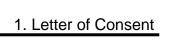
# Winnemucca Mill Site

# Land Use Application

# Appendix

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San Juan County Planning Department 1557 Greene St PO Box 466 Silverton, CO 81433

Re: Authorization by Wide Open Properties LLC for land use application

To whom it may concern:

Please be advised that Wide Open Properties LLC, a Colorado limited liability corporation, represented by Kirk Huff and Craig Hasto, hereby authorizes DHM Design Corporation, including but not limited to Jason Jaynes, Evelyn Volz and Jeremy Allinson, to act on its behalf with respect to its land use application for property development in Howardsville, CO.

Sincerely,

Wide Open Properties LLC, a Colorado limited liability corporation

Kirk Huff (Owner)

STATE OF COLORADO	,
COUNTY OF DETTA	)
The foregoing was acknown of Frankey 2024, by Kirl	vledged before me this Z Day k Huff as Owner of Wide Open

Witness my hand and official seal.

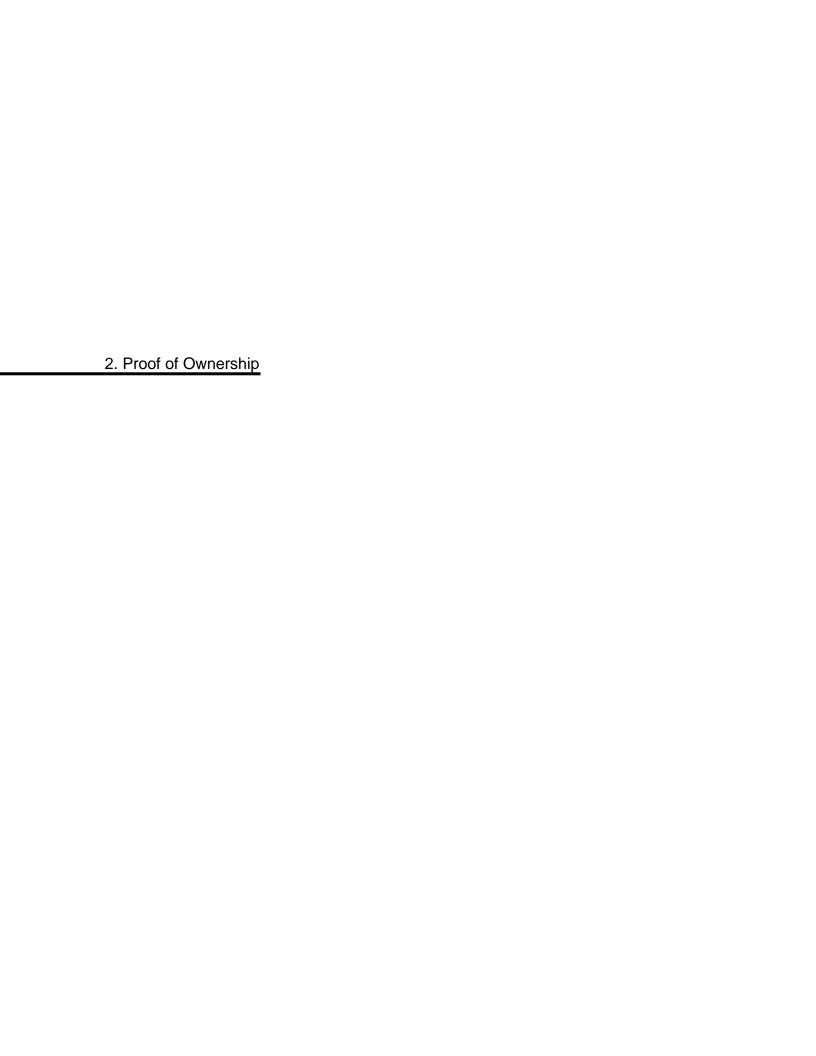
CTATE OF COLODADO

Properties, LLC.

My commission expires: 9.28-2024

JACKIE LYNN SCHOONOVER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #19944015870
My Commission Expires September 28, 2026

Jack Salwon



## ERECORDED DATE 12/15/22 COUNTY San Juan REC. NO. \_\_/53250

#### WARRANTY DEED

THIS DEED, Made this 15th Day of December, 2020

Between TOPEK TRUST, KEVIN TOPEK, TRUSTEE

of the County of Harris and State of Texas, grantor

and KIRK D. HUFF and TERI L. ALEXANDER

whose legal address is 3424 Ridgeline Drive Montrose, CO 81401

of the County of Montrose and State of Colorado, grantee

State Documentary Fee

Date: Decomber 15, 2020

\$ 17.20

WITNESSETH, That the grantor for and in consideration of the sum of

the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the grantee, their heirs and assigns forever, not in tenancy in common but in joint tenancy, all the real property together with improvements, if any, situate, lying and being in the County of San Juan and State of Colorado described as follows:

WINNEMUCCA MILL SITE, U.S. MINERAL SURVEY NO. 563B, San Juan County, Colorado.

LESS AND EXCEPT any portion of the above named mining claim, within overlapping senior mining claims whether excepted or not in the patent for the above described Winnemucca Mill Site No. 563B.

As known by street and number as: TBD County Road 2 Howardsville Silverton, CO 81433

**TOGETHER** with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all the estate, right, title, interest, claim and demand whatsoever of the grantor either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the grantee, their heirs and assigns forever. The grantor, itself, its successors, does covenant, grant, bargain, and agree to and with the grantee, their heirs and assigns, that at the time of the ensealing and delivery of these presents, he is well seized of the premises above conveyed, has good, sure, perfect, absolute and indefeasible estate of inheritance, in law, in fee simple, and has good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, encumbrances and restrictions of whatever kind or nature so ever, except: 2020 taxes due and payable in the year 2021. Subject to Statutory Exceptions as defined in CRS § 38-30-113(5).

The grantor shall and will WARRANT AND FOREVER DEFEND the above-bargained premises in the quiet and peaceable possession of the grantee, their heirs and assigns, against all and every person or persons lawfully claiming the whole or any part thereof. The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

TOPEK TRUST

BY: KEVIN TOPEK, TRUSTEE

STATE OF TEXAS COUNTY OF HARRIS

The foregoing instrument was acknowledged before me this 10 Day of December, 2020

By: KEVIN TOPEK, TRUSTEE OF THE TOPEK TRUST

My compaigned a spinson a second a seco

Witness my hand and official seal

WITNESSETH, That the grantor for and in consideration of the sum of

the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the grantee, their heirs and assigns forever, not in tenancy in common but in State of Colorado described as follows:

WINNEMUCCA MILL SITE, U.S. MINERAL SURVEY NO. 563B, San Juan County, Colorado.

LESS AND EXCEPT any portion of the above named mining claim, within overlapping senior mining claims whether excepted or not in the patent for the above described Winnemucca Mill Site No. 563B.

As known by street and number as: TBD County Road 2 Howardsville Silverton, CO 81433

**TOGETHER** with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all the estate, right, with the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the grantee, their heirs and assigns forever. The grantor, itself, its successors, does covenant, grant, bargain, and agree to and with premises above conveyed, has good, sure, perfect, absolute and indefeasible estate of inheritance, in law, in fee simple, and has good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, encumbrances and restrictions of whatever kind or nature so ever, except: 2020 taxes due and payable in the year 2021. Subject to Statutory Exceptions as defined in CRS § 38-30-113(5).

The grantor shall and will WARRANT AND FOREVER DEFEND the above-bargained premises in the quiet and peaceable possession of the grantee, their heirs and assigns, against all and every person or persons lawfully claiming the whole or any to all genders.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

TOPEK TRUST

BY: KEVIN TOPEK, TRUSTEE

STATE OF TEXAS COUNTY OF HARRIS

The foregoing instrument was acknowledged before me this Day of December, 2020

By: KEVIN TOPEK, TRUSTEE OF THE TOPEK TRUST

My comp

VUTHY HENG Notary Public STATE OF TEXAS My Comm. Exp. 01/19/2022 ID# 131415271 Witness my hand and official seal

Notary Public

WARRANTY DEED (To Joint Tenants)

#### 2. Proof of Ownership | Real Property Transfer Declaration Docusign Envelope ID: 82833C35-AECB-49ED-9000-EEA47D3C3945

#### **REAL PROPERTY TRANSFER DECLARATION (TD-1000)** Confidential Document

This form provides essential market information to the county assessor to ensure accurate, fair and uniform assessments for all property. This document is not recorded, is kept confidential, and is not available for public Inspection.

This declaration must be completed and signed by either the grantor (seller) or grantee (buyer). Questions 1, 2, 3, and 4 may be completed (prefilled) by a third party, such as a title company or closing agent, familiar with details of the transaction. The signatory should confirm accuracy before signing.

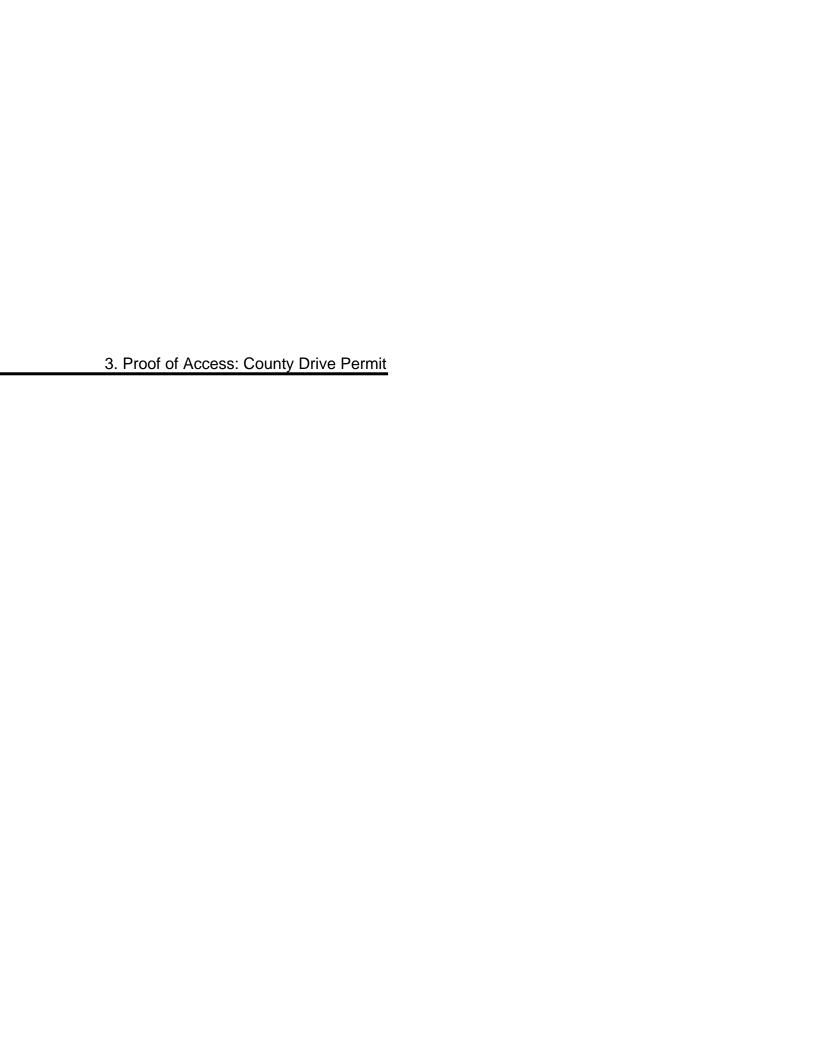
This form is required when conveyance documents are presented for recording. If this form is not completed and submitted, the county assessor may send notice. If the completed and signed form is not returned to the assessor within 30 days of notice, the assessor may impose a penalty of \$25.00 or 0.025% (0.00025) of the sale price, whichever is greater.

Additional information as to the purpose, requirements, and level of confidentiality

•	Physical address and/or legal de	escription of the real property sold	: Please do not use P. O. Box numbers.
	TBD County Road 2 Howardsvill	e Silverton CO 81433	
	WINNEMUCCA MILL SITE, U.S.	MINERAL SURVEY NO. 563B,	San Juan County, Colorado.
	LESS AND EXCEPT any portion whether excepted or not in the pa	of the above named mining clain atent for the above described Win	n, within overlapping senior mining claims inemucca Mill Site No. 563B.
	Type of property purchased.  Multi-Unit Residential  Vacant Land X Other	Single Family Residential Commercial Industrial MINING CLAIM	Townhome Condominium Agricultural Mixed Use
	Date of closing: December 15, 2	020	
	Date of contract if different than of	date of closing: October 15, 2020	
	Total sale price: including all rea	I and personal property: \$172,000	0.00
	Contracted price (if different from		
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).	ed in the transaction that material	ly impacts the total sale price. Personal t, vehicles, exceptional appllances, electronic the real property (attach additional pages if
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:	ed in the transaction that material imited to: machinery or equipmen at would not typically transfer with	t vehicles excentional appliances electronic
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:	ed in the transaction that material imited to: machinery or equipmen at would not typically transfer with	t, vehicles, exceptional appliances, electronic the real property (attach additional pages if <u>Approximate Value</u> \$
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:	ed in the transaction that material imited to: machinery or equipmen at would not typically transfer with	t, vehicles, exceptional appliances, electronic the real property (attach additional pages if
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:	ed in the transaction that material imited to: machinery or equipmen at would not typically transfer with	t, vehicles, exceptional appliances, electronic the real property (attach additional pages if <u>Approximate Value</u> \$
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:	ed in the transaction that material imited to: machinery or equipmen at would not typically transfer with Personal Property Total:	t, vehicles, exceptional appliances, electronic the real property (attach additional pages if  Approximate Value  \$
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:	ed in the transaction that material imited to: machinery or equipment at would not typically transfer with Personal Property Total: the entire purchase price will be astrade or exchange of additional responds or services as of the date of the dat	t, vehicles, exceptional appliances, electronic the real property (attach additional pages if  Approximate Value  \$
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:  If no personal property is listed, the Did the total sale price include a tel of Yes, approximate value of the contraction.	Personal Property Total:  The entire purchase price will be astrade or exchange of additional regoods or services as of the date of the purchased? X Yes New Personal Property Purchased Pr	t, vehicles, exceptional appllances, electronic the real property (attach additional pages if  Approximate Value \$
	List any personal property include property may include, but is not li devices, furniture, or anything the necessary).  Description:  If no personal property is listed, the Did the total sale price include a tell Yes, approximate value of the gelf Yes, does this transaction involved Was 100% interest in the real property.	Personal Property Total:  The entire purchase price will be assisted or exchange of additional regoods or services as of the date of the entire purchased? X Yes Notes is being purchased. If no, interested parties or acquaintances? This	t, vehicles, exceptional appllances, electronic the real property (attach additional pages if  Approximate Value  \$

10.	Mark any of the following that apply to the condition of the improvements at the time of purchase:  New Excellent Good Average Fair Poor Salvage
If the	property is financed, please complete the following:
11.	X None (all cash or cash equivalent)
	New/Mortgage Lender (government-backed or conventional bank loan)  New/Private Third Party (nonconventional lender, e.g., relative, friend, or acquaintance)  Seller (buyer obtained a mortgage directly from the seller)  Assumed (buyer assumed an existing mortgage)  Combination or Other: Please explain
12.	Total amount financed.
13.	Terms: Variable; Starting interest rate% Fixed; Interest rate% Length of timeyears Balloon payment Yes No
14.	Mark any that apply: Seller assisted down payments Seller concessions Special terms or financing.  If marked, please specify terms:
15.	Was an independent appraisal obtained in conjunction with this transaction?YesNo
For p	properties OTHER THAN residential (Residential is defined as: single family detached, townhomes, apartments condominiums) please complete questions 16-18 if applicable.
16.	Did the purchase price include a franchise or license fee?YesNo If yes, franchise or license fee value \$
17.	Did the purchase price involve an installment land contract?Yes No If yes, date of contract
18.	If this was a vacant land sale, was an on-site inspection of the property conducted by the buyer prior to closing?YesNo
Rem	arks: Please include any additionally information concerning the transaction and price paid that you feel is important
19.	Signed this 15 day of December, 2020.  Have at least one of the parties to the transaction sign the document and include an address and a daytime phone number.
	Signature of Grantee (Buyer) X Grantor (Seller)
20.	All future correspondence (tax bills, property valuations, etc.) regarding this property should be mailed to:
	Address (mailing) City State Zip Code
	Kothuffalsa)man.com
	Daytime Phone Email Address

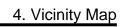
Contact information is kept confidential, for County Assessor and Treasurer use only, to contact buyer with questions regarding this form, property valuation, or property tax information.

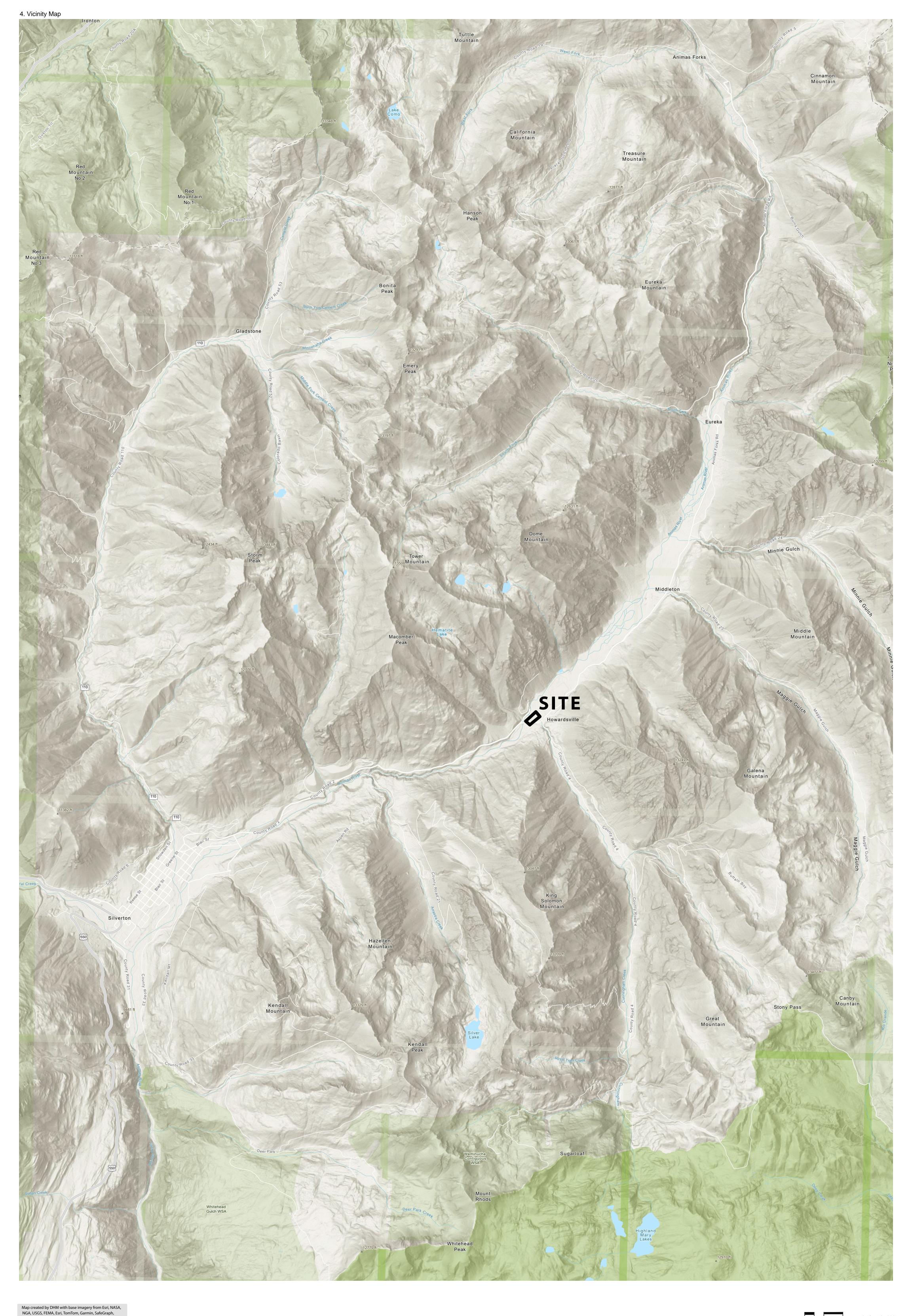


3. Proof of Access: County Drive Permit

# SAN JUAN COUNTY, COLORADO DRIVEWAY AND ROAD ACCESS PERMIT

		Improvement Permit No.
7 7	12:1-11:11	Permit No.
Applicant:		<del></del>
	3424 Ridgeline Drive	
	Montrose, CO 81401	
T	Duran da Dur	Pard Wa 2
	Proposed Driveway or Access on Count	
	bosed drive would connect to CR2 between the	e intersection with CR4 and the Animas
River bii	dge southwest of Howardsville.	
Description	of Proposed Driveway or Access, incl	uding materials to be used:
CR2 bise	ects the Winnemucca Mill Site Property. Acces	s will be perpendicular to CR2 and
staggere	ed with the existing residential drive on the Win	nemucca parcel that provides access to
neighbor	ring properties located on the other side (south	least) of CR2. The proposed drive will be
construc	ted out of gravel and will span Cunningham Ci	reek with a proposed bridge in order to
provide a	access to the parcel's building envelope. See b	oridge and site plans in appendix.
-		
_		
-		
Comment and	Recommendations of County Road Super	visor:
	-	
-		
<u> </u>		
Terms and C	onditions of Issuance of Permit (or r	eason for denial):
-		
Permit Appr	oved or Denied	Date:
	dministrator:	





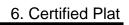
Map created by DHM with base imagery from Esri, NASA, NGA, USGS, FEMA, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, parcel data from San Juan county GIS, Projection: NAD 1983 CO State Plane Central





#### 5. List of Adjacent Neighbors within 1,500' of Winnemucca Mill Site Property Boundaries

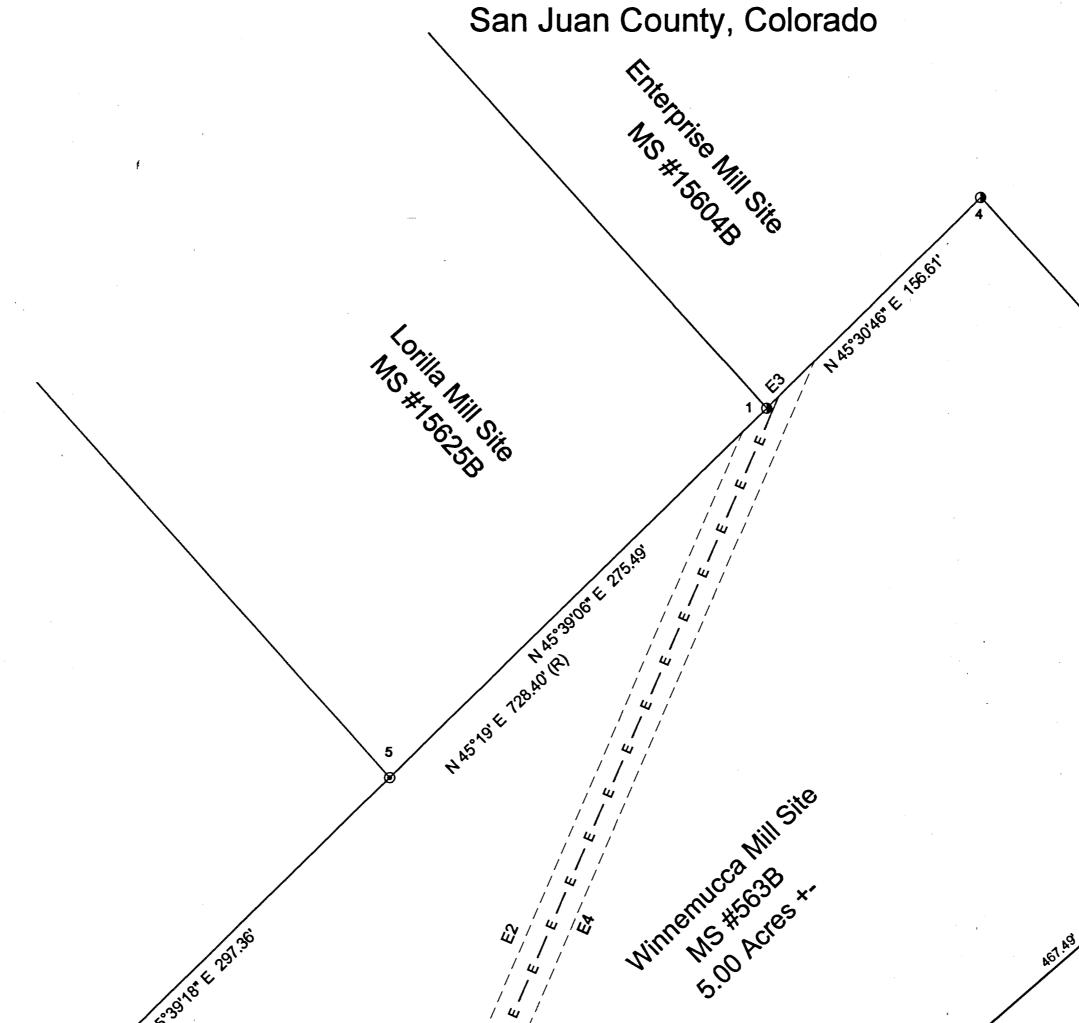
GOODWIN LE ROY W II PERSON JOHN & BETTY; c/oGAIL SANDBERG JEFF AND JERRY SULLIVAN R L PAVIGLIANITI OSCAR M & SHANNON PERSON 60 COUNTY ROAD 11 6517 ASPEN GARDENS WAY PO BOX 538 773 COUNTY ROAD 307 PO BOX 827 ESPANOLA NM 87532-5008 TIJERAS NM 87059-0538 CITRUS HEIGHTS CA 95621-5620 DURANGO CO 81303-8113 DURANGO CO 81302-0827 HOUGHTON HOLDINGS LLC; c/oSan GRAYJAY MEADOWS LLC BRADLEY G CLARK EISNER KIM DAVEY 30 LLC Juan Land Holding Company LLC PO BOX 3386 1246 VIA ESTRELLA PO BOX 745 PO BOX 3637 MILAN NM 87021-3386 PO BOX 98 WINTER PARK FL 32789 SILVERTON CO 81433-0745 DURANGO CO 81302-3637 BRECKENRIDGE CO 80424-0076 EISNER KIM DAVEY FIELD JAMES R HUFF KIRK D; ALEXANDER TERI L HR1 LLC SAN JUAN COUNTY HISTORICAL PO BOX 745 46 CEDAR HILL DR PO BOX 233 SOCIETY 3424 RIDGELINE DR SILVERTON CO 81433-0745 ASHEVILLE NC 28803-3043 SILVERTON CO 81433-0233 PO BOX 154 MONTROSE CO 81401-7305 SILVERTON CO 81433-0154 GILBERT DON EISNER KIM DAVEY RENFROE LYNDOL & JOYCE TRUST PRIDE OF THE WEST LLC; c/oTODD C SAN JUAN COUNTY HISTORICAL 8217 S FLI RD PO BOX 745 21146 US HWY 70 **HENNIS** SOCIETY COLEMAN OK 73432-8714 SILVERTON CO 81433-0745 WILSON OK 73463-6631 15100 FOOTHILL RD PO BOX 154 GOLDEN CO 80401-2064 SILVERTON CO 81433-0154 HARWELL RICHARD E & SUSAN H; FIELD JAMES R SAN JUAN COUNTY EISNER KIM DAVEY CLOUD RICHARD R ROGERS GEORGE L JR & CRYSTAL 46 CEDAR HILL DR PO BOX 466 PO BOX 745 PO BOX 284 1381 GRAND OAKS LN ASHEVILLE NC 28803-3043 SILVERTON CO 81433-0466 SILVERTON CO 81433-0745 COLLBRAN CO 81624-0284 HICKORY NC 28602-8800 KAPLAN RICHARD W & BRIDGET H RINGHOFFER SANDOR NORQUIST BRUCE SNOWBIRD LLC PO BOX 292 10 TOWN PLZ UNIT 314 PO BOX 3386 1219 8TH ST MILAN NM 87021 FAIRFAX CA 94978-0292 DURANGO CO 81301-5104 GOLDEN CO 80401-1091 GIBSON REBECCA JANE HOWARDSVILLE HOLDINGS LP ROCK FREDERICK UHLMAN II SAN JUAN COUNTY PO BOX 6124 154 INDIAN MOUND TRL PO BOX 1 PO BOX 466 MCKINNEY TX 75071-5104 **TAVERNIER FL 33070-2111** LINDRITH NM 87029-0001 SILVERTON CO 81433-0466 NORQUIST BRUCE HUDSON R E & KATHY HUDSON R E & KATHY BURDINE DANE AND TERESA PO BOX 3386 30 V HILL RD 30 V HILL RD 3 JOHNSTON RD **MILAN NM 87021** EDGEWOOD NM 87015-6616 EDGEWOOD NM 87015-6616 RANSOM CANYON TX 79366 SALEM MINERALS INC HOUGHTON UNLIMITED LLC; c/oSan HENNIS TODD C VANDENBERG RANDY N & KRISTI A 15100 FOOTHILL RD Juan Land Holding Company LLC 15100 FOOTHILL RD 2990 COUNTY ROAD 215 GOLDEN CO 80401-2064 PO BOX 98 GOLDEN CO 80401-2064 DURANGO CO 81303-7828 BRECKENRIDGE CO 80424-0076 CALHOUN DELMAR E GOODWIN LE ROY W II HALLOCK LARRY 7201 VISTA DEL ARROYO AVE NE 60 COUNTY ROAD 11 21963 E HERITAGE PKWY ALBUQUERQUE NM 87109-2936 ESPANOLA NM 87532-5008 AURORA CO 80016-7241



Result of Survey

Winnemucca Mill Site MS 563B

Suspended Township 41 North, Range 7 West, of the New Mexico Principal Meridian

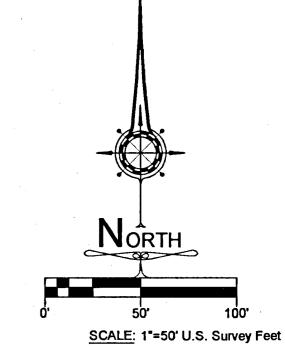


20' Power line Easement E2 N 23°19'56" W E3 N 45°30'46" E E4 S 23°19'56" W 630.23' N 86°58'15" E South R-O-W Marker County Road 2 S 86°58'15" W 178.69'

CERTIFICATE OF SURVEY:

I, Brian Dirk Hatter, a Registered Land Surveyor in the State of Colorado, do hereby certify that this plat accurately represents that the surveying services addressed herein have been performed by the professional land surveyor or under the professional land surveyor in charge. Is based upon the professional land surveyor's knowledge, information and belief. Is in accordance with applicable standards of practice. Is not a guaranty or warranty, either expressed or implied. I further

certify that the monuments shown hereon actually exist, and that their positions are as shown.



