0			
Volume Right	105	0	0			
cSH	1085	1700	1623			
Volume to Capacity	0.10	0.00	0.00			
Queue Length 95th (m)	2.4	0.0	0.0			
Control Delay (s)	8.7	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	8.7	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		8.5				
Intersection Capacity Utilization		16.4%		ICU Level of Service		A
Analysis Period (min)		15				












3: Mountain Ridge Place & Highway 1A  
1/18/2017

Pre-Burial Post Development  
Pre-Burial (1PM-2PM)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	539	4	98	584	0	0	0	0	1	0	0
Future Volume (Veh/h)	2	539	4	98	584	0	0	0	0	1	0	0
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	567	4	103	615	0	0	0	0	1	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised			Raised								
Median storage veh	1			1								
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	615			571			1084	1392	284	1108	1396	308
vC1, stage 1 conf vol							571	571		821	821	
vC2, stage 2 conf vol							514	821		288	575	
vCu, unblocked vol	615			571			1084	1392	284	1108	1396	308
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			90			100	100	100	100	100	100
cM capacity (veh/h)	974			1012			287	245	719	243	229	694
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	2	284	284	4	103	308	308	0	0	0	1	0
Volume Left	2	0	0	0	103	0	0	0	0	0	1	0
Volume Right	0	0	0	4	0	0	0	0	0	0	0	0
cSH	974	1700	1700	1700	1012	1700	1700	1700	1700	1700	243	1700
Volume to Capacity	0.00	0.17	0.17	0.00	0.10	0.18	0.18	0.00	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Control Delay (s)	8.7	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	19.9	0.0
Lane LOS	A				A				A	A	C	A
Approach Delay (s)	0.0				1.3				0.0		19.9	
Approach LOS									A		C	
Intersection Summary												
Average Delay	0.7											
Intersection Capacity Utilization	34.2%			ICU Level of Service			A					
Analysis Period (min)	15											

7: Funeral Access & Mountain Ridge Place  
1/18/2017

Pre-Burial Post Development  
Pre-Burial (1PM-2PM)

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	100	2
Future Volume (Veh/h)	0	0	0	0	100	2
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	0	105	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	212	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	212	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			94	
cM capacity (veh/h)	726	1085			1623	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	0	0	107			
Volume Left	0	0	105			
Volume Right	0	0	0			
cSH	1700	1700	1623			
Volume to Capacity	0.00	0.00	0.06			
Queue Length 95th (m)	0.0	0.0	1.6			
Control Delay (s)	0.0	0.0	7.2			
Lane LOS	A		A			
Approach Delay (s)	0.0	0.0	7.2			
Approach LOS	A					
Intersection Summary						
Average Delay			7.2			
Intersection Capacity Utilization			9.1%	ICU Level of Service		A
Analysis Period (min)			15			



March 07, 2017  
1634-01

Clarke Bullock  
Alberta Transportation  
803 Manning Rd NE  
Calgary, AB, T2E 7M8

Attention: Clarke Bullock

Dear Clarke,

**Re: Muslim Funeral Home TIA  
Response to Comments- Transportation Impact Assessment**

We received the comments from the Alberta Transportation regarding their review of the Transportation Impact Assessment (TIA) submitted in support of the Muslim Funeral Home. This letter is our response to the comment.

*Comment – Alberta Transportation has reviewed the Muslim Funeral Home TIA. The only comment we have is in Section 6, where you are only factoring up the Highway 1A traffic by 2% per year over the 20 years. From 2006 to 2015, the average Highway 1A traffic increase was between 5 and 6 percent per year. With rapid growth in Cochrane, as well as the Cochrane Lakes and the Glenbow area between Calgary and Cochrane, a realistic increase in Highway traffic would be at least 5% per year over the 20-year time horizon. Please make the required revisions and resubmit for review.*

**Bunt & Associates Response**

Bunt & Associates re-analysed the 20-year horizon using 5% per year growth. The Synchro results for the 20-year Post Development intersection capacity analysis are summarized **Table 1**.

