

## PLANNING AND DEVELOPMENT SERVICES

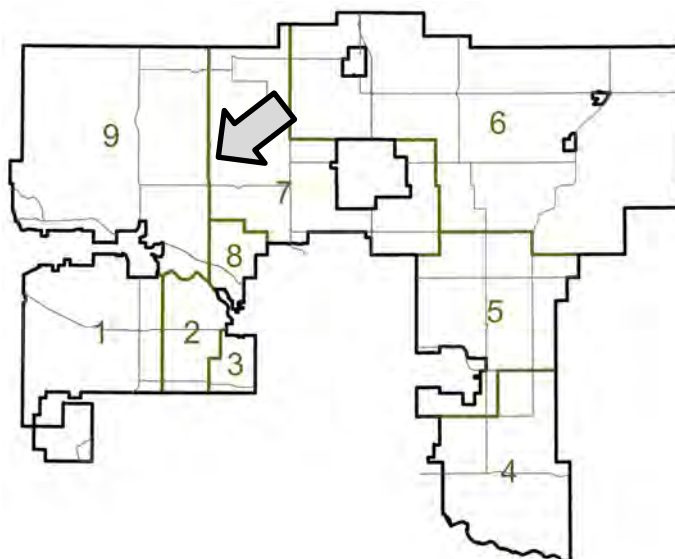
**TO:** Municipal Planning Commission **DATE:** November 26, 2020  
**DIVISION:** 7 **APPLICATION:** PRDP20202964  
**SUBJECT:** Development Item: Dwelling, Single Detached  
**USE:** Permitted use, with Variances

**APPLICATION:** construction of a dwelling, single detached within the top of bank setback requirement

**GENERAL LOCATION:** Located approximately 0.81 km (1/2 mile) south of Twp. Rd. 274 and on the east side of Hwy. 766).

**LAND USE DESIGNATION:** Residential, Rural District (R-RUR p4.0) under Land Use Bylaw C-8000-2020.

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



### VARIANCE SUMMARY:

Variance	Requirement	Proposed	Percentage (%)
Setback from Top-of-Bank	20.00 m (65.62 ft.)	4.25 m (13.94 ft.)	79.00%

### OPTIONS:

- Option #1: THAT Development Permit Application PRDP20202964 be approved with the conditions noted in the Development Permit Report, attached.
- Option #2: THAT Development Permit Application PRDP20202964 be refused as per the reasons noted.

### AIR PHOTO & DEVELOPMENT CONTEXT:



### Administration Resources

Christina Lombardo - Planning and Development Services



## DEVELOPMENT PERMIT REPORT

<b>Application Date:</b> September 25, 2020	<b>File:</b> 07723018
<b>Application:</b> PRDP20202964	<b>Applicant/Owner:</b> Sheila Nielson & David Rudisuela
<b>Legal Description:</b> Lot 6, Block 3, Plan 191 2391; SW-23-27-03-W5M	<b>General Location:</b> Located approximately 0.81 km (1/2 mile) south of Twp. Rd. 274 and on the east side of Hwy. 766)
<b>Land Use Designation:</b> Residential, Rural District (R-RUR p4.0) under Land Use Bylaw C-8000-2020.	<b>Gross Area:</b> ± 4.29 hectares (± 10.60 acres)
<b>File Manager:</b> Christina Lombardo	<b>Division:</b> 7

### PROPOSAL:

The proposal is for the construction of a dwelling, single detached, with a variance of the setback from the top-of-bank slope and single-lot regrading. *Note: this application was assessed in accordance with Land Use Bylaw C-8000-2020.*

- This application is for the construction of a Bungalow with a walkout basement and an attached garage on an undeveloped site.
- Variance requested to relax building setback from the top-of-bank of an escarpment; from 20.00 m (65.61 ft.) to 4.25 m (13.94 ft.), a variance of 79.00%.
- Proposed Slopes do not exceed 15%; Slope Stability Assessment was completed by E2K Engineering Ltd. (Project# 2020-5494) dated September 21, 2020.
- Dwelling will be serviced by a Water Well and Septic field located on the West of the parcel
- Any single lot regrading required related to the construction of the dwelling shall comply with Table 2; Development Not Requiring a Development Permit from the Land Use Bylaw. No variances were requested.

### Section 321 MAXIMUM BUILDING HEIGHT:

b) All others: 12.00 m (39.37 ft.)

- Proposed: 10.13 m (33.23 ft.)

### Section 323 MINIMUM SETBACKS:

Front Yard: 60.00 m. (196.85 ft.)

- Proposed: lots

Side Yard: 15.00 m. (49.21 ft.)

- Proposed North Side: 15.62 m (51.25 ft.)
- Proposed South Side: 92.33 m. (302.92 ft.)

Rear Yard: 30.00 m. (98.43 ft.)

- Proposed: 37.89 m. (124.31 ft.)



## ROCKY VIEW COUNTY

### SETBACKS FROM SLOPES AND BANKS

Section 189 Buildings shall be located at least 20.00 m (65.62 ft.) back from the top-of-bank of an escarpment where the grade exceeds fifteen per cent (15%), as illustrated in Figure 2 – Setback Requirements.

- The Applicant has requested a setback of 4.25 m (13.94 ft.)
- The noted Slope Stability Assessment was reviewed by Administration and no evidence of slope instability was observed. As a condition of this application, the Applicant/Owner shall follow the recommendations of the slope stability assessment in perpetuity.

Section 190 The Development Authority may, at their discretion, reduce the setback requirements if the applicant provides a Geotechnical Study, prepared by a qualified engineer, that provides satisfactory proof of bank stability.

- As the application has supporting technical, Administration is satisfied with the bank stability

### STATUTORY PLANS:

The subject parcel does not fall within any area structure plan or conceptual scheme; therefore the application was assessed in accordance with the Land Use Bylaw.

### INSPECTOR'S COMMENTS:

Inspection: October 20, 2020

- Site has been staked, appears to be heavily sloped
- Hobby Garden is present
- No construction has begun

### CIRCULATIONS:

#### Alberta Transportation (October 30, 2020)

- In reviewing the application, the proposed development falls within the control distance of a provincial highway as outlined in the Highways Development and Protection Act / Regulation, and will require a roadside development permit from Alberta Transportation.
- The application form and instructions can be obtained from the department's website at <https://www.alberta.ca/roadside-development-permits.aspx>.

#### Planning & Development Services (Engineering Review (November 6, 2020)

General:

- The review of this file is based upon the application submitted. These conditions/recommendations may be subjected to change to ensure best practices and procedures.

Geotechnical - Section 300.0 requirements:

- Applicant provided a slope stability assessment, prepared by E2K Engineering Ltd., dated September 21, 2020. As per the slope stability assessment, no evidence of slope instability was observed on site. The risk related to slope stability issues is very little where the proposed house will be built. The report provided recommendations based on the slope stability assessment.
- As a permanent condition, the applicant shall follow the recommendations of the slope stability assessment in perpetuity.



## ROCKY VIEW COUNTY

### Transportation - Section 400.0 requirements:

- Access to the subject lot and proposed development is provided by a shared driveway off Highway 766. Access Easements are present on title, instrument #891 243 196 and 191 247 330.
- This is unlikely to increase traffic on local road networks. Traffic Impact Assessment and Transportation off-site levy will be deferred at this time.

### Sanitary/Waste Water - Section 500.0 requirements:

- Proposed development will be serviced by a septic field.
- Engineering has no requirements at this time

### Water Supply And Waterworks - Section 600.0 & 800.0 requirements:

- Proposed development will be serviced by a water well.
- Engineering has no requirements at this time

### Storm Water Management – Section 700.0 requirements:

- No significant increase in site runoff is expected as a result of the proposed development.
- Engineering has no requirements at this time.

### Environmental – Section 900.0 requirements:

- Based on County's GIS review, a wetland is present on site. Should the applicant propose development that has a direct impact on any wetlands, the applicant will be responsible for obtaining all required AEP approvals

### OPTIONS:

Option #1 (this would allow the development to commence)

APPROVAL, subject to the following conditions:

#### Description:

1. That construction of a dwelling, single detached may commence on the subject parcel, (Lot 6, Block 3, Plan 191 2391 within SW-23-27-03-W5M) in general accordance with the application drawings and site plan prepared by Cincel Design Studio, dated September 2, 2020 (Project No. 20-871) including:
  - i. That the top-of-bank setback requirement is **relaxed from 20.00 m (65.62 ft.) to 4.25 m (13.94 ft.)**
  - ii. Single-lot regrading and placement of clean fill;

#### Prior to Issuance:

2. That prior to issuance of this development permit, the applicant shall confirm acceptance of or refusal to participate in the Voluntary Recreation Contribution for Community Recreation Funding on the form provided by the municipality and that the contribution, if accepted, is \$800.00, calculated at \$800.00 for each new residential unit.
3. That prior to issuance of this permit, the Applicant/Owner shall contact County Road Operations with haul details for materials and equipment needed during construction/site development to confirm if Road Use Agreements will be required for any hauling along the County road system and to confirm the presence of County road ban restrictions



## ROCKY VIEW COUNTY

- i. Written confirmation shall be received from County Road Operations confirming the status of this condition. Any required agreement or permits shall be obtained unless otherwise noted by County Road Operations.

### Permanent:

4. That any plan, technical submission, agreement, matter or understanding submitted and approved as part of the application, shall be implemented by the Applicant/Owner and adhered to in perpetuity including the recommendations of the Slope Stability Assessment, as prepared by E2K Engineering Ltd. (Project# 2020-5494), dated September 21, 2020.
5. That upon completion of the proposed development, the Applicant/Owners shall submit an as-built survey, confirming that the development proposal and post grades align with the supporting technical submissions for the file.
6. That the Applicant/Owner shall submit compaction testing results, prepared and provided by a qualified professional, for any areas of the site filled greater than 1.20 m (3.93 ft.) in depth.
7. That there shall be no more than 1.00 m (3.28 ft.) of fill placed or 2.00 m (6.56 ft.) of excavated materials adjacent to or within 15.00 m (49.21 ft.) of the proposed dwelling unit that is used to establish approved final grades unless a Development Permit has been issued for additional.
8. That it is the Applicant/Owner's responsibility to obtain and display a distinct municipal address in accordance with the County Municipal Addressing Bylaw (Bylaw C-7562-2016), for the dwelling unit located on the subject site, to facilitate accurate emergency response.

*Note: The municipal address for the 273056 Lochend Road*

9. That the Applicant/Owner shall not screen and/or sell the excess topsoil to others without written approval from the County, as there is potential for additional off-site impacts.
10. That the Applicant/Owner shall take effective measures to control dust in the area so that dust originating therein shall not cause annoyance or become a nuisance to adjoining property owners and others in the vicinity of the area.
11. That the fill shall not contain large concrete, rebar, asphalt, building materials, organic materials, or other metal.
12. That any fill removed from the site shall be hauled off in a covered trailer/truck, which will prevent blowing of dust/small rocks onto the road or cause issues with other vehicles on the road.
13. That with the removal of topsoil, the Applicant shall take whatever means necessary to avoid the transfer of dirt onto public roadways.
  - i. That if at any time the removal or handling of the topsoil creates a visible dust problem, the removal or handling of the topsoil shall cease immediately until remedial measures are taken.
14. That after completion of the regrading and/or placement of the fill, the disturbed area (if not developed) shall have a minimum of six inches of topsoil placed on top, which shall then be landscaped.
15. That pervious landscaping (i.e. sod) shall be provided at the rear of the property to enhance and maximize absorption of rainwater to prevent the transfer of overland flows to adjacent properties.
16. That the Applicant/Owner shall be responsible for rectifying any adverse effect on adjacent lands from drainage alteration.