## BASIS OF BEARING:

USLM Howardsville

FIELD CREW:

KCH, BDH

DRAFTER:

KCH

The line between corners 1 and 2 of the Winnemucca mill site, MS 563B is assumed to bear S. 49°03'20" W. and is monumented as shown hereon. All other bearings are relative thereto.

USLM Howardsville - 31 Bureau of Land Management brass cap Found 2-1/2" aluminum cap - LS 10738 Set 2-1/2" aluminum cap/#6 rebar - LS 26597 Found 1-1/2" aluminum cap - LS 3408 Found 2 1/2" aluminum cap - LS 20704 Found 2 1/2" aluminum cap. - LS 30111 Found 2" aluminum cap. - LS 12457

Easements - as noted

N.T.S. Not to Scale

USLM United States Location Monument (R) Record

SAN JUAN COUNTY CLERK AND RECORDER'S ACCEPTANCE: This plat was accepted for filing in the office of the Clerk and Recorder of San Juan County, Colorado, on this \_\_\_\_\_ day of \_\_\_\_\_\_ Reception Number \_\_\_\_\_ Time \_\_\_\_\_, Book \_\_\_

SOUTHWEST LAND SURVEYING LLC U.S. MINERAL SURVEYORS REGISTERED LAND SURVEYORS 1205 H Lane, Delta, CO 81416 (970) 387-0600...Silverton (970) 874-2880...Delta EMAIL: dhatter@itcresources.us IN COLORADO REVISIONS: PLAN SCALE: 1"=50' U.S.S.F

San Juan County, Colorado

Result of Survey Winnemucca Mill Site MS 563B uspended, Township 41 North, Range 7 West New Mexico Principal Meridian

Kirk Huff 1739 F Road Delta Colorado, 81416

FW: 10/20/2020 JOB #: 50-20 Kirk Huff

2. Boundary Survey of the HOWARDSVILLE Placer MS #942, Part of Little Nations MS #169B, and part of the C. B. Cobb MS #556, San Juan County, Colorado. M. H. Smith - PLS 10738. 3. Boundary Survey of the Enterprise Mill Site MS #15604B - Kenneth E. Schaaf, PLS 38114, 11/17/2008 San Juan County, Colorado, Reception #146685. 4. Administrative Re-plat of Tract 4 located within the CB Cobb Lode MS #556 Tract 5 and the Hayden Campsite located within the Howardsville Placer MS #942 Tracts 2,3,6 & 7 located within the Little Nation Mill Site MS #169B - Kenneth E. Schaaf, PLS 38114, 02/08/2010, San Juan County, Colorado, 5. County Road No.2 Right of Way Howardsville Area - Eamest E. Schaaf, PLS 12457 - Map #229 San All fence lines shown hereon are for graphical purposes only. They may not be relied upon to This survey was performed without the benefit of a title policy or commitment. Certifications hereon shall run only to the persons(s) for whom this survey was prepared and on his behalf to the agencies listed on this/these sheet(s). Certifications are not transferable to additional institutions or subsequent owners. No guarantee as to the accuracy of the information contained on the attached drawing is either stated or implied unless this copy bears an original signature of the professional land surveyor Only prints of this survey marked with an original seal and signature by the surveyor shall be considered true, valid copies.

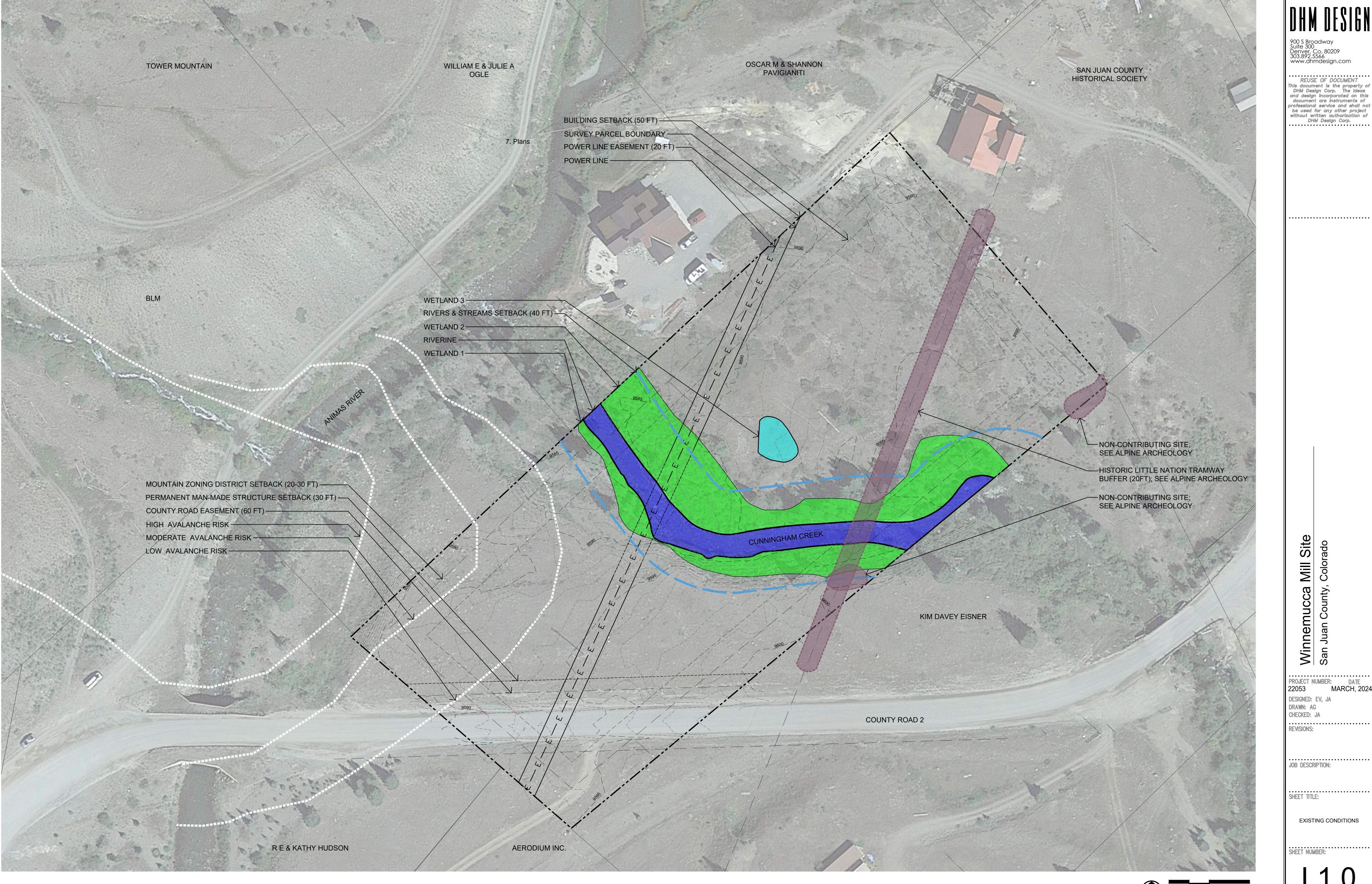
South R-O-W Marker

County Road 2

Vicinity Map N. T. S.

ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN ND EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

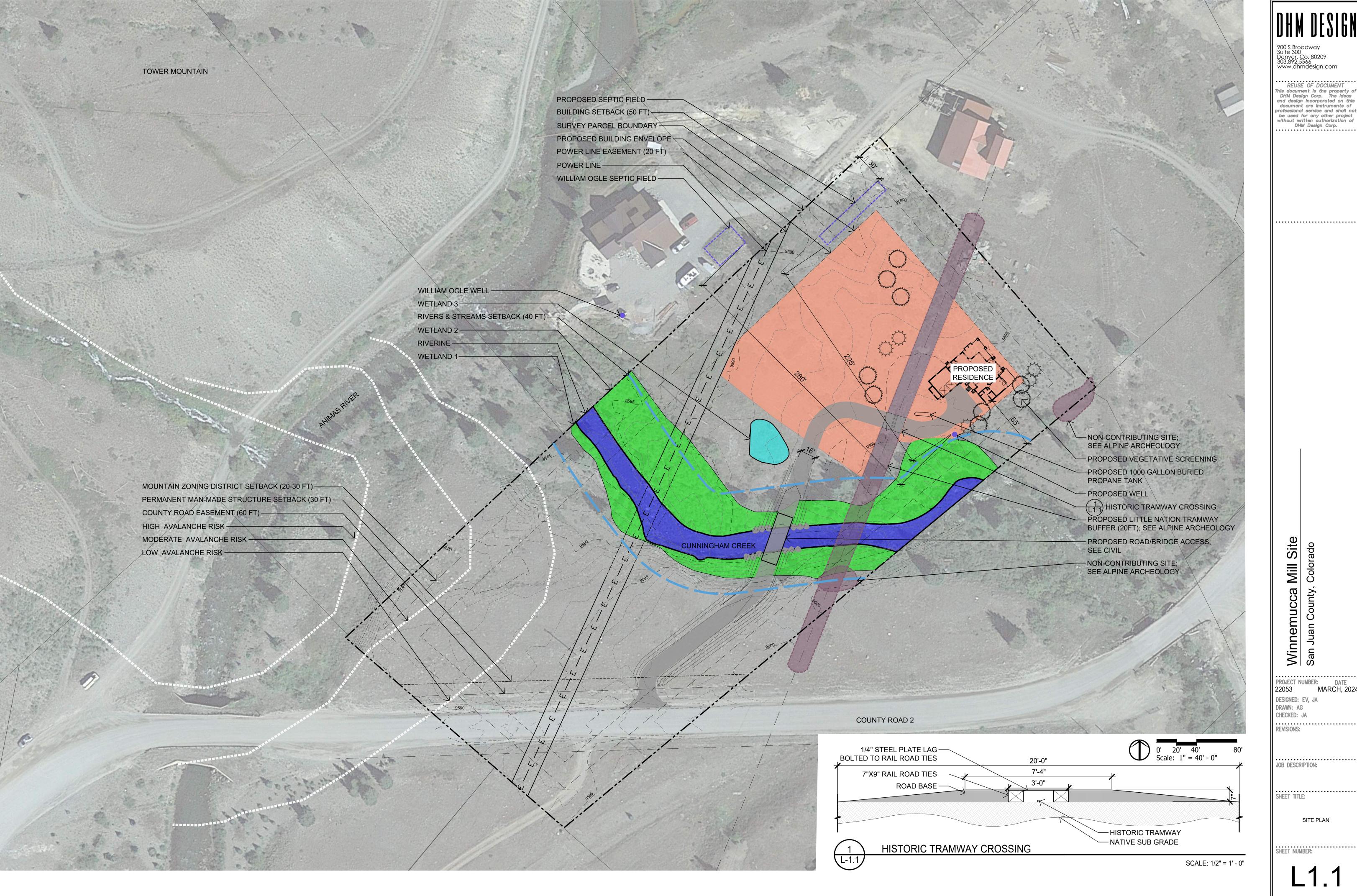
7. Plans



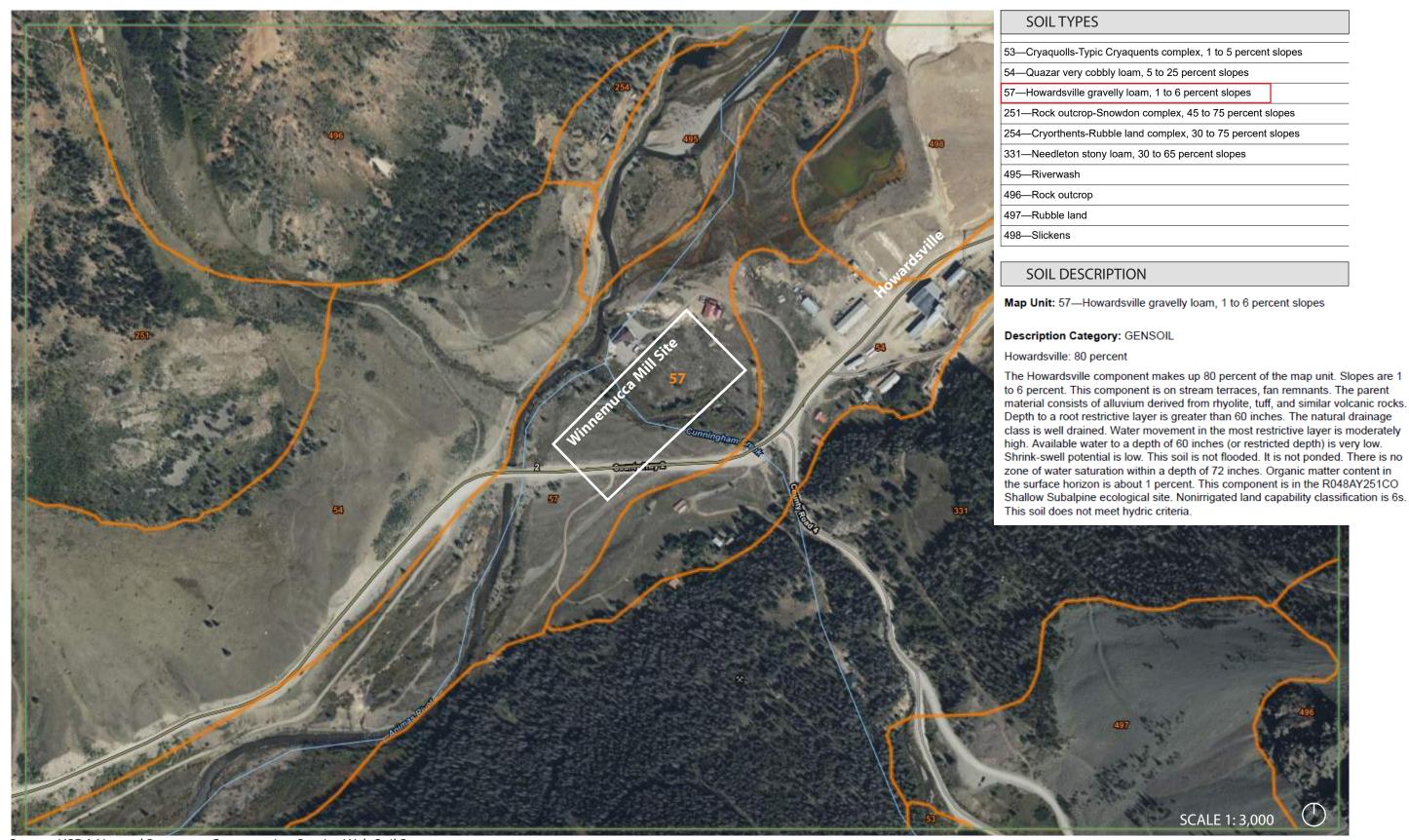
900 S Broadway Suite 300 Denver, Co. 80209 303.892.5566 www.dhmdesign.com

PROJECT NUMBER: DATE 22053 MARCH, 202 MARCH, 2024

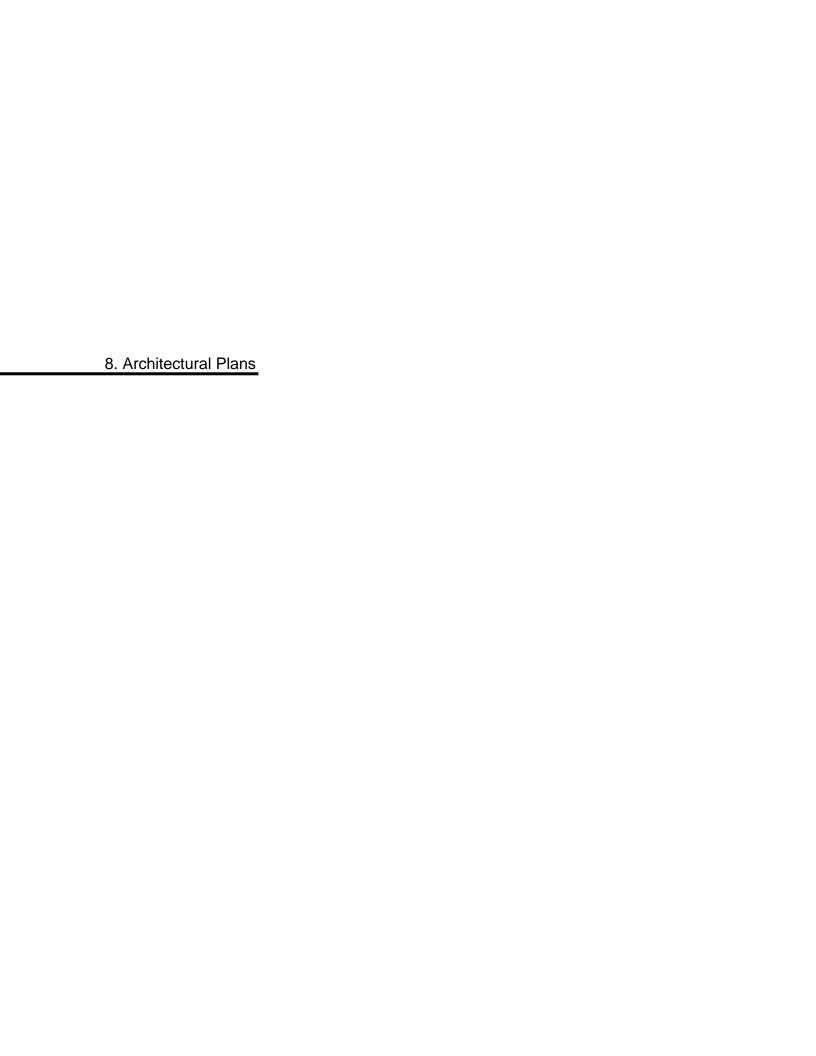
EXISTING CONDITIONS



MARCH, 2024







# GENERAL

PLANS COMPLY TO THE 2018 INTERNATIONAL RESIDENTIAL CODE.

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN MADE. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ALL DISCREPANCIES TO THE ARCHITECT AT THE TIME THEY ARE NOTED. DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

- ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION SHALL BE FOLLOWED I. 2018 INTERNATIONAL RESIDENTIAL CODE (IRC)
- 2. 2018 INTERNATIONAL BUILDING CODE (IBC)
- 3. 2018 INTERNATIONAL MECHANICAL CODE (IMC)
- 2018 UNIFORM PLUMBING CODE (UPC) 5. 2018 INTERNATIONAL FIRE CODE

<u>BUILDING</u>		
CONSTRUCTION TYPE:	V-B	SEISMIC ZONE:
OCCUPANCY GROUP:	R-3	WIND SPEED:
FIRE ZONE:	PER LOCATION	EXPOSURE CATEGORY:
1 11 2012.	1 211 2007 111011	Z/11 0 001 12 0/ 11 20 0 1 1 1 1

# SITE WORK

### GENERAL

EXTERIOR FOOTINGS SHALL BEAR TO A MINIMUM DEPTH BELOW FINISHED GRADE AS SET FORTH BY THE LOCAL JURISDICTION. ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. ALL BACK FILL MATERIAL SHALL BE THOROUGHLY COMPACTED. FOUNDATION VENTS SHALL NOT INTERFERE WITH THE DIRECT LOAD PATH OF COLUMNS.

# CONCRETE

## GENERAL

CLAS	65 AND USE	F'C	SLUMP	MINIMUM SACKS / C.Y.
A.	FOOTINGS	2500	3 - 4	5-1/2
В.	SLABS ON GRADE	2500	3 - 4	5-1/2
		(22		

- AIR ENTRAINING AGENT (3% TO 6%) TO BE USED IN ALL CONCRETE FLAT WORK EXPOSED TO WEATHER
- POSSOLITH 300 SERIES (4 oz. PER 100# OF CEMENT) TO BE USED IN ALL CONCRETE. MIX MAY BE DESIGNED IN ACCORDANCE WITH PROVISIONS OF THE 2018 IBC/IRC.
- 4. WATER TO CEMENT RATIO PER THE 2018 IBC/IRC.

### REINFORCING STEEL

ASM A615 GRADE 40, REINFORCING STEEL DETAILS SHALL BE PREPARED BY AN EXPERIENCED APPROVED DETAILER AND CONFORM TO STANDARD PRACTICE OUTLINED IN ACI REPORT 315.

### CONCRETE COVER OF REINFORCING STEEL

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH. 1-1/2" CONCRETE EXPOSED TO EARTH OR WEATHER.
- I-I/2" BEAMS AND COLUMNS NOT EXPOSED TO EARTH OR WEATHER. 3/4" SLABS AND WALLS NOT EXPOSED TO EARTH OR WEATHER.

# CARPENTRY

### GENERAL

ALL FRAMING SHALL COMPLY WITH THE APPLICABLE SECTION(S) OF THE 2018 IBC/IRC. PRESSURE TREATED WOOD REQUIRED IN LOCATIONS LISTED IN IRC R317.1

500

1,200,000

10 PSF

2" MINIMUM VERTICAL CLEARANCE BETWEEN WOOD & CONCRETE STEPS, PORCH SLABS, PATIO SLABS & OTHER SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER. 6" MINIMUM CLEARANCE BETWEEN WOOD AND EARTH. 8" MINIMUM CLEARANCE BETWEEN UNTREATED MUD SILLS AND EARTH. 12" MINIMUM CLEARANCE BETWEEN FLOOR BEAMS AND EARTH. 18" MINIMUM CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

## LUMBER STRENGTH (UNITS IN PSI)

## STUDS

HEM-FIR #3

EXTERIOR PARTITION

STUD GRADE		75	675	1,200,000
JOISTS & RAFTERS				
HEM-FIR #2	(2×10)	75	1,075	1,300,000
HEM FIR #2	(2x12)	75	980	1,300,000
BEAMS, HEADERS, LINTELS \$	GIRDERS			
4" NOMINAL DOUG-F	IR #2	<b>95</b>	960	1,600,000
6" NOMINAL DOUG-F	FIR #2	<i>8</i> 5	<i>850</i>	1,600,000
GLUE LAMINATED TIMBERS	•			
DOUG-FIR LARCH (2	4F-V4)	165	2,400	1,800,000
STRUCTURAL COMPOSITE 1	IMBERS			
LAMINATED VENEER	LUMBER	285	2,600	1,900,000
PARALLEL STRAND	LUMBER	290	2,900	2,000,00
LOADING				

#### LUADING ROOF 15 PSF DEAD LOAD 110 PSF LIVE LOAD 125 PSF FLOOR IO PSF DEAD LOAD 40 PSF LIVE LOAD 50 PSF CEILING 5 PSF DEAD LOAD IO PSF LIVE LOAD 15 PSF DECK 5 PSF DEAD LOAD 40 PSF LIVE LOAD 45 PSF INTERIOR PARTITION 7 PSF

WOOD BEARING ON OR INSTALLED WITHIN 2" OF MASONRY OR CONCRETE TO BE TREATED WITH AN APPROVED PRESERVATIVE. SOLID BLOCKING OF NOT LESS THAN 2x THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS. ANCHOR BOLTS TO BE PER SHEAR WALL SCHEDULE AND FOUNDATION PLAN. 7" MINIMUM EMBEDMENT. ALL METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS SHALL BE STRONG TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY.

PROVIDE FIRE BLOCKING IN CONCEALED SPACES OF STUD WALLS & PARTITIONS, INCLUDING FURRED SPACES & PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:

- VERTICALLY AT THE CEILING & FLOOR LEVELS. 2. HORIZONTALLY AT INTERVALS NOT EXCEEDING IO FEET.

## PROVIDE FIRE BLOCKING AT OTHER LOCATIONS PER 2018 IRC R302.II.

## PLYWOOD

ALL PLYMOOD WALL AND ROOF SHEATHING SHALL BE 5" CDX, UNLESS NOTED OTHERWISE. MINIMUM NAILING SHALL BE 8d @ 6" O.C. AT PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 24/0. ALL PLYMOOD FLOOR SHEATHING SHALL BE 3/4" CDX TONGUE & GROOVE UNLESS NOTED OTHERWISE. MINIMUM NAILING SHALL BE IOD @ 6" O.C. @ PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 40/20. STAGGER ALL PANEL EDGES AT ROOF AND FLOOR SHEATHING. ORIENTED STRAND BOARD (O.S.B.) SHEATHING PRODUCTS OF EQUIVALENT SPAN RATINGS SHALL BE ALLOWED.

## GLUE LAMINATED TIMBERS

ALL GLUE LAMINATED TIMBERS SHALL BE DOUG-FIR LARCH. FABRICATED TO THE REQUIREMENTS OF THE US PRODUCT STANDARD PS 56. LUMBER SHALL BE OF SUCH GRADE TO PROVIDE NORMAL WORKING STRESS VALUES OF: 2400 PSI IN BENDING, 1100 PSI IN TENSION, 1600 PSI IN COMPRESSION PARALLEL TO GRAIN. 560 PSI IN COMPRESSION PERPENDICULAR TO GRAIN AND 165 PSI HORIZONTAL SHEAR (COMBINATION 24F-V4). GLUE LAMINATED TIMBERS TO BE AITC CERTIFIED USE WATERPROOF GLUE.

# CARPENTRY (CONT.)

### MANUFACTURED TRUSSES

ALL TRUSSES SHALL BE DESIGNED BY A REGISTERED STATE ENGINEER AND FABRICATED FROM ONLY THESE DESIGNS. TRUSSES SHALL BE STAMPED BY THE ENGINEER OR BY A QUALITY CONTROL AGENCY SUCH AS THE STATE TRUSS FABRICATORS COUNCIL. ALL TRUSS DESIGNS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION. ALL NON BEARING WALLS OR PARTITIONS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENER TO ENSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL OR PARTITION.

APPROVED HANGERS SHALL BE USED AT ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO MAIN GIRDER TRUSSES.

ALL ROOF TRUSSES SHALL BE FRAMED AND TIED INTO THE FRAME WORK AND SUPPORTING WALLS SO AS TO FORM AN INTEGRAL PART OF THE WHOLE STRUCTURE. ROOF TRUSSES SHALL HAVE JOINTS WELL FITTED AND SHALL HAVE ALL TENSION MEMBERS WELL TIGHTENED BEFORE ANY LOAD IS PLACED UPON THE TRUSS. DIAGONAL AND SWAY BRACING SHALL BE USED TO BRACE ALL TRUSSES.

ALL TRUSSES SHALL BE DESIGNED FOR UNIFORM LOADING AS FOLLOWS: TOP CHORD: 35 PSF OF TRIBUTARY WIDTH

#### 5 PSF OF TRIBUTARY WIDTH BOTTOM CHORD: TILE ROOF: 45 PSF TOP CHORD & 5 PSF BOTTOM CHORD

## INSULATION & MOISTURE PROTECTION GENERAL

PER LOCATION

PER LOCATION

PER LOCATION

INSULATION BAFFLES TO MAINTAIN I" CLEAR SPACE ABOVE INSULATION. BAFFLES TO EXTEND 6" ABOVE BATT INSULATION \$ 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND BATHTUBS, SHOWERS, PARTITIONS AND CORNERS. PROVIDE FACE STAPLED BATTS OR FRICTION FIT FACED BATTS. PROVIDE 4 MIL (0.004") POLYETHYLENE VAPOR BARRIER AT WALLS OR USE PVA PAINT WITH A DRY CUP PERM RATING OF ONE (MAX.). PROVIDE R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

#### INFILTRATION CONTROL

- EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS, AND ROOF, AND ALL OTHERS SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CAULKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR INFILTRATION.
- 2. ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR INFILTRATION AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED "FIRE-RATED" AND MUST MEET THE ABOVE REQUIREMENT.
- ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO ADMIT AIR INFILTRATION INTO OR FROM THE BUILDING ENVELOPE WHICH SHALL BE SUBSTANTIATED BY TESTING TO STANDARD ASTM E 283.73. SITE BUILT AND MILLWORK SHOP MADE WOODEN SASH ARE EXEMPT FROM TESTING BUT SHALL BE WEATHER-STRIPPED, CAULKED AND MORE TIGHTLY FITTING.

### <u>VAPOR BARRIERS / GROUND COVERS</u>

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS. INSET STAPLED BATTS WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE, STAPLES SHALL BE PLACED NOT MORE THAN 8" O.C. AND GAPS BETWEEN THE FACING AND THE FRAMING SHALL NOT EXCEED 1/16"

#### VAPOR RETARDERS AT WALLS PER IRC R702.7

A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

# DOORS, WINDOWS AND SKYLIGHTS

THE REQUIRED EGRESS DOOR MAY HAVE A MAXIMUM 7 3/4" STEP FROM TOP OF THE THRESHOLD TO A MINIMUM 36" DEEP LANDING ON THE EXTERIOR SIDE OF THE DOOR. OTHER EXTERIOR DOORS MAY HAVE A MAXIMUM (2) 7 3/4" STEPS TO A MIN. 36" DEEP LANDING. ALL SKYLIGHTS AND SKYWALLS SHALL HAVE LAMINATED GLASS UNLESS NOTED OTHERWISE. ALL BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. MINIMUM NET CLEAR OPERABLE WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24", MAXIMUM SILL HEIGHT OF 44" MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING. OPERABLE WINDOWS WITH A SILL OF MORE THAN 72" ABOVE FINISHED GRADE AND WITHOUT AN ADJACENT ROOF WITH MAX 4:12 SLOPE, TO BE A MINIMUM OF 24" ABOVE ADJACENT FINISHED FLOOR.

## SAFETY GLAZING LOCATIONS PER 2018 IRC SECTION R308.4

GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD R308.4.1 R308.4.2 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR

WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24 INCH ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE. R308.4.3

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS: THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS LARGER THAN 9 SQUARE FEET;

2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN IO" ABOVE THE FLOOR; 3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR; AND 4. ONE OR MORE WALKING SURFACES ARE WITHIN 36" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.

GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A MALKING SURFACE.

R308.4.5 GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF

THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR MALKING SURFACE. R308.4.6 GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES (914 MM) ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF

STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS. R08.4.7 GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN 60 INCHES (1524 MM) HORIZONTALLY OF THE BOTTOM TREAD.