**Table 1: 20-Year Post Development Intersection Capacity Analysis (Site Peak)**

Intersection	Movement & # of Lanes		Pre-Burial Peak hour (1pm-2pm)				Post-Burial Peak hour(2pm-3pm)			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (Signalised)	EBL	1	0.02	B	20	<5	-	-	-	-
	EBT	2	0.38	A	8	49	0.40	A	9	44
	EBR	1	<0.01	A	0	<5	0.01	A	0	<5
	WBL	1	0.35	C	21	24	0.02	B	19	<5
	WBT	2	0.28	A	4	<5	0.48	A	7	37
	WBR	1	-	-	-	-	<0.01	A	0	<5
	NBL-T	1	-	-	-	-	0.05	B	17	6
	NBR	1	-	-	-	-	0.24	A	5	7
	SBL-T	1	0.01	B	17	<5	-	-	-	-
	SBR	1	-	-	-	-	-	-	-	-
	Int. Summary		-	A	1	-	-	A	1	-

The 20-year Post Development analysis, assuming 5% ambient growth, indicates that Highway 1A & Mountain Ridge Place will operate within acceptable capacity parameters, therefore no changes are recommended to accommodate the proposed development.

### Sensitivity Analysis

In order to verify that the intersection of highway 1A/Mountain Ridge Place would work with 5% growth rate, a second set of analysis was completed assuming 300 attendees at the funeral. The results of the 20-year Post Development intersection capacity analysis are summarized in **Table 2**.

**Table 2: 20-Year Post Development Intersection Capacity Analysis**

Intersection	Movement & # of Lanes		Pre-Burial Peak hour (1pm-2pm)				Post-Burial Peak hour(2pm-3pm)			
			v/c	LOS	Delay	Queue	v/c	LOS	Delay	Queue
Highway 1A & Mountain Ridge Place (Signalised)	EBL	1	0.02	B	20	<5	-	-	-	-
	EBT	2	0.46	A	10	49	0.47	A	10	44
	EBR	1	0.01	A	0	<5	0.01	A	0	<5
	WBL	1	0.44	C	21	35	0.02	B	19	<5
	WBT	2	0.28	A	4	48	0.57	A	9	37
	WBR	1	-	-	-	-	<0.01	A	0	<5
	NBL-T	1	-	-	-	-	0.06	B	17	6
	NBR	1	-	-	-	-	0.36	A	7	13
	SBL-T	1	0.01	B	18	<5	-	-	-	-
	SBR	1	-	-	-	-	-	-	-	-
	Int. Summary		-	A	7	-		A	9	-

The 20-year Post Development analysis indicates that Highway 1A & Mountain Ridge Place will operate within acceptable capacity parameters even if 300 people were to attend funeral service at the site, therefore no changes are recommended to accommodate the proposed development.

Yours truly,  
**Bunt & Associates**



Ezekiel Dada, P.Eng, Ph.D.  
 Senior Associate

NA,ED/na/ed



























Encl: Synchro output



2: Mountain Ridge PI & Hwy 1A  
03/01/2017

Post-Burial Analysis (2pm-3pm)-Response to comments

Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	0	1074	6	6	1396	2	13	0	103	0	0	0
Future Volume (vph)	0	1074	6	6	1396	2	13	0	103	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	1781	4863	1514	1692	4863	1514	0	1692	1514	0	1781	1781
Flt Permitted				0.950				0.757				
Satd. Flow (perm)	1781	4863	1514	1692	4863	1514	0	1349	1514	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			121			145			
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1131	6	6	1469	2	14	0	108	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1131	6	6	1469	2	0	14	108	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm			Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)		27.1	27.1	7.1	29.0	29.0		10.1	10.1			
Actuated g/C Ratio		0.58	0.58	0.15	0.62	0.62		0.22	0.22			
v/c Ratio		0.40	0.01	0.02	0.48	0.00		0.05	0.24			
Control Delay		8.4	0.0	18.8	7.1	0.0		16.6	4.2			
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay		8.4	0.0	18.8	7.1	0.0		16.6	4.2			
LOS		A	A	B	A	A		B	A			
Approach Delay		8.4			7.2			5.6				
Approach LOS		A			A			A				
Queue Length 50th (m)		19.1	0.0	0.4	27.4	0.0		0.8	0.0			
Queue Length 95th (m)		44.0	0.0	3.3	36.5	0.0		5.3	7.1			

