PLANNING & ZONING COMMISSION FEBRUARY 2024

February 06, 2024 at 6:00 PM
0110 Whispering Pines Circle, Blue River, CO

AGENDA

The public is welcome to attend the meeting either in person or via Zoom.

The Zoom link is available on the Town website:

https://townofblueriver.colorado.gov/planning-zoning

Please note that seating at Town Hall is limited.

I. CALL TO ORDER, ROLL CALL

II. APPROVAL OF MINUTES

A. Minutes from October 3, 2023

III. PROJECT APPROVAL

B. Selection of Chair & Vice Chair

Sec. 2-6-60. Organization. The Commission shall select its own Chairperson and a Vice Chairperson from among its members. The Chairperson or, in his or her absence, the Vice Chairperson shall be the presiding officer of all Commission meetings. In the absence of both the Chairperson and the Vice Chairperson from a meeting, the members present shall appoint a member to serve as acting Chairperson at the meeting.

C. 0037 Rivershore-New Construction

D. Building Official Code Update Report for recommendation to Board of Trustees

IV. ADJOURN

NEXT MEETING -

BLUE RIVER PLANNING & ZONING COMMISSION OCTOBER 2023

October 03, 2023 at 6:00 PM
0110 Whispering Pines Circle, Blue River, CO

MINUTES

The public is welcome to attend the meeting either in person or via Zoom.

The Zoom link is available on the Town website:

https://townofblueriver.colorado.gov/planning-zoning

Please note that seating at Town Hall is limited.

I. CALL TO ORDER, ROLL CALL

Chair Johnson called the meeting to order at 6:00 p.m.

PRESENT

Bevan Hardy

Tim Johnson

Gordon Manin

Ben Stuckey

Troy Watts

Noah Hopkins-Board Liaison

Excused

Travis Beck

Doug O'Brien

Also present: Town Manager Michelle Eddy; Building Official Kyle Parag.

II. APPROVAL OF MINUTES

Motion made by Watts, Seconded by Stuckey to approve the minutes of September 2023.
Voting Yea: Hardy, Johnson, Stuckey, Watts, Hopkins

A. Minutes from September 5, 2023

III. PROJECT APPROVAL

B. New Construction-0066 Conifer

Manager Eddy presented the project. She noted this is the third submittal for the site. She noted the questions concerning the elevations were updated as well as the exterior lighting. She noted plans that show a utility/mechanical room for the garage have not been received. The Building Official did not recommend approval until the outstanding questions were addressed.
Motion made by Stuckey, Seconded by Hardy conditioned on garage meeting square footage requirements as amended. Motion carried.
Voting Yea: Hardy, Johnson, Stuckey, Watts
Voting Abstaining: Manin

C. Other Business

Manager Eddy referred to the Staff memo provided. She noted that discussions will be made at the Trustees concerning removing the road base requirement and the 150% deposit requirement. It is asked to remove the road base requirement to prevent interference with the road maintenance. As the Town does not allow temporary CO's so the deposit is not necessary. It is being recommended to ask that natural grass seeds be spread.
Discussion of requirements as they exists and current CO requirements. Discussion that the current requirements meet the needs for building and decision to not make any changes beyond the recommendations noted.

D. Proposed Ordinance Review

Manager Eddy explained the proposed camping ordinance to the Commission for recommendation to the Trustees.
Discussion of the proposed ordinance. It was asked to consider allowing the residents use temporary RV living on vacant lot. There was discussion for further clarification of the code and definition between 16A-22-10 and 16A-22-20 and allowance for a resident in RV in a driveway.

The proposed ordinance is not recommended as presented.

IV. ADJOURN

Motion made by Stuckey, Seconded by Hardy to adjourn the meeting at 6:54 p.m.