FOR EXCEPTIONS SEE IRC SECTION R308.4

# FIREPLACES

ALL MASONRY FIREPLACES AND CHIMNEYS SHALL BE CONSTRUCTED TO CONFORM TO ALL APPLICABLE PORTIONS OF THE 2018 IBC/IRC CODE. FLUE LINER MINIMUM 3/ FIRE CLAY (OR EQUIVALENT) PER IRC. FLUE AREA PER IRC. CHIMNEYS SHALL SUPPORT ONLY THEIR OWN MEIGHT UNLESS SPECIFICALLY DESIGNED TO SUPPORT ADDITIONAL LOADS. ALL FIREPLACES SHALL BE PROVIDED WITH TIGHTLY FITTING FLUE DAMPERS, OPERATED WITH A READILY ACCESSIBLE MANUAL OR APPROVED AUTOMATIC CONTROL, AND AN OUTSIDE SOURCE OF COMBUSTION AIR. MINIMUM DUCT SIZE OF 6 SQUARE INCHES IN AREA PROVIDED WITH READILY ACCESSIBLE DAMPER LOCATED IN THE FRONT PART OF THE FIREBOX. PREFABRICATED FIREPLACES, CHIMNEYS, AND RELATED COMPONENTS TO BEAR U.L. OR I.C.B.O. SEAL OF APPROVAL AND TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. HEARTHS SHALL EXTEND 20" (MINIMUM) IN FRONT OF AND 12" (MINIMUM) BEYOND EACH SIDE OF FIREPLACE OPENINGS. FIREPLACES SHALL BE PROVIDED WITH TIGHTLY FITTING GLASS OR METAL DOORS.

# MECHANICAL

## GENERAL

SOLID FUEL BURNING APPLIANCES INCLUDE AIRTIGHT STOVES, FIREPLACE STOVES, ROOM HEATERS FACTORY BUILT FIREPLACES AND FIREPLACE INSERTS. ALL SOLID FUEL BURNING APPLIANCES SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 24 OF THE 2018 INTERNATIONAL RESIDENTIAL CODE.

### HEATING

EACH DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A TEMPERATURE OF 68 DEGREES FAHRENHEIT AT A HEIGHT OF 3'-O" ABOVE THE FLOOR AND TWO FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS WHEN THE OUTSIDE TEMPERATURE IS AS SET FORTH IN THE 2018 W.S.E.C. OR PER LOCAL JURISDICTION.

- FUEL BURNING APPLIANCES LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN AIR FROM
- OUTDOORS, MEETING THE PROVISIONS OF CHAPTER 24 OF THE 2018 IRC. FUEL BURNING APPLIANCES LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL MEET THE
- PROVISIONS OF CHAPTER 24 OF THE 2018 IRC. DUCTWORK LOCATION AND SOURCE OF COMBUSTION AIR SHALL MEET THE PROVISIONS OF CHAPTER 16 OF THE 2018 IRC.

ALL WARM AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY AND INSTALLED PER CHAPTER MI402 OF THE 2018 IRC.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT DIRECT VENT FURNACE, ENCLOSED FURNACES, AND ELECTRIC HEATING FURNACES.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A CLOSET OR ALCOVE WITH A SPACE LESS THAN 12" WIDER THAN THE FURNACE OR A CLEARANCE OF 3" ALONG THE SIDES, BACK AND TOP.

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GASES MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS.

HEATING AND COOLING APPLIANCES LOCATED IN A GARAGE AND WHICH GENERATE A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR SURFACE.

FIRE DAMPERS NEED NOT BE INSTALLED IN AIR DUCTS PASSING THROUGH THE WALL, FLOOR OR CEILING SEPARATING A RESIDENCE (GROUP B, DIVISION 3 OCCUPANCY) FROM A GARAGE (GROUP M, DIVISION I OCCUPANCY), PROVIDED SUCH DUCTS WITHIN THE GARAGE ARE CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN O.019" (NO. 26 GALVANIZED SHEET GAUGE) AND HAVE NO OPENINGS INTO THE GARAGE

WARM AIR FURNACE INSTALLATIONS IN ATTICS OR CRAWL SPACES SHALL COMPLY WITH MI402 OF THE 2018 IRC.

EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM COMPLYING WITH CHAPTER 18 OF THE 2018 IRC.

EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT OR TYPE BM GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MANUFACTURERS INSTALLATION INSTRUCTIONS AND THE REQUIREMENTS PER CHAPTER IO OF THE 2018 IRC.

A TYPE B OR BW GAS VENT SHALL TERMINATE PER CHAPTER 24 OF THE 2018 IRC.

VENT CONNECTORS SHALL BE INSTALLED WITHIN THE SPACE OR AREA IN WHICH THE APPLIANCE IS LOCATED AND SHALL BE CONNECTED TO A CHIMNEY OR VENT IN SUCH A MANNER AS TO MAINTAIN THE CLEARANCE TO COMBUSTIBLES PER SECTION MISOS OF THE 2018 IRC.

HEATING EQUIPMENT

ALL HEATING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE 1987 NATIONAL APPLIANCE ENERGY CONSERVATION ACT (NAECA) AND BE SO LABELED.

## DUCTMORK

- DUCT SYSTEMS OR FACTORY BUILT AIR DUCTS SHALL BE OF METAL AS SET FORTH BY TABLE 1601.1.1 (1) \$ 1601.1.1 (2) OF THE 2018 IRC.
- RECTANGULAR, FLAT, OVAL AND ROUND DUCT JOINTS AND SEAMS SHALL BE AIRTIGHT PER SECTION MIGOI.4.1 OF THE 2018 IRC.
- INSTALLATION OF DUCTS SHALL COMPLY WITH SECTION MIGOI.4 OF THE 2018 IRC. DUCT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH SECTION MIGOI.3 OF THE 2018

FINAL INSPECTION. DUCT LEAKAGE AND SEALING REQUIREMENTS.

FINAL DUCT LEAKAGE AFFIDAVIT IS TO BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO

# WHOLE HOUSE VENTILATION

SPECIFICATIONS FROM THE 2018 IRC SECTION MISOT

SOURCE SPECIFIC VENTILATION REQUIREMENTS.

- MINIMUM EXHAUST FAN REQUIREMENTS:
- A. BATHROOMS, LAUNDRIES AND POWDER ROOMS 50 CFM @ 0.25" W.G.
  - B. KITCHENS 100 CFM @ 0.25" W.G. (RANGE HOOD OR DOWN DRAFT EXHAUST FAN RATED AT MIN. 100 CFM @ 0.10" W.G. MAY BE USED FOR EXHAUST FAN REQUIREMENTS.) EXHAUST DUCT REQUIREMENTS:
- A. INSULATE TO R-4 (MIN...) IN UNCONDITIONED SPACES.
- EQUIP WITH A BACK DRAFT DAMPER.
- C. TERMINATE OUTSIDE THE BUILDING.

PRESCRIPTIVE REQUIREMENTS FOR: OPTION I. INTERMITTENT WHOLE HOUSE VENTILATION USING EXHAUST FANS (IRC MI507.3.4). OUTDOOR AIR SHALL BE SUPPLIED TO ALL HABITABLE ROOMS AT FLOW RATES SPECIFIED IN TABLE MI507.3.3(I) ON THIS SHEET, USING THE FOLLOWING METHODS:

- ROOM OUTDOOR AIR INLETS SHALL COMPLY WITH THE FOLLOWING:
- A. HAVE CONTROLLABLE AND SECURE OPENINGS. B. BE SLEEVED OR DESIGNED SO AS TO NOT COMPROMISE THE THERMAL PROPERTIES OF
- THE WALL OR WINDOW IN WHICH THEY ARE PLACED.
- PROVIDE A MINIMUM OF FOUR SQUARE INCHES OF NET FREE AREA OF OPENING FOR EACH HABITABLE SPACE.
- PROVISIONS SHALL BE MADE TO ENSURE AIR FLOW BY THE INSTALLATION OF DISTRIBUTION DUCTS, TRANSOMS, INSTALLATION OF GRILLES, UNDERCUTTING DOORS A MINIMUM OF 1/2" ABOVE THE FINISHED FLOOR COVERINGS, OR SIMILAR MEANS.
- WHOLE HOUSE EXHAUST FANS SHALL:
- A. BE SIZED ACCORDING TO TABLE MISOT.3.3(1) ON THIS SHEET.
- B. BE FLOW RATED AT 0.25" W.G. C. SOUND RATED AT I.O SONES MAXIMUM.
- WHOLE HOUSE EXHAUST FAN CONTROLS: A. BE CONTROLLED BY A 24-HOUR CLOCK TIMER PROVIDE CAPABILITY OF CONTINUOUS OPERATION, MANUAL AND AUTOMATIC CONTROL.
- THE 24-HOUR CLOCK TIMER SHALL BE READILY ACCESSIBLE
- D. AT THE TIME OF FINAL INSPECTION, THE AUTOMATIC CONTROL TIMER SHALL BE SET TO OPERATE THE WHOLE HOUSE FAN ACCORDING TO THE SCHEDULE USED TO CALCULATE THE
- WHOLE-HOUSE FAN SIZING. E. A LABEL SHALL BE AFFIXED TO THE CONTROL THAT READS "WHOLE HOUSE VENTILATION (SEE OPERATING INSTRUCTIONS)".
- WHOLE HOUSE EXHAUST DUCTS:
- A. BE INSULATED TO A MINIMUM R-4 IN UNCONDITIONED SPACES.
- B. TERMINATE OUTSIDE THE BUILDING.

#### IRC TABLE MI507.3.3(I) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION

SYSTEM AIRFLOW RATE REQUIREMENTS (AIRFLOW IN CFM)

FLOOR AREA	NUMBER OF BEDROOMS						
(SQ. FT.)	0 - 1	2-3	4 - 5	6 - 7	>7		
<15 <i>00</i>	30	45	60	75	90		
1501 - 3000	45	60	75	90	105		
3001 - 4500	60	75	90	105	120		
4501 - 6000	75	90	105	120	135		
6001 - 7500	90	105	120	135	150		
>7500	105	120	135	150	165		

# PLUMBING

WATER HEATERS ARE REQUIRED TO MEET THE REQUIREMENTS OF THE N.A.E.C.A. STANDARD AND BE LABELED AS SUCH. IN ADDITION, ELECTRIC MATER HEATERS INSTALLED IN UNHEATED SPACES SHALL BE PLACED ON AN INCOMPRESSIBLE SURFACE OR FLOOR INSULATED TO A MINIMUM OF R-10.

WATER TANKS TO BE LABELED PER N.A.E.C.A

# SHEET INDEX

Al	COVERSHEET
A2	SCHEDULE & DETAIL SHEET
A3	DETAIL SHEET
A4	DETAIL SHEET
A5	FOUNDATION PLAN
A6	MAIN FLOOR FRAMING PLAN
A7	MAIN FLOOR PLAN
A8	UPPER FLOOR FRAMING PLAN
Aq	UPPER FLOOR PLAN
Al0	ROOF FRAMING PLAN
All	ELEVATIONS
Al2	ELEVATIONS
AI3	BUILDING SECTIONS
Al4	LIGHTING PLAN

DESCRIPTION

RNE S

4 DESIGNED BY:

DRAWN BY: CMB PROJECT MANAGER: TONY SOPER REVISED BY:

JOB NUMBER C230056



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Vents Required = 790		0.56 s.i.	0.56 s.i. / Vent Area =		10.76 s.	i.	
Provide:	11	14" x 7"	Ve	nts, Area =		808.5 s.	i.
Ventilation	Provided =	808	8.50 s.i.	is Greater than	7	90.56 s.	i. Req'd
Use:	11	14" x 7"	rs.	Founda	ation Vents		
FOUNDATIO	N VENTS SH	ALL NOT I	NTERFE	RE WITH DIRECT	LOAD PATH OF	COLUMN	IS
					(J) (Q)		
GRT 8	k FOY	ROC	F VI	ENTILAT	ION		
Stick Frame	d Roof Assen	nbly:					
Roof Area:			525	s.f.			
Ventilation Re	equired:		525	s.f. x 144 s.i. / s.f.	. / 300 =	252	s.i. Req'd
Provide 1/2 ve	entilation at ea	ves, 1/2 ab	ove midp	oint & min. 3 ft. ab	ove eave vents		
Eave Ventilati	on:						
Birdblocking =	=		4.71	s.i./ l.f 25% red	uction =	3.53	s.i. / I.f.
Eave Ventilati	ion Req'd =		252	s.i. / 2 / s.i. per l.f	. =	35.67	l.f.
Provide :			36	I.f. birdblocking. \	/entilation =	127.17	s.i.
Min. Ventilation	on Provided =		127.17	s.i. is greater than	ſ	126	s.i. Req'd
Ridge Ventila	tion:						
Continuous R	idge Vent =		29	s.i. per l.f 25% r	eduction =	21.75	s.i. per l.t
Upper Ventila	tion Req'd =		126	s.i. / s.i. per linear	foot =	5.79	I.f.
Provide:			6	I.f. ridge vent.	Ventilation =	130.50	s.i.
Min. Ventilation	on Provided =		130.50	s.i. is Greater than	1	126	s.i. Req'd
Use: (minin	num)		36	I.f. birdblocking.	Ventilation =	127.17	s.i.
Use: (minin	num)		6	I.f. ridge vent.	Ventilation =	130.50	s.i.
Total Min. Ve	entilation Pro	ovided =	257.67	s.i. IS GREATER	THAN:	252	s.i. Reg'o

**GARAGE ROOF VENTILATION** 

714 s.f.

Standard Truss / Scissor Truss Roof Framing Assembly:

**FOUNDATION VENTILATION** 

Crawlspace Area:

Vent Area =

Roof Area:

Ventilation Required:

1647 s.f.

1647 s.f. / 300 =

14" x 7" Foundation Vents

98 s.i. - 25% reduct.,1/4"mesh =

790.56 s.i. Req'd

73.5 s.i.

Ventilation Required:	714	s.f. x 144 s.i. / s.f. / 300 =	342.72	s.i. Req'd	PROPOS
Provide 1/2 ventilation at eaves, 1/2 al	bove midp	oint & min. 3 ft. above eave vents			PROPOS
Eave Ventilation:					-
Birdblocking =	4.71	s.i./ l.f 25% reduction =	3.53	s.i. / l.f.	×
Eave Ventilation Reg'd =	342.72	s.i. / 2 / s.i. per l.f. =	48.51	l.f.	
Provide :		I.f. birdblocking. Ventilation =	173.09	s.i.	
Min. Ventilation Provided =	70/11/4-11/10/10/10/10/10/10/10/10/10/10/10/10/1	s.i. is greater than	171.36	s.i. Req'd	
Ridge Ventilation:					FLOOR
Continuous Ridge Vent =	29	s.i. per l.f 25% reduction =	21.75	s.i. per l.f.	WALL
Upper Ventilation Req'd =	171.36	s.i. / s.i. per linear foot =	7.88	I.f.	VVALL
Provide:		I.f. ridge vent. Ventilation =	174.00	s.i.	CEILING
Min. Ventilation Provided =		s.i. is Greater than	171.36	s.i. Req'd	
Use : (minimum)	49	I.f. birdblocking. Ventilation =	173.09		
Use : (minimum)		I.f. ridge vent. Ventilation =	174.00	1-85083-1	
Total Min. Ventilation Provided =		s.i. IS GREATER THAN :	Anna dia ana	s.i. Req'd	HEAT
					PRESC
<b>MSTR SUITE RO</b>	OF \	/ENTILATION			ELECTRI
Standard Truss / Scissor Truss Roo	f Framin	g Assembly:			2
Roof Area:(Garage Roof)	420	T			OTHER I
Ventilation Required:	420	s.f. x 144 s.i. / s.f. / 300 =	201.6	s.i. Req'd	
Provide 1/2 ventilation at eaves, 1/2 al	bove midp	oint & min. 3 ft. above eave vents			
Eave Ventilation:					WH
Birdblocking =	4.71	s.i./ l.f 25% reduction =	3.53	s.i. / l.f.	
Eave Ventilation Req'd =	201.6	s.i. / 2 / s.i. per l.f. =	28.54	l.f.	X
Provide :	29	I.f. birdblocking. Ventilation =	102.44	s.i.	
Min. Ventilation Provided =	102.44	s.i. is greater than	100.8	s.i. Req'd	
Ridge Ventilation:					
Continuous Ridge Vent =	29	s.i. per I.f 25% reduction =	21.75	s.i. per l.f.	
Upper Ventilation Req'd =	100.8	s.i. / s.i. per linear foot =	4.63	l.f.	
Provide:	5	I.f. ridge vent. Ventilation =	108.75	s.i.	
Min. Ventilation Provided =	108.75	s.i. is Greater than	100.8	s.i. Req'd	
Use : (minimum)	29	I.f. birdblocking. Ventilation =	102.44	s.i.	
Use: (minimum)	5	I.f. ridge vent. Ventilation =	108.75	s.i.	
Total Min. Ventilation Provided =	211.19	s.i. IS GREATER THAN:	201.6	s.i. Req'd	
<b>UPPER ROOF TI</b>	RUS	<b>S VENTILATION</b>			
Standard Truss / Scissor Truss Roo	f Framin	g Assembly:			
Roof Area:	624				
Ventilation Required:	624	s.f. x 144 s.i. / s.f. / 300 =	299.52	s.i. Req'd	
Provide 1/2 ventilation at eaves, 1/2 at	bove midp	oint & min. 3 ft. above eave vents			VE
Eave Ventilation:					
Birdblocking =	4.71	s.i./ l.f 25% reduction =	3.53	s.i. / l.f.	то в
Eave Ventilation Reg'd =	500000000000000000000000000000000000000	s.i. / 2 / s.i. per l.f. =	42.39	FEMALES PACKED	SYM
Provide :		I.f. birdblocking. Ventilation =	151.90	100000	<u> </u>
Min. Ventilation Provided =	1000	s.i. is greater than	01932/30/2700	s.i. Req'd	7
Ridge Ventilation:				1 200	<b>▲</b>
	10			4	

29 s.i. per l.f. - 25% reduction =

7 l.f. ridge vent. Ventilation =

(0)

149.76 s.i. / s.i. per linear foot =

152.25 s.i. is Greater than

ROOM	# OF	WND.	WND.	MANUF.	FRAME	WDW.	MODEL	. AIR	GAS	LO-E	U-VAL.	AREA	UA
	WNDS.	W.	H.		TYPE	TYPE	NO.	GAP					
MAIN FLOOR			-	-									
FOY	2	1.50	6.00	MILGARD	VINYL	<b>PICTURE</b>	5320	1/2"	AIR	YES	0.35	18.00	6.
OFF	1	2.50	5.00	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	12.50	4.
MBA	2	2.50	5.00	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	25.00	9.
MBR	2	3.00	5.00	MILGARD	VINYL	CASE.	5521	1/2"	AIR	YES	0.36	30.00	10.
GRT	1	2.50	7.50	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	18.75	7.3
GRT	2	5.00	7.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.35	70.00	24.
DIN	1	3.00	6.50	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	19.50	7.
KIT	1	2.50	6.50	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	16.25	6.3
KIT	1	2.50	5.00	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	12.50	4.
BA2	1	2.00	3.50	MILGARD	VINYL	S.HUNG	5220	1/2"	AIR	YES	0.39	7.00	2.
UPPER FLOOR	2				70		45	100					
STAIRS	3.00	3.00	4.00	MILGARD	VINYL	<b>PICTURE</b>	5320	1/2"	AIR	YES	0.35	36.00	12.
OPEN TO GRT	3.00	3.00	2.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.35	18.00	6.
BR3	3.00	4.00	2.00	MILGARD	VINYL	CASE.	5521	1/2"	AIR	YES	0.36	24.00	8.
BR3	2.00	2.00	5.00	MILGARD	VINYL	PICTURE	5320	1/2"	AIR	YES	0.35	20.00	7.
BR4	2.50	4.00	5.00	MILGARD	VINYL	CASE.	5521	1/2"	AIR	YES	0.36	50.00	18.
DOORS WITH I	MORE T	3.00		SIMPSON	WOOD	DOOR	6001	3/4"	AIR	IVES	0.36	48.00	17.:
GRT	4	3.00		SIMPSON	(4.56, 1497),41,447		6001	_	_	_	_	96.00	
Total Cal								_	-				
KIT	1	3.00	8.00	SIMPSON			6001	200000000000000000000000000000000000000				24.00	
CONTIQUES AL	0104	******			DOOR	RS WITH MO AVG	i. U-VALU						8. 0.
SKYLIGHTS AN	ID SKI	WALLS			Ţ								
								s	KYLIC	GHT T	OTAL:		
						AVG.	U-VALUE						
								7 % c				AREA	UA
												401.50	146.
											,	TOTAL 1	
	GLAZIN	NG % =		TOTAL 1		=	401.	.50	S.F.	=		18.16%	No.
	(2000) <del>(2000)</del> (2000) (2000)	\$1550 Survey		HEATED ARE	FA	-	2211	or stored	S.F.			10/7/01/brayo.cs	
1	IG ILV	ALUE =		TOTAL (TO		=	146.		UA			0.36	U-VALI
AV	1 G. U-VI						10000	- T-	3459753			7.505377	

TO BE VERIFIED WITH LOCAL CODES	TO BE VERIFIED WITH LOCAL CODES			
PROPOSED PERCENTAGE GLAZING	18.16%	CEILINGS	R-38	
PROPOSED VERTICAL U-VALUE	0.36	VAULTED CEILINGS	R-30	
PROPOSED OVERHEAD U-VALUE	0.00	ABOVE GRADE WALLS	R-21	
PROPOSED DOOR U-VALUE	0.20	BELOW GRADE WALLS (INTERIOR)	R-21	
		FLOORS OVER UNHEATED SPACES	R-30	
		SLAB PERIMETER	R-10	
		DUCTS IN UNHEATED SPACES	R-8	

FLOOR	4 MIL POLY	X FACE STAPLED BACKED BATTS	X PLYWOOD W/ EXT. GLUE
WALL	4 MIL POLY	X FACE STAPLED BACKED BATTS	X PVA PAINT
CEILING	4 MIL POLY	FACE STAPLED BACKED BATTS	PVA PAINT
	X NOT REQUIRED	) IF VENTILATION SPACE AVERAGE 12" ABO	VE INSULATION

HEATING SYSTEMS SIZING	(TO BE VERIFIED WITH LOCAL CODES)			
PRESCRIPTIVE HEATING SYSTEM SIZING:				
ELECTRIC RESISTANCE (BASEBOARD / UNIT HEATERS):				
CONDITIONED SQUARE FOOTAGE X .005882 =	13.01	MAXIMUM KW OUTPUT		
THER FUELS:				
CONDITIONED SQUARE FOOTAGE X 20 =	44220	MAXIMUM BTU OUTPUT		

WI	OLE HOUSE VENTILATION
X	OPTION 1. WHOLE HOUSE VENTILATION USING EXHAUST FANS  100 MIN. CFM EXHAUST FAN FLOW RATING  NOTE: THIS IS THE ONLY OPTION THAT REQUIRES A WHOLE HOUSE FAN.
	OPTION 2. WHOLE HOUSE VENTILATION INTEGRATED WITH A FORCED AIR HEATING SYSTEM  INCH SMOOTH OR INCH FLEXIBLE OUTDOOR AIR INLET DUCT  MOTORIZED DAMPER  MANUAL DAMPER MEETING LOCAL FLOW RATES: CFM  AUTOMATIC FLOW-REGULATED DEVICE
	OPTION 3. WHOLE HOUSE VENTILATION USING A SUPPLY FAN INCH SMOOTH ORINCH FLEXIBLE OUTDOOR AIR INLET DUCT  BACK-DRAFT DAMPER SELECTION: CALIBRATED MANUAL VOLUME DAMPER MANUAL VOLUME DAMPER AUTOMATIC FLOW-REGULATING DEVICE
	OPTION 4. WHOLE HOUSE VENTILATION USING A HEAT RECOVERY VENTILATION SYSTEM

TO BE VERIFIED WITH LOCAL BUILDING CODES						
SYMBOL	LOCATION	MINIMUM FAN REQUIREMENTS				
_	Bath, Powder,	Min. 50 cfm @ 0.25" WG				
A	Laundry					
<u> </u>	Kitchen	Min. 100 cfm @ 0.25" WG				
T B		(Range hood or down draft exhaust fan rated at min.100 cfm				
		at 0.10" WG may be used for exhaust fan requirement.)				
<u> </u>	Whole House	MIN. CFM = 100 MAX. CFM = 150				
T C	Fan	(based on 2,211 s.f. floor area & 4 bedrooms)				
		*flow rating @ 0.25" WG				
		*whole house fans located 4 ft. or less from interior grille to				
		have a sone rating of 1.5 or less measured @ 0.1" WG				
		That a concraming or the or took including a concrete of				

Continuous Ridge Vent =

Upper Ventilation Req'd =

Min. Ventilation Provided =

43 l.f. birdblocking. Ventilation = 7 l.f. ridge vent. Ventilation = Total Min. Ventilation Provided = 304.15 s.i. IS GREATER THAN :

21.75 s.i. per l.f

149.76 s.i. Req'd

299.52 s.i. Req'd

6.89 l.f. 152.25 s.i.

151.90 s.i.

152.25 s.i.

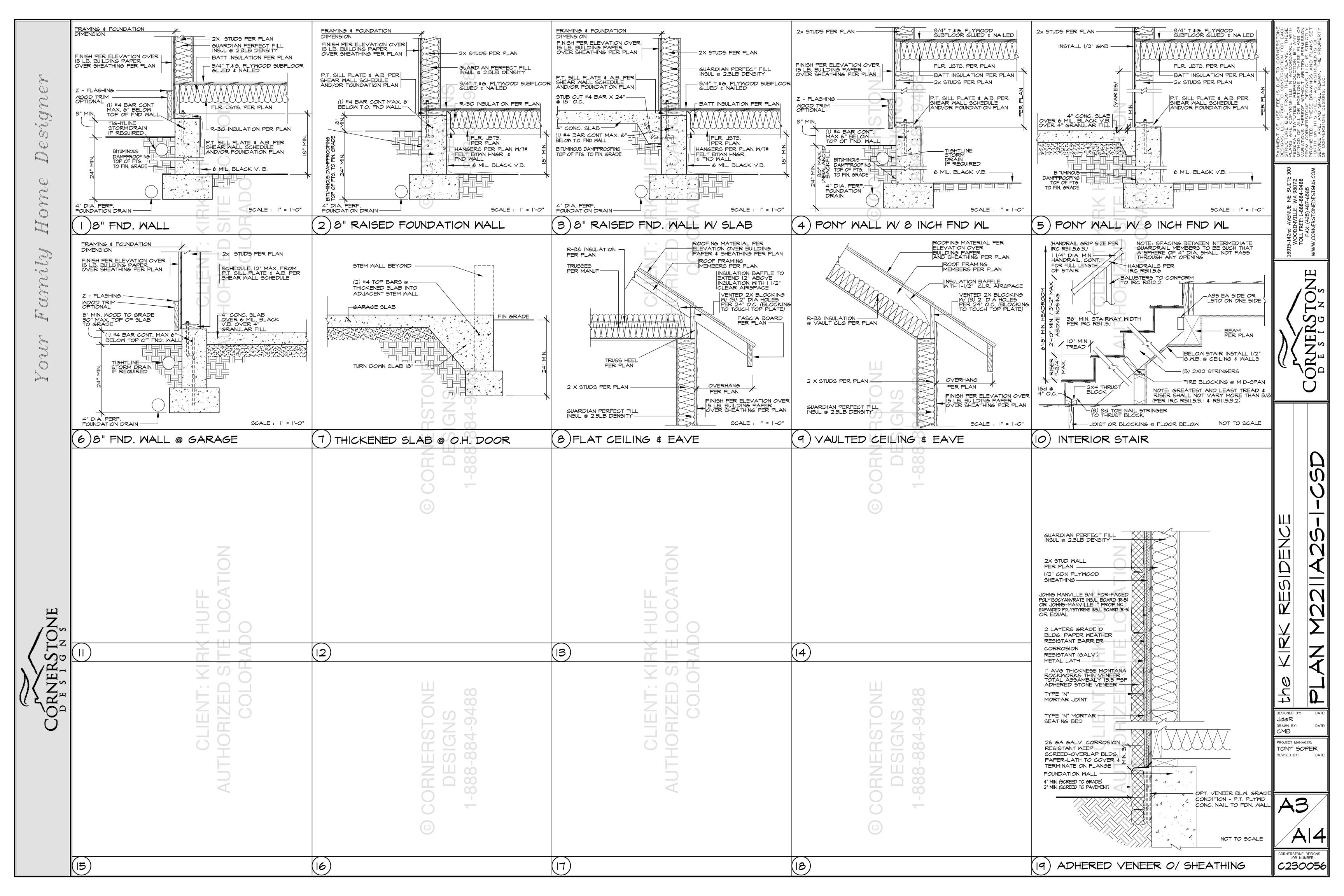
M2211A25-1 RESIDENCE  $\frac{\lambda}{\lambda}$ 42 DESIGNED BY:
JdeR
DRAWN BY:
CMB