## ROCKY VIEW COUNTY

17. That the entire site shall be maintained in a neat and orderly manner at all times to the satisfaction of the County.

### **Advisory:**

18. That the site shall adhere to the approved Weed Management Plan and shall remain free of restricted and noxious weeds and be maintained in accordance with the Alberta Weed Control Act [Statutes of Alberta, 2008 Chapter W-5.1; Current as of December 15, 2017].
19. That the subject development shall conform to the County's Noise Bylaw C-5773-2003 in perpetuity.
20. 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.
21. That the Applicant/Owner shall adhere to the regulations of the registered Access Easements, instruments #891 243 196 and 191 247 330 at all times.
22. That a Building Permit and applicable subtrade permits shall be obtained through Building Services, prior to any construction taking place.
23. That any other government permits, including a Roadside Development Permit through Alberta Transportation, approvals, or compliance is the sole responsibility of the Applicant/Owner.
24. 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 Officer.
25. That if this Development permit is not issued by **MAY 31, 2021** or the approved extension date, then this approval is null and void and the Development Permit shall not be issued.

***Note: The Applicant/Owner shall be responsible for all Alberta Environment & Parks (AEP) approvals for any impact to any wetland areas from the proposed development.***

Option #2 (this would not allow the development to commence)

REFUSAL, for the following reasons:

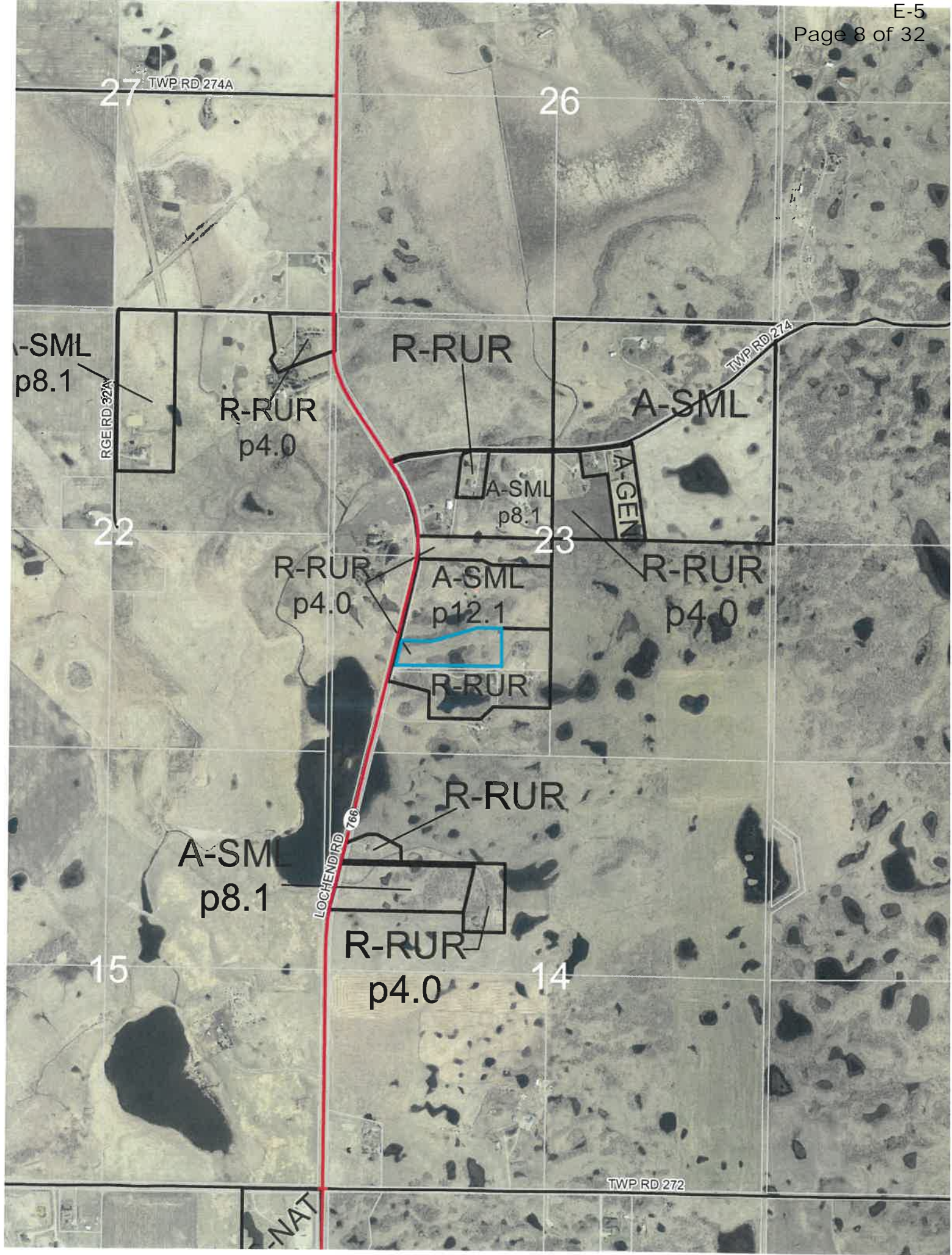
1. That in the opinion of the Municipal Planning Commission, the development unduly interferes with the amenities of the neighbourhood and materially interferes with and affects the use, enjoyment, and value of neighbouring parcels of land.



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ROCKY VIEW COUNTY

# DEVELOPMENT PERMIT APPLICATION

FOR OFFICE USE ONLY Page 9 of 32

APPLICATION NO.

20202964

ROLL NO.

07723018

RENEWAL OF

FEES PAID

315.00

DATE OF RECEIPT

Sept 25/20

## APPLICANT/OWNER

Applicant Name: SHEILA NIELSEN/DAVID RUDISUELA

Email:

Business/Organization Name (if applicable):

Landowner Name(s) per title (if not the Applicant):

Business/Organization Name (if applicable):

Mailing Address:

Postal Code:

Telephone (Primary):

Email:

## LEGAL LAND DESCRIPTION - Subject site

All/part of: SW¼ Section: 23 Township: 27 Range: 3 West of: 5 Meridian Division:

All parts of Lot(s)/Unit(s): 6 Block: 3 Plan: 1912391 Parcel Size (ac/ha): 10.5

Municipal Address: 273056 LOCHEND RD

Land Use District:

## APPLICATION FOR - List use and scope of work

HOUSE BUILD

Variance Rationale included: ☒ YES ☐ NO ☐ N/ADP Checklist Included: ☒ YES ☐ NO

## SITE INFORMATION

- a. Oil or gas wells present on or within 100 metres of the subject property(s) ☐ YES ☒ NO
- b. Parcel within 1.5 kilometres of a sour gas facility (well, pipeline or plant) ☐ YES ☒ NO
- c. Abandoned oil or gas well or pipeline present on the property ☐ YES ☒ NO  
(Well Map Viewer: <https://extmapviewer.aer.ca/AERAbandonedWells/Index.html>)
- d. Subject site has direct access to a developed Municipal Road (accessible public roadway) ☒ YES ☐ NO

## AUTHORIZATION

I, SHEILA NIELSEN (Full name in Block Capitals), hereby certify (initial below):

- ☒ That I am the registered owner OR ☐ That I am authorized to act on the owner's behalf.
- ☒ That the information given on this form and related documents, is full and complete and is, to the best of my knowledge, a true statement of the facts relating to this application.
- ☒ That I provide consent to the public release and disclosure of all information, including supporting documentation, submitted/contained within this application as part of the review process. I acknowledge that the information is collected in accordance with s.33(c) of the *Freedom of Information and Protection of Privacy Act*.
- ☒ **Right of Entry:** I authorize/acknowledge that Rocky View County may enter the above parcel(s) of land for purposes of investigation and enforcement related to this application in accordance with Section 542 of the *Municipal Government Act*.

Applicant Signature

Date

SEPT. 24/2020

Landowner Signature

Date

SEPT. 24/20

September 24, 2020

Sheila Nielsen & David Rudisuela  
265215 Range Road 24A  
Rocky View County, AB  
T4B 5A2

**Scope of work – 273056 Lochend Road**

We are planning on building a house and attached garage on our land. It is a bungalow with a walk out basement. We are building the house on a slope to accommodate the walk out basement. The house will not be 20m back from a 15% or greater slope as referenced in section 189 of the Land Use Bylaw.

We hired E2K Engineering Ltd. to do a Slope Stability Assessment and they determined that no instability should occur in the area we want to build. This report is included in the Development Permit application package we have submitted.

We are also including photos of the area, site plan and house plans including elevations in the application package.

Thank you.



Sheila Nielsen



David Rudisuela

September 21, 2020

Project Number: 2020-5494

Sheila Nielsen  


## ATTENTION: MS. SHEILA NIELSEN

Re: Slope Stability Assessment  
273056 Lochend Road  
Rocky View County, Alberta

As requested, E2K Engineering Ltd. (E2K) completed a slope stability assessment for a proposed edification to be built in the north-east area of the property located at the above-noted address. The proposed edification will consist of a single-family dwelling with an attached garage and walk-out basement. It is understood that the total area of the property, where this edification will be located, is 10.6 acres.

The Rocky View County requires a Slope Stability Analysis, completed by a Geotechnical Engineer, for slopes 15% or greater, and greater than 2 meters in vertical.

The objective of this slope stability assessment will be to confirm the stability of the slope, confirm if this area can be considered for residential development and provide preliminary setback limits.

### FIELD INSPECTION AND ASSESSMENT

The subject site is located at approximately 27 Kilometers north-east to Cochrane, Alberta. At the time this assessment was completed, this site was vacant.

Based on available drawings of this property, the area where the new house will be built slopes gently downwards from the north-east property limit to a pond located at the center of the property, with an elevation difference of approximately 12.0 m.

A field inspection was completed on this site by Miguel Ardin Medina, P.Eng. on September 10, 2020. The purpose of this inspection was to evaluate the conditions of the existing slopes in this property in the area where the proposed edification will be built and identify any evidence related to slope instability.



Prior to this site inspection, all available project documents and other publicly available information were reviewed to gain a more thorough understanding of the area.

The following drawings, prepared by Cincel Design Studio and issued on September 2<sup>nd</sup>, 2020, were reviewed by E2K:

- A1.0 SITE PLAN
- A2.0 BASEMENT FLOOR PLAN
- A2.1 MAIN FLOOR PLAN
- A2.2 ROOF PLAN
- A3.0 ELEVATIONS
- A3.1 ELEVATIONS
- A4.0 SECTIONS

The field inspection of the existing slope included ground-based observations. Field observations enabled the characterization of soil activity, potential instability and information on surficial material, vegetation, and weak zones.

At the time of the inspection, the ground was free of snow in the entire property. No evidence of slope instability was observed. The slope appeared to be well-vegetated with shrubs and tall grass. No seepage or signs of surface water were observed on the slope. No scarps or tension cracks were observed. No signs of slope instability were observed at the neighbouring properties either.

## **SLOPE STABILITY**

Based on the elevations shown in the drawings mentioned above, the worst-case slopes on the footprint area of the proposed residence will be located crossing this edification from north-east to south-west. Two sections were assessed from this area with a maximum total grade change of 10-12 meters. The cross-sections and the results of the stability analysis for these slopes are shown in Figures 1, 2 and 3.