2: Mountain Ridge PI & Hwy 1A  
03/01/2017

Post-Burial Analysis (2pm-3pm)-Response to comments

Long Term Post Development



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		576.0			701.0			436.1			41.0	
Turn Bay Length (m)			130.0	130.0		130.0			10.0			
Base Capacity (vph)		4830	1504	369	4690	1464		294	443			
Starvation Cap Reductn		0	0	0	0	0		0	0			
Spillback Cap Reductn		0	0	0	0	0		0	0			
Storage Cap Reductn		0	0	0	0	0		0	0			
Reduced v/c Ratio		0.23	0.00	0.02	0.31	0.00		0.05	0.24			

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 46.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 46.0%

ICU Level of Service A

Analysis Period (min) 15



























Splits and Phases: 2: Mountain Ridge PI & Hwy 1A

15 s	14 s	61 s
15 s	20 s	55 s

2: Mountain Ridge PI & Hwy 1A  
03/01/2017













Pre-Burial Analysis (1pm-2pm)- Response to comments

Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	4	1078	7	99	1168	0	0	0	0	2	0	0
Future Volume (vph)	4	1078	7	99	1168	0	0	0	0	2	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected	0.950			0.950							0.950	
Satd. Flow (prot)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1692	1781
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73									
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1135	7	104	1229	0	0	0	0	2	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	1135	7	104	1229	0	0	0	0	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm			Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	7.2	28.1	28.1	8.2	40.9						10.3	
Actuated g/C Ratio	0.16	0.61	0.61	0.18	0.89						0.22	
v/c Ratio	0.02	0.38	0.01	0.35	0.28						0.01	
Control Delay	19.5	7.8	0.0	21.2	3.6						17.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0						0.0	
Total Delay	19.5	7.8	0.0	21.2	3.6						17.0	
LOS	B	A	A	C	A						B	
Approach Delay		7.8			5.0						17.0	
Approach LOS		A			A						B	
Queue Length 50th (m)	0.3	15.1	0.0	6.2	0.0						0.1	
Queue Length 95th (m)	2.8	48.4	0.0	23.7	48.0						1.8	

2: Mountain Ridge PI & Hwy 1A  
03/01/2017

Pre-Burial Analysis (1pm-2pm)- Response to comments  
Long Term Post Development

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		576.0			701.0			436.1			41.0	
Turn Bay Length (m)	130.0		130.0	130.0								
Base Capacity (vph)	606	4764	1485	379	4639						399	
Starvation Cap Reductn	0	0	0	0	0						0	
Spillback Cap Reductn	0	0	0	0	0						0	
Storage Cap Reductn	0	0	0	0	0						0	
Reduced v/c Ratio	0.01	0.24	0.00	0.27	0.26						0.01	

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 45.9

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 6.3







Intersection LOS: A

Intersection Capacity Utilization 50.7%

ICU Level of Service A

Analysis Period (min) 15



























Splits and Phases: 2: Mountain Ridge PI & Hwy 1A

 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s

2: Mountain Ridge Pl & Hwy 1A  
03/01/2017

Pre-Burial Analysis (1pm-2pm) - Response to Comments













Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	4	1078	7	147	1168	0	0	0	0	2	0	0
Future Volume (vph)	4	1078	7	147	1168	0	0	0	0	2	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected	0.950			0.950							0.950	
Satd. Flow (prot)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1692	1781
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1692	4863	1514	1692	4863	1781	0	1781	1781	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73									
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	1135	7	155	1229	0	0	0	0	2	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	1135	7	155	1229	0	0	0	0	0	2	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm			Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	7.2	23.8	23.8	9.8	42.1						10.3	
Actuated g/C Ratio	0.15	0.50	0.50	0.21	0.89						0.22	
v/c Ratio	0.02	0.46	0.01	0.44	0.28						0.01	
Control Delay	19.8	9.4	0.0	21.6	3.6						17.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0						0.0	
Total Delay	19.8	9.4	0.0	21.6	3.6						17.5	
LOS	B	A	A	C	A						B	
Approach Delay		9.4			5.6						17.5	
Approach LOS		A			A						B	
Queue Length 50th (m)	0.3	18.0	0.0	9.5	0.0						0.1	
Queue Length 95th (m)	2.8	48.4	0.0	#33.5	48.0						1.8	