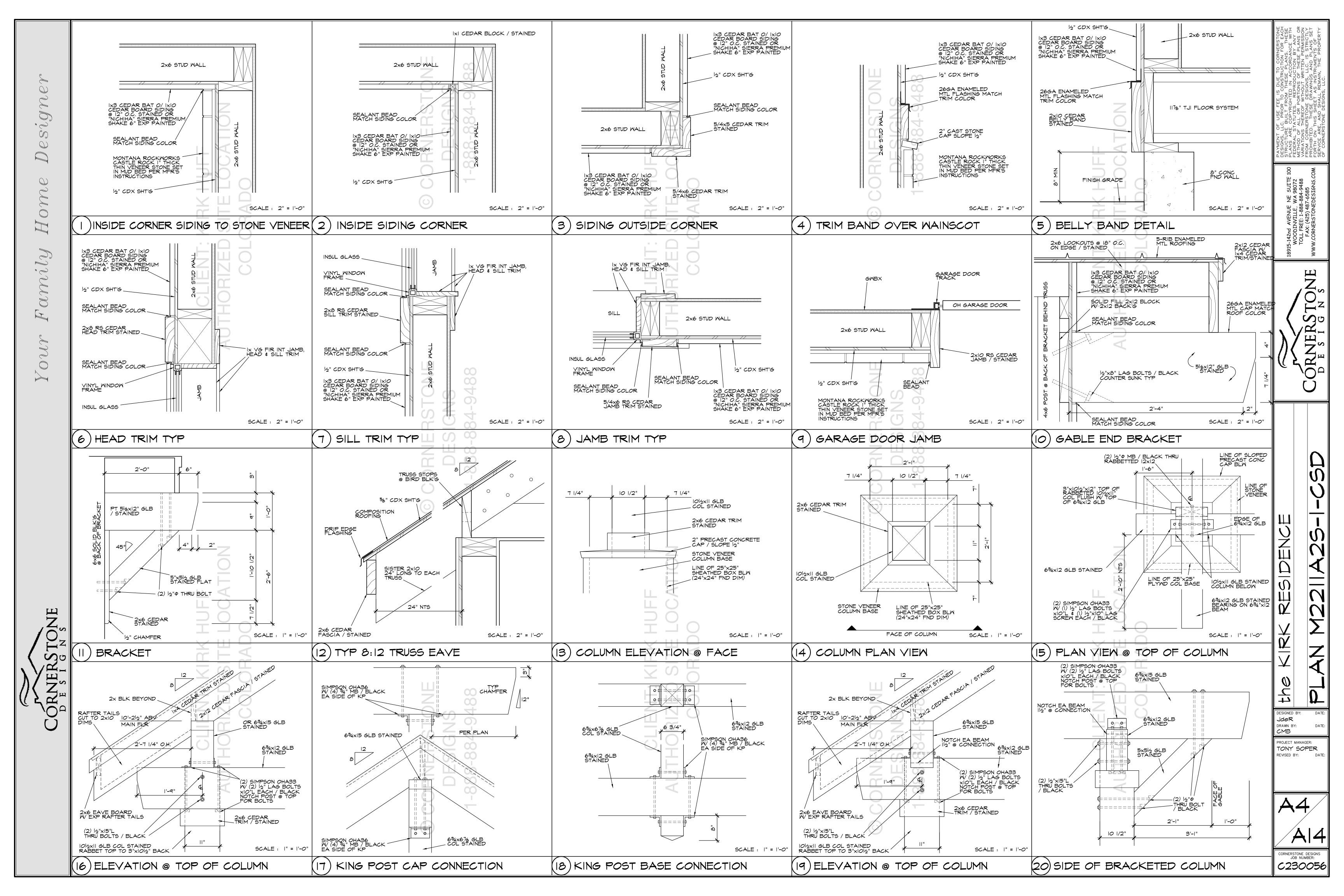
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PROJECT MANAGER:
TONY SOPER REVISED BY: DATE:

CORNERSTONE DESIGNS
JOB NUMBER:

C230056

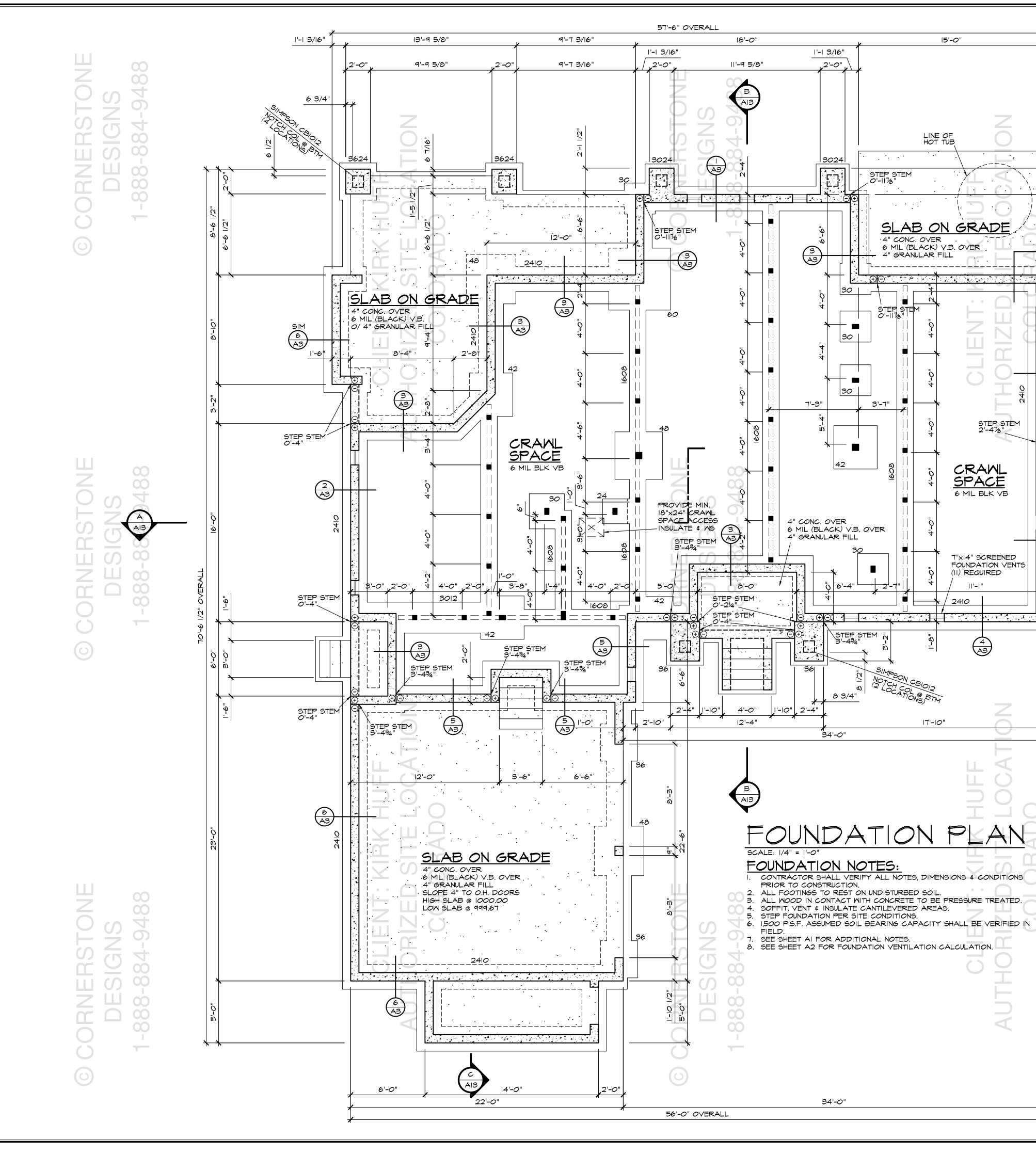






AUTHORIZED SITE LOCATION
COLORADO

AUTHORIZED SITE LOCATION



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DESIGNED BY:

JdeR

DRAWN BY:

PROJECT MANAGER:

TONY SOPER

REVISED BY:

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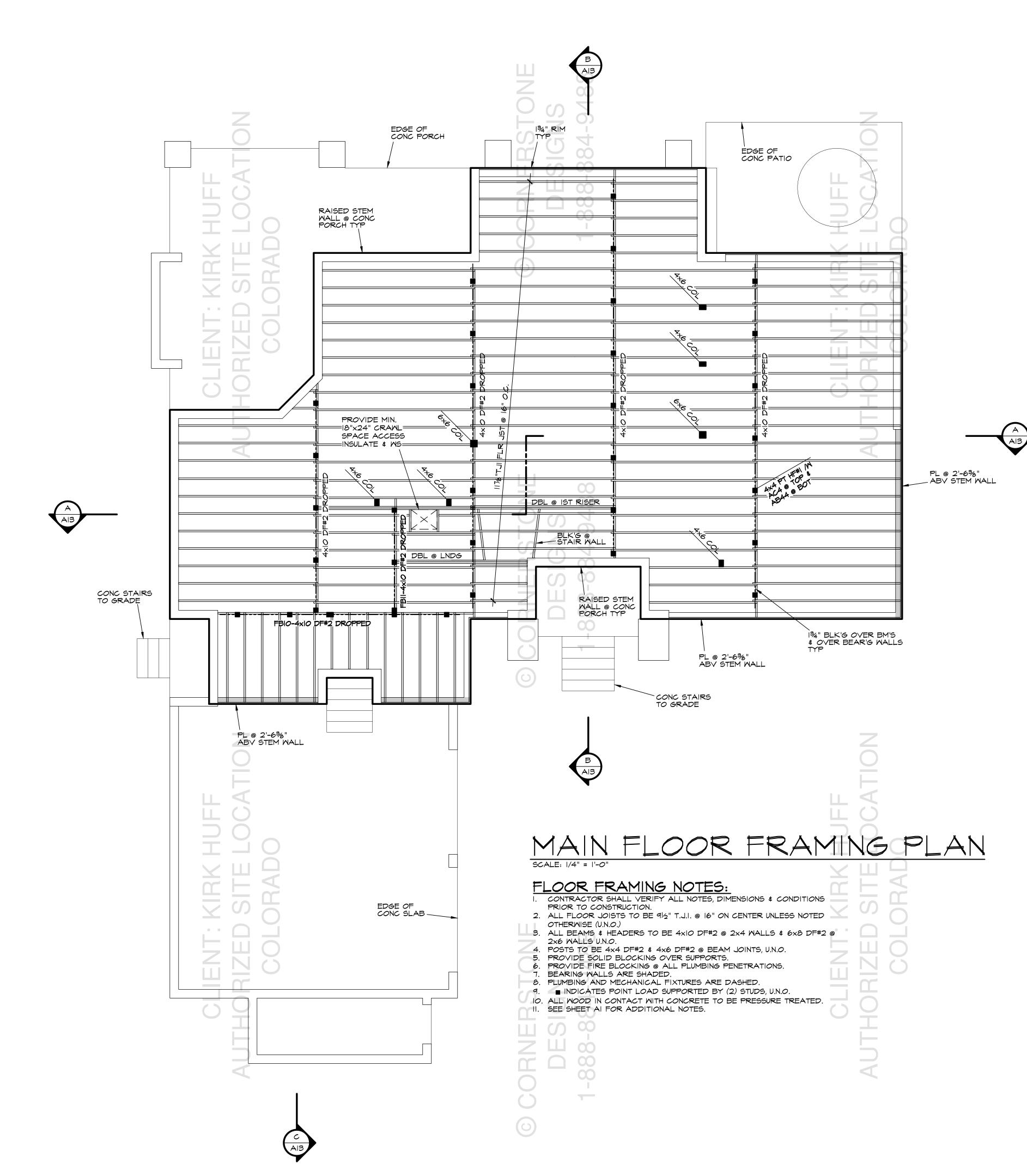
CORNERSTONE DESIGNS JOB NUMBER:

C230056



DESIGNS 888-884-9488

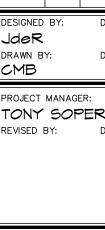
CORNERSTONE DESIGNS 1-888-884-9488





C230056



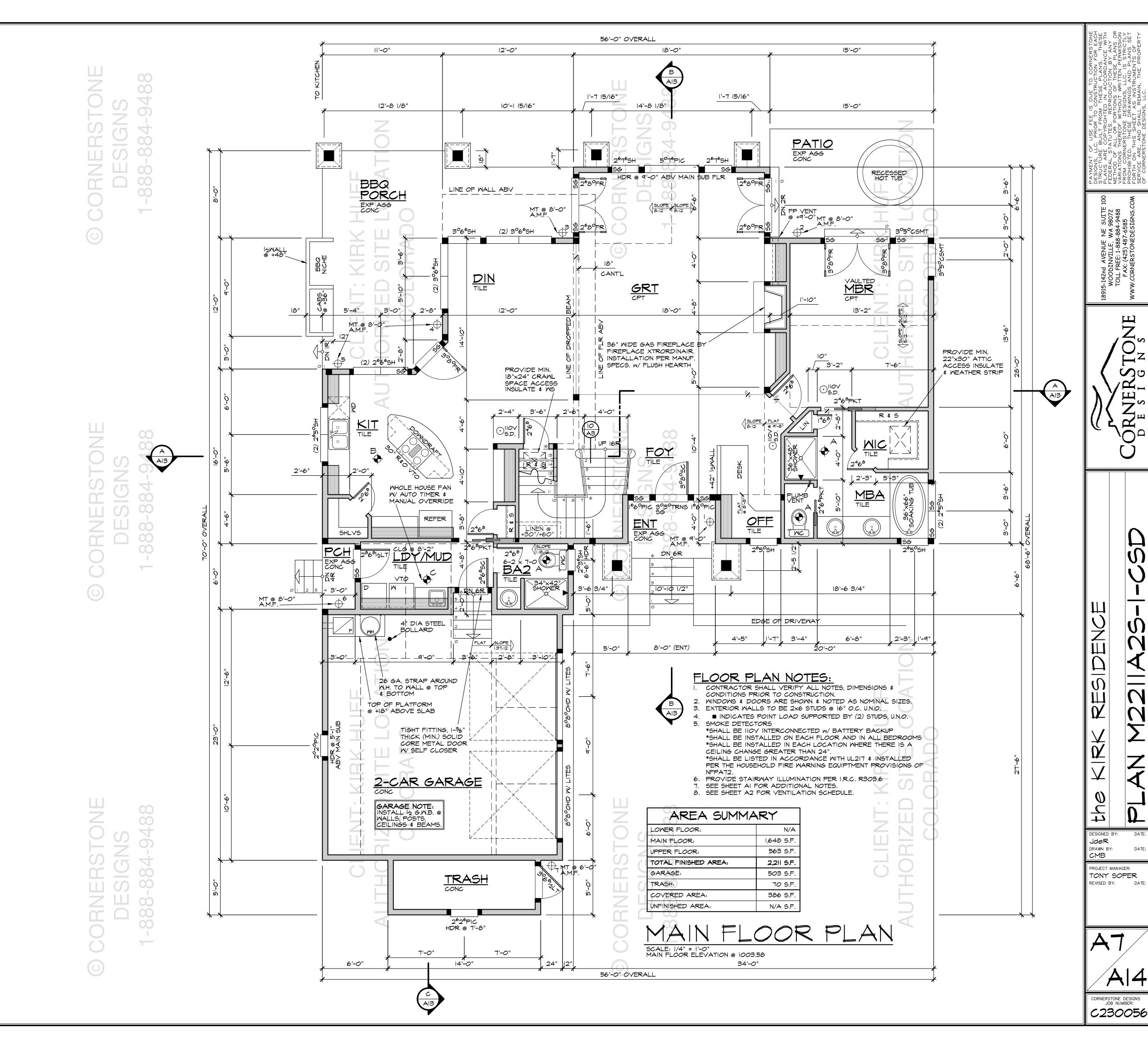


42 DESIGNED BY: JdeR DRAWN BY: PROJECT MANAGER: TONY SOPER REVISED BY:

RESIDENC 

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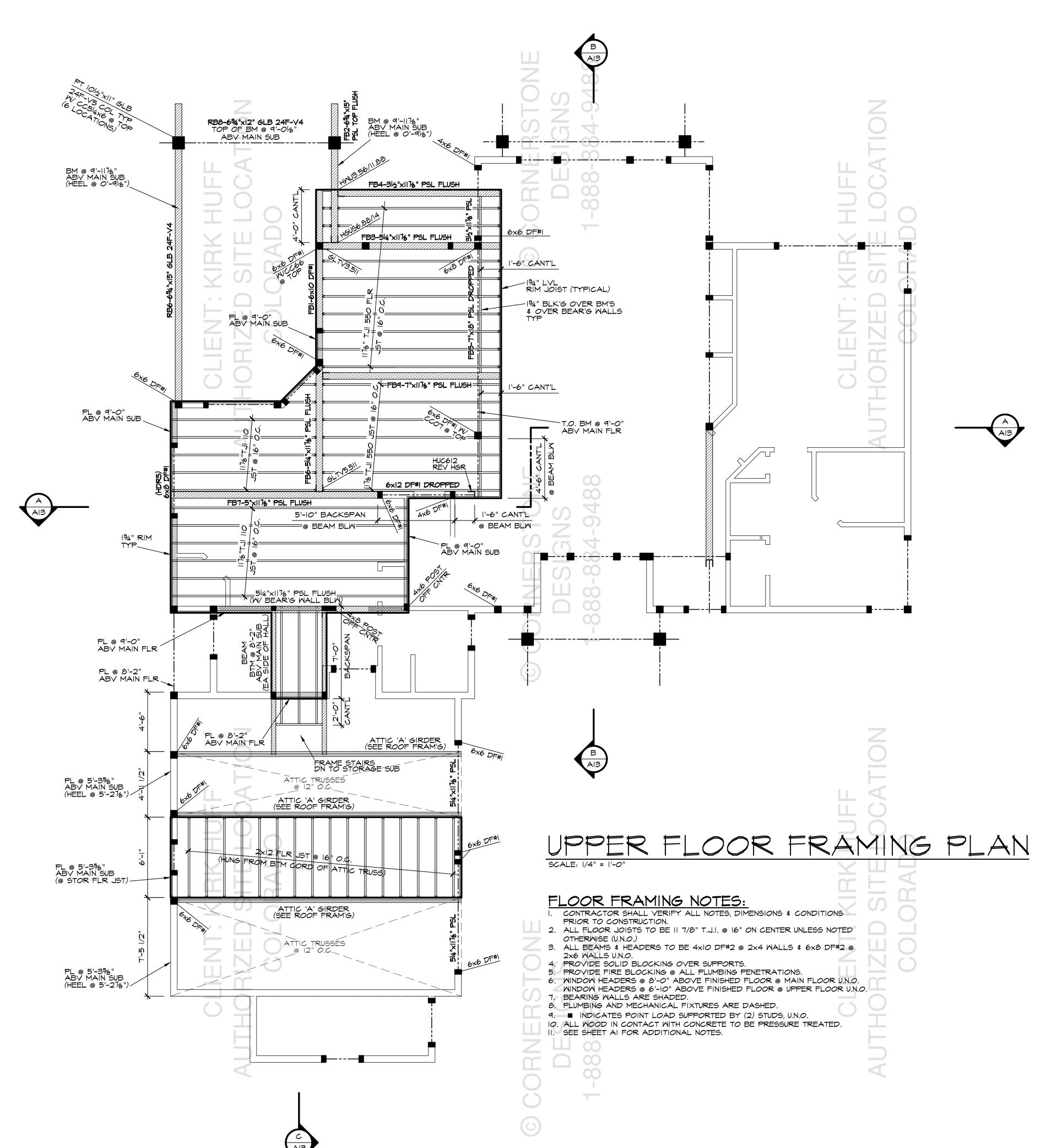






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RESIDENCE 

PAYMENT OF USE FEE IS DUE TO DESIGNS, LLC. PRIOR TO CONSTRUC STRUCTURE BUILT FROM THESE PIPLANS ARE COPYRIGHTED IN ACCYFEDERAL STATUTES. REPRODUCTIVE AND STRUCTURE OF COMMINISHED STATUTES DESIGNS, LLC PROHIBITED. THESE DRAWINGS AN FORTH ON THIS SHEET AS INSTRUCTURED STANISH OF CORNEDSTANIS

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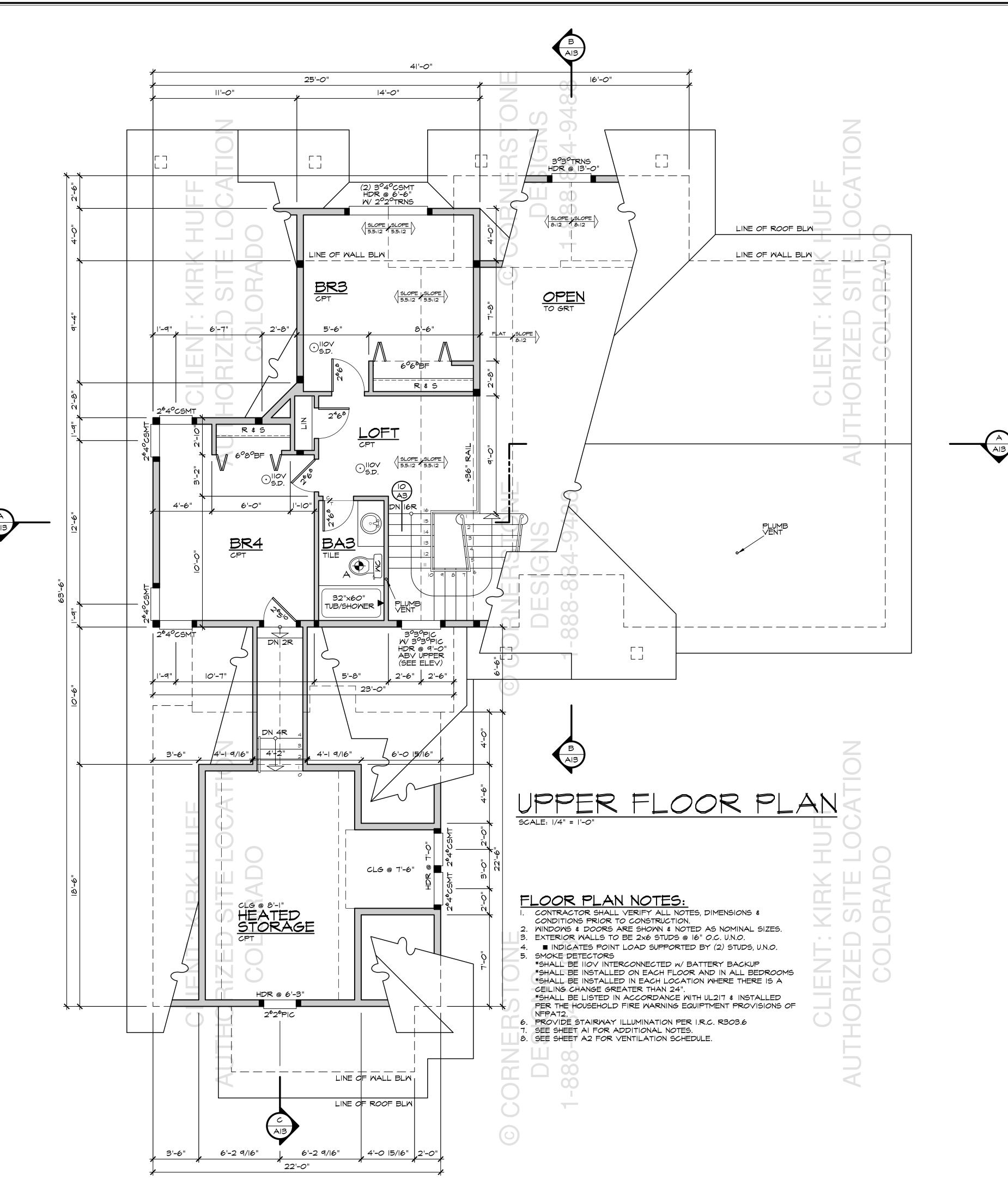
2 DESIGNED BY:

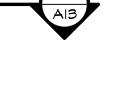
JdeR DRAWN BY: PROJECT MANAGER: TONY SOPER REVISED BY:



CORNERSTONE DESIGNS JOB NUMBER: C230056







REVISED BY: DATE:

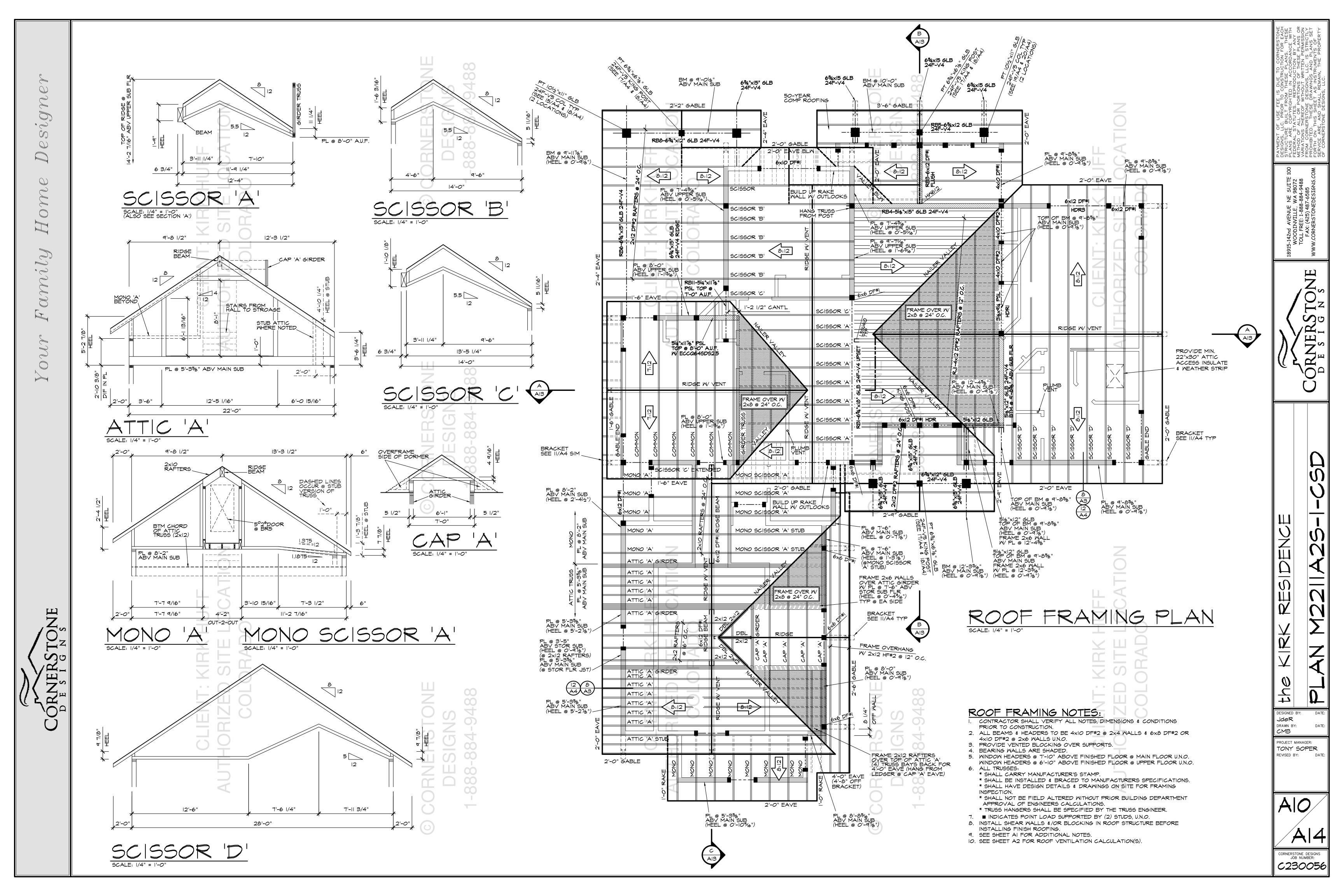
DESIGNED BY: JdeR DRAWN BY: PROJECT MANAGER: TONY SOPER

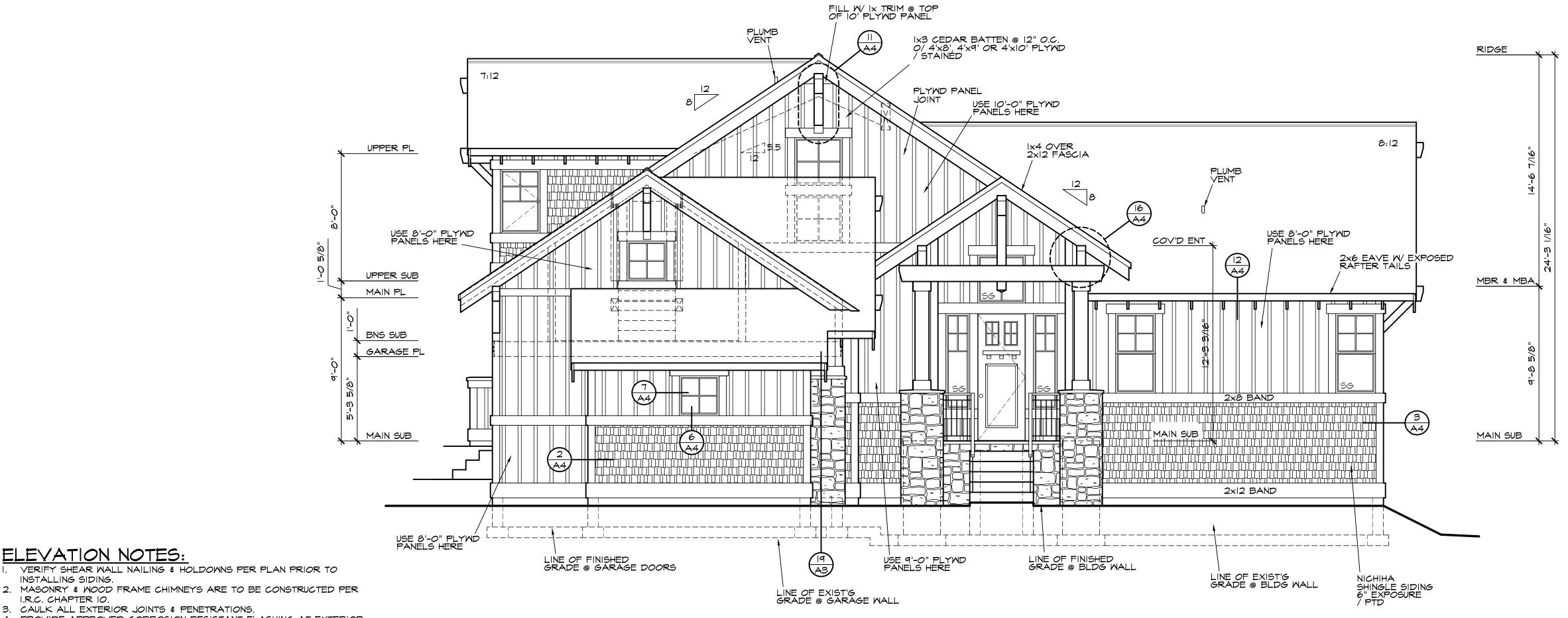
CORNERSTONE DESIGNS JOB NUMBER: C230056

42

RESIDENCE <u>~</u>

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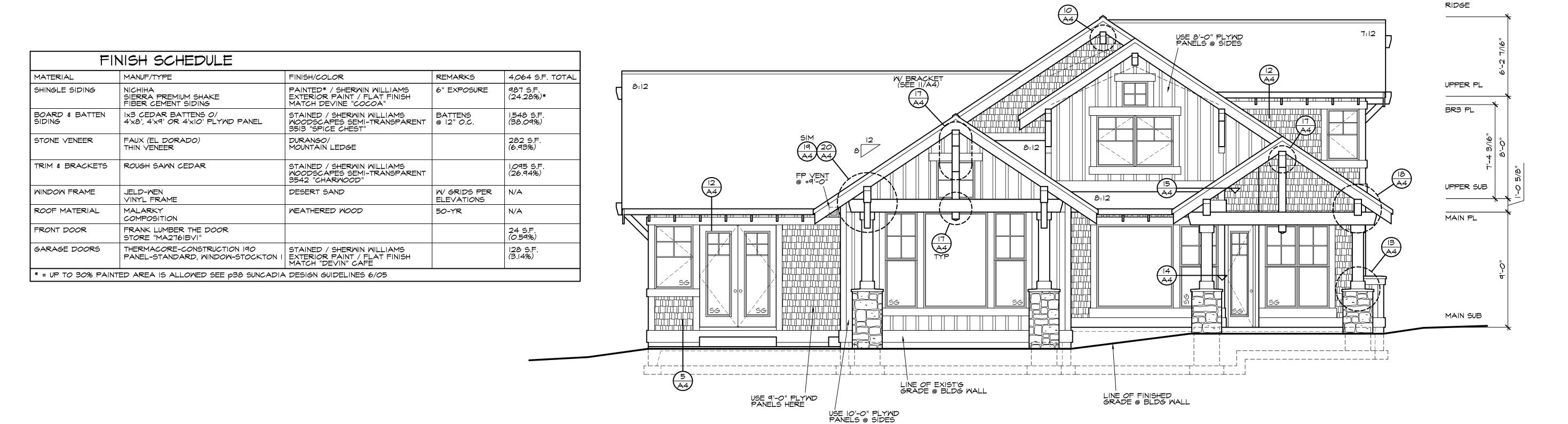


INSTALLING SIDING. 2. MASONRY & WOOD FRAME CHIMNEYS ARE TO BE CONSTRUCTED PER I.R.C. CHAPTER IO. CAULK ALL EXTERIOR JOINTS & PENETRATIONS.