Voting Yea: Hardy, Johnson, Manin, Stuckey, Watts

NEXT MEETING -

November 7, 2023

Respectfully submitted:

Michelle Eddy, MMC

Town Clerk

TO: Michelle Eddy, CMC/CPM - Town Manager/Clerk

FROM: Kyle Parag, Plan Reviewer - CAA

DATE: January 19, 2024

RE: Planning/Zoning/Architectural Guidelines review – 0037 Rivershore

Below please find staff's analysis that outlines the review with the Town's Zoning regulations and adopted Architectural Design Guidelines for the structure proposed

Zoning Regulation analysis –

Proposal:	A new single-family residence with an attached garage. The proposed 3 story, 3 bedroom, 4 bath home, includes 3,581 s.f. of living space and an attached 1605 s.f., 3 vehicle garage for a combined 4,646 square feet.
Zoning district:	R
Lot Size:	~ 42,207 sq. ft. 80,000 sq. ft. Required– Existing Non-Conforming
Lot Width:	~ 347' 100 ft. Required - Complies
Setbacks:	Proposed principal residence complies with required setbacks based upon submitted docs. 15' is required in the Rivershore subdivision.
Height:	Complies with required height limitations. The height at the highest roof ridge is proposed at 34'-8"
Garage Stds:	The proposed garage is ~1065 sq. ft. and complies with the standards for structures less than 5,000 sq. ft. in habitable size. A maximum of 1200 sqft is permitted.
Parking Stds:	Parking requirements will be met through the proposed garage.

Architectural Design Guideline analysis -

Please note the following key to the interpretation of the analysis table:

Y	Element is in substantial compliance with the design guidelines
N	Does not comply with the design guidelines
PC	Subject to Planning Commission Specific approval
	Requires additional information from applicant
N/A	Not Applicable to the application

STANDARD	NOTES/REMARKS	SUBSTANTIAL COMPLIANCE
DEVELOPMENT STANDARD		
Article 3: Easements	Survey is provided indicating an easement along the back of the property. No indicated easements are of concern.	Y
Article 4: Buildable Area/setbacks	The proposed home sits well within the irregular shaped buildable area.	Y
Article 5 Building Design Standards		
Article 5-20 Building Height	The measured height at all locations is less than 35' and complies	Y
Article 5-60 Foundation	Foundation details are not clear, the elevations do not depict any exposed foundational elements.	Y
Article 5-70 Roofs	Roof design proposed is traditional gabled, with numerous items of visual interest. Slopes vary from 3:12 to 10:12 and indicate general compliance with section 5-70	Y
Article 5-80 Garages	A 3 car attached garage is proposed with a total sqft of 1,064 sqft, and comply with the sizing requirements. The garage is subordinate to the structure and sized accordingly. Scaled garage size indicates only 881 sqft.	Y

Article 5-90 Window and Door design	Windows are proportional to the structure and do not comprise of unusual shapes. Front door is substation and show general compliance.	Y
Article 5-100 Balconies and railings	A small balcony is proposed with railingsh that consist of vertical wood elements. Shows general compliance.	Y
Article 5-110 Chimney and Roof Penetrations	A substantial chimney is indicate. Materials indicated are stone, consistent with the remining materials of the home.	Y
Article 6 Building Materials and Colors		
Article 6-20 Materials	Materials consist of traditional woods and stone veneer. Material are consistent with requirements	y
Article 6-30 Colors	Color board is provided on page 2 of the plan set, colors are natural, consisting of stained woods and stones. Roof will be a neutral brown.	Y
Article 7 Accessory Improvements		
Article 7-(20-40, 110) Berms, Garages, sheds and Gazebos	No accessory structures are indicated.	N/A
Article 7-50 Driveways	Driveway is proposed at 12’ wide and opening up to a large automobile yard. Slopes are between 0% and 5%. The driveway re-enters the setback area for the parking area and opens to an excessive width.	PC
Article 7-60 Parking Areas	Parking is met through the attached garage.	Y
Article 7-100 Decks	Only a small balcony is provided, shows general compliance.	Y
Article 7-120 Hot Tubs	Spa is not indicated	Y
Article 7-140 Fences	No fencing is indicated	Y