2: Mountain Ridge PI & Hwy 1A  
03/01/2017

Pre-Burial Analysis (1pm-2pm) - Response to Comments  
Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)		576.0			701.0			436.1			41.0	
Turn Bay Length (m)	130.0		130.0	130.0								
Base Capacity (vph)	588	4759	1483	367	4554						387	
Starvation Cap Reductn	0	0	0	0	0						0	
Spillback Cap Reductn	0	0	0	0	0						0	
Storage Cap Reductn	0	0	0	0	0						0	
Reduced v/c Ratio	0.01	0.24	0.00	0.42	0.27						0.01	

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 47.3

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 51.4%







ICU Level of Service A

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.























Splits and Phases: 2: Mountain Ridge PI & Hwy 1A

 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s

2: Mountain Ridge PI & Hwy 1A  
03/01/2017













Post-Burial Analysis (2pm-3pm)- Response to comments

Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1074	6	6	1396	2	15	0	151	0	0	0
Future Volume (vph)	0	1074	6	6	1396	2	15	0	151	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	130.0		130.0	130.0		130.0	0.0		10.0	0.0		10.0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	1781	4863	1514	1692	4863	1514	0	1692	1514	0	1781	1781
Flt Permitted				0.950				0.757				
Satd. Flow (perm)	1781	4863	1514	1692	4863	1514	0	1349	1514	0	1781	1781
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			121			159			
Link Speed (k/h)		100			100			50			50	
Link Distance (m)		600.0			725.0			460.1			65.0	
Travel Time (s)		21.6			26.1			33.1			4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1131	6	6	1469	2	16	0	159	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1131	6	6	1469	2	0	16	159	0	0	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm			Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	27.0	27.0	11.0	27.0	27.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	20.0	61.0	61.0	14.0	55.0	55.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Split (%)	22.2%	67.8%	67.8%	15.6%	61.1%	61.1%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)		23.5	23.5	7.2	25.4	25.4		10.2	10.2			
Actuated g/C Ratio		0.49	0.49	0.15	0.53	0.53		0.21	0.21			
v/c Ratio		0.47	0.01	0.02	0.57	0.00		0.06	0.36			
Control Delay		9.5	0.0	19.0	8.4	0.0		16.7	6.6			
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay		9.5	0.0	19.0	8.4	0.0		16.7	6.6			
LOS		A	A	B	A	A		B	A			
Approach Delay		9.5			8.5			7.5				
Approach LOS		A			A			A				
Queue Length 50th (m)		19.1	0.0	0.4	27.4	0.0		0.9	0.0			
Queue Length 95th (m)		44.0	0.0	3.3	36.5	0.0		5.8	13.1			

2: Mountain Ridge PI & Hwy 1A  
03/01/2017







Post-Burial Analysis (2pm-3pm)- Response to comments  
Long Term Post Development -Sensitivity

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (m)	576.0			701.0			436.1			41.0		
Turn Bay Length (m)	130.0			130.0	130.0			10.0				
Base Capacity (vph)	4779			1489	360	4572	1431	287			447	
Starvation Cap Reductn	0			0	0	0	0	0			0	
Spillback Cap Reductn	0			0	0	0	0	0			0	
Storage Cap Reductn	0			0	0	0	0	0			0	
Reduced v/c Ratio	0.24			0.00	0.02	0.32	0.00	0.06			0.36	

#### Intersection Summary

Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 47.9	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 46.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Mountain Ridge PI & Hwy 1A

 Ø2	 Ø3	 Ø4
15 s	14 s	61 s
 Ø6	 Ø7	 Ø8
15 s	20 s	55 s