- 4. PROVIDE APPROVED CORROSION RESISTANT FLASHING AT EXTERIOR
- WALL ENVELOPE PER I.R.C. R703.8
  5. PROVIDE FLASHING AT ROOF PENETRATIONS PER I.R.C. R903.2 \$
- 6. PROVIDE WEATHER STRIPPING AT ALL EXTERIOR & GARAGE-INTERIOR
- PROVIDE CONTINUOUS GUTTERS & DOWNSPOUTS @ ALL EAVES, TYP
- ADDRESS OR HOUSE NUMBER TO BE POSTED AND PLAINLY VISIBLE
- FROM THE STREET FRONTAGE. 9. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. R303.6 IO. SHEE SHEET AI FOR ADDITIONAL NOTES.

**ELEVATION NOTES:** 

FRONT ELEVATION



REAR ELEVATION

SCALE: 1/4" = 1'-0"

PAYMEN DESIGNS STRUCT PEDENS FEDENS WETHOD VARIATIO FROM BUI FROM BUI FORTH

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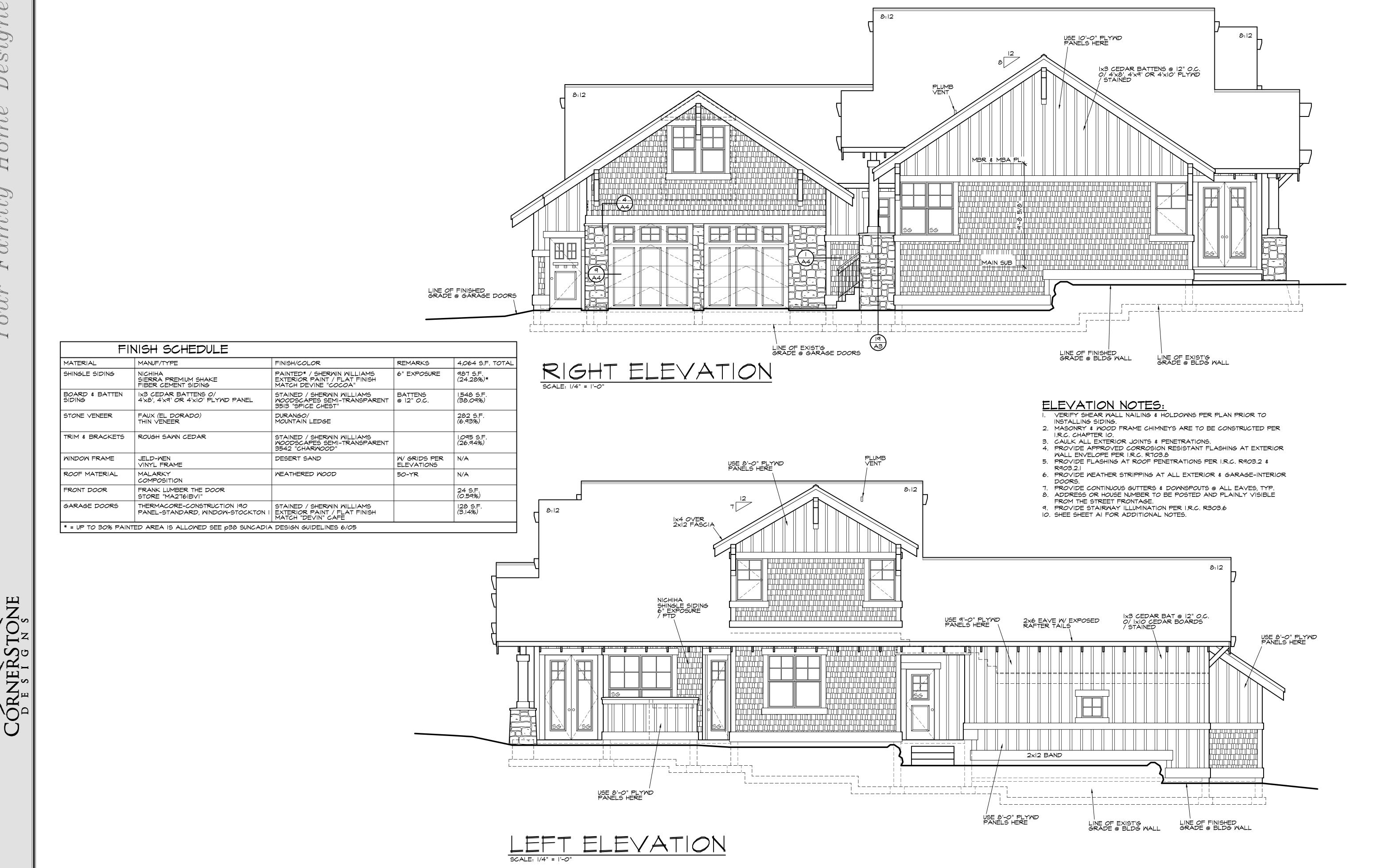
DESIGNED BY: JdeR DRAWN BY: CMB

PROJECT MANAGER: TONY SOPER REVISED BY:

A||

CORNERSTONE DESIGNS JOB NUMBER: C230056





PAYMENT OF USE FEE IS DUE TO CORNERS DESIGNS, LLC. PRIOR TO CONSTRUCTION FOR STRUCTURE BUILT FROM THESE PLANS. THE STRUCTION FOR PLANS ARE COPYRIGHTED IN ACCORDANCE FROM CORNERSTONE DESIGNS, LLC. IS STRUCHIBITED. THESE DRAWINGS AND PLANS FORTH ON THIS SHEET AS INSTRUMENTS OF CORNERSTONE DESIGNS, THE PROPING ARE, AND SHALL REMAIN, THE PROPING OF CORNERSTONE DESIGNS, LLC.

915-142nd AVENUE NE SUITE 100 WOODINVILLE, WA 98072 TOLL FREE: 1-888-884-9488 FAX: (425) 487-6585 WW.CORNERSTONEDESI*G*NS.COM

ORNERS TONE

THE KIRK RESIDENCE

PLAN M2211A25-1-08

DESIGNED BY: DATE:

JdeR

DRAWN BY: DATE:

CMB

PROJECT MANAGER:
TONY SOPER
REVISED BY: DATE:

A|2/

A14

cornerstone designs JOB NUMBER:

ORNERS TONE

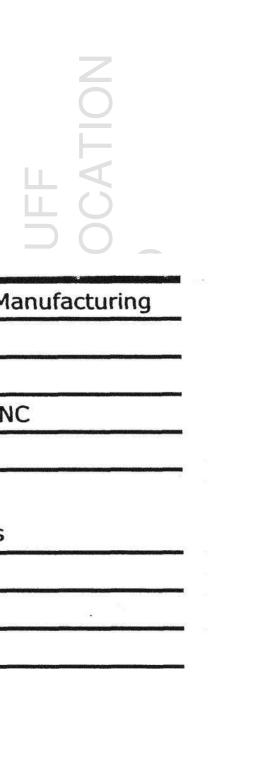


CORNERSTONE DESIGNS 1-888-884-9488

2-CAR GARAGE

SCALE: 1/8" = 1'-0"

HEATED STORAGE





Manufacturer	Spring City Electrical Manufacturing
Series	WetLo Prairie
Model	9264
Lamp & wattage	60/80/100/150 watt INC
Mounting	Wall
Finish	<ul><li>Copper</li><li>Multiple designs</li></ul>
Shape	Sconce
Style	Rustic/country
Application	Residential
Dark sky feature	Fully shielded

L — — — — — — — — UPPER FLOOR LIGHTING PLAN

SPRING CITY ELECTRICAL MANUFACTURING WETLO PRAIRIE MODEL # 9264

NOTE: NO LANDSCAPE LIGHTING PROPOSED

NOTE: NO EXTERIOR LIGHTS ON UPPER FLOOR

FLOOR LIGHTING PLAN

<u>OPEN</u>

| SLOPE | SLOPE | S.5.12 | 5.5.12 |

M2211A25= 

CORNERS TONE

DESIGNED BY:

JOER

DRAWN BY:

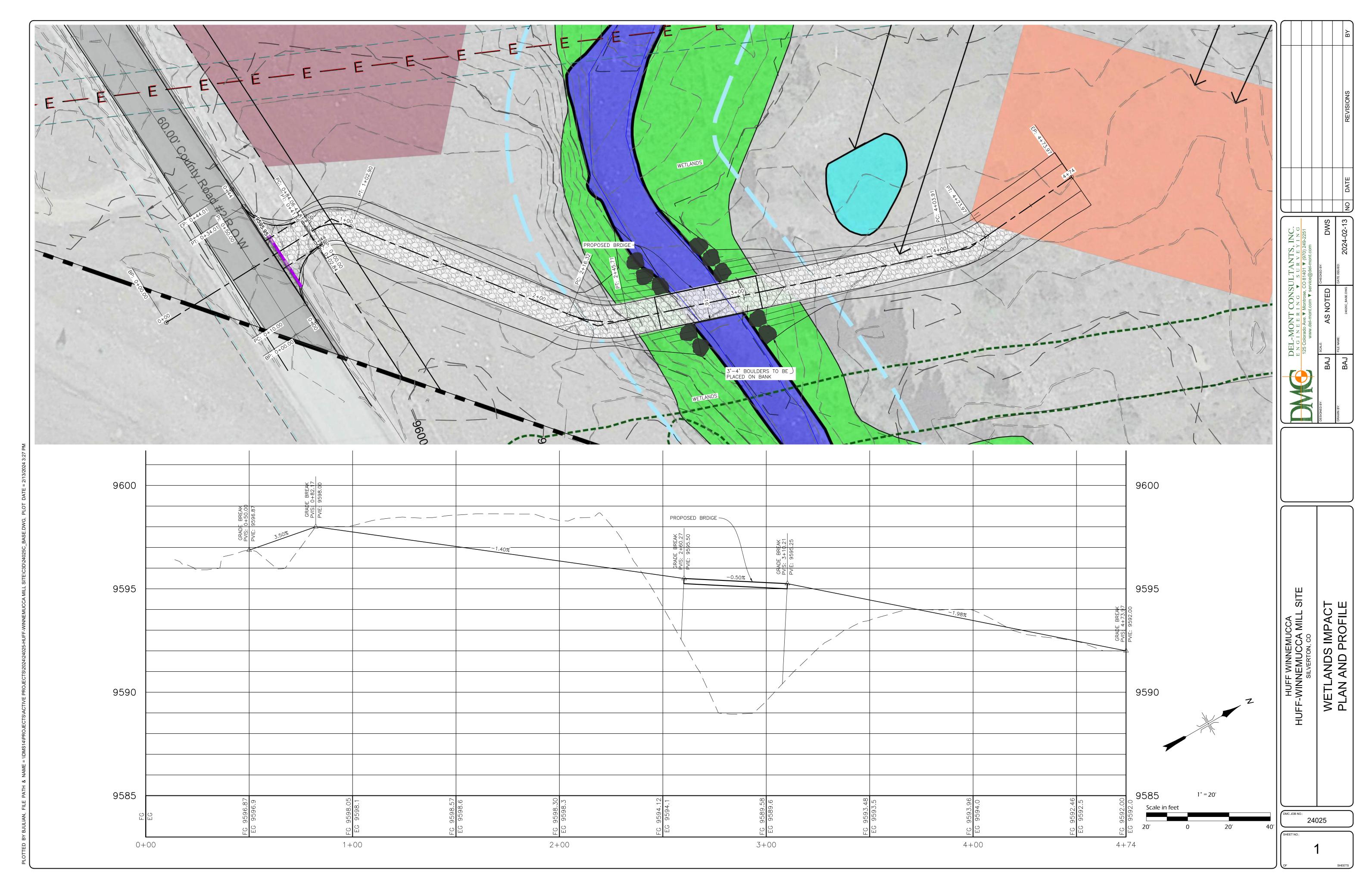
CMB PROJECT MANAGER:
TONY SOPER
REVISED BY: DATE:

A14

CORNERSTONE DESIGNS
JOB NUMBER:

C230056

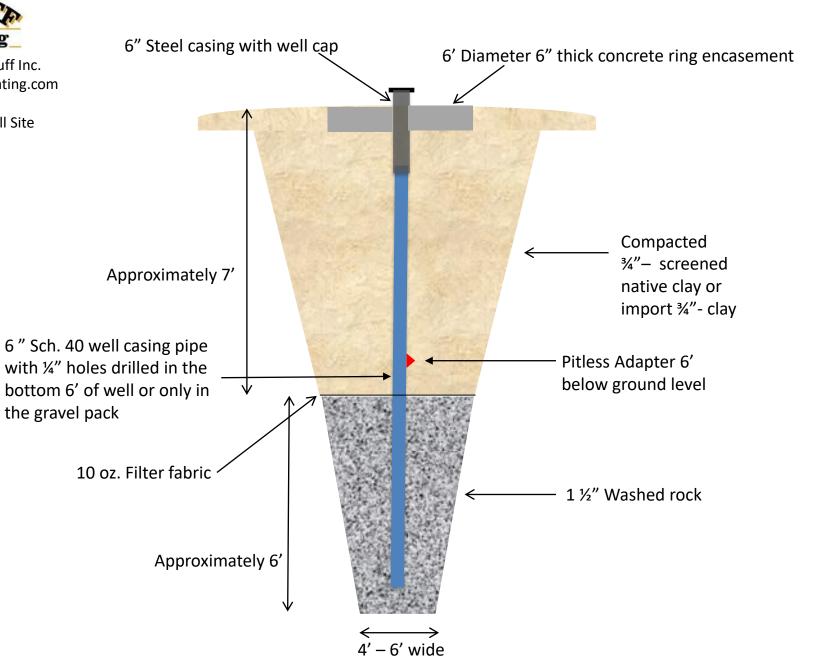








Drawn by H.H.Huff Inc. info@huffexcavating.com NOT TO SCALE Winnemucca Mill Site Water well plan Delta, CO 8-19-21



### WELL PERMIT NUMBER 323452-

RECEIPT NUMBER 10015014

### PERMIT HISTORY

08-15-2023

PERMIT EXTENDED

08-31-2021

WELL CONSTRUCTION VARIANCE ISSUED

July 05, 2023

HUFF, KIRK 1739 F ROAD DELTA CO 81416

RE: Well Permit Number 323452 Located in the SE 1/4, of the SE 1/4, Section 2, Township 41 N, Range 7 W, N P.M.

#### NOTICE

This permit to construct a well was issued on 8/31/2021 under Section 37-92-602(3), Colorado Revised Statutes. The expiration date of the permit is 8/31/2023. In order for the permit to remain valid, the well must be constructed and the Well Construction and Yield Estimate Report must be received from the water well driller, the authorized individual, or you as the owner if you constructed your own well. The Report must be submitted within 60 days after construction of the well is completed, or within seven (7) days after the expiration date of the permit. As of this date, a Well Construction and Yield Estimate Report has not been received by the Division of Water Resources. It is not necessary that the pump be installed for the permit to remain valid.

If the well will not be constructed prior to the expiration, the well owner may request a one-year extension of the expiration date on form GWS-64, General Request for Extension of Well Permit Expiration Date. The completed form must be received by the Division of Water Resources prior to the expiration date of the permit.

The State Engineer may extend the expiration date of the permit only for good cause shown. If the expiration date has already been extended once for one year, the statute does allow successive extensions, again for good cause shown. If the request for extension is not approved, you may apply for a new permit as described below.

If the well will not be constructed and a request for extension has not been received, the permit will automatically expire and be of no force or effect after the expiration date. If you still desire to construct a well on this property, it will be necessary for you to obtain a new well permit by submitting a completed application along with a \$100.00 filing fee to the Division of Water Resources.

Well permitting forms, including extension requests, and well construction/pump installation forms can be found on the forms page of the DWR website at this link: dwr.colorado.gov/forms Completed forms may be submitted as an attachment to an email addressed to DWRpermitsonline@state.co.us or printed and sent by mail to the address at the top of the form.

Should you have any questions, please contact our office through the AskDWR portal on our website. The link to AskDWR can be found under "Ask a Question" on the DWR homepage: dwr.colorado.gov. Thank-you for your immediate attention.

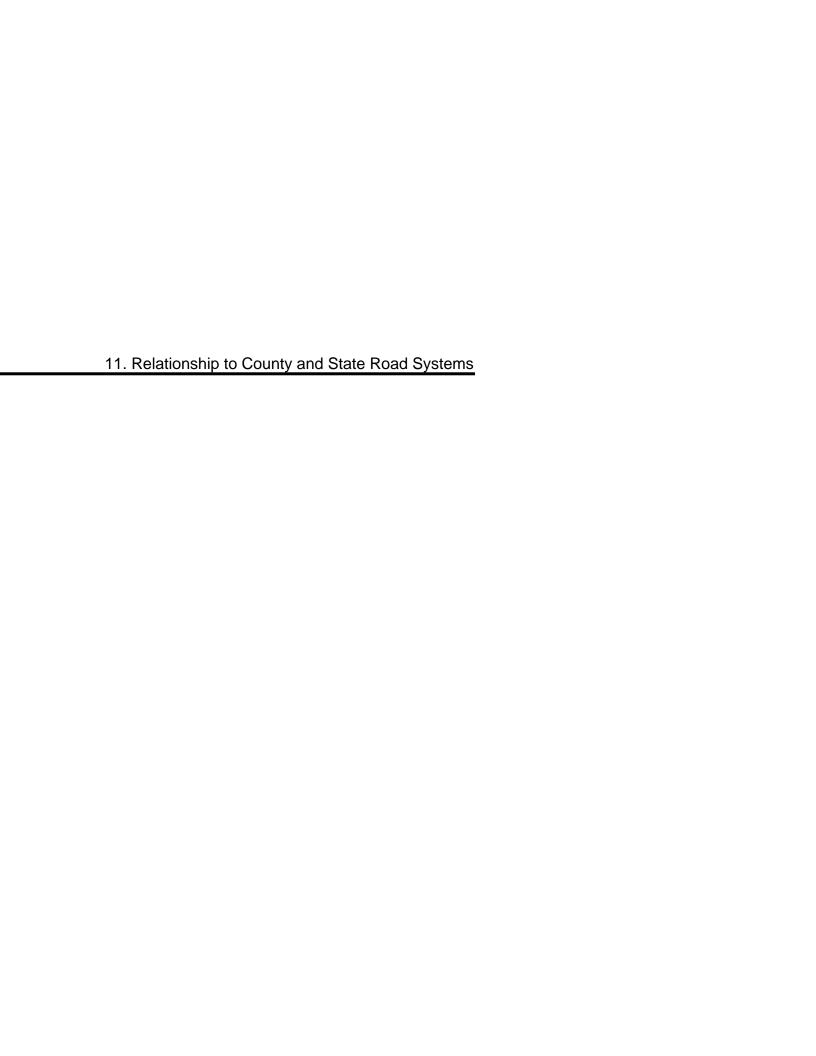


Form	No
<b>GWS</b>	-64
10/20	21

# COLORADO DIVISION OF WATER RESOURCES

For	Office	Use	Only
-----	--------	-----	------

GWS-64 10/2021	1313 Sherman St. Room 821 Denve Phone: (303) 866-3581 dwrpermi	er CO 80203	e co us			
	FOR EXTENSION OF WELL PER	MIT EXPIRA	TION DATE			
Review instru generated, ty	ctions on reverse side prior to completing to ped or printed in black or blue ink.	form. The form	can be comput	er		
Well Permi	t Number: <u>323 452</u>					
Name, addre	ess and phone number of well owner:					
Name(s):	Kirk Huff					
Mailing Addr	ess: 1739 F. Nd					
City, St. Zip:	Delta, CO 81416					
Phone: ( 970	261 - 6117					
Email (requir	red if filing online): kelhuff 2138 msa	.com				
Well Location	on: County San Juan	_				
SE 1/4 0	of the <u>SE</u> 1/4, Section <u>2</u> , Towns	ship 4	N. or	Range _7	E. or	W., <u>N.</u> P. M.
Statement of beneficial under the making C.R.S. 24-4-know the control of the beneficial under	date of well completion (mm/dd/yyyy):  of good cause as to why the well will rese (if in a Designated Basin) prior to the second country has heen wheel to hire a private conductor of false statements herein constitutes per 104(13)(a). I (we) claim and say that I (we) then the three of, and state that they are true of the well owner or agent	not be constructed the expiration of the expirat	cted and/or product of the signer's	ermit:  # permit!  started.  ich is punishable	e as a clas	this project.  s 1 misdemeanor pursuant to
NOTE:				For	r Office Use	Only
date of the require a n	s used to request an extension of the expermit. This request for extension on on-refundable filing fee (see instructed for details). The completed request prior to the expiration date of the	may ctions on est must				
	verse side for more information reg ts and requests for extension of the date.					
			Div	WD	Basin	MD



# BOARD OF COUNTY COMMISSIONERS San Juan County

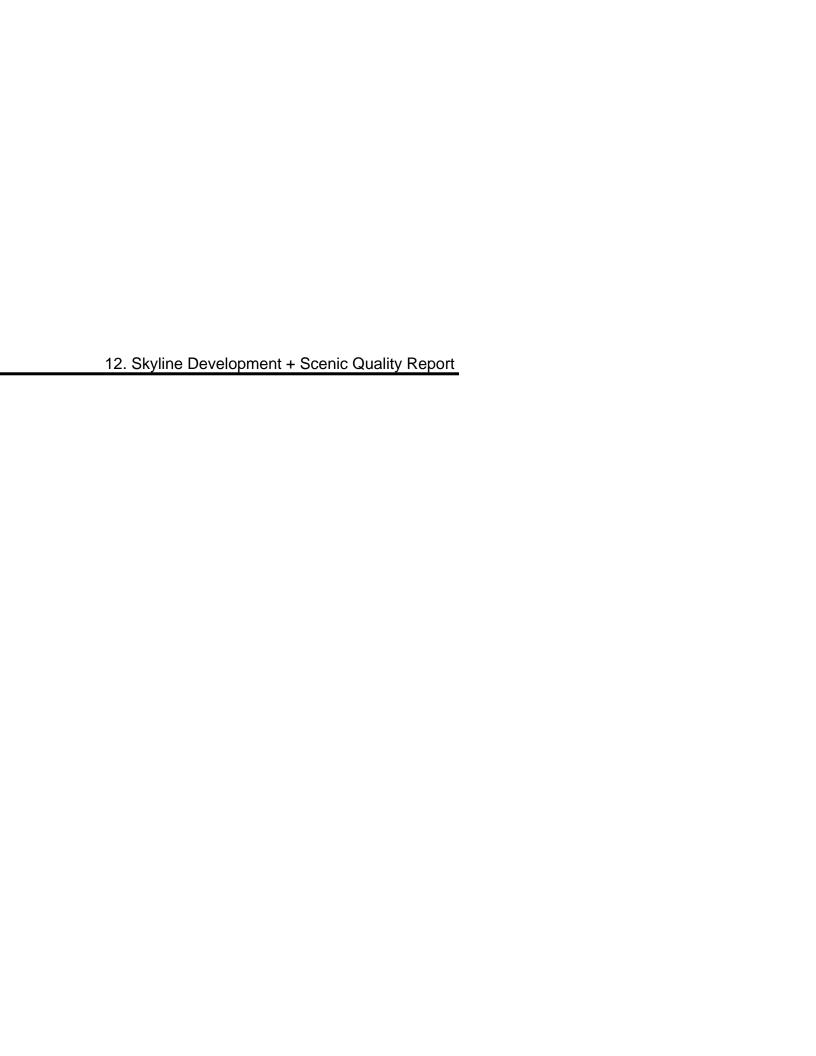
P.O. Box 466

Silverton, Colorado 81433

970-387-5671

RELATIONSHIP	ΟF	PROPERTY	TC	COUNTY	ROAD	$\Delta ND$	STATE	HTGHWAY	SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No, San Juan County, Colorado, do hereby acknowledge the following facts:
1. The real property' which is the subject of said application is on this date located approximately $\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ from County Road No. $\underline{}$ , the nearest designated and publicly maintained county road.
2. Said County Road No. 2 is on this date maintained on an year-round basis by San Juan County.
3. The real property which is the subject of said application is on this date located approximately 4.8 miles from Colorado State Highway No. 550, the nearest designated state or federal highway.
4. Said Colorado State Highway No. <u>550</u> is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.
5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.
Signed and dated this $\frac{18}{\text{\tiny day}}$ day of $\frac{\text{March}}{\text{\tiny month}}$ , $\frac{2024}{\text{\tiny year}}$ .
ATTEST:  Applicant  Jason Jaynes, DHM Design for Kirk Huff, Owner.
Position:



### SKYLINE DEVELOPMENT AND SCENIC QUALITY REPORT Winnemucca Mill Site Property

Land Use Application

### SKYLINE DEVELOPMENT

### Section 3-102.7: Information as follows shall be submitted in accordance with the adopted Skyline Development Standards:

- A. Photos of the current site conditions of the property from CR2.
  - i. Attached, see following pages.
- B. Representations showing the proposed improvement against the background of the surrounding area and sky as it will appear when completed.
  - i. Attached, see following pages.

### Section 4-110.18: Skyline Development Standards

- A. Any improvement or use for which a permit is required shall not be silhouetted against the sky on hillsides or ridges as viewed from any San Juan County Road, State Highway, the Town of Silverton, or the Durango & Silverton Narrow Gauge Railroad.
  - i. The proposed Winnemucca residential cabin is sited at an elevation lower than the adjacent paving of County Road (CR) 2 and is not silhouetted against the sky on hillsides or ridges as viewed from CR 2. See renderings below. Additionally, proposed native vegetation planting will enhance existing native conifers and riparian plants in providing screening from CR2. Site disturbance will be limited and the cabin will be constructed with naturalistic, earth-toned materials that match the surrounding landscape and complement the various architecture of the area.
- C. Ski lifts, tramways, zip-lines and related activities, that as a practical matter, are developed on ridgelines, shall be exempt from these regulations.
  - a. The historic Little Nation Tramway on the Winnemucca property is an existing historic resource and is exempt from these regulations.

### SCENIC QUALITY REPORT

### Section 4-110.19 Scenic Quality Report

All development proposals, including structures associated with mining activities shall be required to include a Scenic Quality Report as part of the Sketch Plan submittal. Each report shall include:

- A. Written descriptions of view sheds of natural and historic features as seen from and toward the site and how they will be preserved.
  - The historic Little Nation Tramway is located on the Winnemucca Mill Site Property; see historic resource inventory in appendix. The applicant proposes a 20' (10' O.C.) buffer around the tramway to preserve the historic resource as well as the view of the tramway and its connection to Little Nation from CR2. The proposed residence is located southeast of the tramway, and will be partially vegetatively screened from CR2. This cabin location was chosen to maximize separation from the existing

neighbors while preserving views of the suspended tramway from the road. The site plan allows for a continuous view corridor along the tramway route from the tramway's crossing of CR2 to the Little Nation Mill (the historical society) along the southeast property line.

- ii. Cunningham Creek also runs through the Winnemucca Mill Site Property. This natural feature is not visible from CR2 due to the grade change, and no development is proposed on the property between the creek and CR2 except for the access bridge and gravel drive.
- iii. The proposed residence will be partially screened from CR2 with existing and proposed native trees and vegetation and will not impact ridge and skyline viewsheds from the road. Native vegetation will also be used to partially screen the cabin from neighboring properties.
- B. Evidence shall be provided to show that the location of the structure is designed to minimize the visual impacts and that it does not detract from the scenic quality of adjacent public lands, existing trails or historic resources.
  - i. See Skyline Development existing and proposed views from CR2 in the following pages. BLM land abuts the Winnemucca mill site property to the west. The proposed residence is set back from CR2, neighboring residences, and Cunningham Creek. The chosen building location preserves the dramatic view from CR2 to the Little Nation Mill site when approaching from the south/Silverton. CR2 effectively wraps the south and east sides of the subject property providing multiple perspectives into the site and of the tramway (on site), as well as Little Nation Mill, just north of the property.
- C. Include evidence to demonstrate that the site improvements are designed and/or oriented in ways that allow them to blend in with and utilize the natural topography and vegetation. The report shall include, but not limited to, site photos, perspective sketches, photo simulations and/or three-dimensional models at an appropriate scale.
  - i. See Skyline Development existing and proposed views from CR2 in the following pages. The site is located on the gently sloping valley floor. The applicant's intent is to limit ground disturbance, so the grading of landforms for screening would not be appropriate. Instead, visual mitigation is largely achieved via careful siting, existing vegetation on and off-site, and proposed vegetation on site. The cabin is not located on a ridgeline and was sited to blend in with Tower Mountain behind.
- D. Provide written descriptions and photos of the proposed building materials, colors and textures. Utilizing and integrating elements, colors and textures found naturally in the landscape are strongly encouraged.
  - i. Below is an image of the proposed cabin along with the finish schedule taken from the cabin architectural plans (see architectural plans in appendix for more detail). The cabin is composed of natural materials or natural appearing materials including stone veneer and wood. Cabin colors and

textures are based on those found naturally in the landscape. Reflective materials will be avoided.