Article 7-150 Retaining walls	None indicated	Y
Article 8 Signs		
Article 8 Signs	None indicated	Y
Article 9 Lighting		
Article 9 Lighting	Details of the exterior lights are not provided. Unable to determine compliance with regulations.	
Article 13 Environmental Regulations		
Article 13-20 Wetlands	None indicated.	Y

Building Permit Application

Email to: info@townofblueriver.org
Questions? Call (970) 547-0545 ext. 1

Lot Number: 2 **Subdivision:** Rivershore
Blue River Physical Address: 0037 Rivershore Dr. Blue River CO 80424

Homeowner Information:
Name: _____
Mailing Address: 24237 E Glasgow Circle Aurora CO 80016
Phone: _____
Email: _____

Contractor Information
Company Name: N/A - Owner Build
Contact Name: Steve Lassa
Mailing Address: 24237 E Glasgow Cir, Aurora CO 80016
Phone: 970-389-7500
Email: lassa110@comcast.net
Contractor Registration #: _____
***Please note a Town of Blue River Business License is required for all businesses to conduct business in the Town of Blue River including contractors, sub-contractors and architects. ***

Description of Project:
New Single Family Residential Construction

Distance to Property Line	Type of Heat: Radiant in floor	Construction Type: Frame
North:15 ft	Roof: Asphalt Shingle	Building Height:34 ft 11 inches
South:22 ft	Exterior Walls:Stone and Wood Siding	No. Stories: 2
East:120 ft	Interior Walls:Drywall	Total # Bedrooms: 4
West:75 ft	Basement Fin. Sq.Ft.:866	Total # Bathrooms: 4.5
New Addition/Res. Sq.Ft.:	Main Level Sq.Ft.:2715	Septic or Sewer:
Garage Sq.Ft.:1065	2nd Level Sq.Ft.:	Septic
Total Square footage:4646	3rd Level Sq.Ft.:	

SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, PLUMBING, HEATING, VENTILIATION WORK, & FIREPLACES. THIS PERMIT BECOMES NULL AND VOID IF CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN ____ OR IF CONSTRUCTION IS SUSPENDED OR ABANDONED FOR A PERIOR OF ___ AT ANY TIME AFTER WORK IS COMMENCED.

I HEREBY CERTIFY THAT I HAVE READ AND EXAMINDED THIS APPLICATION AND KNOW THE SAME TO BE TRUE AND CORRECT. I AGREE TO COMPLY WITH ALL TOWN ORDINANCES AND STATE LAWS REGARDING BUILDING CONSTRUCTION AND TO BUILD ACCORDING TO THE APPROVED PLANS. THE GRANT OF A PERMIT DOES NOT PRESUMED TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PERFORMANCE OF CONSTRUCTION.

Signature of Owner or Contractor: Steve Lassa Date: 1/15/2024

Submittal Requirements

****ALL Submittals Must be Electronic****
Emailed to: info@townofblueriver.org

Planning & Zoning Review Submittal Requirements
****Please indicate via check box item included as well as page number in submitted packet.**

Completed √	Item	Description	Page #
	Site Plan	Scale: 1" = 10'; May appear on a single sight plan. IF on a separate page, please indicate the page.	
		Property Boundaries	A1.1
		Building Envelope with setbacks	A1.1
		Proposed Buildings	A1.1
		Structures (existing & proposed)	A1.1
		Driveway & Grades	A1.1
		A wetlands delineation & Stream crossing structures where applicable.	n/a
		Topographic survey, prepared and stamped by a licensed surveyor, indicating site contours at 2' intervals, easements, and significant natural features such as rock outcroppings, drainages and mature tree stands.	attachment.
		Transformer & vault location (if installed by owner or existing)	n/a
		Well location; septic if applicable	Attachment
		Snow storage areas and calculations	CM
		Major site improvements	n/a
		Existing & proposed grading & drainage	A1.1
	Landscaping Plan	*May be included in the site plan**	L.1
		Landscaping must indicate tree removal for defensible space requirement; any trees 6" or more primarily noting the removal of any ponderosa pines or large trees. Clear cutting of a site is not allowed.	L.1
		Indicate the percentage of trees removed and revegetation to be conducted.	15%
		Upon completion of the construction project, all land must be raked and	