Conservative soil parameters were utilized for the soils in this area with assumptions of clayey silty material with a 26-degree friction angle, no cohesion and an 18 kN/m<sup>3</sup> unit weight. For the subject slope stability analysis, groundwater conditions have been inferred to be at the approximate elevation of the water at the existing pond. No increase in the groundwater elevation is anticipated to occur as a result of the proposed development.

Based on the analysis completed as shown in Figures 2 and 3, the slopes in the area where this proposed dwelling will be constructed will have a minimum Factor of Safety against instability of 2.39. A surcharge load of 100 MPA has been considered for the area within the footprint of the proposed house and 10 MPA for the garage and walkout access areas.

It is E2K's professional opinion that due to the anticipated soil conditions and the geometry of the subject slopes, there is a very little risk of slope stability issues in the area of this property where the proposed house will be built, as shown in the drawing A1.0 "Site Plan" prepared by Cincel Design Studio. A minimum global slope stability factor of 2.39 was found for the worst-case scenario. All of the other slopes on the subject site were lesser elevation change and shallower grades

Based on the slope stability analysis performed, the following recommendations are provided:

- Where vegetation is to be removed, re-vegetation of the slope with shrubs or trees is recommended;
- No additional fill or surcharge not included in the assessment should be added to the crest of the slopes;
- Cut slopes during construction should be remediated as per grades on development plot plan. Leaving cut slopes open post-construction is not recommended and may cause slope instability;
- The owner should monitor the slope for signs of movement during and after construction of the structure, and where movement occurs, contact a qualified professional to provide recommendations.

## CLOSURE

Based on the observed slopes and the anticipated soils, a minimum factor of 2.39 can be expected for all the slopes in the area where this proposed residence will be built, which is considered by E2K as acceptable and satisfies the current standard accepted by Alberta Environment and other municipalities. This area can be considered for residential development and no preliminary setback should be considered for limits.

Based on the available information, an E2K's experience working in the subject area, no instability should occur within the property. Should conditions other than those reported herein be identified at any stage of development, E2K should be notified immediately and given the opportunity to re-evaluate current information, if required.

We trust the information contained herein meets your present requirements. Should you require further information, please do not hesitate to contact our office.

Yours Truly;  
E2K Engineering Ltd.  
APEGA Permit to Practice: P9582



September 21, 2020  
Prepared by:  
Miguel Ardin Medina, P.Eng.  
Project Geotechnical Engineer

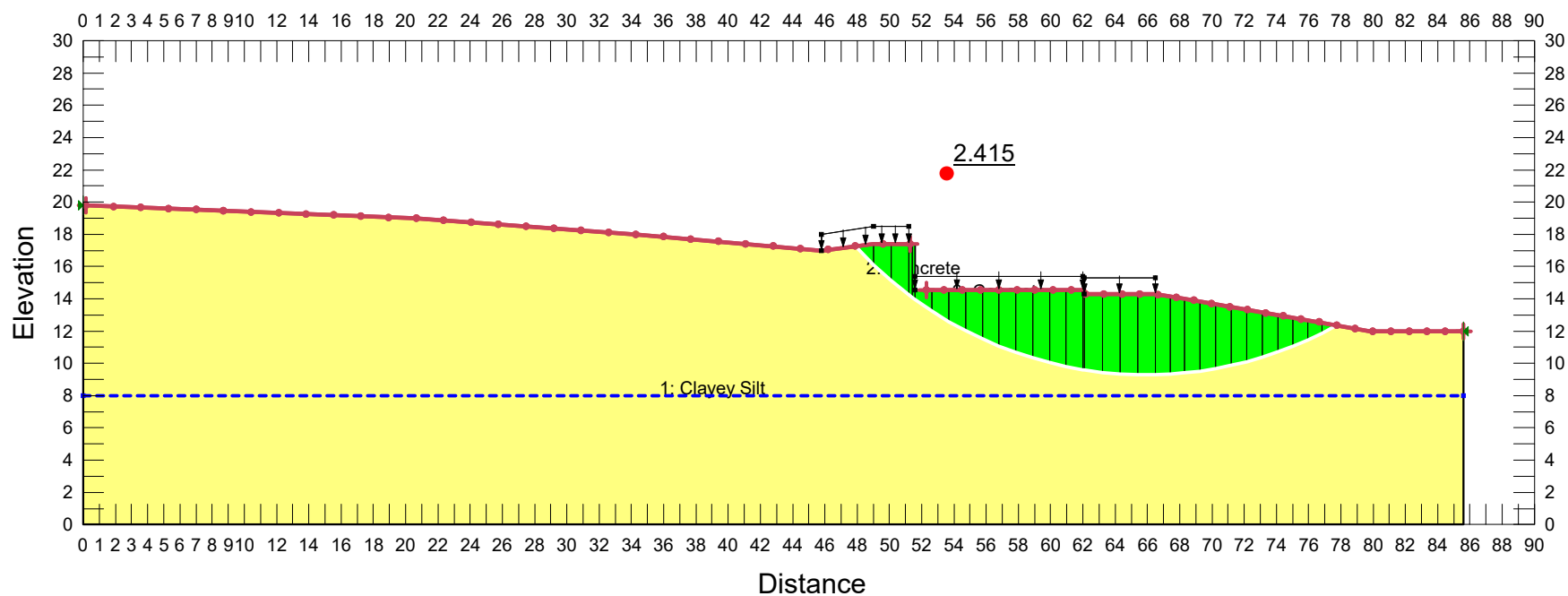
Attachments,

- Figure 1. Cross Sections Layout.
- Figure 2. Slope Stability Analysis. Section A-A
- Figure 3. Slope Stability Analysis. Section B-B





Materials  
 Clayey Silt  
 Concrete

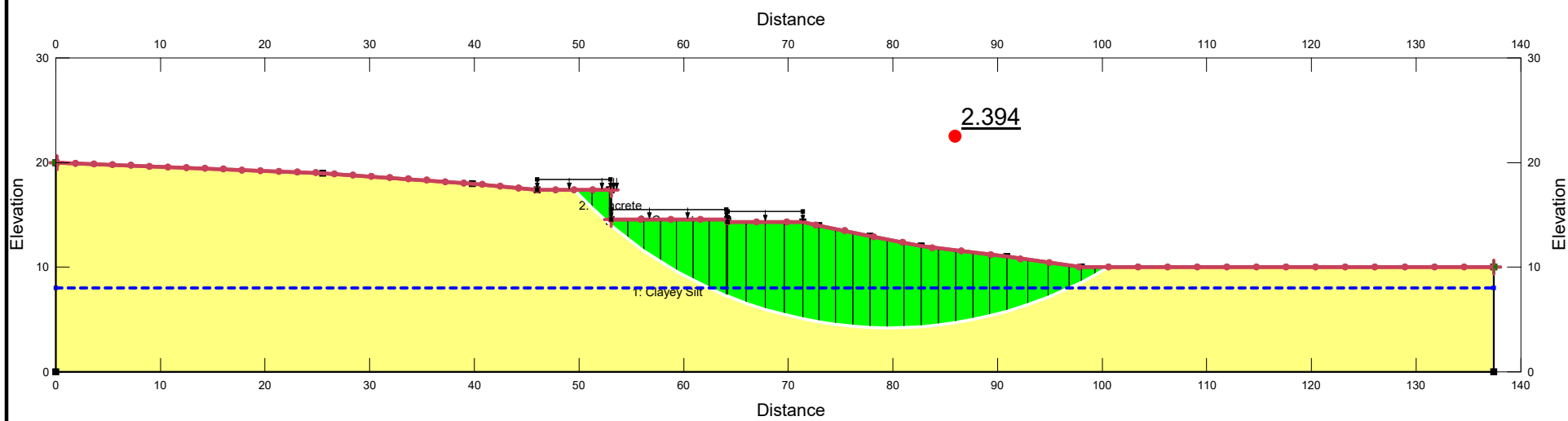


SLOPE/W Analysis. 273056 Lochend Road. Rocky View County.

Section A-A.gsz

09/21/2020

1:420



SLOPE/W Analysis. 273056 Lochen Road. Rocky View County.

Section B-B.gsz

09/18/2020

1:589





## LAND TITLE CERTIFICATE

S  
 LINC                      SHORT LEGAL                      TITLE NUMBER  
 0038 504 157           1912391;3;6           201 088 260

## LEGAL DESCRIPTION

PLAN 1912391

BLOCK 3

LOT 6

EXCEPTING THEREOUT ALL MINES AND MINERALS

AREA: 4.29 HECTARES (10.6 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE

ATS REFERENCE: 5;3;27;23;SW

MUNICIPALITY: ROCKY VIEW COUNTY

REFERENCE NUMBER: 191 247 326 +2

REGISTERED OWNER(S)				
REGISTRATION	DATE (DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
201 088 260	11/05/2020	TRANSFER OF LAND	\$405,000	\$405,000

## OWNERS

DAVID RUDISUELA

AND

SHEILA NIELSEN

BOTH OF:

[REDACTED]  
 [REDACTED]  
 [REDACTED]

AS JOINT TENANTS

## ENCUMBRANCES, LIENS &amp; INTERESTS

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
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851 075 153	09/05/1985	UTILITY RIGHT OF WAY GRANTEE - COCHRANE LAKE GAS CO-OP LTD.
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( CONTINUED )

## ENCUMBRANCES, LIENS &amp; INTERESTS

PAGE 2

# 201 088 260

## REGISTRATION

NUMBER	DATE (D/M/Y)	PARTICULARS
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891 243 196	20/11/1989	EASEMENT OVER AND FOR BENEFIT OF (SEE INSTRUMENT) (PORTION DESCRIBED IN INSTRUMENT)
191 247 330	05/12/2019	EASEMENT OVER AND FOR BENEFIT: SEE INSTRUMENT
201 055 827	19/03/2020	CAVEAT RE : UTILITY RIGHT OF WAY CAVEATOR - FORTISALBERTA INC. [REDACTED] [REDACTED] [REDACTED] AGENT - LOGAN MURIAS.

TOTAL INSTRUMENTS: 004

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN  
ACCURATE REPRODUCTION OF THE CERTIFICATE OF  
TITLE REPRESENTED HEREIN THIS 25 DAY OF  
SEPTEMBER, 2020 AT 01:49 P.M.