FIN	FINISH SCHEDULE						
MATERIAL	MANUF/TYPE AutoCAD SHX Text	FINISH/COLOR	REMARKS	4,064 S.F. TOTAL			
SHINGLE SIDING	NICHIHA SIERRA PREMIUM SHAKE FIBER CEMENT SIDING	PAINTED* / SHERWIN WILLIAMS EXTERIOR PAINT / FLAT FINISH MATCH DEVINE "COCOA"	6" EXPOSURE	987 S.F. (24.28%)*			
BOARD & BATTEN SIDING	IX3 CEDAR BATTENS O/ 4'x6', 4'x9' OR 4'x10' PLYWD PANEL	STAINED / SHERWIN WILLIAMS WOODSCAPES SEMI-TRANSPARENT 3513 "SPICE CHEST"	BATTENS @ 12" O.C.	1,548 S.F. (38.09%)			
STONE VENEER	FAUX (EL DORADO) THIN VENEER	DURANGO/ MOUNTAIN LEDGE		282 S.F. (6.93%)			
TRIM # BRACKETS	ROUGH SAWN CEDAR	STAINED / SHERWIN WILLIAMS WOODSCAPES SEMI-TRANSPARENT 3542 "CHARWOOD"		1,095 S.F. (26.94%)			
MINDOM FRAME	JELD-WEN VINYL FRAME	DESERT SAND	W GRIDS PER ELEVATIONS	N/A			
ROOF MATERIAL	MALARKY COMPOSITION	MEATHERED WOOD	50-YR	N/A			
FRONT DOOR	FRANK LUMBER THE DOOR STORE "MA276IBVI"			24 S.F. (0.59%)			
GARAGE DOORS	THERMACORE-CONSTRUCTION 190 PANEL-STANDARD, WINDOW-STOCKTON 1	STAINED / SHERWIN WILLIAMS EXTERIOR PAINT / FLAT FINISH MATCH "DEVIN" CAFE		128 S.F. (3.14%)			
* = UP TO 30% PAINT	ED AREA IS ALLOWED SEE p38 SUNCADIA	DESIGN GUIDELINES 6/05		_			

- E. Describe any plans to remove and store topsoil on-site, prior to any grading or excavation, and how it will be replaced and reused for re-grading and revegetation purposes.
  - The quality and quantity of topsoil in the planned disturbance area is to be determined. Topsoil stripped for driveway infrastructure and building construction will be salvaged on site and spread for revegetation of disturbed areas.
- F. Provide a written description and plans that illustrate how the proposed development has been integrated into the landscape and that site disturbance and grading have been minimized. Roads, structures and other improvements

shall bear a logical relationship to existing topography, vegetation and other site features.

- The site plan was designed to minimize disturbance. The parcel has a number of existing conditions which limit development, including moderate to low avalanche hazard zones on the east corner of the property, existing powerlines, the historic Little Nation Tramway, as well as Cunningham Creek and the associated wetlands. Thus, the only viable building envelope is north of Cunningham Creek. The driveway route was designed to follow grade as much as possible to limit disturbance (see civil plans in appendix). The narrowest width of the creek was selected for the bridge crossing. The house was placed on relatively flat ground (2-3% slope) within the building envelope, as far away from existing neighbor's homes as possible and was staggered to enhance privacy and limit view disruption. The existing vegetation associated with the Cunningham Creek wetlands provides some screening for the proposed improvements and is protected in the plans. Proposed native vegetative will help additionally screen the house from CR2.
- G. Show how utilities will be located and installed in ways that will minimize impacts to the view shed and natural environment.
- i. Utilities planned for the project include:

Water: proposed ground water well Sewer: pumped or sand septic

Electric: from San Miguel Power Association Heating: Electric and solar with propane back up.

Wifi: Starlink

Utility services to be extended to the proposed house will be installed underground and will share the route of the driveway where possible. See cover letter for more utility details.



View looking northeast from CR2.



View looking southwest from CR2.



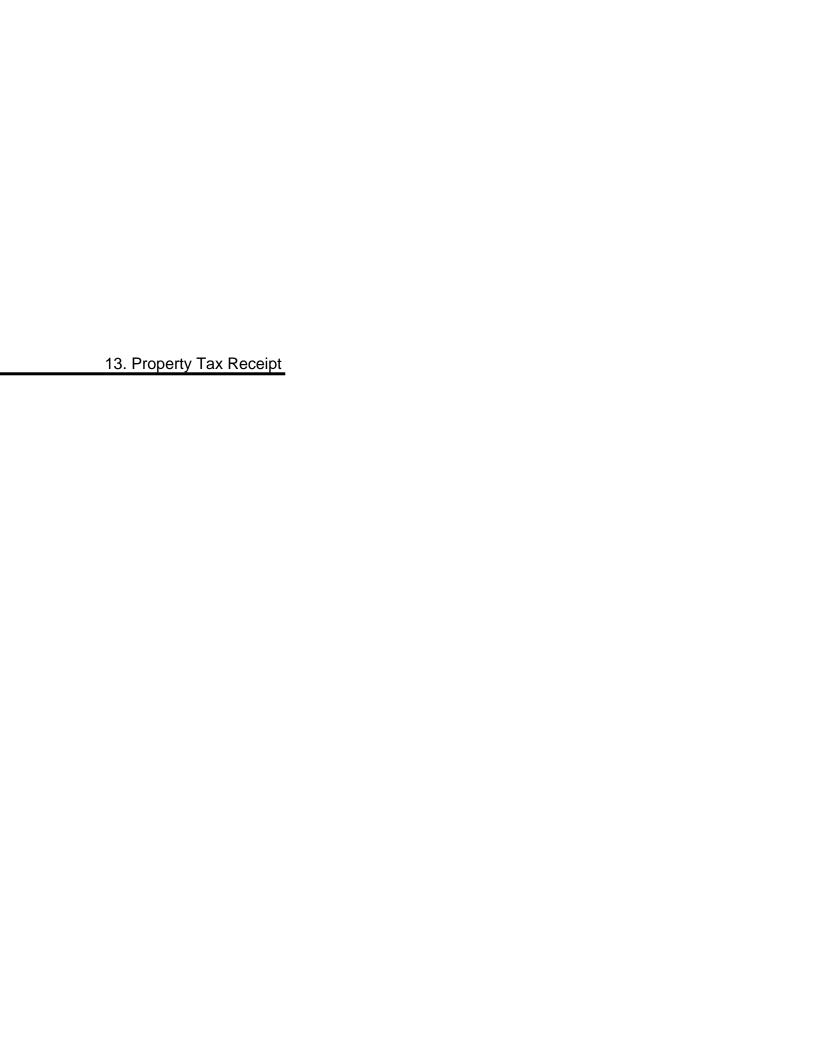


View looking northeast from CR2.



View looking southwest from CR2.





Deanna Jaramillo Do Not Mail Cash Make Check Payable to: SAN JUAN COUNTY Treasurer **PO BOX 368** Silverton, CO 81433 27-387-5488

13. Property Tax Receipt

PARCEL	TYPE	TAX YEAR	TAX DISTRICT
N2770	MN	2022	101

Legal Description (may be incomplete)

TOTAL ACRES: 5.000000

WINNEMUCCA M S - 563 B. SPLIT FROM FORMER PARCEL 48290010010010

# 2022 Tax Notice

655\*4\*\*G50\*\*0.776\*\*1/2\*\*\*\*\*\*AUTOMIXED AADC 852 HUFF KIRK D ALEXANDER TERIL 3424 RIDGELINE DR MONTROSE CO 81401-7305

լի[Ամենաիլը[ը][Մա]եմիահրտաիիոնըկրինկիլ

Taxing Authority	Mill Levy	Amount
County	19.723	343.18
SCHOOL DISTRICT #1	15.018	261.32
SOUTHWEST WATER CONS	0.407	7.08

LOCATION: - SILVERTON, CO 81433 **Actual Value** 60,000 Assd. Land Value 17,400 Assd. Imp. Value Total Assd. Value 17,400 Mill Levy



ization Code: SJT-DTFNWXVQ

35.148 611.58

611.58

M YOUR ACCOUNT.

.... valuation with the Assessor's Office between May 1, 2023 and June 1, 2023. Without State Aid your School Tax Rate would have been 0.00.

20223000002277

PLEASE RETAIN THE TOP PORTION AND RETURN THE APPROPRIATE STUB WITH YOUR PAYMENT TO TREASURER'S OFFICE

### FIRST HALF PAYMENT

DUE LAST DAY OF FEBRUARY

Parcel Number: N2770

HUFF KIRK D

**Amount Due:** \$305.79

Return this Coupon With Payment to: ICAN JUAN COUNTY Treasurer 30X 368 verton, CO 81433

Due By February 28, 2023

### SECOND HALF PAYMEN

**DUE BY JUNE 15** 

Please fold on perforation BEFORE tearing

Parcel Number: N2770

HUFF KIRK D

**Amount Due:** \$305.79

Return this Coupon With Payment to: SAN JUAN COUNTY Treasurer PO BOX 368 Silverton, CO 81433

Due By June 15, 2023

### FULL PAYMENT

DUE LAST DAY OF APRIL

Parcel Number: N2770

HUFF KIRK D

722022300002277

Amount Due: \$611.58

Return this Coupon With Payment to: SAN JUAN COUNTY Treasurer PO BOX 368 Silverton, CO 81433

Due By May 01, 2023

655 1/1

<sup>\*</sup> denotes temporary property tax credit or temporary mill levy rate reduction per CRS 39-1- 111.5.

Deanna Jaramillo Do Not Mail Cash Make Check Payable to: SAN JUAN COUNTY Treasurer PO BOX 368 Silverton, CO 81433 970-387-5488

# 2023 Tax Notice

PARCEL TYPE
N2770 MN

Legal Description (may be incomplete

WINNEMUCCA M S - 563 B. SPLIT FF 48290010010010

648\*4\*\*G50\*\*0.776\*\*1/2\*\*\*\*\*\*\*AUTOMIXED AADC 852 HUFF KIRK D ALEXANDER TERI L 3424 RIDGELINE DR MONTROSE CO 81401-7305

Taxing Authority	Mill Levy	Amount
County	19.641	1,232.97
SCHOOL DISTRICT #1	15.484	972.01 *
SOUTHWEST WATER CONS	0.347	21.78*

TOTAL ACRES: 5.000000

Total

LOCATION: - SILVERTON, CO 81433	ji da wa a ba a wa
Actual Value	225,000
Assd. Land Value	62,775
Assd. Imp. Value	0
Total Assd. Value	62,775
Adj. Assd. Value	62,775
Mill Levy	35.472
Tax	2,226.76

Silvactory

Silvactory

April

April

24

Go paperless next year!

Register at eNoticesOnline.com/index.php/SJT Authorization Code: SJT-DTFNWXVQ

WHEN YOU PROVIDE A CHECK AS PAYMENT YOU AUTHORIZE A ONE-TIME ELECTRONIC FUNDS TRANSFER FROM YOUR ACCOUNT. THE CHECK WILL NOT BE RETURNED AND THE FUNDS MAY BE DEBITED AS SOON AS THE SAME DAY.

Consider this your Notice of Valuation if there were no changes to your Property. You have the Right to Protest your valuation with the Assessor's Office between May 1, 2024 and June 1, 2024. Without State Aid your School Tax Rate would have been 0.00.

\* denotes temporary property tax credit or temporary mill levy rate reduction per CRS 39-1- 111.5.

\*12023300002351

PLEASE RETAIN THE TOP PORTION AND RETURN THE APPROPRIATE STUB WITH YOUR PAYMENT TO TREASURER'S OFFICE
Please fold on perforation BEFORE tearing

### FIRST HALF PAYMENT

DUE LAST DAY OF FEBRUARY
Parcel Number:

Parcel Numb

HUFF KIRK D

Amount Due: \$1,113.38

Return this Coupon With Payment to: SAN JUAN COUNTY Treasurer PO BOX 368 Silverton, CO 81433

Due By February 29, 2024

# SECOND HALF PAYMENT

**DUE BY JUNE 15** 

Parcel Number: N2770

HUFF KIRK D

Amount Due: \$1,113.38

Return this Coupon With Payment to: SAN JUAN COUNTY Treasurer PO BOX 368 Silverton, CO 81433

Due By June 17, 2024

### **FULL PAYMENT**

DUE LAST DAY OF APRIL

Parcel Number:

HUFF KIRK D

220233000002351

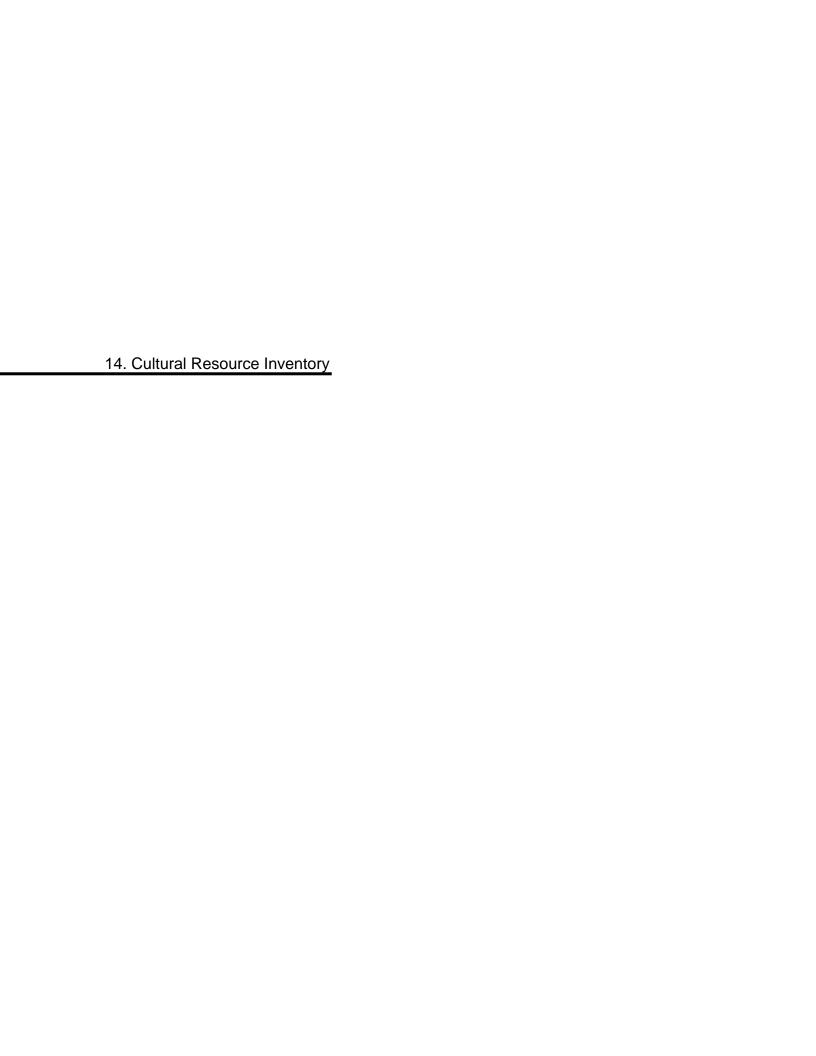
Amount Due: \$2,226.76

Return this Coupon With Payment to: SAN JUAN COUNTY Treasurer PO BOX 368 Silverton, CO 81433

Due By April 30, 2024

/1

2,226.76



### CULTURAL RESOURCE INVENTORY OF THE WINNEMUCCA MILL SITE, SAN JUAN COUNTY, COLORADO

by

Jonathon C. Horn Principal Investigator

Alpine Archaeological Consultants, Inc. P.O. Box 2075 Montrose, Colorado 81402-2075

Prepared for

DHM Design Corporation 225 Main St., Unit 201 Carbondale, Colorado 81625

Under the conditions of Colorado State Archaeological Permit No. 80929 (expires February 29, 2024)

August 2023

### **ABSTRACT**

Alpine Archaeological Consultants, Inc. (Alpine) was hired by DHM Design Corporation of Carbondale, Colorado, to do a cultural resource inventory of the Winnemucca Mill Site in San Juan County, Colorado. The site is on private land owned by Kirk D. Huff. The work was done in advance of an anticipated filing for a U.S. Army Corps of Engineers (USACE) 404 permit prior to development of the property. The Area of Potential Effect for the project is the mill site parcel, which covers 6.0 acres and was fully inventoried. Three sites were encountered during the inventory: two historic artifact concentrations (5SA1871 and 5SA1872) and the Little Nation Tramway (5SA1873.1). Alpine recommends the Little Nation Tramway (5SA1873.1) as eligible for inclusion in the National Register of Historic Places (NRHP). It is recommended that the wire rope of the tramway across the site be avoided by project impacts, but the means for contending with the tramway lines should be made in consultation with the USACE and the San Juan County Historical Society. The two historic artifact concentrations (5SA1871 and 5SA1872) are recommended as not NRHP eligible and require no further historical or archaeological consideration.

# History Colorado-Office of Archaeology and Historic Preservation COLORADO CULTURAL RESOURCE SURVEY

Cultural Resource Survey Management Information Form

I. Project Sizi	I.	PF	(OJ	EC'	${f r}{f S}$	IZI
-----------------	----	----	-----	-----	--------------	-----

Federal acres of potential effect/project: State acres of potential effect/project: Private acres of potential effect/project: TOTAL:	0         Acres surveyed:           0         Acres surveyed:           6.0         Acres surveyed:           6.0         TOTAL:		0 0 6.0 6.0	
II. PROJECT LOCATION				
County(ies):	San Juan			
USGS Quad Map(s):	Howardsville, Colo. 2001 (2005)	_		
Principal Meridian(s):	NM	_		
	Unsurveyed			
Township 42N Range 7W	Section <sup>1</sup> / <sub>4</sub>	1/4	1/4	1/4
Township Range	Section 4	1/4	1/4	1/4

Section

Section

### III. SITES

Township

Township

	Resource Type			Eligibility				Effect		Management Recommendations									
Smithsonian Number	Prehistoric	Historic	Paleontological	Unknown	Eligible	Not Eligible	Need Data	Contributes to	Supporting	N/A (not a hist.	No Adverse Effect	Adverse Effect	${ m No\ Further} \ { m Work}$	Preserve/	Monitor	Test	Excavate	Archival Research	her
5SA31		X				X					X		X						X
5SA1871		X				X					X		X						
5SA1872		X				X			_		X	•	X						
5SA1873.1		X			X							X		X					

### IV. ISOLATED FINDS

	Resource Type						
Smithsonian Number	${\rm Prehistoric}$	Historic	Paleontological	Unknown			

Range

Range

	Resource Type						
Smithsonian Number	${\rm Prehistoric}$	Historic	Paleontological	Unknown			

See Appendix A Map

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1 0	_

### INTRODUCTION

DHM Design Corporation (DHM) of Carbondale, Colorado is assisting a private developer in the design and permitting of the Winnemucca Mill Site in San Juan County, Colorado. The developer is planning the recreational development on a 4-acre parcel near Howardsville, Colorado. As part of their permitting for the project, the company may be required to obtain a 404 Permit from the Army Corps of Engineers. The Area of Potential Effect (APE) for the project is the boundaries of the 6-acre mill site parcel. Alpine Archaeological Consultants, Inc. (Alpine) was hired by DHM to conduct a cultural resource inventory of the parcel. Fieldwork was conducted by Jonathon C. Horn, Principal Investigator, assisted by Heather Prosser on June 20, 2023. No artifacts were collected during the project.

### **Project Description**

The project will include the construction of an Air B&B building on the northeastern side of Cunningham Creek, the construction of a road and associated bridge over the creek, and the eventual construction of a dry camping area on the southwestern side of the creek (Figure 1). Project activities will include blading and grading to level the area and mechanical excavation.

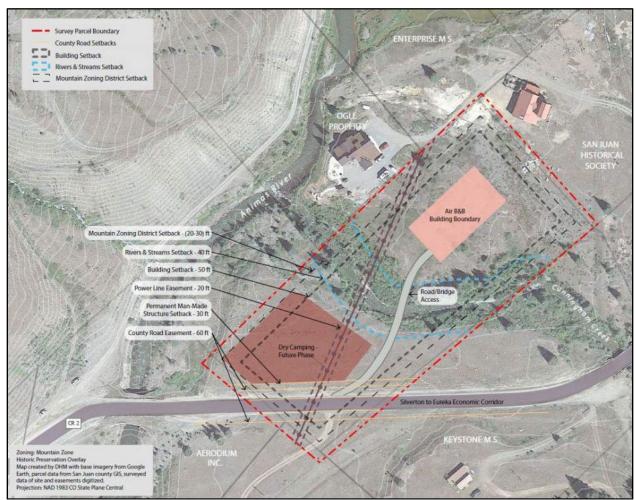


Figure 1. Project design map, developed by DHM Design

### PROJECT LOCATION AND ENVIRONMENTAL SETTING

The Winnemucca Mill Site is within the southern Rocky Mountains physiographic province of western Colorado (Figure 2). It is in the upper Animas River Valley 3.75 miles northeast of Silverton just west of the former town of Howardsville and is bisected by Cunningham Creek. The project area is accessed by San Juan County Road 2, a dirt road that passes through the southern end of the mill (Figure 3). Geologically, the mill site is on Quaternary gravels of Pinedale and Bull Lake age on the floodplains of the Animas River and Cunningham Creek. Surrounding are tertiary igneous rocks of intra ash flow andesitic lavas within the Silverton caldera (Tweto 1979). The area is gently rolling benches of slight slope at an elevation of about 9,640 ft. on both sides of Cunningham Creek. Vegetation consists of grasses, potentilla, strawberry, dandelion, and other forbs with willows and spruce along the drainage. Soil is light brown rocky silt up to 20 cm deep.

### PREHISTORIC AND HISTORICAL BACKGROUND

The earliest inhabitants of western Colorado were representatives of the Paleoindian era, who inhabited North America during the period of transition from the Pleistocene to the Holocene between 13,400 and 7,500 BP. The era has traditionally been identified by a number of distinctive, diagnostic lanceolate projectile points and tool assemblages indicative of a big game hunting economy by what have been termed the Clovis, Goshen, Folsom, and Plano traditions. The subsequent Archaic stage represents an adaptation to an essentially modern environment, mainly by efficiently focusing on a more diverse subsistence base. Reed and Metcalf (1999) have suggested that the Archaic stage of the region be divided into four stages: Pioneer period (8350–6450 BP) is the transition from the Paleoindian period. This is followed by the Settled period (6450–4450 BP), the Transitional period (4450–2950 BP), and the Terminal period (2950–1950 BP [A.D. 1]). In southwestern Colorado, just south of the project area, the Formative stage (400 B.C.-A.D. 1300) is represented by the Anasazi culture.

The Late Prehistoric period in western Colorado is generally associated with the Ute. Whether the Ute culture evolved from indigenous groups or emigrated from the Great Basin is currently a topic of debate, but most archaeologists now seem to accept the hypothesis of immigration by about A.D. 1400. The Ute were the primary inhabitants of western Colorado, including the San Juan Mountains, at the time of European contact. The upper Animas River drainage was within the range of the Tabeguache band during historic times. With the acquisition of the horse, the Tabeguache extended their range and made seasonal forays onto the Plains of southeastern Colorado in search of buffalo (Callaway et al. 1986:337-339). Adoption of an equestrian lifestyle, as a result of contact with Euroamerican groups, resulted in a more complex society. Extended family groups were replaced by band organizations more suited to a more mobile lifestyle. The horse enabled the Ute to expand their sphere of influence and interaction, thereby exposing themselves to previously unknown outside cultural influences. Acquisition of the horse resulted in new trade relationships between the Ute and other Indian groups. The most influential interaction was between the Ute and Spanish traders. Most of the early Spanish trading expeditions were unauthorized and are, therefore, virtually undocumented. It is clear, though, that trade was conducted and that European-manufactured goods began to be assimilated into the Ute culture (Malouf and Findlay 1986:500). Historic period Ute sites are characterized by Euroamerican goods such as early tin cans, glass, cartridge cases, glass beads, sheet metal cone tinklers, and metal arrow points.

The Juan Maria de Rivera expedition of 1765 was the first officially sanctioned exploration of the northern reaches of Spanish territory into western Colorado. The expedition explored the La Plata Mountains for mineral wealth and continued northward into the Uncompandere Valley, reaching as far north as the Gunnison River at present-day Delta, Colorado. The Escalante-Dominguez Expedition passed through the region in 1776, searching for a travel route between Santa Fe and the Spanish

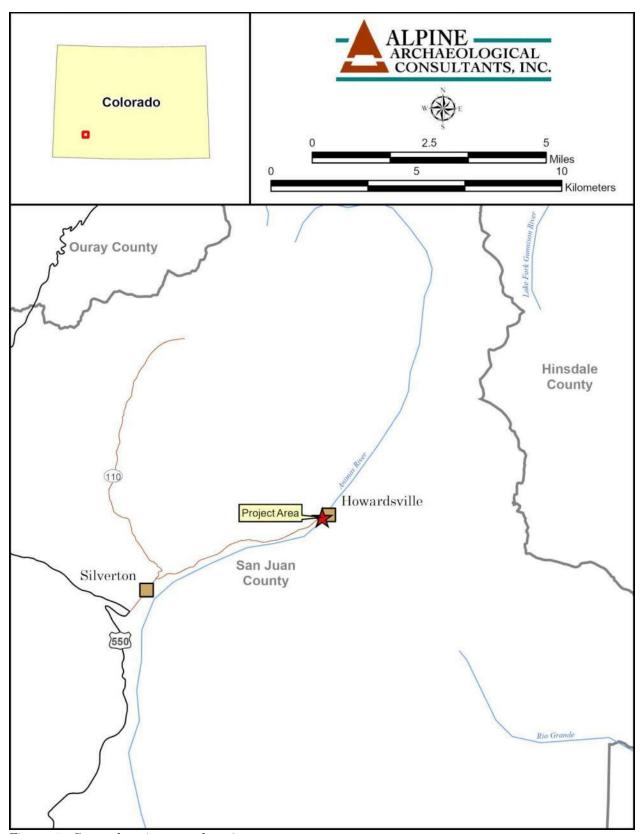


Figure 2. General project area location.

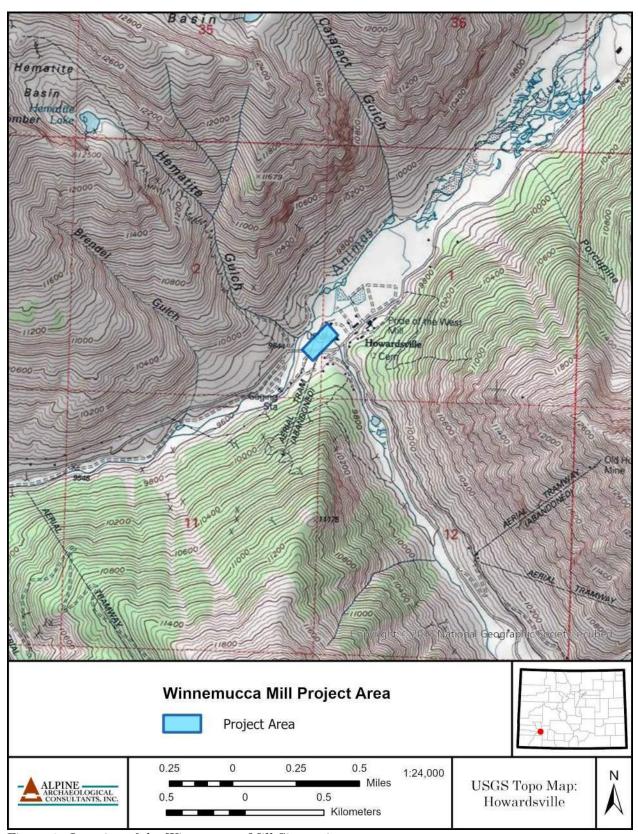


Figure 3. Location of the Winnemucca Mill Site project area.

settlements of California. The knowledge of the northern frontier provided by the Rivera and Escalante-Dominguez expeditions apparently stimulated expansion of trade with the Ute. As trade with the Utes developed, two major travel routes from New Mexico into Utah developed: the main Spanish Trail and the northern branch of the Spanish Trail, neither of which passed through the San Juan Mountains.

In 1821, Spain was overthrown, and Mexico gained its independence. Remaining restrictions on trade were terminated, and trade with the Ute expanded. Coincident with these events were expansion of the fur trade in the southern Rocky Mountains and the inclusion of numerous Americans in the fur trade. Fur trappers were active in the mountains of Colorado beginning in the 1820s and 1830s. Fur trappers led by Col. William G. Walton evidently trapped the lakes in the vicinity of Cascade Creek and at Trout Lake in 1833 (*Durango Wage Earner*, March 14, 1907:2). The Ute were active participants in the fur and hide trade, and their finely tanned deer hides were a valuable and much sought after commodity. The fur industry lasted until over-trapping and failing fur prices in the late 1830s made fur trapping unprofitable (O'Rourke 1992). As a result of the close association with fur trapper and traders, the Ute became particularly well-armed. During the fur trade period, the Old Spanish Trail was extended to California. The highly mobile Utes were able to provide both horses and slaves to the Mexicans by raiding widely, from the eastern Plains to California and into New Mexico and Arizona. Intertwined with the raiding, Ute prosperity was tied to control of the Utah-Colorado portion of the Old Spanish Trail (Sprague 1957:68).

The sporadic presence of Euroamericans in the region changed radically with the discovery of gold on Cherry Creek near present-day Denver in 1858. By 1860, gold miners led by Charles Baker had reached Baker's Park on the upper Animas River at present Silverton. Being far from points of supply and with meager results from their mining, a major rush to the area did not take place immediately. It was not until after the Civil War and a change in approach in mining from placer to hard rock mining that the San Juan Mountains again came to the attention of miners. The influx of miners elsewhere in Colorado brought conflict with the Ute. The Treaty of 1868 between the Utes and the federal government was an attempt to alleviate these conflicts by forming a large reservation on the Western Slope of Colorado, away from the primary mining area. However, by the early 1870s, large bodies of ore had been found in the San Juan Mountains. Miners returned to the San Juan Mountains in 1869 and resumed mining in the vicinity of Baker's Park by 1870. It was these trespasses onto the Ute Reservation that alarmed the Ute, resulted in the discovery of rich gold and silver deposits, and led to the ceding of the San Juan Mountains by the Ute under the Brunot Agreement in 1873. The Brunot Treaty increased hostilities between the Ute and Euroamericans over disputes where the boundaries of the ceded lands were. Although the Tabeguache (Uncompangre) Utes maintained peace under difficult circumstances, the White River Ute killed their agent, Nathan Meeker, and several agency employees and overwhelmed U.S. troops sent to intervene in 1879. The "Meeker Massacre" served as the catalyst for removing the White River and Uncompangre Utes from western Colorado to reservations in northeastern Utah in late 1881. The Weeminuche, Capote, and Muache Utes were settled on a reservation on a strip of land along the Colorado-New Mexico border.