		reseeded with native seed prior to issuance of CO. in cases of completion during snow coverage and/or winter, CO may be issued with conditions for completions within 60 days of the last snow and a deposit.	L.1
		Any major structures (retaining walls; fences; landscaping rocks) must be indicated in detail on plans in conformance with the design regulations.	n/a
		Indicating building walls, floors and roof relative to the site, including existing and proposed grades, retaining wall and proposed site improvements.	A2.3
	Floor Plans	Scale 1/8" = 1'	
		Indicate the general layout of all rooms, approximate size, and total square footage of enclosed space for each floor level.	A2.1-A2.2
	Exterior Elevations	Scale same as floor plans	
		Detail to indicate the architectural character of the residence, fenestration and existing and proposed grades. Elevations must include a description of exterior materials and colors.	Info and Info 2
	Roof Plan	Scale same as floor plans	
		Indicate the proposed roof pitch, overhang lengths, flue locations, roofing materials and elevations of major ridge lines and all eave lines.	A3.1-A3.2
	Materials Sheet	Display materials to be used. Color renderings are suggested as well. In cases of additions, if matching the existing structure, photos of current home.	Info and Info 2

After Approval and BEFORE Permit is Issued:

ELECTRONIC COPY Stamped set.

- **All of the above mentioned plus items below in one plan set.**

Completed √	Item	Page #
	Soils report if applicable	attachment
	Electrical, plumbing and mechanical plans.	
	Construction Management Plan. Please refer to the Town Code and Architectural Guidelines for all requirements.	CM
	Stamped structural plan	S 1 - S9
	Current Summit County Septic System Permit (including system plot plan), or evidence of full payment of tap fees to Upper Blue Sanitary District.	Attachment.
	Current Colorado Well Permit or evidence of full payment of tap fees to Timber Creek Water District	n/a
	Colorado Department of Transportation Hwy Access Permit	n/a
	Designation of General Contractor, except for bona fide homeowner contractor	n/a
	For Manufactured Homes the following additional information is required	n/a
	• **State of Colorado Division of Housing Approved Plans**	
	• **State of Colorado Division of Housing Registered Installer Certificate**	

Blue River Plan Submittal Requirements for Residential Plan Review

- When designing the structure, refer to the Blue River Municipal Town Code, Chapter 16 for zoning information and allowable uses/construction. The Building Code information is available under Chapter 18. https://townofblueriver.colorado.gov.

- Building Codes Adopted:
  - International Residential Code 2018
  - The Electrical Code is the current code adopted by the State of Colorado: 2020

Note: Applicable codes are required to be notated on plans.

- Snow loads:
  - Roofs shall be designed in accordance with accepted engineering practice based upon a ground snow load of 100 psf.
  - Balconies/decks-125 psf.
  - No reductions for duration.
- Frost line depth:
  - Foundation footing minimum depth below grade-40 inches.
  - Uncovered deck piers may be set at 24 inches.
- Roof underlayment 100% Ice & Water shield.
- Roof may be metal; 30-year minimum architectural grade, composition fiberglass (dark brown, dark gray, dark green, weathered wood or black only); or class-A #1 cedar shakes.
- Wind speed: 90 mph, exposure "B". Seismic design category: "B".
- Propane gas alarm/shutoff system required.
- Wood burning stoves: Required to meet Colorado Dept. of Health, Regulation No. 4.
- The building height limit in the Town is 35 feet. Refer to the Architectural Guidelines for additional information.
- Locally re-settable GFCI breakers are required in bathrooms.
- Compliance with the International Energy Conservation Code is required.
- Any application that would create an accessory apartment must meet zoning regulations and will not be processed without prior approval of the Town Board of Trustees.
- Note that Hwy 9 access permits may require 3-4 months and well permits 5-6 weeks.
- Planning & Zoning Commission approvals become void if the building permit is not issued within eighteen (18) months.
- Building permits become void if construction is discontinued for more than 180 days.