ORDER NUMBER: 40194961

CUSTOMER FILE NUMBER:



\*END OF CERTIFICATE\*

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

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















REVISIONS		

2 FEB 25, 2020 REVISED ADDRESS:  
ADDED UPPER FLOOR DORMER

NO.	DATE	DESCRIPTION	DRNAPP'D.
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WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSION. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF CINCEL DESIGN STUDIO AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE FIRM. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

**CINCEL**  
**DESIGN STUDIO**  
345 ELGIN GONS SE, CALGARY, AB, A8 T2Z 4T5  
PH: 403-589-3478  
DAVID.W.LUCHINSINGER@GMAIL.COM

**PROJECT DESCRIPTION:**  
**Single Family Dwelling**

**OWNER / APPLICANT NAME:**  
Dave Rudisuela  
Sheila Nielsen  
Ph:

**JOB ADDRESS:**  
Roll No. 07723018  
Rockyview County, Alberta

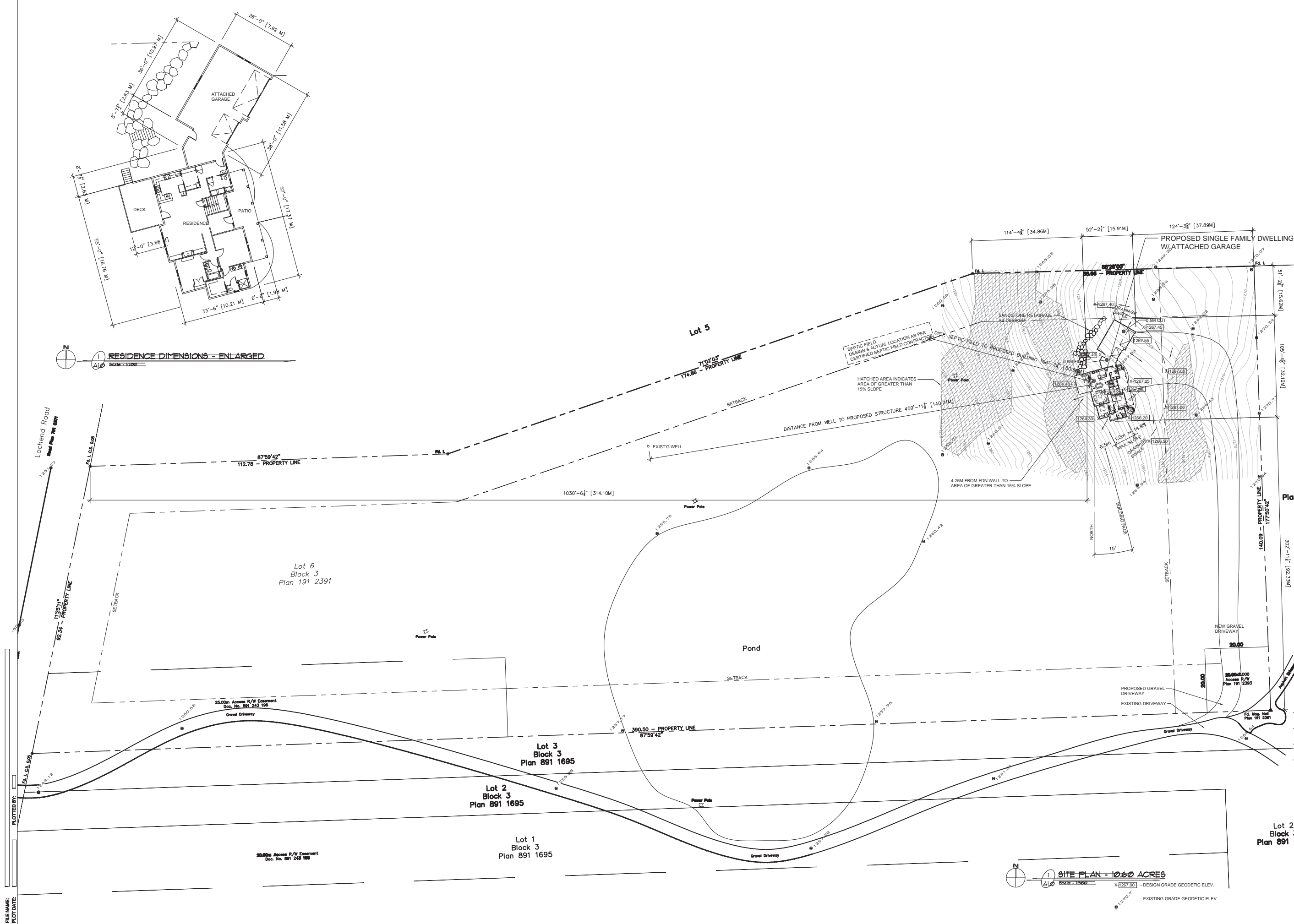
**LEGAL DESCRIPTION:**  
SW ¼ 23-27-3 W5M  
Plan 891 1695  
Block 3  
Lot 6

**ISSUE DATE:**  
SEPT 2, 2020

DRAWN BY: DWL DATE: JUN 1/20  
CHECKED BY: DWL DATE: SEP 2/20  
JOB NUMBER: 20-871  
SCALE: AS SHOWN

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**A1.0**



**1 RESIDENCE DIMENSIONS - ENLARGED**  
Scale = 1/8"=1'-0"

FILE NAME: PLOTTED BY: PLOT DATE:

**2 SITE PLAN - 10.60 ACRES**  
Scale = 1/8"=1'-0"  
X (267.00) - DESIGN GRADE GEODETIC ELEV.  
- EXISTING GRADE GEODETIC ELEV.

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSION: CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR, ALL DIMENSIONS AND CONDITIONS IN THE JOB AND HIS OFFICE MUST BE NOTIFIED BY VARIATION FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE THE PROPERTY OF THE ARCHITECT'S FIRM, DESIGN STUDIO AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE FIRM. VERBAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

**Single Family Dwelling**

**LEGAL DESCRIPTION:**  
**SW ¼ 23-27-3 W5M**  
**Plan 891 1695**  
**Block 3**  
**Lot 6**

DRAWN BY: DWL DATE: JUN 1/20

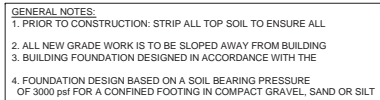
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JOB NUMBER: 20-871

SCALE: AS SHOWN

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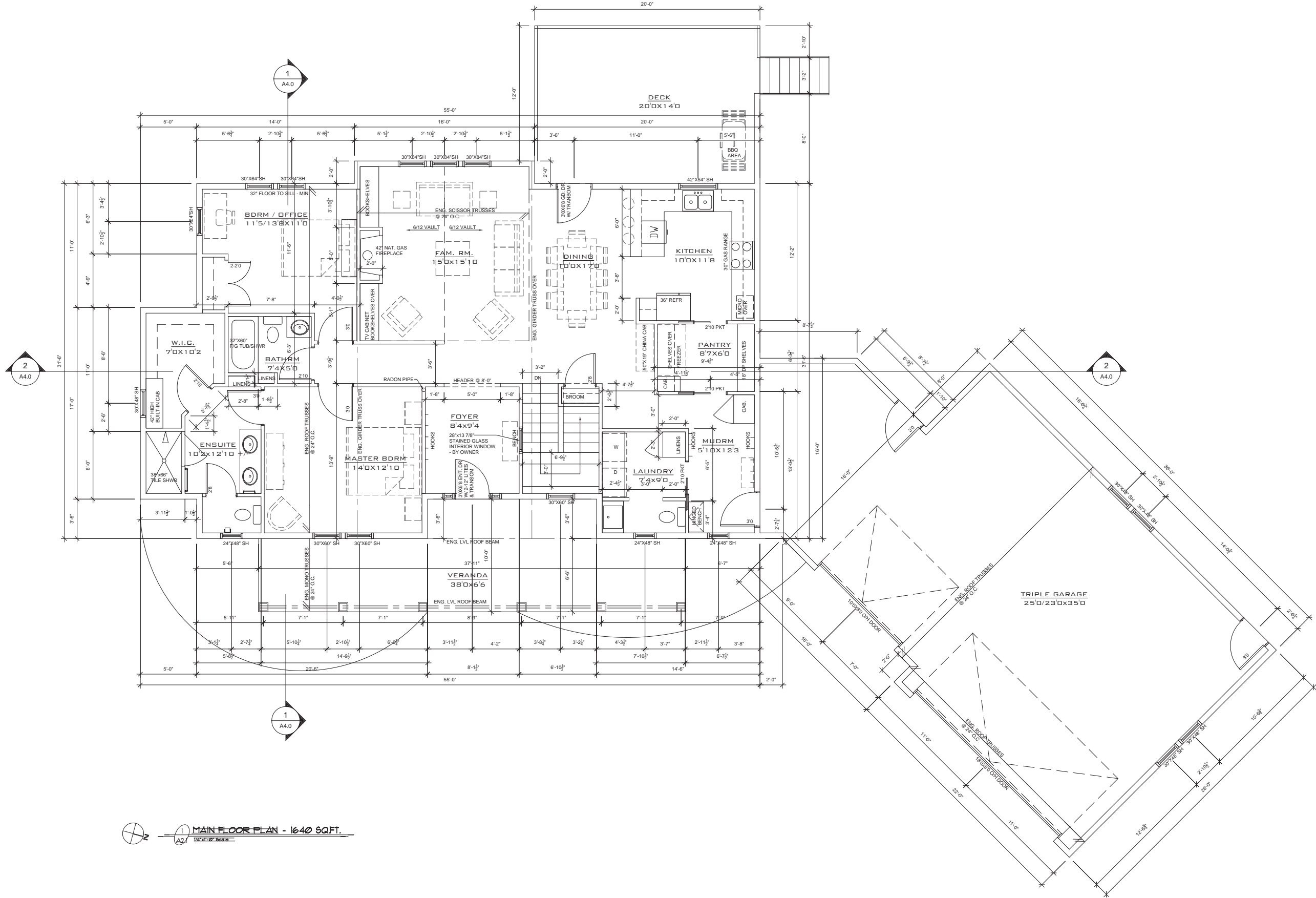
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FILE NAME: \_\_\_\_\_ PLOTTED BY: \_\_\_\_\_  
 PLOT DATE: \_\_\_\_\_



1  
A2.1  
MAIN FLOOR PLAN - 1640 SQ.FT.  
1/8" = 1'-0" SCALE



NO.	DATE	DESCRIPTION	DRAWN BY

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSION. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF CINGEL DESIGN STUDIO AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE FIRM. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

## CINGEL DESIGN STUDIO

345 ELGIN BOULEVARD SE, CALGARY, AB, T2Z 4T5  
PH: 403-589-3478  
DAVID.W.LUCHINSBER@GMAIL.COM

### PROJECT DESCRIPTION:

Single Family Dwelling

### OWNER / APPLICANT NAME:

Dave Rudisuela  
Sheila Nielsen  
Ph:

### JOB ADDRESS:

Roll No. 07723018  
Rockyview County, Alberta

### LEGAL DESCRIPTION:

SW 1/4 23-27-3 W5M  
Plan 891 1695  
Block 3  
Lot 6

### ISSUE DATE:

SEPT 2, 2020

DRAWN BY: DWL DATE: JUN 1/20

CHECKED BY: DWL DATE: SEP 2/20

JOB NUMBER: 20-B71

SCALE: AS SHOWN

### SHEET TITLE:

MAIN FLOOR PLAN

### SHEET NUMBER:

A2.1

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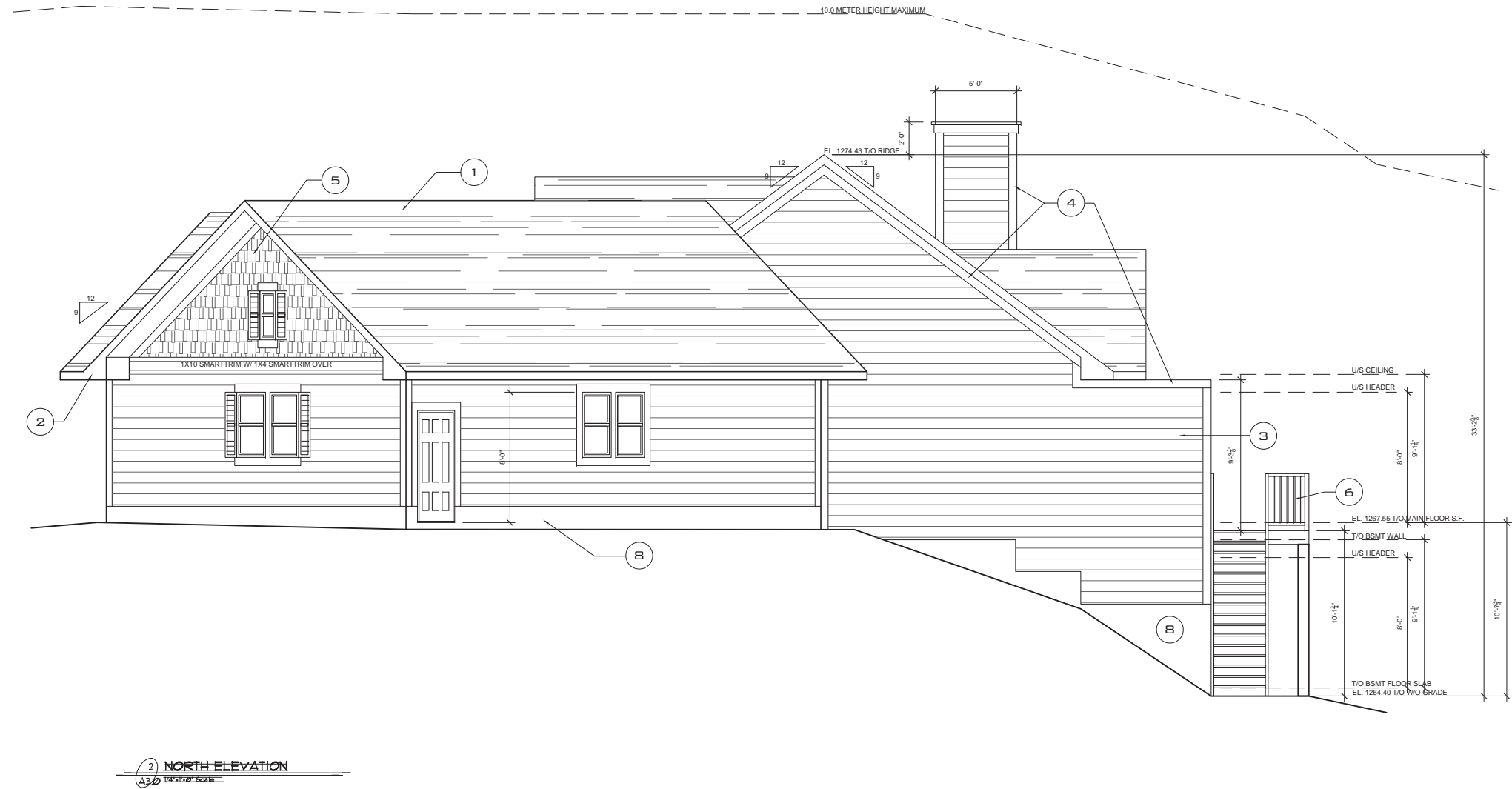
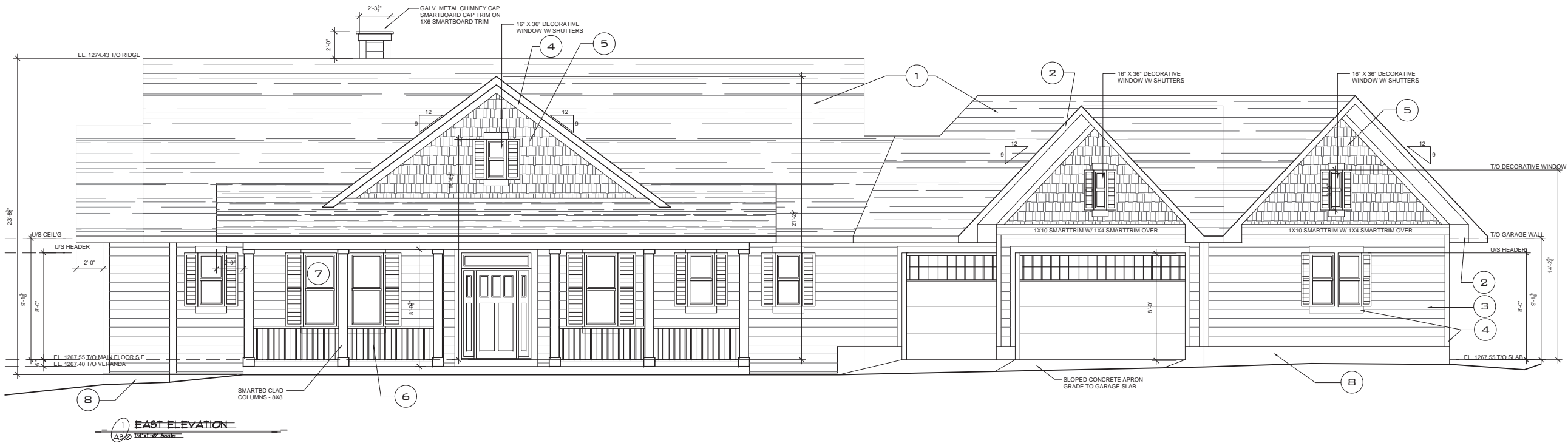
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## A2.2







- 1 ARCHITECTURAL ASPHALT SHINGLES  
-COLOUR BY OWNER
- 2 PREFIN. METAL FASCIA, GUTTERS & DOWNSPOUTS  
-COLOUR BY OWNER
- 3 HARDIE BOARD - HORIZONTAL SIDING  
-COLOUR BY OWNER
- 4 1X6 SMARTBD TRIMS - COLOUR BY OWNER
- 5 HARDIE SHAKE - COLOUR BY OWNER
- 6 PREFIN. METAL RAILING
- 7 PVC WINDOWS  
TRIPLE PANE LOW-E ARGON FILLED  
-COLOUR BY OWNER
- 8 PARGING

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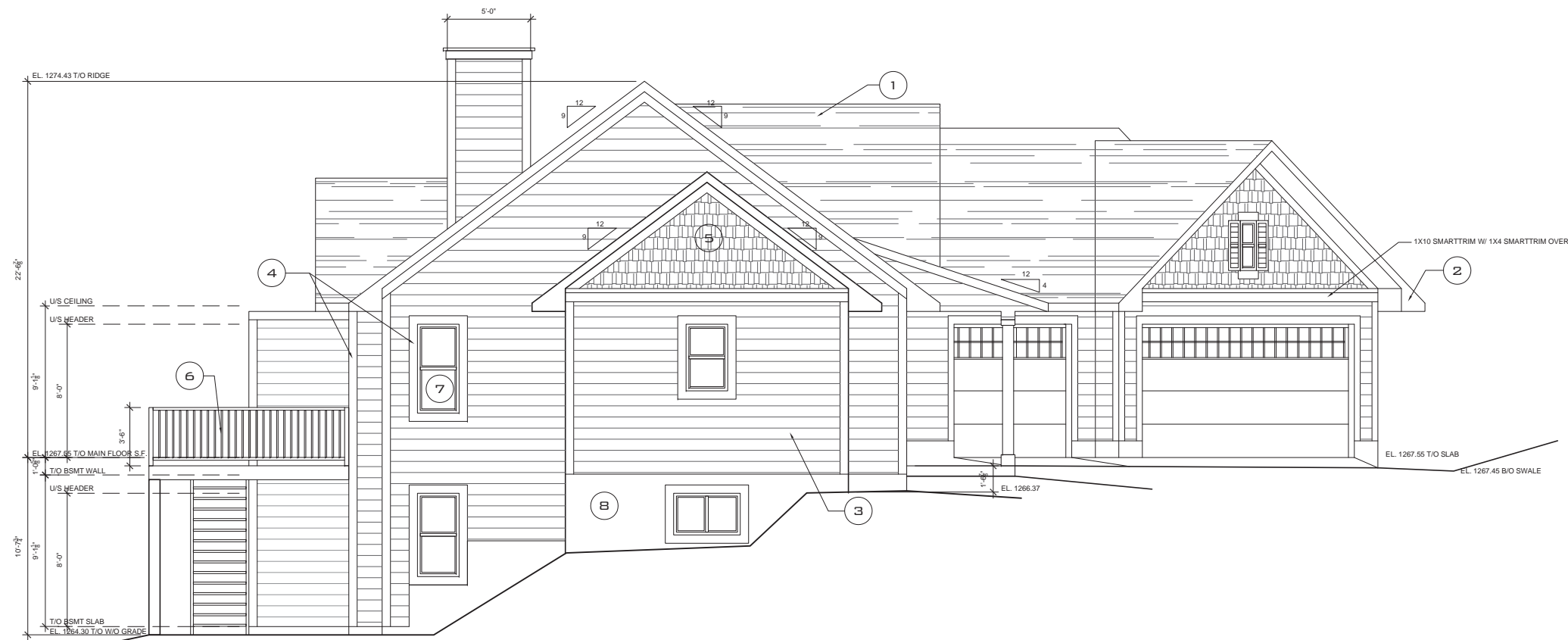
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**CHECKED BY:** DWL **DATE:** SEP 2/20  
**JOB NUMBER:** 20-B71  
**SCALE:** AS SHOWN

**SHEET TITLE:**  
**ELEVATIONS**

**SHEET NUMBER:**  
**A3.0**



1 WEST ELEVATION  
1/4"=1'-0" SCALE



2 SOUTH ELEVATION  
1/4"=1'-0" SCALE

- 1 ARCHITECTURAL ASPHALT SHINGLES  
-COLOUR BY OWNER
- 2 PREFIN. METAL FASCIA, GUTTERS & DOWNSPOUTS  
-COLOUR BY OWNER
- 3 HARDIE BOARD - HORIZONTAL SIDING  
-COLOUR BY OWNER
- 4 1X6 SMARTBD TRIMS - COLOUR BY OWNER
- 5 HARDIE SHAKE - COLOUR BY OWNER
- 6 PREFIN. METAL RAILING
- 7 PVC WINDOWS  
TRIPLE PANE, LOW-E, ARGON FILLED  
- COLOUR BY OWNER
- 8 PARGING