With the San Juan Mountains legally opened to prospecting in 1873, Baker's Park became the focus of mining activity that spread throughout the San Juan Mountains; the towns of Howardsville and Silverton were established in 1874. Mining rapidly expanded to the Telluride, Ouray, Rico, and Lake City areas, which were quickly connected by toll roads. The success of the San Juan mines spurred railroad construction to the Animas Valley in 1880 where the town of Durango was established. In 1882, the Denver & Rio Grande (D&RG) extended their rail line to Silverton. The completion of the railroad to Silverton solidified the town's position as the principal mining center of the San Juan Mountains and stimulated mining in the surrounding area. A wagon road from Ouray to Ironton was completed by Otto Mears in 1883 that continued over Red Mountain Pass to Silverton. In 1887, Otto Mears constructed the Silverton Railroad over Red Mountain Pass to the Red Mountain Mining District. The D&RG extended a rail line to Ouray from Montrose in 1887, but the Red

Mountain Mining District was never connected by rail to Ouray because of the difficulties constructing a suitable grade to surmount the upper Uncompahgre Canyon. In 1890 and 1891, the Rio Grande Southern Railroad was constructed through the San Juan Mountains between Durango and Ridgway. It provided much-needed rail service to the important mining centers of Rico and Telluride, further stimulating mining and commercial development in the San Juan Mountains. Hard times in the mining industry began with the Panic of 1893 and continued into the new century with labor unrest that centered on the town of Telluride. Gold-producing mines in the region were not nearly so hard hit by the depression as those that produced mainly silver (Henderson 1926). Silverton was fortunate to have several gold-producing mines that kept its economy alive after the decline of silver prices, including the Gold King Mine near Eureka. To remain profitable, operators focused on mining large volumes of ore to take advantage of the benefits of economy of scale. Concentration mills allowed lower value ore to be mined and shipped at a profit. The development of successful flotation processes beginning in about 1915 improved the recovery of metals from extracted ores, extending the life of many mines.

Mining declined in the 1920s and was even harder hit during the Depression Years of the 1930s. The Shenandoah-Dives Mine was a stalwart through the Depression until its closing in 1953. Reopening of the Sunnyside Mine in 1959 provided continued employment for area miners into the mid-1980s, finally closing for good in 1991. In the meantime, tourism took hold, aided by construction of a state highway through Silverton in 1924, improvements that kept the highway open year around in 1935, and paving as U. S. Highway 550 in 1955. Movie makers discovered Silverton in 1949, and the Denver & Rio Grande Railroad was a key element in many Westerns. The railroad became exclusively a tourist line in 1969 when the rails below Durango were abandoned. Silverton continues as one of the few remaining authentic mining towns in Colorado and serves as the destination for the Durango & Silverton Narrow Gauge Railroad and the base for backcountry hiking and jeeping to the surrounding high country and its highly visible mining history.

### PREVIOUS WORK

A site file search was requested by Meghan Grizzle of Alpine from History Colorado's Office of Archaeology and Historic Preservation on June 13, 2023 and the results were received on July 13, 2023. The entire Winnemucca Mill Site parcel falls within the boundaries of the Howardsville Townsite (5SA31). This is a large, irregular block of land that was initially recorded by unknown parties in 1974 and by the Bureau of Land Management (BLM) in 1978. It does not appear to be well conceived, as it is considerably larger than the actual town of Howardsville and appears to contain a number of historic sites, including the Little Nation Mill, that are not elements of Howardsville as a town (Figure 4). The townsite was included in later surveys by Susan Medville (1997) for the San Juan County Historical Society, and in 2000 by Eric Twitty (2002) during his selective inventory of the Silverton Mining District for the BLM. The Little Nation Mill falls within the boundaries of site 5SA31, but does not appear to have been formally recorded in its own right. However, sufficient documentation was gathered for it to be listed in the San Juan County Historic Register in 2007. To the southwest of the Winnemucca Mill Site project area, the Solomon Group of Mines was recorded on King Solomon Mountain as site 5SA789 in 2000 by Twitty (2002). This is likely the Royal Charter Mine, which includes the Little Nation Lode that was connected to the Little Nation Mill by tramway.

Based on the file-search results and the review of historical maps, it was anticipated that the Little Nation Tramway would be recorded during fieldwork. It was also anticipated that historical debris might be found in the parcel. Although site 5SA31 overlaps the project area, its boundaries were considered erroneous and no evidence of the Howardsville Townsite was expected to be found during the survey of the Winnemucca Mill Site.

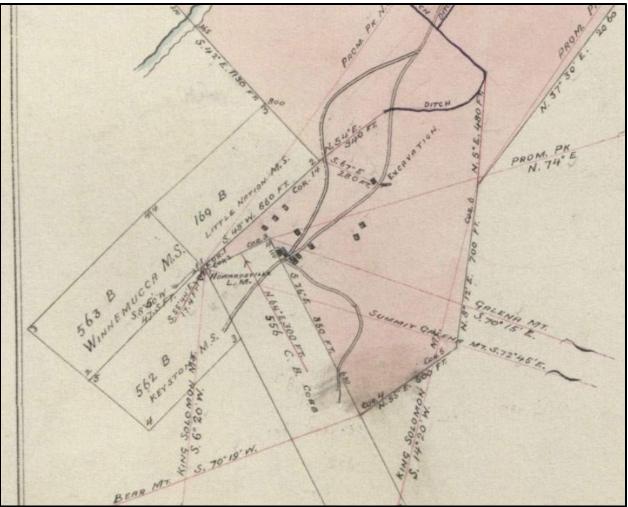


Figure 4. The southern portion of the Mineral Survey Plat for the Howardsville Placer (MS 942) showing the buildings of the town of Howardsville not extending onto the adjacent mining claims, including the Winnemucca and Little Nation Mill Sites.

### PROJECT OBJECTIVES

The primary objective of the cultural resource inventory was to locate and assess the significance of historical and archaeological properties in the project areas so that significant sites can be adequately considered under the various applicable cultural resource laws. This step is intended to aid in the preservation of significant cultural resources or to facilitate the formation of appropriate mitigative strategies. This objective was accomplished, first, by conducting site file searches and literature reviews and, second, by conducting an intensive pedestrian survey of the project area. Recommendations regarding the significance of the cultural resources found during the project are made using the criteria for determining eligibility for inclusion on the National Register of Historic Places (NRHP). The historic preservation laws mandating this cultural resource study specifically identify eligibility for inclusion on the NRHP as the key factor in determining preservation needs. The criteria for assessing site significance, as published in the U.S. Government Code of Federal Regulations (36 CFR 60) read as follows:

National Register criteria for evaluation. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that has yielded, or may be likely to yield, information important in prehistory or history.

Identification and evaluation of cultural resources in the project area permit formulation of management recommendations (Church et al. 2007; Reed and Metcalf 1999). Isolated finds do not meet the criteria for inclusion on the NRHP and are not recommended for further archaeological treatment. Management options for significant sites include site avoidance and data recovery.

### SURVEY METHODS

The entire Winnemucca Mill Site area was inventoried by two archaeologist walking parallel transects spaced no more than 50 ft. (15 m) apart. When artifacts or cultural features were encountered, the surrounding area was examined to determine whether a site or an isolated find was represented. Sites were defined as five or more artifacts, in relatively close proximity to one another, exceeding 50 years old. Sites may also encompass features, structures, rock art, or facilities that lack artifacts, exceeding 50 years old. Loci with four or fewer artifacts were classified as isolated finds. All cultural resources were evaluated for eligibility for the NRHP in terms of the specific criteria presented in the preceding section. Discovered cultural resources were recorded with a Minno Android tablet paired with a high accuracy geode Global Positioning System (GPS) receiver unit, and locations were plotted on a USGS quadrangle map. The same tablet and GPS unit was used to collect points used to create site maps. All sites were photographed with a digital camera to illustrate the condition and augment descriptions. No artifacts were collected during the project.

### **RESULTS**

Three cultural resource sites were recorded as a result of the inventory. All were of historic age. Project results maps can be found in Appendix A, and cultural resource site forms are in Appendix B. no isolated finds were found during the inventory.

### **Resources Not Recorded**

The Little Nation Mill is just north of the Winnemucca Mill Site (Figure 5). It was listed in the San Juan County Historic Register in 2007, but does not seem to have been formally recorded. Passing generally east to west on the southern side of the Little Nation Mill are 4-in.-diameter aluminum and iron pipes that at one time carried mill-tailings slurry from an unidentified source to the floodplain of the Animas River. The pipes are not clearly of historic age, so were not recorded during the inventory, but fall within the general boundaries of 5SA31, the Howardsville Townsite.

The Howardsville Townsite (5SA31) is a large block area initially identified in 1974 that encompasses the entire inventory area. Numerous historic sites appear to be present within its site boundary that seem best to record as individual sites, as it is unclear how its boundaries were



Figure 5. Little Nation Mill just north of the Winnemucca Mill Site showing aliminum and iron mill tailings slurry pipes passing over the northern portion of the Winnemucca Mill Site parcel. View is to the east-northeast.

determined, and the boundaries do not appear to conform to the actual perimeter of what formed the original community. The original community is shown as being present only in the southern portion of the Howardsville Placer (MS 942). The Mineral Survey Plat of the Howardsville Placer shows that none of the town buildings extended onto the Winnemucca Mill Site or the adjacent Little Nation Mill Site (Figure 4).

### 5SA5SA1871 - Historic Trash Dump

Site 5SA1871 consists of a 15-x-30-ft, area of artifacts dumped from the terrace edge on the southern side of Cunningham Creek down its bank and onto its floodplain (Figure 6-Figure 9). Observed artifacts are hole-in-top milk cans; Sanitary food cans; butchered animal bone; a hydraulic rubber hose with a threaded fitting; a 1-in.-diameter mica disc (electrical); a fine-mesh heavy-gauge screen; corrugated sheet metal fragments; a white enameled washing machine drum; two enameled sheet-metal cook stoves; wire; a sheet metal toy truck stake-bed side; a lead gel tube with a white plastic cap marked "ORTHO;" an oval tobacco tin base fragment; clear, amber, and light green bottle glass fragments; an amber machine-made rectangular medicine bottle with a base measuring 3/4-x-1 in. that is 21/2 in. tall with a threaded finish, sides marked "PARKE-DAVIS," and the base marked 8 48; a clear 14-in.-diameter, machine-made bottle base marked "A-8/2 🖲 50; a clear 24-in.-diameter bottle base marked "DESIGN PAT'D/L/French's [in flag]/16/8-16\_;" a clear 1½-x-3-in. bottle base marked "Woodbury;" a cast-iron 4%-in.-diameter possible lid marked "450" with a nipple at its center, an iron furniture caster with 4-in.-diameter wheel with rubber tire and 2-in.long shaft; threaded sheet metal jar lids; stamped sheet metal chewing tobacco lid embossed "UNITED STATES TOBACCO CO/UST [intertwined logo]; robin's egg blue-glazed white earthenware plate fragment marked "HLC/fiesta/MADE IN USA;" a steel U-shaped leaf spring bracket; a section of automobile

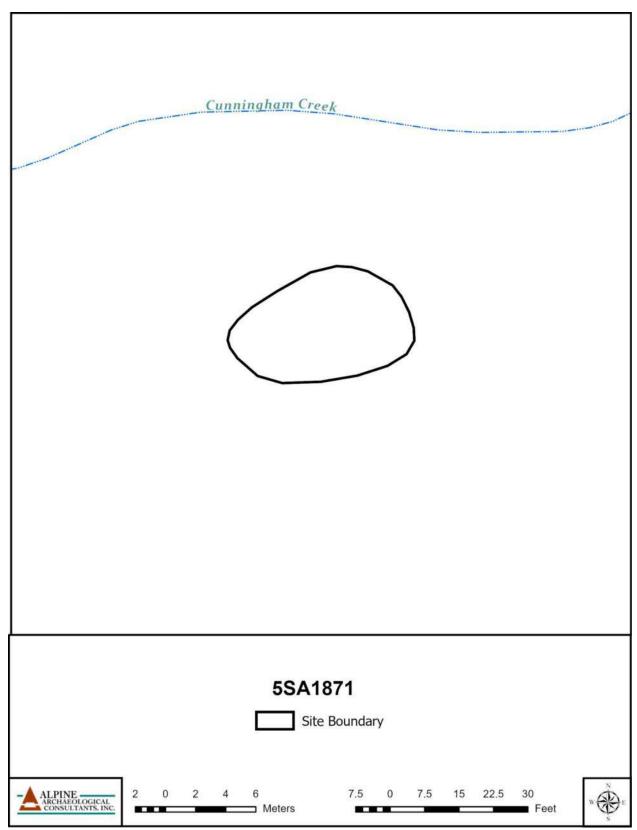


Figure 6. Map of site 5SA1871.



Figure 7. Artifacts dumped down southern bank of Cunningham Creek, looking west. Note the wire rope from the Little Nation Tramway (5SA1873.1) crossing the dump.



Figure 8. Stoves on the southern bank of Cunningham Creek covered in willows, looking northwest.



Figure 9. Scatter of artifacts on the southern bank of Cunningham Creek. View is to the southwest.

tire chain; a rubber band; a polychrome floral earthenware plate fragment; an iron wire hanger; a sheet metal curved curtain rod; and a wire bucket handle. The artifacts are exposed on the ground surface. The soils in the area are less than 20 cm deep and quite rocky with numerous rocks exposed with the artifacts, suggesting that there is minimal potential for artifacts to be buried.

### Diagnostic Artifact Details

- A-8/2 ⊕ 50 − The ⊕ mark is that of the Armstrong Cork Company, Glass Division, of Lancaster, Pennsylvania. Thomas M. Armstrong and John D. Glass formed the company in 1860 to supply corks and other closures. They registered the A in a circle trademark in 1889, but did not begin to use it until 1938 when the company began producing bottles. The bottle-making business was the result of the company purchasing the glass works of the Whitall-Tatum Glass Company of Millville, New Jersey, and the Hart Glass Manufacturing Company of Dunkirk, Indiana. A. H. Kerr Glass Company purchased the company in 1968 and the makers mark ceased to be used in 1969. The 50 to the right of the mark probably indicates manufacture in 1950 (Toulouse 1971:24-25).
- HLC/fiesta/MADE IN USA Fiesta ware was introduced in 1936 by the Homer Laughlin China Company of Newell, West Virginia. The robin's egg blue color was produced from 1938–1969 (Wikipedia 2023).
- French's [in flag] French's Mustard was first available in glass with a screw-top lid in 1915. The packaging was changed to a plastic squeeze bottle in 1991 (McCormick & Company 2023).
- ORTHO The white plastic screw cap marked "ORTHO" on a lead tube indicates manufacture by the Ortho Pharmaceutical Company. The company was formed in 1931 to market Ortho-Gynol manufactured by Johnson & Johnson. It was a prescription spermicidal contraceptive jelly. According to the U.S. Patent Office, the Ortho-Gynol trademark was first registered in 1932 and last renewed in 1972.
- 8 48 The mark is that of the Owens Illinois Glass Co. of Toledo, Ohio. The mark began being used upon the merger of the Owens Bottle Company and the Illinois Glass Company in 1929. The mark was used from 1930 to 1954. This particular mark indicates manufacture in 1948 (Toulouse 1971:403-406).
- UST intertwined According to the U.S. Patent Office, the interlocking UST trademark was first used on November 29, 1937. The United States Tobacco Company of New York, New York registered it in 1952. It was last renewed in 1992 and is a live trademark. The trademark was for chewing tobacco, smoking tobacco, and snuff.
- WOODBURY John H. Woodbury was a dermatologist in New York City that developed and began marketing a facial soap by 1870 (Brand Names Foundation 1947). Woodbury Facial Soap was a very popular product and was purchased by the Jergens Soap Company in 1901. The product was manufactured under the subsidiary John H. Woodbury, Inc. of Cincinnati, Ohio. According to the U.S. Patent Office, the Woodbury name was first used as a trademark in 1891; it was registered by John H. Woodbury, Inc. of Cincinnati in 1948 for soap, talcum powder, dental cream, lipstick, rough, cold cream, shampoo, and skin lotion. Woodbury Lotion was heavily advertised after 1922 and Woodbury Face Cream began being advertised in 1929 (Periodical Publishers Association 1934:52). Jergens was purchased by KAO Corporation of Japan in the late 1980s (Horstman 1999); the purchase included the Woodbury trademark, which was an active trademark until early 2006.

The Owens-Illinois mark from 1948 and the Armstrong Cork Company mark from 1950 provide the best dates for the deposition of the artifacts. They suggest that the artifacts were dumped

in a single episode in the early 1950s. All of the other artifacts present in the assemblage fit well with that date of deposition.

### National Register Recommendation

Site 5SA1871 is not recommended as eligible for inclusion in the NRHP. It is a single episode of trash disposal probably from a nearby residence in the early 1950s. Recordation has adequately documented the site.

### Management Recommendations

No further historical or archaeological work is recommended for site 5SA1871.

### 5SA1872 - Historic Artifact Scatter

Site 5SA1872 is a small assemblage of historic artifacts in a rather disturbed context on the rolling terrace north of Cunningham Creek (Figure 10 and Figure 11). The small number of artifacts present include sheet metal can fragments including one key-wind coffee can base probably from the 1960s, two amber hand-finished beer bottle neck fragments with a sharp ring (1870s–1880s), dark and light amber beer bottle fragments, hand-finished dark olive green (black) glass fragments including one neck and finish and one 3¼-in.-diameter base fragment marked "K\_/DS\_" that appears to be an imported ale bottle of 1870s–1880s age, a round ribbed purple glass bottle fragment, and a purple hand-finished pumpkinseed flask fragment with an oval base marked "2" that dates prior to 1920. Soils on the site are less than 20 cm deep and numerous rocks exposed with the artifacts indicate a low potential for additional buried materials of importance.



Figure 10. Artifact scatter with an old utility pole and the Little Nation Mill in the background. View is to the north-northwest.

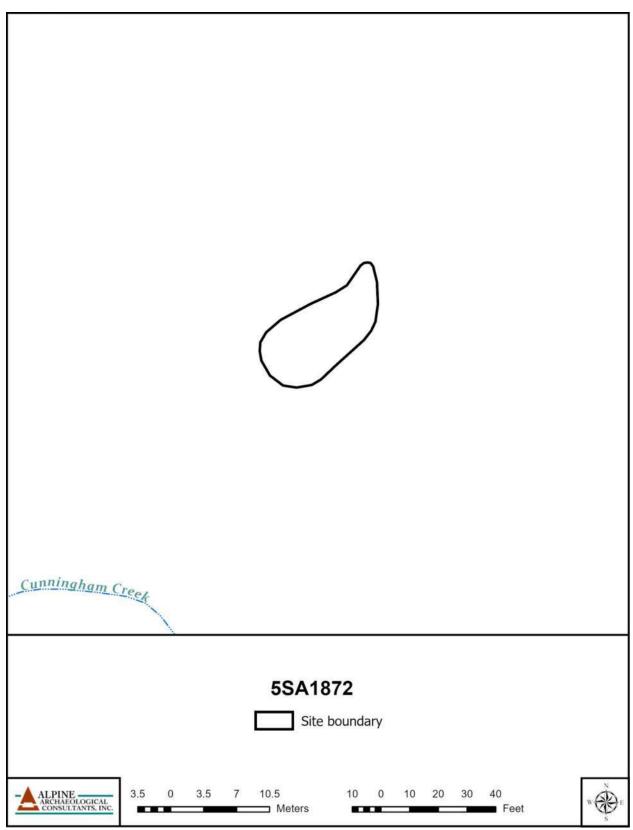


Figure 11. Map of site 5SA1872.

### National Register Recommendation

Site 5SA1872 is not recommended as NRHP eligible. It represents expected use from the 1870s to the mid-1960s and does not have potential for adding important information about the occupation of Howardsville and its surrounding area.

### Management Recommendations

No additional historical or archaeological work is recommended for the site.

#### 5SA1873.1 - Little Nation Tramway

The Little Nation Tramway, site 5SA1873.1, is 2,865 ft. (0.54 miles) long and extends from the Royal Charter Mine on King Solomon Mountain to the Little Nation Mill (Figure 12). The tramway ranges in elevation from 10,260 ft. at the upper tram terminal at the Royal Charter Mine to 9,620 ft. at the Little Nation Mill for a total elevation change of 640 ft. The 455-ft.-long portion of the tramway that crosses the Winnemucca Mill Site is represented by one 11/8-in.-diameter wire rope laying on the ground and one suspended above (Figure 13 and Figure 14). It passes on and above the entire mill site parcel in a south-southwest to north-northeast direction. No evidence exists that the tramway had tram towers within the Winnemucca Mill Site parcel. Rather, the line passed entirely over the parcel without the need for support. The wire rope enters one door high in the gable of the mill and exits an adjacent door, indicating that it formed a continuous loop. It was reported that the tramway was a jig-back type powered by a 7½-horsepower General Electric motor at the mine (Silverton Standard and Miner, May 28, 2009:15). Jig-back tramways usually consist of a single static line on which a single ore bucket on a carriage was suspended that was let down by gravity and retrieved by retracting a smaller diameter traction line. A continuous loop tramway could have carried multiple ore buckets attached to the single line or, if operated in a similar manner as a jig-back, could have accommodated a single, directly attached ore bucket that was retrieved by reversing the direction of the continuous loop. It is uncertain which method was used. A Bleichert system required two static lines on which an ore-bucket carriage was suspended with a continuous loop traction line providing the motive power, which does not seem to be the case with this tramway.

#### Historical Background

The Little Nation Lode and Mill Site (MS 169 A&B) were located by William A. Nichols, an assayer, who did the initial mining on the lode claim on King Solomon Mountain and included the mill site on the edge of Howardsville in the event that it might be needed to process ore from the claim. He had the claims surveyed in 1877 and obtained the patent for them on November 30, 1881. The Royal Charter Lode (MS 1710) adjoins the Little Nation Lode to the northwest. It was patented by W. J. Forsyth and others on February 16, 1884. Both mines worked on the same vein network and were worked together through a tunnel on the Royal Charter Lode from about 1893 to 1895. Mining resumed briefly in July and August 1908, but was not carried out productively until 1917, resulting in the formation of the Little Nation Mining Company on May 9, 1918. The company installed new machinery, and ore production justified the construction of the Little Nation Mill on the mill site in the summer and fall of 1923. It was a combination flotation and concentration mill. Ore from the mine was crushed and placed in an ore bin at the upper tram terminal from where it was transported to the mill by aerial tramway. The mill contained a Ruth rod mill that prepared ore for separation first on Wilfley tables and then in a Brown four-cell flotation machine. During construction, development work at the mine lagged, and the mine was unable to provide a sufficient quantity of ore to run the mill profitably, so it shut down soon thereafter (Silverton Standard, July 28, 1923:7; August 25, 1923:1; September 15, 1923:1; June 4, 1937:4). Mining ceased and taxes for 1924 went unpaid when the improvements at the mine, including the upper tram terminal, were valued at \$3,000, the tramway at \$2,500, and the mill and lower tram terminal at \$10,000 (Silverton Standard, November 1925:2). Reorganization resulted in  $_{
m the}$ formation of the Royal 14,

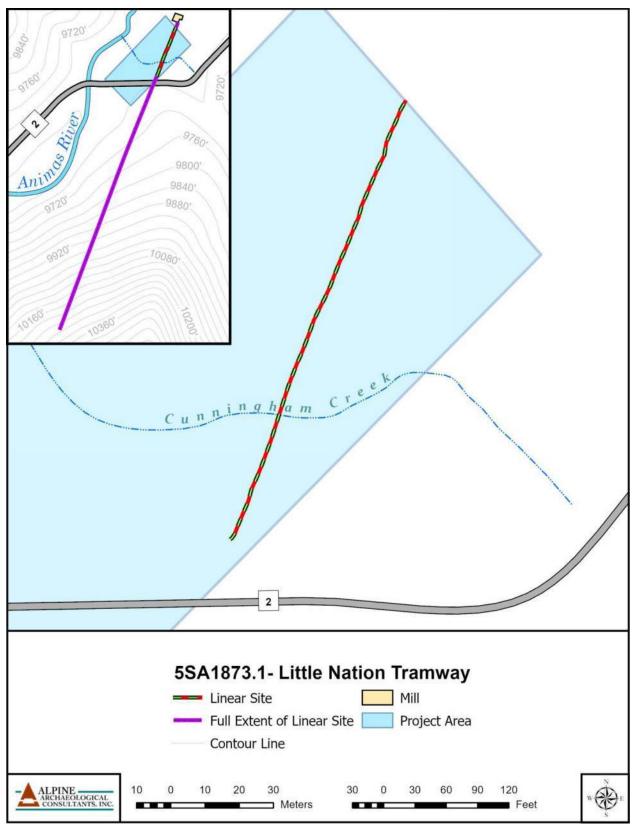


Figure 12. Map of the Little Nation Tramway (5SA1873.1).



Figure 13. Little Nation Tramway line on ground and above leading to Little Nation Mill in the distance, looking north-northeast.

Mining Company in 1928. They opened a new tunnel and began increased mining in 1933 with ore going to the mill via the tramway. Low mineral prices and high operation costs closed the mine in 1934. Mining resumed briefly in late 1935 and early 1936, but the mill was not utilized. Instead, ore was sent to the Shenandoah Dives Mill, though the tramway likely brought the ore to the valley floor. The mill again processed ore in the summer of 1937, but that seems to have been the last time mill and tramway were used (Silverton Standard, October 7, 1933:4; January 4, 1936:4; June 4, 1937:4; August 20, 1937:1).

#### National Register Recommendation

The Little Nation Tramway (5SA1873.1) is recommended as eligible for inclusion in the NRHP under Criteria A and C. The tramway connected the Royal Charter Mine, which included the Little Nation Lode, to the Little Nation Mill. The inclusion of the Little Nation Mill in the San Juan County Historic Register recognizes the important role the mill played in the history of mining in San Juan County and the Howardsville area. The Royal Charter Mine, presumably site 5SA789, was recommended as eligible for inclusion in the NRHP in 2002 (Twitty 2002). The tramway was an important transportation connection between the mine and mill enabling them to function as a



Figure 14. Little Nation Tramway line laying on ground and visible above leading to the Royal Charter Mine on the slope of King Solomon Mountain. View is to the south-southwest.

cohesive unit. The mine, mill, and tramway form an interconnected system that is readily recognizable. The tramway retains most of the seven aspects of integrity under the NRHP criteria. It retains excellent integrity of location and materials, because the tramway has not moved and the wire rope above and on the ground are original elements; no tram towers were ever present within the project area. Integrity of design, setting, feeling, and association are all interrelated and are very good because the Little Nation Mill is adjacent, which was one end of the tramway, and the Royal Charter Mine is visible in the distance, which was the other end of the tramway; these two properties are physically connected by the tramway. Integrity of workmanship is irrelevant to the tramway, though may be retained at the mill and mine.

### Management Recommendations

If possible, the wire rope laying on the ground and suspended in the air should be left in place. Project plans may make this recommendation untenable, so it is recommended that consultation be made with the USACE and the San Juan County Historical Society to determine what the best course of action would be for the preservation, alteration, or removal of the lines. The wire rope lying on the ground has been cut where County Road 2 passes through the mill site. It is unknown how long the suspended wire rope will remain as such. The wire ropes of the tramway are important because they

show the direct connection between the mill and the mine, despite their being over 0.5 miles apart. Should the suspended wire rope come down, it will certainly be necessary to cut it to allow travel to take place without impediment on County Road 2, but it should be allowed to lie on the ground to continue to show the connection between the mine and mill.

#### **SUMMARY**

Three historic sites were recorded within the Winnemucca Mill Site parcel. These were a single-episode disposal of trash from the early 1950s (5SA1871), a mixed-age scatter of historic artifacts (5SA1872), and a 455-ft.-long section of the Little Nation Tramway (5SA1873.1). The Little Nation Tramway (5SA1873.1) is recommended as NRHP eligible; the wire rope cables of the tramway that pass through the site should be retained as much as possible to show the connection between the Little Nation Mill and the Royal Charter Mine. The trash dump and artifact scatter (5SA1871 and 5SA1872) are not recommended to be NRHP eligible. No further work is recommended for those two sites.