In order for your permit application to be reviewed and processed properly, the following construction information must be provided. **Note:** "Preliminary" and/or plans shown as "Not for Construction" or similar are unacceptable. ***Hardcopy submittals will not be accepted.***

Note: Items below are not all inclusive of the requirements. Please review the Building Application Packet, design guidelines, building and land use codes for complete information.

Soils Report

Must be sealed and signed by a licensed Colorado Engineer.

- Provide an engineer's soil investigation report indicating type of soil and recommended foundation design. include any required shoring.

Improvement Survey Plat

- Provide an Improvement Survey Plat (ISP) following Colorado Revised Statutes for new principal structures, substantial expansions (25% or more) to principal structures and new accessory dwelling units (ADU's).
- Provide a permanent reference to spot elevation (benchmark) that will not be disturbed during construction.
- Provide existing spot elevations at property corners and at midpoints of the side property lines.
- Must be stamped and signed by a Professional Land Surveyor (PLS) licensed by the state of Colorado.

Site Plan

- Provide site plan that shows dimensions reflecting the distances to property lines
- Indicate all public or private easements
- Show location of all proposed and existing structures with dimensions
- Prove type of construction for all structures on site
- Provide landscaping plan.
- Show permanent reference spot elevation (benchmark), existing spot elevations at property corners and at midpoints of the side property lines.
- Indicate roof drainage on site plan with arrows showing the direction of the gutter downspouts. Roof drainage shall flow towards the road and away from all structures.

Structural Plans

Plans must be sealed and signed by a Colorado Structural Engineer or Architect

- Indicate size, location and method of reinforcement for all proposed footings, column pads, piers, caissons, grad beams, foundation walls, decks, guardrails, guardrail posts. Specify location of reinforcing steel and anchor bolts.

- Provide complete and clearly dimensioned floor framing plan for each level and roof framing plan which indicates the materials, types, sizes and location of all structural elements.
- Provide complete structural design criteria including but not limited to required design loads, material specifications and structural construction requirements.
- Provide complete structural calculations for each structure.

Architectural Plans

- Provide complete and dimensioned floor layout at each level which identifies the use of each room.
- Provide Complete and dimensioned roof plan and indicate all roof slopes.
- Provide complete and dimensioned reflected ceiling plan.
- Provide exterior elevations for each side of the building which contains an overall building height and floor-to-floor heights and indicate location, size and types of all doors and glazed openings including hazardous glazing and fall protection locations.
- Provide a bulk plane diagram on front and rear exterior elevations relative to the base plane elevation. The base plan for the bulk plane is establishing by taking the average of the existing grades of the midpoints of the two side property lines.
- Provide building and wall sections which clearly identify the required type and location of all materials for construction of beams, columns, floors, walls, ceilings, roofs.
- Provide stair geometry. Include rise and run, handrail and guardrail heights.
- Provide one major section through the exterior wall from footings to the highest part of the roof (min. scale 1/4"=1')
- Provide square foot area breakdown per floor level.

Electrical Plans

Provide electrical plans showing the location and capacity of the service equipment and electrical panels, the location of all smoke detectors, carbons monoxide detectors, electrical receptacles, switches, and lighting fixtures.

Mechanical Plans

- Provide mechanical plans and indicate the location of all heating, ventilating and air conditioning equipment. Show the location of the condensing unit. Detail the equipment access and working clearances.
- Show dryer exhaust termination location and clearances, environmental exhaust termination locations and clearances.
- Provide Manual J and Manual D calculations. Must be legible. No exceptions.
- Provide all fireplace specifications, rated separation details, direct vent termination details when applicable, hearth extensions when required, chimney clearances, shutoff and control access.