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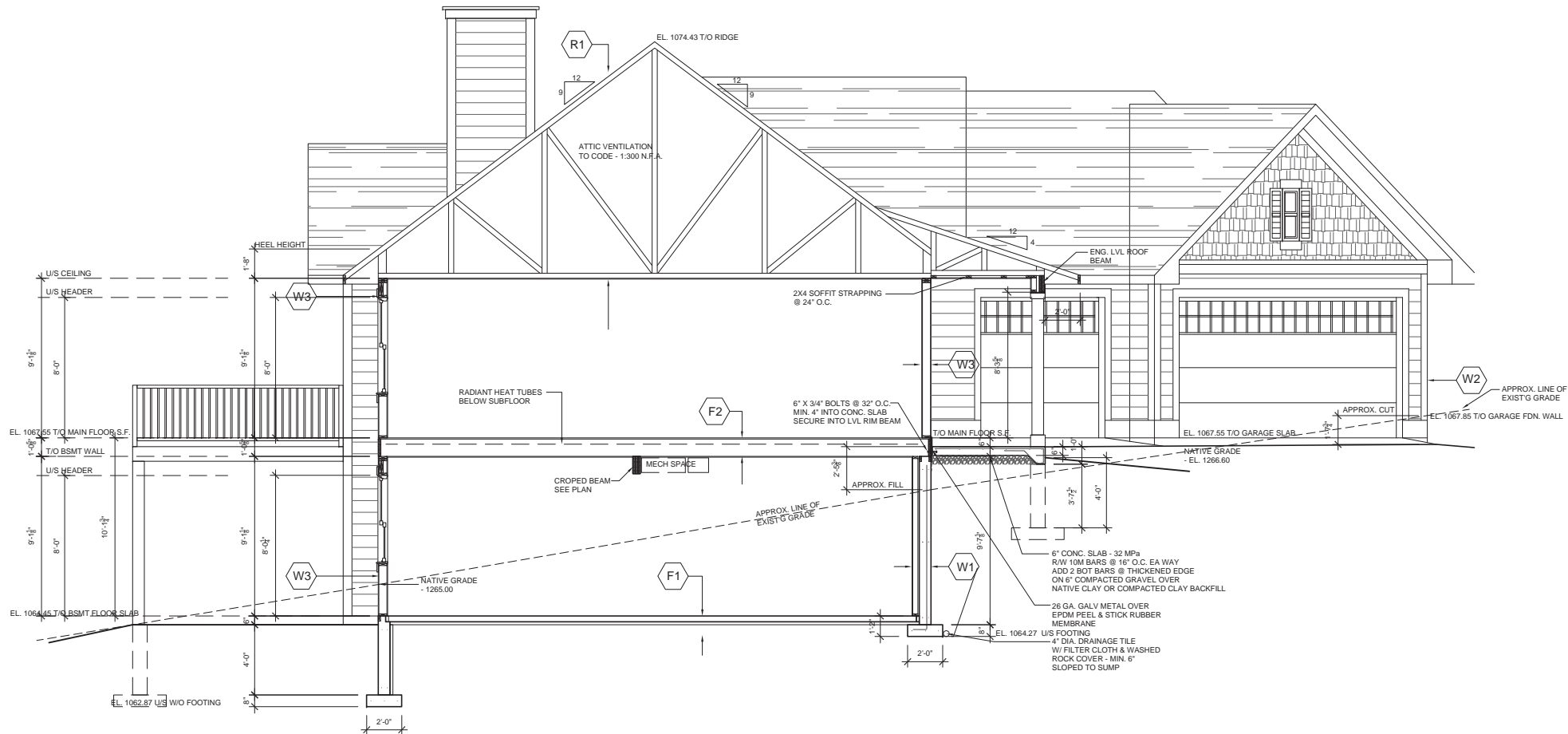
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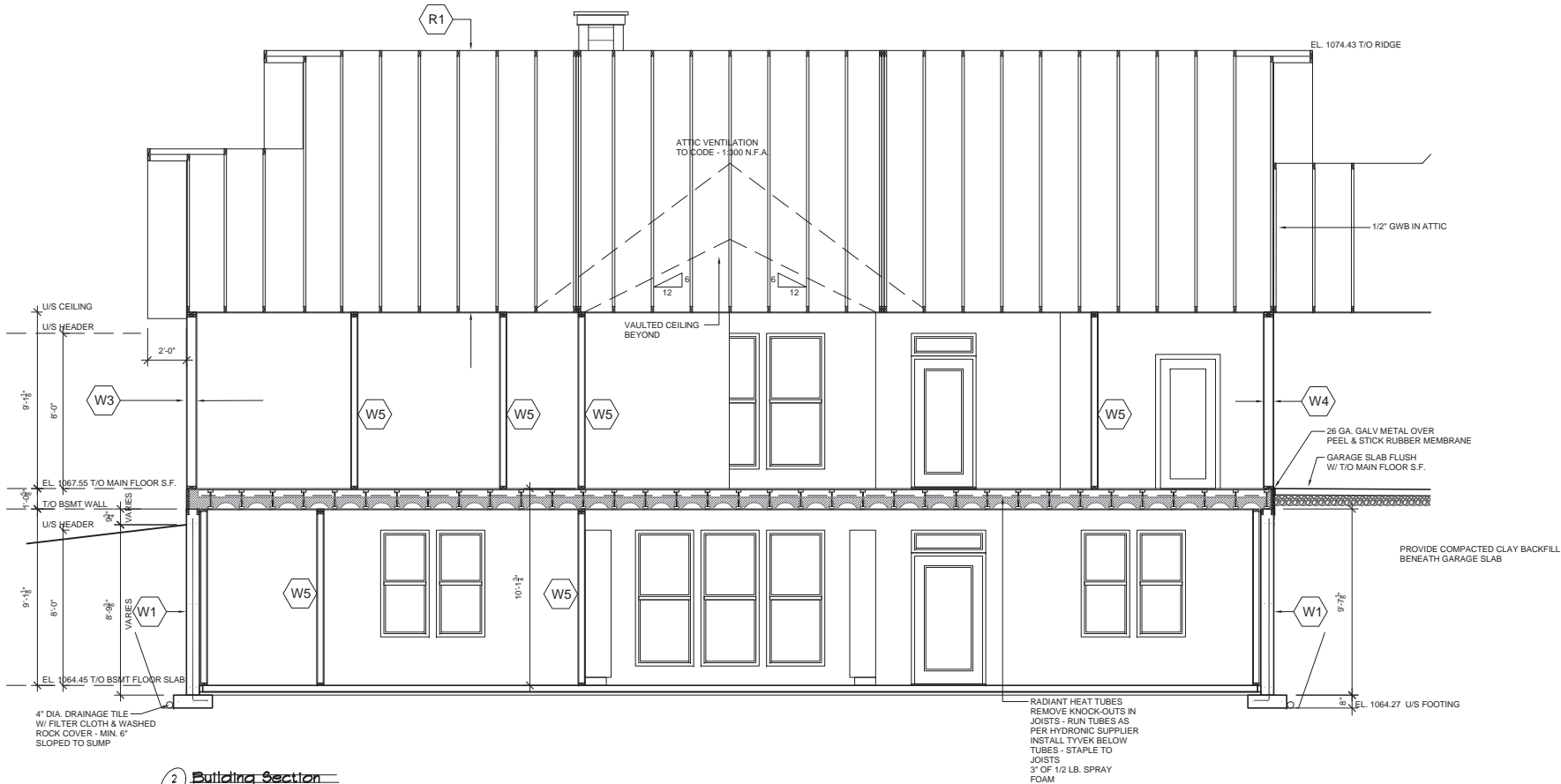
ELEVATIONS

SHEET NUMBER:

A3.1



1 Building Section  
A4.0 1/4\"/>



2 Building Section  
A4.0 1/4\"/>

- CONSTRUCTION SPECIFICATIONS**
- R1** ROOF CONSTRUCTION  
35 YR ASPHALT SHINGLES  
7/16\"/>

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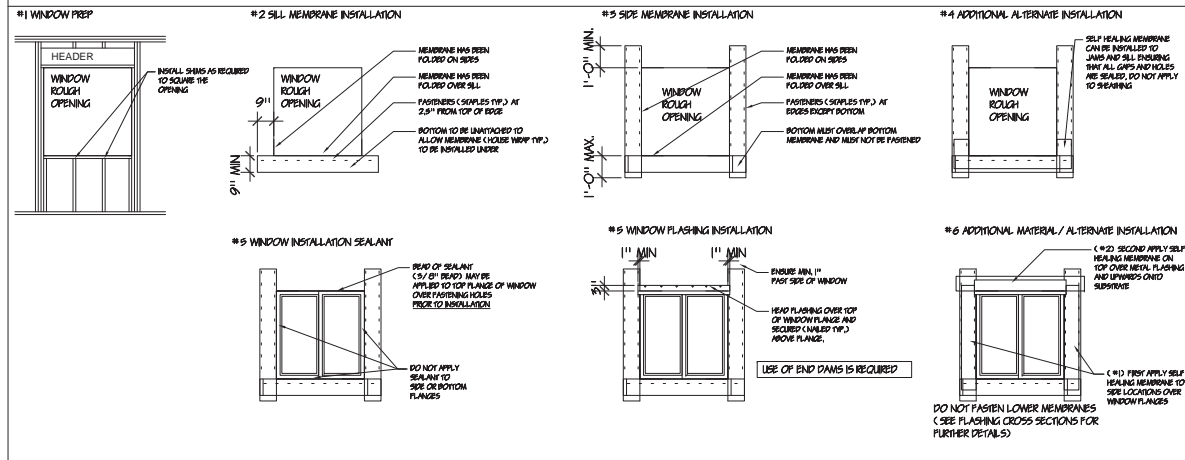
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**SCALE:** AS SHOWN

**SHEET TITLE:**  
**SECTIONS**

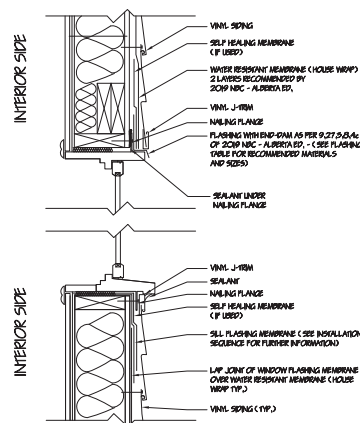
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## TYP. WINDOW INSTALLATION, PREP, WINDOW MEMBRANE AND FLASHING DETAILS (ALBERTA NEW HOME WARRANTY PROGRAM)

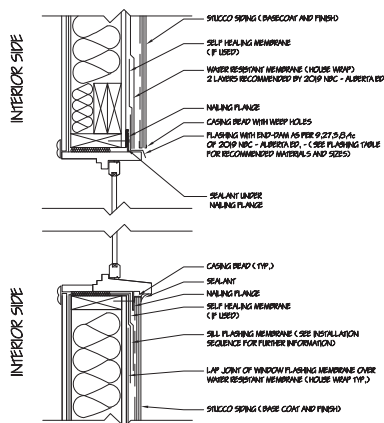


## TYP. FLASHING CROSS SECTION DETAILS

## TYP. WINDOW HEAD AND SILL DETAIL AND FLASHING WITH VINYL SIDING



## TYP. WINDOW HEAD AND SILL DETAIL AND FLASHING WITH STUCCO SIDING



## GENERAL NOTES:

## SEALANT:

UNLESS JOINTS ARE SUITABLY LAPPED OR AREA IS COMPLETELY PROTECTED FROM THE ENTRY OF RAIN, SEALANT MUST BE PROVIDED AT ALL VERTICAL JOINTS, BETWEEN MASONRY, SIDING OR STUCCO AND WINDOW FRAMES OR FROM INCLUDING SILLS AND ADJACENT DOORS. (SEE DIVISION B 9.27.4.1 REQUIRED SEALANT 2019 NBC - ALBERTA ED.)

SEALANT TYPE MUST CONFORM TO DIVISION B 9.27.4.2 MATERIALS 2019 NBC - ALBERTA ED.

## FLASHING:

## FLASHING MATERIALS

NOT LESS THAN:  
A.) 1.75mm THICK SHEET LEAD  
B.) .55mm THICK GALVANIZED STEEL  
C.) .46mm THICK COPPER  
D.) .46mm THICK ZINC  
E.) .46mm THICK ALUMINUM  
F.) 1.02 THICK VINYL

NOTE: VINYL SIDING IS NOT CONSIDERED FLASHING

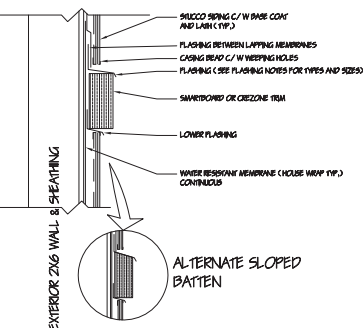
## SHEATHING MEMBRANE OVERLAP:

SHEATHING MEMBRANES SHALL BE APPLIED SO THAT JOINTS ARE LAPPED A MINIMUM OF 4". 9" IS RECOMMENDED. WHERE SHEATHING MEMBRANE IS APPLIED HORIZONTALLY THE UPPER SHEETS SHALL OVERLAP THE BOTTOM SHEETS. (FOR FURTHER INFORMATION SEE SECTION 9.27.5.3 2019 NBC - ALBERTA ED.)