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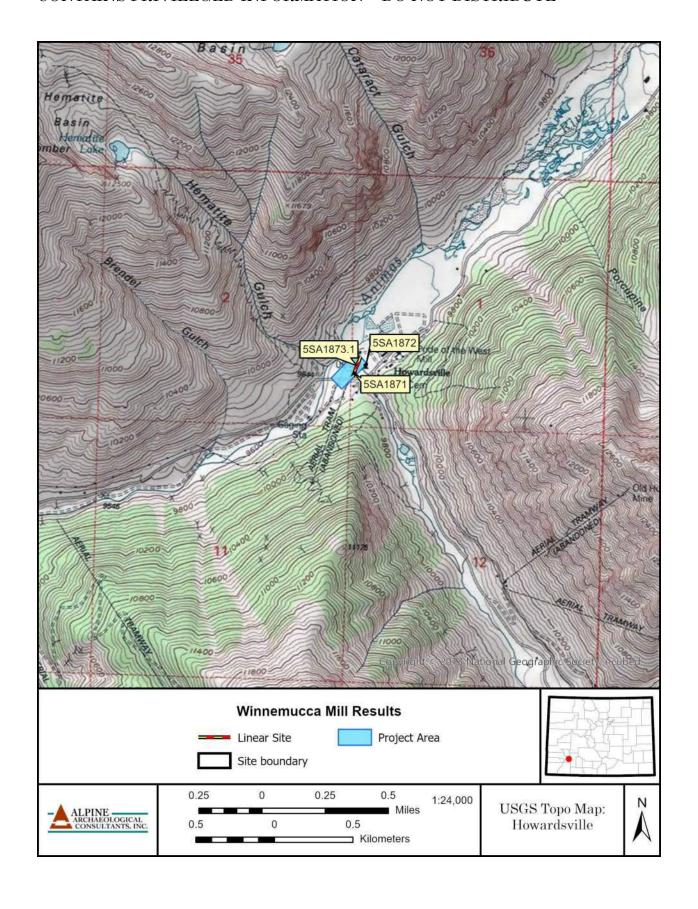
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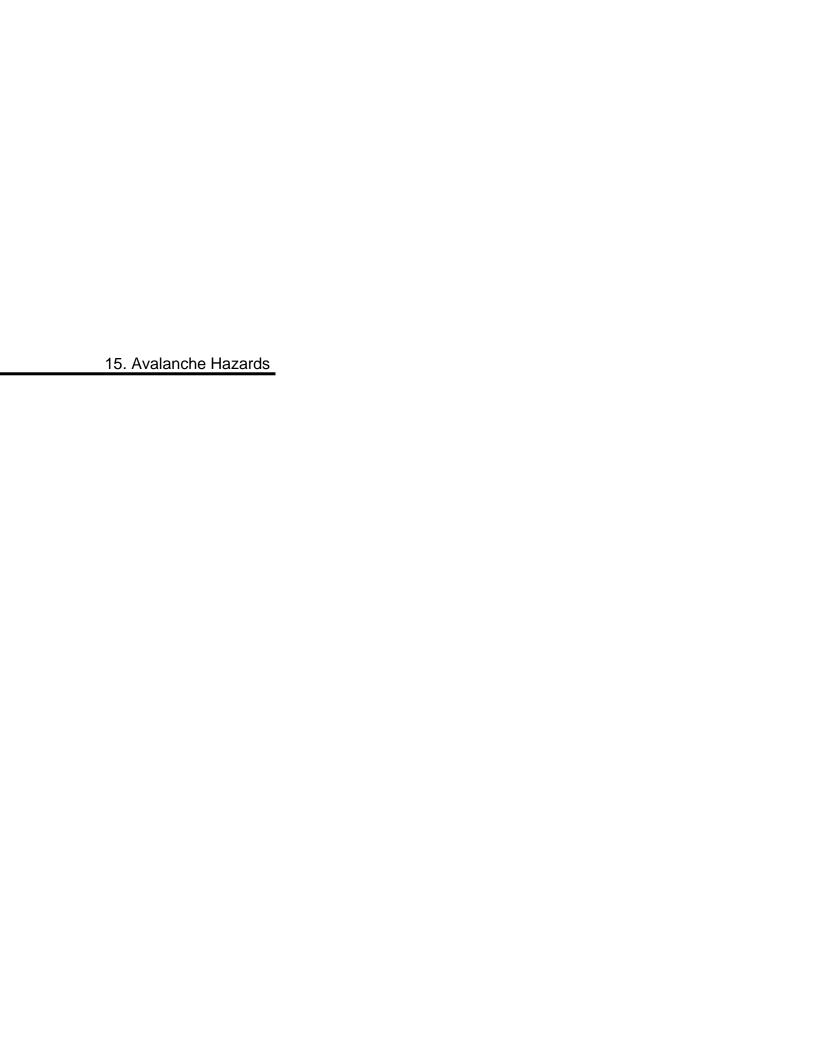
## APPENDIX A

Site Location Map (Limited Distribution)



### APPENDIX B

Site Forms (Limited Distribution)



# AVALANCHE HAZARD ASSESSMENT & MAPPING

for

WINNEMUCCA MILL SITE
COUNTY ROAD 2
ANIMAS RIVER ROAD
SAN JUAN COUNTY, COLORADO

Prepared for:

Kirk D Huff 3424 Ridgeline Dr Montrose, CO 81401

Prepared by:

Wilbur Engineering, Inc. Durango, Colorado

September 19, 2023

150 East 9 St., Suite 201 • Durango CO 81301 (970) 247-1488 • chris@mearsandwilbur.com

September 19, 2023

Kirk D Huff 3424 Ridgeline Dr Montrose, CO 81401-7305 via email

RE: Avalanche Hazard Assessment

Winnemucca Mill Site

County Road 2, San Juan County, Colorado

Dear Mr. Huff:

At your request, we have completed our avalanche hazard assessment. The only avalanche hazard at the site is from slides originating in Hematite Gulch. Rare (low probability) avalanches will cross the Animas River and have the potential to affect the northwest portion of the site. We have included a "Yellow" or "Low" Avalanche Hazard Zone in our mapping to show very low probability avalanche runout limits. Our report describes land use recommendations for this hazard zone.

We appreciate the opportunity to visit and study avalanches at your property. If you have any questions, please contact me.

Sincerely,

Wilbur Engineering, Inc.

Chris Wilbur, P.E.

Of will

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### 1. Introduction

This report describes snow avalanche hazards for the Winnemucca Mill Site north of Silverton on San Juan County Road 2. Figure 1 shows the site location. This report includes a map delineating high, moderate and low avalanche hazard zones, and provides recommendations for the planned site development as shown on the conceptual site plan prepared by DHM Designs.



Figure 1 – Site Location Map (source Gaia GPS.com)

### 2. Objectives

This report has the following **objectives**:

- 1. Delineate avalanche hazard zones for High (Red) Avalanche Hazard and Moderate (Blue) Avalanche Hazards at the site.
- 2. Provide recommendations for avoiding, reducing and mitigating snow avalanche hazards.

### 3. Limitations

This report also has the following **limitations**, which must be understood by all those relying on the results, conclusions, and recommendations:

- 1. Avalanches larger than the design-magnitude<sup>1</sup> avalanche are possible, will travel farther, spread wider, and possess greater impact pressures; the probability of such events is small enough that it is generally considered within acceptable limits of risk in this location at this time for the type of land use proposed.
- 2. This study is site and time specific; it should not be applied to adjacent lands nor should it be used without updating in the future when additional data and improved methods become available.
- 3. The avalanche hazard assessment is based on current forest and climatic conditions. Changes in forest cover and/or climatic conditions could increase or decrease the avalanche hazard.
- 4. No avalanche mitigation design specifications are provided. Avalanche design loads cannot be determined until the location, orientation and geometry of buildings and other structures have been determined. If mitigation is needed, additional analyses will be required to determine avalanche impact and static loads on walls, roofs, eaves and other exposed objects. A structural engineer, experienced in applying dynamic and static snow loads must be retained to design any structures to resist design snow and avalanche loads.
- 5. The scope of work does not include evaluation of any other geologic hazards, except for snow avalanches processes.

#### 4. Methods

The avalanche hazard assessment, mapping and recommendations presented in this report are based on:

- 1. Review of reference documents listed in Section 12 of this report.
- 2. Terrain analyses using a topographic map derived from LiDAR data downloaded from the USGS 3D Elevation Program (3DEP);
- 3. Site observations of vegetation and ground conditions made by Chris Wilbur on September 7, 2023, during snow-free conditions.
- 4. Analysis of various sources of aerial imagery, including Google Earth, Bing, USGS, USDA, and San Juan County GIS Department.
- 5. Review of historic weather data, including SNOTEL, Coop Weather Stations, Colorado Avalanche Information Center (CAIC) and the Center for Snow and Avalanche Studies (CSAS);

<sup>&</sup>lt;sup>1</sup> The *Design-Magnitude Avalanche* has an approximate annual probability of one-percent, or an average return period of 100-years.

- Avalanche dynamic modeling with the Swiss program, RAMMS, Version 1.8.0
  utilizing a 3-meter resolution digital elevation model (DEM) developed from
  LiDAR data.
- 7. Our local and regional knowledge of terrain, climate and avalanche hazards.

### 5. Avalanche History

The following description of a 1936 avalanche is from Reference 4. Figure 2 shows a map.

The Hematite snowslide (Map 6) ran at 4:00 p.m. Thursday afternoon, 20 February, from Tower Mountain and covered the highway 500 feet in length with depths from five to 15 feet. 171

The slide struck the new bridge across the Animas River, depositing snow on both ends of the structure and filled the river beneath. Planks in the center of the bridge were loosened by the force of the snow beneath...In past years the slide has been known to run causing inconvenience to the Silverton Northern Railroad and often shutting off Howards-ville's water supply for a period of several hours. Never before, however, has it been known to run in such huge proportions...Old timers still are talking about the habits of snowslides and the entirely unexpected turns they sometimes take. 172

Fortunately, only telephone poles were destroyed by the slide since dozens of vehicles and men were on the road at that time but had either just gone by the slide or had not yet arrived there. 173

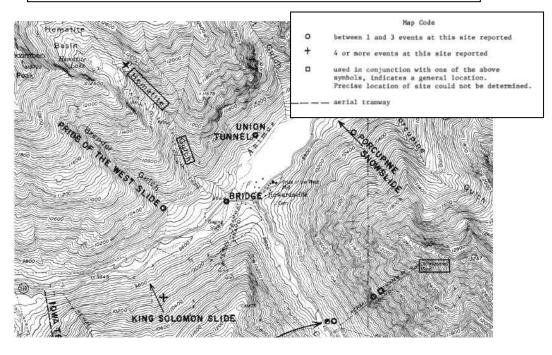


Figure 2 – Historic Avalanches Map (source: Map 6 from Reference 4)

The Pride of the West Slide (Brendel Gulch) ran four days later covering the highway for 1000 feet. Hematite Gulch also ran January 22, 1887, February 28, 1891 (1500 feet wide), January 11, 1901 and hit the bridge in 1924 (date unknown).

#### 6. Snow Climate

The site is located in the Colorado Avalanche Information Center's (CAIC) Northern San Juan recreational forecast zone. The region is characterized by a high elevation, high solar radiation, continental snow climate. This snow climate is widely known for its characteristic structure with a generally shallow cold snowpack and development of early season persistent weak layers that can last throughout the winter and spring, especially on northerly aspects. The weak lower snowpack can become overloaded by snow slabs that form during large storms and wind events, resulting in widespread avalanche activity.

Long-term weather records are available from a COOP weather station in Silverton and a SNOTEL station on Red Mountain Pass. In addition, the Center for Snow and Avalanche Studies has weather instrumentation at three sites near Red Mountain Pass, including an anemometer at the Putney weather station (elevation 12,320 feet). Selected weather and climate data are presented in Appendix B.

### 7. Terrain

Figure 3 shows the site on a Caltopo slope angle map. The site is located at the junction of Cunningham Creek and the Animas River near elevation 9650 feet. Avalanches originating in Hematite Gulch have the potential to reach the site. We identified several potential release areas ranging in size from about 5 to 85 acres. Aspects range from westerly to southerly to easterly. Most release areas are disconnected by ridges. All of the release areas funnel into a single track² near elevation 10,800 feet. The runout zone³ begins near 10,000 feet and consists of a debris fan sloping about 12 degrees and the valley floor. The debris fan is incised, but avalanches will fill this shallow channel. The design magnitude avalanche will cross the Animas River and its flood plain on the south bank. It is possible that multiple avalanches will occur in a single winter and the debris from previous avalanches can deflect subsequent avalanches to either side of the debris fan. Figure 4 shows a slope angle map of the avalanche terrain derived from LiDAR data. Figure 5 shows a slope aspect map.

<sup>&</sup>lt;sup>2</sup> The *Track* of an avalanche is the area where maximum velocity and mass are attained.

<sup>&</sup>lt;sup>3</sup> The *Runout Zone* of an avalanche is the area where deceleration occurs and the avalanche stops.

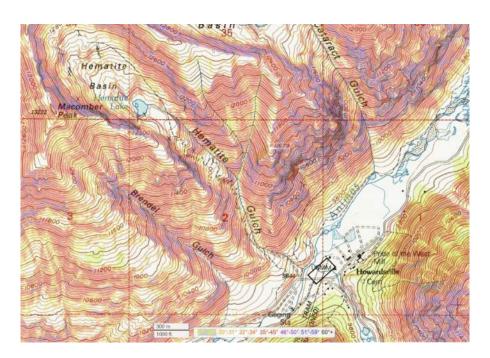


Figure 3 – Site on Caltopo Slope Map (Site boundaries are approximate)

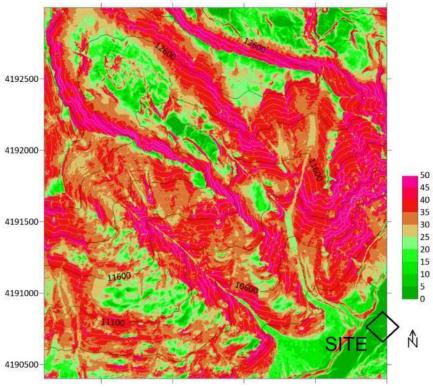


Figure 4 – LiDAR Slope Angle Map (Site boundary approximate)

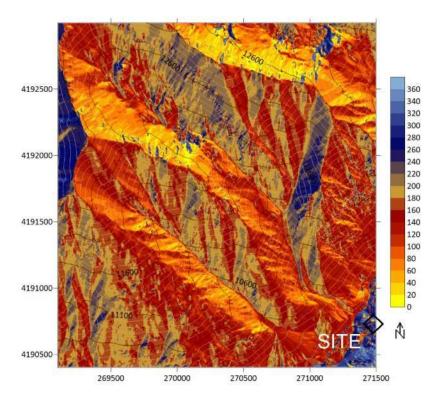


Figure 5 – LiDAR Slope Aspect Map (Site boundary approximate)

### 8. Vegetative Indicators

The high elevation spruce-fir forest at the site provides vegetative indicators for historic and undocumented avalanches, including lateral and vertical extents. Forest trim lines at the edge of the track indicate lateral limits. Tree damage near the Animas River indicate flow heights and destructive energy in the runout zone. Figure 6 shows a photo of tree damage between the Animas River and the bridge. Tree ages near the river are estimate to range from about 30 to 100 years with younger trees and more damage near the bridge than to the east. Additional photos are presented in Appendix C.



Figure 6 – Avalanche Damaged Trees near the South Bank of the Animas River

### 9. Avalanche Dynamics Modeling

Figure 7 shows representative model results for the maximum flow heights for the design-magnitude avalanche. The model predicts uniform velocities of 18 m/s on the Hematite Gulch debris fan and rapid deceleration in the valley floor. The model calibration was based on historic avalanche runouts, vegetative indicators and our experience with other avalanches in Colorado, including well-documented historic avalanches and regional runout statistics. Model assumptions and parameters are presented in Appendix A.

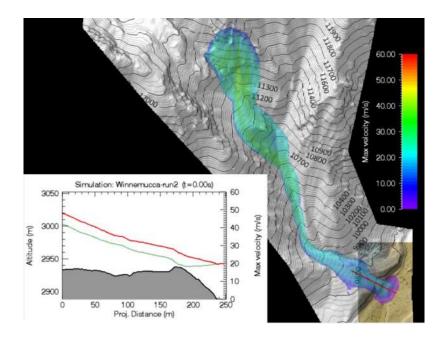


Figure 7 – RAMMS Predicted Maximum Velocities for Design Magnitude Avalanche

### 10. Findings

Based on the observations, analyses and methods described in this report, we developed the Avalanche Hazard Zone Map shown in Figure 8. The Moderate Hazard Zone (or Blue Zone) represents an area of low frequency avalanches and low to moderate impact pressures. The High Hazard (or Red Zone) does not reach the site. The Low Hazard (Yellow) Zone is an area affected by avalanches with return periods of between 100 and 300-years. Powder avalanche pressures are expected to be non-destructive at the site.

### 11. Recommendations

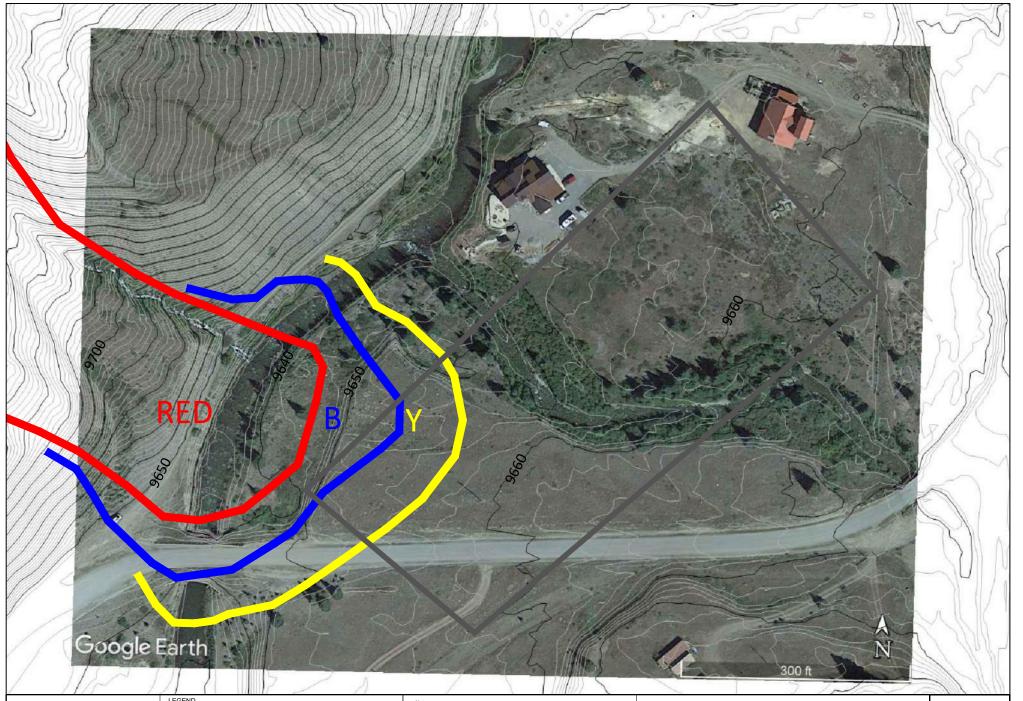
Based on the methods and findings described above, we offer the following recommendations:

- Avoidance of avalanche hazards is the most reliable form of mitigation. If practical, we recommend placing structures outside of the Blue and Yellow Avalanche Hazard Zones.
- 2. If structures are placed in the Blue Zone or Yellow Zone, we recommend placing them as far from the Red Zone as practical to minimize design loads.
- 3. Any structures in the Blue or Yellow Zones should be designed to withstand impact. This form of mitigation is known as "direct protection." Avalanche impact loads cannot be determined until the location, geometry and orientation of the

- structure are known. It is possible to achieve a high level of avalanche protection for building occupants, but persons outside will not be protected.
- 4. It is prudent for occupants and guests of residential buildings in and near avalanche hazard zones to become educated and keep current on local avalanche conditions, including the local and regional avalanche danger forecasts. However, reliance upon forecasts and avoiding avalanche terrain during elevated avalanche danger conditions can reduce, but not eliminate avalanche risk, especially to persons outside of buildings.

### 12. References

- "Avalanche Hazard Map, San Juan County", prepared by Rebecca Summer and Margaret Squier, INSTAAR (Institute of Arctic and Alpine Research), Boulder, Colorado, for San Juan County in 1976
- "Natural Hazards of San Juan County, Colorado", prepared by Michael J. Bovis, Institute of Arctic and Alpine Research, Boulder, Colorado, for San Juan County in 1976
- 3. "Avalanche Atlas, San Juan County, Colorado", prepared by Len Miller, Betsy R. Armstrong and Richard L. Armstrong, Institute of Arctic and Alpine Research, for San Juan County in 1976, published as Occasional Paper No. 17 by INSTAAR
- 4. "Century of Struggle Against Snow: A History of Avalanche Hazard in San Juan County, Colorado", prepared by Betsy R. Armstrong, Institute of Arctic and Alpine Research, for San Juan County in 1976, published as Occasional Paper No. 18 by INSTAAR "Overall Hazard Map", prepared by INSTAAR for San Juan County in 1976.



Wilbur Engineering, Inc. September 19, 2023

- High (Red) hazard zone avalanches have estimated average return periods of 30 years of less OR the 100-year average return period avalanche produces impact pressures of 600 pounds per square ft (psf) or more on flat surfaces normal to the flow.
- more on flat surfaces normal to the flow.

  2. Moderate (Bibly hazard zone avalanches have estimated average return periods of between 30 and 100 years AND produce impact pressures of less than 600 pounds per square ft (psf). Prowder avalanches with 30-year return periods produce is

- provided by DHM Design.

  Two-foot contour intervals based on USGS LiDAR data projected on UTM zone 12N.
- See report for important limitations of this Avalanche Hazard Map. 5. Land use constraints and recommendations for Red, Blue and Yellow avalanche hazard

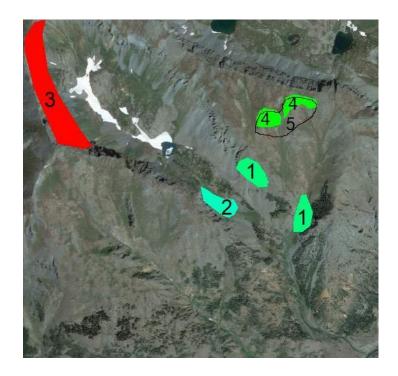
Avalanche Hazard Map Winnemucca Mill Site County Rd. 2, San Juan County, Colo. Figure

# Appendix A RAMMS Parameters & Results

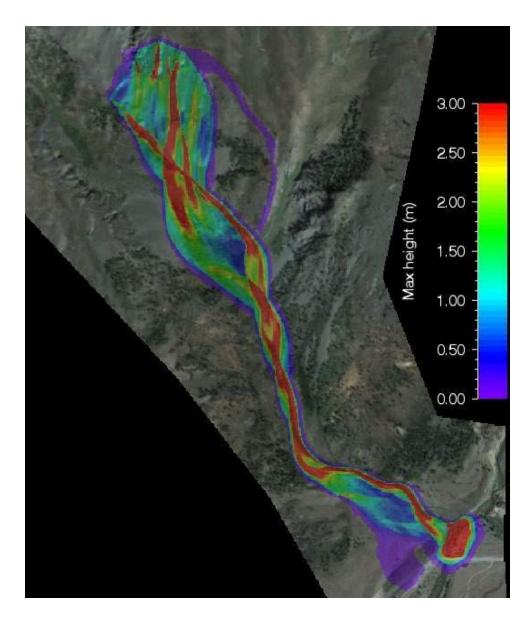
### \*\*\* Important Note: \*\*\*

Interpretation of avalanche dynamics model results requires an understanding of the model assumptions, simplifications and limitations of the underlying equations of motion. The models do not accurately show wet avalanche runouts, flow heights or impact pressures, nor the variations in avalanche properties with depth, including density and velocity.

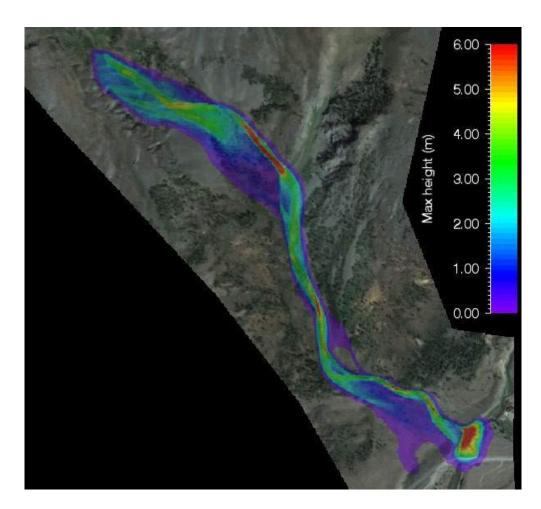
	Release					С	Comments		
	res.	name ht. (m)		vol. (m3)	Friction	(Pa)	Comments		
run1	3	R1	1.2	72,000	M100	0	2 mid el rel		
run2	3	R1	1.2	41,100	M100	0	upper rel		
run3	3	R1	1.0	30,800	M100	0	lwr rel		
run4	3	R2	1.3	37,300	M100	0	w rel		
run5	3	R3	2.0	341,500	L100	0	lg twr mtn rel		
run6	3	R4	1.5	32,500	M100	0	high elev west rel		
run7	3	R4	1.5	33,100	M100	0	high elev east rel		
run8	3	R5	1.8	142,000	L300	0	300-yr way too far/big		
run9	3	R5	1.2	94,700	L300	0	300-yr - still too far		
run10	3	R5	1.0	78,900	M100	0	300-yr - calibr w trim		



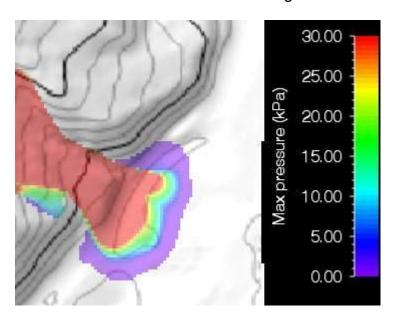
Release Areas



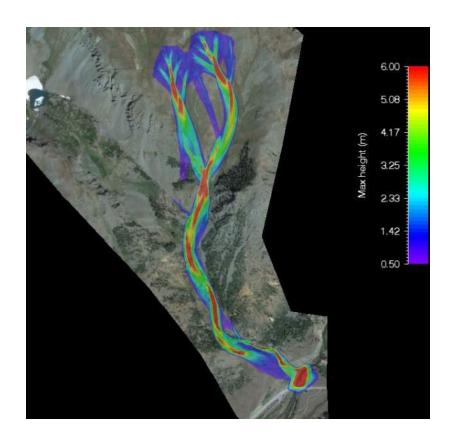
Run 2 – Maximum Flow Heights



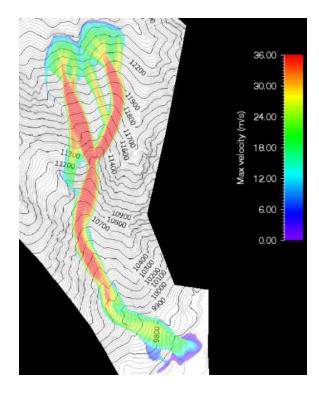
Run 4 – Maximum Flow Height



Run 4 - Maximum Pressure



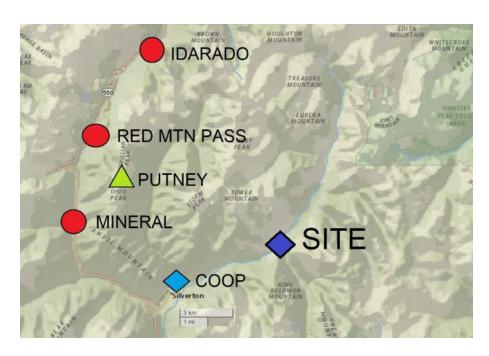
Run 10 – Maximum Flow Height



Run 10 - Maximum Velocities

### Appendix B

### Weather and Climate



Regional Map with Weather Stations

### SILVERTON, COLORADO (057656)

### Period of Record Monthly Climate Summary

Period of Record: 7/1/1906 to 12/31/2005

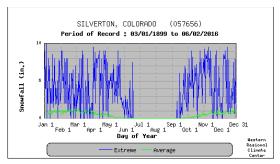
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	34.0	36.6	40.6	47.3	57.6	67.9	73.1	70.5	64.7	55.1	43.2	35.1	52.2
Average Min. Temperature (F)	-1.9	1.0	8.1	18.5	26.4	31.9	37.9	37.2	30.3	22.0	9.5	0.2	18.4
Average Total Precipitation (in.)	1.68	1.75	2.30	1.72	1.46	1.39	2.72	3.10	2.81	2.34	1.49	1.73	24.50
Average Total SnowFall (in.)	25.8	25.3	28.4	17.3	4.3	0.3	0.0	0.0	0.9	8.5	20.0	24.0	154.8
Average Snow Depth (in.)	21	27	26	11	0	0	0	0	0	1	4	12	9

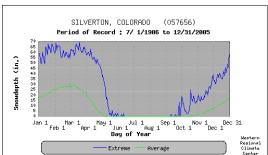
Percent of possible observations for period of record.

Max. Temp.: 94.1% Min. Temp.: 93.9% Precipitation: 95% Snowfall: 95.2% Snow Depth: 85.8%

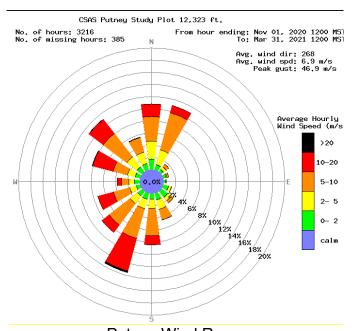
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

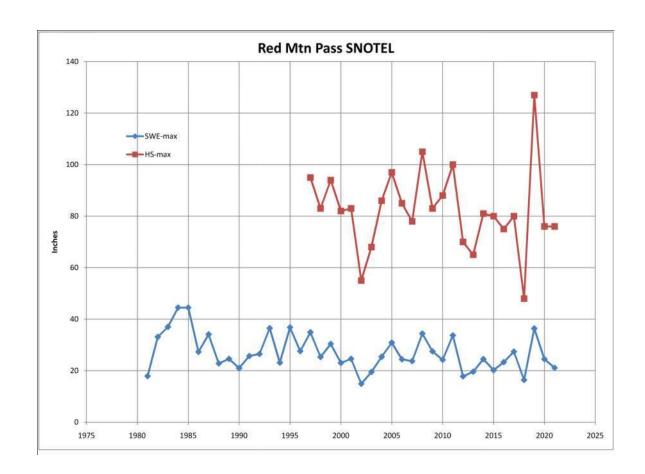




Silverton Coop Snow Height and 24-hour Snowfall Data



Putney Wind Rose (data courtesy of the Center for Snow and Avalanche Studies)



### Appendix C - Site Photos





Photo 1 – Small boulders on south bank of Animas river in Yellow Zone



Photo 2 – Tree damage on south bank of Animas river in Blue Zone



Photo 3 – Downed trees aligned with flow direction north of Animas river in Red Zone



Photo 4 – Tree in the lower avalanche track in Red Zone



Photo 5 – Tree damage on south bank of Animas river in Blue Zone



Photo 6 – Trees on south bank of Animas river east of photo 5

#### KNOWN NATURAL HAZARD FORM

- 1. Name(s) and address(es) of record owner(s) of property:
  - a. Krik Huff1739 F. Rd.Delta, CO 81416
  - b. Teri Alexander3424 Ridgeline DriveMontrose, CO 81401
- 2. Legal description of property:
  - a. Winnemucca MS 563B. Parcel # 48290010010025 (split from former parcel 48290010010010). Suspended Township 41 North, Range 7 West, of the NM Principal Meridian
- 3. Prior deed reference:
  - a. Warranty Deed Record Number: 153250
- 4. Nature of known natural hazards which affect property:
  - a. A moderate and low avalanche risk affects the northwestern corner of the property.
- 5. Terms of any hazard mitigation or limitations on use of the property required to minimize risk to life and/or property from natural hazard:
  - a. Development will be avoided in this location.

Jason Jaynes, DHM Design for Kirk Huff, Owner