Plumbing Plans

- Provide plumbing plans and indicate the location of all plumbing fixtures and appliances (Isometric may be required per the discretion of the plans examiner.)
- Provide the supply line size and main discharge size. Note the water supply inlet location.
- Indicate whether appliances are gas-operated, electric, or otherwise. List types of material to be used for all water supply, drainage and vent piping. Provide fixture max flow rates and insulation values.
- Gas load calculations and piping diagram is required.

Energy Conservation Plans

Provide verification that the project meets the requirements of the IECC, or provide a simulated energy performance analysis such as RES-check. Provide all required information per 2012 IECC R103.2.

Resubmittal Requirements

- Provide a written response addressing each correction.
- Provide revision clouds for each correction made.
- Provide updated information in the revision section of the title block.
- Provide complete plan packs per discipline requiring corrections. Example: If you are resubmitting for Civil corrections, provide a complete revised plan pack.

LASSA RESIDENCE

G2 Designs LLC
Silverthorne . Colorado
720-982-7425
g2designsllc@outlook.com

LASSA RESIDENCE
LOT 2, RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE:
COVER SHEET

ISSUE:	DATE:
PERMIT	07/11/2023

Project # 2309

C.S.

ARCHITECTURAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	EXT	EXTERIOR	N/A	NOT APPLICABLE	TEL	TELEPHONE
ACCOUS	ACOUSTICAL	EXP	EXPOSED	NTS	NOT TO SCALE	TV	TELEVISION
ADD	ADDENDA, ADDENDUM	FAB	FABRICATE	OC	ON CENTER	TEMP	TEMPERED
ADJ	ADJACENT	FO	FACE OF	OPG	OPENING	THK	THICK
AGGR	AGGREGATE	FIN	FINISH	OPP	OPPOSITE	TLT	TOILET
ALT	ALTERNATE	FP	FIREPROOF	ORN	ORNAMENTAL	T & G	TONGUE & GROOVE
ALUM	ALUMINUM	FPL	FIREPLACE	OPH	OPPOSITE HAND	T & B	TOP & BOTTOM
APPD	APPROVED	FIXT	FIXTURE	OD	OUTSIDE DIAMETER	TO, T/	TOP OF
APPROX	APPROXIMATE	FLR	FLOOR	PTN	PARTITION	TR	TREAD
ARCH	ARCHITECT(URAL)	FLG	FLOORING	d	PENNY (NAILS,ETC.)	TYP	TYPICAL
ASAP	AS SOON AS POSSIBLE	FD	FLOOR DRAIN	PERF	PERFORATE(D)	UG	UNDERGROUND
ASF	ABOVE SUB-FLOOR	FT	FOOT, FEET	PERP	PERPENDICULAR	UNGL	UNGLAZED
BM	BEAM	FTG	FOOTING	PLAST	PLASTER	UNFIN	UNFINISHED
BRG	BEARING	FDN	FOUNDATION	BLAS	PLASTIC	U.N.O.	UNLESS NOTED OTHERWISE
BFF	BELOW FINISHED FLOOR	FURN	FURNISH	PL	PLATE	UBC	UNIFORM BUILDING CODE