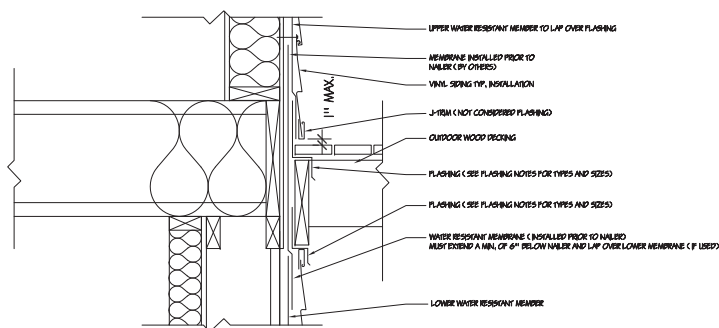
## SHEATHING JOINTS:

A GAP OF NOT LESS THAN 2mm SHALL BE LEFT BETWEEN SHEETS OF PLYWOOD, OSB, WATERBOARD OR FIBREBOARD. (SEE 9.25.16.9 2019 NBC - ALBERTA ED.)

## TYP. FLASHING INSTALLATION FOR BATTEN INTERSECTIONS



## TYP. FLASHING INSTALLATION FOR DECK AND SIDING BELOW W/ SLEEPERS INSTALLED



## ENERGY NOTES

## INSULATION CONTINUITY GENERAL NOTES -ABC 9.36.2.5

- A REDUCTION IN THE THERMAL RESISTANCE OF THE CEILING ASSEMBLY IN ATTICS UNDER SLOPED ROOFS IS PERMITTED FOR A LENGTH OF NO GREATER THAN 1200mm BUT ONLY TO THE EXTENT IMPOSED BY THE ROOF SLOPE AND MINIMUM VENTING CLEARANCE, PROVIDED THE NOMINAL THERMAL RESISTANCE OF THE INSULATION DIRECTLY ABOVE THE EXTERIOR WALL IS NOT LESS THAN R-20 / RSI - 3.82.
- THE ATTIC HATCHES AND ALL PLUMBING/ELECTRICAL PENETRATIONS INTO THE ATTIC SPACE ALONG ANY GAPS, SPACES, PENETRATIONS, IRREGULARITIES THAT COULD ALLOW LEAKAGE MUST BE SEALED.
- WHEN AN INTERIOR ELEMENT PENETRATES AN EXTERIOR ELEMENT AND BREAKS THE PLANE FOR INSULATION, THE INTERIOR ELEMENT SHALL BE:
  - INSULATED ON BOTH SIDES OF THE LENGTH & OF THE THICKNESS OF THE PENETRATED ASSEMBLY, OR
  - INSULATED WITHIN THE PLANE OF INSULATION OF THE PENETRATED ELEMENT TO AND EFFECTIVE THERMAL RESISTANCE NOT LESS THAN 80% OF THAT REQUIRED FOR THE PENETRATED ELEMENT, OR
  - INSULATED WITHIN ITSELF TO AN EFFECTIVE THERMAL RESISTANCE NOT LESS THAN THE REQUIRED FOR THE PENETRATED ELEMENT.
- MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS PLACE WITHIN AN EXTERIOR WALL MUST BE INSULATED BEHIND TO THE EFFECTIVE THERMAL RESISTANCE REQUIRED FOR THE ABOVE OR BELOW GRADE WALL ASSEMBLY.
- A FOUNDATION WALL IS CONSIDERED TO BE BELOW GRADE FOR THE PURPOSE OF USING BELOW GRADE RSI WHEN THE TOP OF THE SECTION OF FOUNDATION IS ON AVERAGE LESS THAN 600mm (24") ABOVE THE ADJOINING GROUND LEVEL WHERE THE WALL IS GREATER THAN 800MM, THE ABOVE GROUND PORTION OF WALL SHALL BE INSULATED TO THE ABOVE GRADE REQUIREMENTS.
- JOINTS AND JUNCTIONS BETWEEN WALLS AND OTHER BUILDING ENVELOP COMPONENTS SHALL BE INSULATED IN A MANNER THAT PROVIDES AN EFFECTIVE THERMAL RESISTANCE THAT IS NOT LESS THAN THE LOWER OF MINIMUM VALUES REQUIRED FOR THE RESPECTIVE ADJOINING COMPONENTS.

## AIR TIGHTNESS GENERAL NOTES -ABC 9.36.2.9 AND 9.36.2.10

- AIR BARRIERS TO BE CONTINUOUS.
- ACROSS CONSTRUCTION, CONTROL AND EXPANSION JOINTS.
- ACROSS JUNCTIONS BETWEEN DIFFERENT BUILDING MATERIALS AND ASSEMBLIES.
- AROUND PENETRATION THROUGH ALL BUILDING ASSEMBLIES.
- SEALING IS REQUIRED BETWEEN ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, AND OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL.
- WINDOWS, DOORS AND SKYLIGHTS AND THEIR COMPONENTS SHALL COMPLY WITH MINIMUM AIR LEAKAGE REQUIREMENT STATED IN WAFS AN CSA A446.1.
- WHERE THE AIR TIGHT MATERIAL USED IN THE AIR BARRIER SYSTEM IS INSTALLED TOWARD THE EXTERIOR OF BUILDING ENVELOP, ITS LOCATION AND PROPERTIES SHALL CONFORM TO 9.35.6
- WHERE POLY BOOTHS ARE USED ON EXTERIOR WALLS AND CEILINGS FOR ELECTRICAL BOXES AND POT LIGHTS THEY MUST BE SEALED TO THE AIRVAPOR BARRIER AND STRUCTURALLY SUPPORTED.
- CANTILEVERED FLOORS AND WALL JUNCTIONS REQUIRE CONTINUOUS AIR BARRIER.
- JUNCTIONS BETWEEN THE FLOOR AND RIM JOISTS TO FOUNDATION MUST BE SEALED.

## AS PER TABLE ABC 9.36.2.6.A - EFFECTIVE THERMAL RESISTANCE OF ABOVE-GRADE OPAQUE ASSEMBLIES IN BUILDING WITHOUT A HEAT RECOVERY VENTILATOR

ABOVE-GRADE OPAQUE BUILDING ASSEMBLY	ZONE 7A (2000 TO 5999) MINIMUM EFFECTIVE THERMAL RESISTANCE (RSI) / R-VALUE
CEILING BELOW ATTIC	10.43   18.22
CATHEDRAL CEILING AND FLAT ROOF	5.02   26.50
WALLS	5.08   17.49
FLOOR OVER UNHEATED SPACES	5.02   26.50

## AS PER TABLE ABC 9.36.2.7.A - REQUIRED THERMAL CHARACTERISTICS OF PENETRATION AND DOORS

COMPONENTS	THERMAL CHARACTERISTICS	ZONE 7A (2000 TO 5999)
PENETRATION	MAX. U-VALUE	1.60
AND DOOR	MIN. ENERGY RATING	25

## CONSTRUCTION SPECIFICATIONS

## CLIMATE ZONE 7A

ROOF CONSTRUCTION	THICKNESS	RSI/mm	RSI VALUE
35 YR ASPHALT SHINGLES	-	-	-
7/16" OSB SHEATH & H-CLIPS	11.11	0.0098	0.11
CONTINUOUS INSULATION @ 10.1675 RSI PER mm X 476mm	177.8	0.01875	3.33
PRE-ENG. ROOF TRUSSES @ 24" O.C. + 89mm BLOWN INSULATION	178	-	3.40*
BRACING AS PER MANUF. SPECS	0.06	0.03	0.09
CGSB 6 MIL POLY V.B.	12.7	0.0061	0.08
1/2" CD. GWB	-	-	0.12
INTERIOR AIR FILM	-	-	5.10
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI VALUE=5.02			

## \* RSI FOR 2X4 (88x190mm) WOOD TRUSSES AT 24"(610mm) ON CENTRE FILLED WITH BLOWN INSULATION

THICKNESS (mm)	RSI / (mm)	RSI-VALUE (R-VALUE) CALCULATION	RSI-VALUE EFFECTIVE
38x89 WOODTRUSS AT 610mm o/c	89	0.0085	0.76
BLOWN INSULATION	89	0.01875	1.66
			11 + 89 0.76 + 1.66
			= 1.46 (R16.42)

BASEMENT FLOOR / SLAB ON GRADE	THICKNESS	RSI/mm	RSI VALUE
INTERIOR AIR FILM	-	-	0.16
5 1/2" CONC. 25 MPa TYPE 10 W/ 10M BARS @ 24" O.C. EA. WAY	140.0	0.0004	0.06
HYDRONIC HEATING TUBES	-	-	-
6 MIL CGSB POLY V.B.	-	-	-
R16 OR RSI 2.85 RIGID INSULATION RATED FOR BELOW SLAB (DOV 40)	-	-	2.85
MIN 1" ON	-	-	-
IF COMPACTED GRAVEL FILL	-	-	-
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI=2.84			

RSI VALUES ASSEMBLY WERE OBTAINED FROM ABC 2014 TABLE A-9.36.2.8.(1)(TOU).

MAIN FLOOR CONSTRUCTION FINISH FLOORING	THICKNESS	RSI/mm	RSI VALUE
FINISH FLOOR - OWNER TO SELECT	-	-	-
3/8" PROBOARD UNDERLAY - LINO AREAS ONLY	-	-	-
3/8" SP. PLYD UNDERLAY - TILE AREAS ONLY	-	-	-
3/4" PLYD SUBFLOOR T&G GLUED & SCREWED	-	-	-
ENG FLOOR JOISTS - SPACING PER MFR'S SPECS - C/W CROSS-BRIDGING @ 7" O.C. MAX.	-	-	-
1/2" CD. GWB T&P & FILLED	-	-	-
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI VALUE=3.48			

CONCRETE FOUNDATION WALL ASSEMBLY W/ INTERIOR FRAMED WALL	THICKNESS	RSI/mm	RSI VALUE
EXTERIOR AIR FILM	-	-	0.03
3/8" (9.53mm) PARGING ABOVE GRADE	-	-	-
1 LAYER DAMP PROOFING	-	-	-
8" (203mm) THICK CONC. WALL - 35 MPa TYPE 10 REINF. AS PER STRUCT. ENG. DRAWINGS	203	0.0004	0.08
24" W X 19" DP REINF. CONC. FTG.	-	-	3.27*
2X6 (152mm) STUDS WITH R24 BATT INSULATION @ 24" O.C.	-	-	-
6 MIL CGSB POLY V.B.	-	-	-
1/2" GYPSUM BOARD	12.7	0.0061	0.08
FINISH ONE COAT LATEX PRIMER AND LATEX PAINT	-	-	0.12
INTERIOR AIR SPACE	-	-	-
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI VALUE=3.48			

RSI VALUES ASSEMBLY WERE OBTAINED FROM ABC 2014 TABLE A-9.36.2.8.(1)(TOU).

## \* RSI FOR 2X8 (88x192mm) WOOD FRAME AT 24"(610mm) ON CENTRE FILLED WITH R24 BATT INSULATION

THICKNESS (mm)	RSI / (mm)	RSI-VALUE (R-VALUE) CALCULATION	EFFECTIVE RSI-VALUE	RSI-VALUE EFFECTIVE
38x152 WOOD STUD AT 610mm o/c	152	0.0085	1.29	100
R24 BATT INSULATION	152	-	4.23	13 + 87 1.29 + 4.23
				= 3.27 (R16.87)

WALL CONSTRUCTION - GARAGE	THICKNESS	RSI/mm	RSI VALUE
EXTERIOR AIR FILM	-	-	0.03
FIBER REINFORCED CEMENT 5/16" (8mm) SIDING	12.7	0.0061	0.08
WEATHER BARRIER	-	-	-
3/8" OSB SHEATHG	9.5	-	0.08
2X6 SP. STUDS WITH R20 BATT INSULATION @ 16" O.C.	-	-	2.45
6 MIL CGSB POLY V.B.	-	-	-
1/2" GYPSUM BOARD	12.7	0.0061	0.08
FINISH ONE COAT LATEX PRIMER AND LATEX PAINT	-	-	0.12
INTERIOR AIR SPACE	-	-	-
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI VALUE=NO REQUIRED			

## AS PER TABLE ABC 9.36.2.8.A - EFFECTIVE THERMAL RESISTANCE OF BELOW-GRADE OR IN CONTACT WITH THE GROUND IN BUILDINGS WITHOUT A HEAT RECOVERY VENTILATOR

BUILDING ASSEMBLY BELOW GRADE OR IN CONTACT WITH THE GROUND	ZONE 7A (2000 TO 5999) MINIMUM EFFECTIVE THERMAL RESISTANCE (RSI) / R-VALUE
FOUNDATION WALLS	3.48   19.86
UNHEATED FLOORS	-
BELOW FROST LINE	UNINSULATED
ABOVE FROST LINE	1.68   11.13
HEATED AND UNHEATED FLOORS ON PERMAFROST	2.84   16.13
HEATED FLOOR	3.72   21.29
SLAB ON GRADE WITH AN INTEGRAL FOOTING	-

COMPONENTS	THERMAL CHARACTERISTICS	ZONE 7A (2000 TO 5999)
PENETRATION	MAX. U-VALUE	1.60
AND DOOR	MIN. ENERGY RATING	25

EXTERIOR WALL ASSEMBLY	THICKNESS	RSI/mm	RSI VALUE
EXTERIOR AIR FILM	-	-	0.03
FIBER REINFORCED CEMENT 5/16" (8mm) SIDING	-	-	0.03
WEATHER BARRIER	-	-	-
3/8" OSB SHEATHG	9.5	-	0.08
2X6 SP. STUDS WITH R24 BATT INSULATION	-	-	2.78*
6 MIL CGSB POLY V.B.	-	-	-
1/2" GYPSUM BOARD	12.7	0.0061	0.08
FINISH ONE COAT LATEX PRIMER AND LATEX PAINT	-	-	0.12
INTERIOR AIR SPACE	-	-	-
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI VALUE=3.08			

RSI VALUES ASSEMBLY WERE OBTAINED FROM ABC 2014 TABLE A-9.36.2.8.(1)(TOU).

* RSI FOR 2X8 (88x192mm) WOOD FRAME AT 16"(406mm) ON CENTRE WITH BATT INSULATION	THICKNESS (mm)	RSI / (mm)	RSI-VALUE (R-VALUE) CALCULATION	EFFECTIVE RSI-VALUE	RSI-VALUE EFFECTIVE
38x152 WOOD STUD AT 406mm o/c	152	0.0085	1.29	100	
R24 BATT INSULATION (CANULC-S702)	127	0.036	4.23	23 + 77 1.29 + 4.23	= 2.78 (R15.78)

RSI VALUES FOR INDIVIDUAL CONSTRUCTION MATERIALS USED IN ASSEMBLY WERE OBTAINED FROM ABC 2014 TABLE A-9.36.2.8.(1)(TOU).

WALL ADJACENT TO AN UNCONDITIONED GARAGE	THICKNESS	RSI/mm	RSI VALUE
INTERIOR GARAGE AIR FILM	-	-	0.03
1/2" GYPSUM BOARD	12.7	0.0061	0.08
3/8" OSB SHEATHG	9.5	-	0.08
2X6 SP. STUDS WITH R24 BATT INSULATION	-	-	2.78*
6 MIL CGSB POLY V.B.	-	-	-
1/2" GYPSUM BOARD	12.7	0.0061	0.08
FINISH ONE COAT LATEX PRIMER AND LATEX PAINT	-	-	0.12
INTERIOR AIR SPACE	-	-	-
ASSEMBLY EFFECTIVE RSI			
ZONE 7A REQUIREMENT TWO HRV RSI VALUE=3.08			

TYPICAL 4" INTERIOR PARTITION WALL	THICKNESS	RSI/mm	RSI VALUE
1/2" DRYWALL SIDES	-	-	-
2X4 SPR. CONST. STUDS @ 16" O.C.	-	-	-
TYPICAL 6" INTERIOR PARTITION WALL			
1/2" DRYWALL SIDES	-	-	-
2X6 SPR. CONST. STUDS @ 16" O.C.	-	-	-
STAIR CONSTRUCTION			
2X12 STRINGERS	-	-	-
1" TREADS	-	-	-
PLYWOOD RISERS	-	-	-
1" NOSING	-	-	-
6" MINIMUM HEADROOM CLEARANCE	-	-	-
FASCIA & SOFFIT			
PREFIN. ALUM FASCIA	-	-	-
ALUM. VENTED SOFFIT & ALUM. EAVESTROUGH	-	-	-
C/W 5 FOLD-AWAYS	-	-	-
WINDOWS, TRIPLE PANE, LOW-E ARGON GAS			
MIN. U-VALUE 1.60	-	-	-
MIN. ENERGY RATING 25	-	-	-
WINDOWS AS PER MFR'S OWNER-APPROVED SCHEDULE	-	-	-
INSTALLATION AS PER ALBERTA NEW HOME WARRANTY INSTALLATION GUIDE	-	-	-
PROVIDE 12" PEEL & STICK ELASTOMERIC MEMBRANE DIRECTLY TO NAILING FIN	-	-	-
DOORS			
MIN. U-VALUE 1.60	-	-	-
MIN. ENERGY RATING 25	-	-	-

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSION. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF CINGEL DESIGN STUDIO AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE FIRM. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

## CINGEL DESIGN STUDIO

345 ELGIN GONS SE, CALGARY, AB, A8 T2Z 4T5  
PH: 403-589-3478  
DAVID.W.LUCHINSINGER@GMAIL.COM

## PROJECT DESCRIPTION:

## Single Family Dwelling

## OWNER / APPLICANT NAME:

Dave Rudisuela  
Sheila Nielsen  
Ph:

## JOB ADDRESS:

Roll No. 07723018  
Rockyview County, Alberta

## LEGAL DESCRIPTION:

SW ¼ 23-27-3 W5M  
Plan 891 1695  
Block 3  
Lot 6

## ISSUE DATE:

SEPT 2, 2020

DRAWN BY: DWL DATE: JUN 1/20

CHECKED BY: DWL DATE: SEP 2/20

JOB NUMBER: 20-871

SCALE: AS SHOWN

## SHEET TITLE:

## ENERGY CODE DATA FLASHING DETAILS

## SHEET NUMBER:

## A4.1





CONTINUOUS AIR BARRIER WITH ALL PENETRATIONS SEALED UNDER SLAB, (INCLUDING AIRTIGHT SUMP COVER)  
- 100mm CLEAN COMPACTED GRANULAR FILL, OR GAS PERMEABLE LAYER BETWEEN AIR BARRIER AND GROUND  
- SLAB PERIMETER SEALED  
- ROUGH-IN FOR UNDER SLAB DEPRESSURIZATION, LABELLED AND CAPPED  
REQUIRED FOR ALL BUILDINGS INTENDED TO BE OCCUPIED FOR MORE THAN 4 HOURS PER DAY.  
- THE AIR BARRIER MUST BE PLACED DIRECTLY BELOW THE SLAB  
- IF A FLOETHYLENE MEMBRANE IS USED, IT SHALL CONFORM TO CANVG08-61.3-4.4. JOINTS MUST BE LAPPED A MIN. 300mm AND SEALED TO THE TOP OF PERIMETER FOOTING OR FOUNDATION WALL  
WITH APPROVED SEALANT  
- ALL PENETRATIONS SHALL BE SEALED. THIS INCLUDES PLUMBING ROUGH-INS, SUMP PIT OPENINGS, ETC.  
- SEALANTS ARE TO CONFORM TO ARTICLE 9.27.4.2

**9.25.3.6 - SLAB TO WALL JOINT MUST BE SEALED**

- SEALED TO THE FOOTING OR FOUNDATION WALL WITH APPROVED SEALANT, CONFORMING TO ARTICLE 9.27.4.2
- RUN A BEAD OF SEALANT ALONG THE JOINT OF THE FOUNDATION WALL OR SLAB

- MUST CONTAIN 100mm OF CLEAN GRANULAR MATERIAL BETWEEN THE GROUND AND AIR BARRIER OR:
- A GAS PERMEABLE LAYER WITH SEALED INLET AND OUTLET.
- MIN. 100mm SOLID PIPE INSTALLED THROUGH THE FLOOR, CLEARLY LABELLED AND GAPPED.
- BOTTOM END OPENING INTO GRANULAR LAYER AT, OR NEAR, THE CENTER OF THE FLOOR.
- PIPE PENETRATIONS THROUGH AIR BARRIERS MUST BE SEALED TO MAINTAIN THE INTEGRITY OF THE AIR BARRIER.

**9.14.5.2 (2) - SUMP PIT COVERS MUST BE DESIGNED TO RESIST REMOVAL BY CHILDREN AND TO BE AIR TIGHT.**

- THE PERIMETER SHALL BE WEATHER-STRIPPED
- ALL PENETRATIONS OR OPENINGS SEALED.

[illegible]

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**CINCEL**  
**DESIGN STUDIO**

345 ELGIN GONS SE, CALGARY, AB, AB T2Z 4T5  
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DAVID.W.LUCHSINGER@GMAIL.COM

PROJECT DESCRIPTION:

Single Family Dwelling

OWNER / APPLICANT NAME:

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Ph:

**JOB ADDRESS:**  
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**Rockyview County, Alberta**

LEGAL DESCRIPTION:

SW 1/4 23-27-3 W5M  
Plan 891 1695  
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Lot 6

ISSUE DATE:  
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SCALE: AS SHOWN

SHEET TITLE:

SECTIONS  
STANDARD DETAILS

SHEET NUMBER:

## A4.2



SHALL WITHIN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSION: CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE SHALL BE NOTIFIED IMMEDIATELY IN WRITING OF ANY DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT'S DESIGN STUDIO AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. ANY VIOLATION OF THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

**PROJECT DESCRIPTION:**

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**Single Family Dwelling**

---

**OWNER / APPLICANT NAME:**

**Dave Rudisuela**  
**Sheila Nielsen**  
**Ph:**

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**JOB ADDRESS:**

**Roll No. 07723018**  
**Rockyview County, Alberta**

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**LEGAL DESCRIPTION:**

**SW ¼ 23-27-3 W5M**  
**Plan 891 1695**  
**Block 3**  
**Lot 6**

---

**ISSUE DATE:**

**SEPT 2, 2020**

SCALE: AS SHOWN

SHEET NUMBER: \_\_\_\_\_

## A5.0



- NOTE:**  
MECHANICAL SYSTEM &  
PLUMBING LAYOUT TO BE  
DESIGNED BY CONTRACTOR IN  
ACCORDANCE WITH ALL CODES  
AND BY-LAWS
- FOUNDATION CONTRACTOR TO  
COORDINATE ALL THROUGH  
WALL ACCESS WITH MECH AND  
ELECT CONTRACTORS
- PROVIDE SHUT-OFF VALVES  
IMMEDIATELY BELOW ALL  
PLUMBING FIXTURES
- PROVIDE MIN. 2 CIRCUITS  
TO GARAGE

**NOTE:**  
ACTUAL FIXTURE & SWITCH LOCATION, STYLE  
AND COLORS TO BE CONFIRMED BY OWNER  
PRIOR TO ROUGH-IN