BET	BETWEEN	GAL	GALLON	PLEX	PLEXIGLASS	VIF	VERIFY IN FIELD
BLK	BLOCK	GA	GAUGE	PLMB	PLUMBING	VERT	VERTICAL
BSMT	BASEMENT	GALV	GALVANIZED	PLYWD	PLYWOOD	VCT	VINYL COMPOSITION TILE
BTU	BRITISH THERMAL UNIT(S)	GC	GENERAL CONTRACTOR	PROJ	PROJECT	V	VOLT
BD	BOARD	GL	GLASS, GLAZED	PROP	PROPERTY	WH	WATER HEATER
BS	BOTH SIDES	GLB	GLU-LAM BEAM	QT	QUARRY TILE	WC	WATER CLOSET
BO, B/	BOTTOM OF	GR	GRADE	QTY	QUANTITY	WP	WATERPROOF
BLDG	BUILDING	GYP	GYPSUM	R	RADIUS	WT	WEIGHT
CAB	CABINET	GWB	GYPSUM WALLBOARD	RD	ROOF DRAIN	WWF	WELDED WIRE FABRIC
CL, C L	CENTER LINE	HDW	HARDWARE	RM	ROOM	WF	WIDE FLANGE
CLG	CEILING	HD	HEAD	RS	ROUGH SAWN	WDW	WINDOW
CER	CERAMIC	HVAC	HEATING, VENTING, AND AIR CONDITIONING	REC	RECESSED	W/	WITH
CLR	CLEAR			RCB	RESILIENT COVE BASE	W/O	WITHOUT
CLO	CLOSET	HORIZ	HORIZONTAL	RW	RETAINING WALL	WD	WOOD
CLD	CLOTHES DRYER	HP	HORSEPOWER	REFR	REFER OR REFERENCE	WKG	WORKING
CLW	CLOTHES WASHER	HB	HOSE BIBB	REF	REFRIGERATOR		
COL	COLUMN	HW	HOT WATER HEATER	REINF	REINFORCE(D)		
CONC	CONCRETE	HT	HEIGHT	REBAR	REINFORCING BAR(S)		
CJ	CONSTRUCTION JOINT	INCL	INCLUDE(D) (ING)	RESIL	RESILIENT		
CONT	CONTINUOUS	INFO	INFORMATION	REQD	REQUIRED		
COORD	COORDINATE	INSP	INSPECTOR, INSPECTION	R	RISER		
CPT	CARPET	ID	INSIDE DIAMETER	RO	ROUGH OPENING		
CTR	COUNTER	INSUL	INSULATION	SAN	SANITARY		
C/S	COUNTER SINK	INT	INTERIOR	SECT	SECTION		
CF	CUBIC FEET	JT	JOINT	SEW	SEWER		
DP	DAMPPROOFING	JST	JOIST	SHT	SHEET		
DEPT	DEPARTMENT	JCT	JUNCTION	SVF	SHEET VINYL FLOORING		
DTL	DETAIL	KWH	KILOWATT HOUR	SHLV	SHELV(ES) (ING)		
DIA, Ø	DIAMETER	LAB	LABORATORY	SDG	SIDING		
DIM	DIMENSION	LAM	LAMINATE(D)	SIM	SIMILAR		
DW	DISHWASHER	LAV	LAVATORY	SL	SLIDING		
DN	DOWN	LT	LIGHT	STC	SOUND-TRANSMISSION CLASS		
DR	DRAIN	MFR	MANUFACTURER				
DWG	DRAWING	MATL	MATERIAL	SPEC	SPECIFICATION		
EA	EACH	MO	MASONRY OPENING	SQ	SQUARE		
EW	EACH WAY	MTL	METAL	SF	SQUARE FEET		
ELECT	ELECTRICAL	MAX	MAXIMUM	SS	STAINLESS STEEL		
EC	ELECTRICAL CONTRACTOR	MECH	MECHANICAL CONTRACTOR	STD	STANDARD		
EL OR ELEV	ELEVATION	MED	MEDIC(INE) (AL)	STL	STEEL		
ENGR	ENGINEER	MIN	MINIMUM	STRUCT	STRUCTURAL		
EQ	EQUAL	MISC	MISCELLANEOUS	SUB	SUBSTITUTE		
EST	ESTIMATE	NEC	NATIONAL ELECTRIC CODE	SUPPL	SUPPLEMENT		
EXC	EXCAVATE	NOM	NOMINAL	S4S	SURFACED FOUR SIDES		
EXIST	EXISTING	NIC	NOT IN CONTRACT	SUSP	SUSPEND(ED)		
EJ	EXPANSION JOINT						

ARCHITECTURAL SYMBOLS

SYMBOL LEGEND

- NEW: 87/5 (EX: 67.1) — SPOT ELEVATION
- TB3 — TEST BORING
- T/PLYWD EL: 120'-8" — TOP OF ELEVATION
- NEW CONTOUR
- EXISTING CONTOUR
- OLD CONTOUR
- CENTERLINE
- HIDDEN LINE (ABOVE) (8")
- HIDDEN LINE (BELOW) (4")
- SETBACK LINE
- PROPERTY LINE
- BREAK LINE
- 3 / A4 — DETAIL NUMBER / SHEET NUMBER
- 3 / A4 — BUILDING SECTION / SHEET NUMBER
- 3 / A4 — WALL SECTION OR / SHEET NUMBER
- KITCHEN 127 — ROOM NAME / ROOM NUMBER
- A — WINDOW TYPE
- 3 — DOOR TYPE
- INTERIOR ELEVATION(S)
- INT-46 — SHEET NUMBER
- REVISIONS

PLAN & SECTION MATERIAL SYMBOLS

EARTH
- COMPACTED FILL
- POROUS FILL
- UNDISTURBED FILL
- ROCK

CONCRETE
- CAST
- GROUT, LIGHTWEIGHT CONCRETE

METAL
- STEEL

MASONRY
- CONCRETE BLOCK
- BRICK
- STONE
- GLASS BLOCK

INSULATION
- BATT
- RIGID

WOOD
- FINISH
- ROUGH/ DIMENSION LUMBER
- BLOCKING
- OR GLU-LAM
- PLYWOOD

GENERAL NOTES

A. CONTRACTOR'S RESPONSIBILITIES

1. THE CONTRACTOR SHALL VERIFY THAT THE BUILDING CODE REQUIREMENTS, AS ADOPTED BY THE LOCAL MUNICIPALITY, HAVE BEEN MET. ALL WORK CONTAINED WITHIN THESE DOCUMENTS SHALL CONFORM TO ALL CODES ALL CODES, REGULATIONS, ORDINANCES, LAWS, PERMITS & CONTRACT DOCUMENTS WHICH APPLY.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, INSPECTIONS, LICENSES AND APPROVALS ASSOCIATED WITH THIS PROJECT.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EQUIPMENT SIZES AND LOCATIONS WITH MECHANICAL, PLUMBING ELECTRICAL, AND UTILITIES COMPANIES.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF FIRE MITIGATION REQUIREMENTS WITH THE COUNTY AND FOREST SERVICE.
5. THE CONTRACTOR MUST VERIFY THE BUILDING LAYOUT WITH THE OWNER OR DESIGNER PRIOR TO DIGGING THE FOOTINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL NEW CONSTRUCTION ON THE SITE.
6. THE CONTRACTOR MUST VERIFY THAT ALL DOORS, WALLS AND CEILINGS BETWEEN GARAGE AND LIVING SPACES MEETS ALL FIRE AND SAFETY CODES AND REGULATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING ALL FINISH GRADES ON SITE.
8. THE CONTRACTOR MUST VERIFY THAT FIREPLACE AND/OR WOODSTOVE INSTALLATION COMPLIES WITH ALL LOCAL, STATE, AND NATIONAL FIRE SAFETY CODES AND REGULATIONS.
9. CONTRACTOR SHALL SUBMIT A LIST OF SUBCONTRACTORS TO THE DESIGNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
10. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. THE CONTRACTOR AND HIS/HER SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLETING ALL THE WORK WITHIN THESE DOCUMENTS, UNLESS NOTED OTHERWISE.
12. CONTRACTOR TO PROVIDE SMOKE DETECTORS IN ACCORDANCE WITH LOCAL APPLICABLE CODES.
13. CONTRACTOR TO PROVIDE ALL NECESSARY BLOCKING, BACKING, AND FRAMING FOR LIGHT FIXTURES, ELECTRICAL UNITS, A.C. EQUIPMENT, RECESSED ITEMS, AND ALL OTHER ITEMS AS REQUIRED.
14. ALL MATERIALS STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE AND DETERIORATION. FAILURE TO PROTECT MATERIALS MAY BE CAUSE FOR REJECTION OF WORK.
15. PROVIDE ALL ACCESS PANELS AS REQUIRED BY GOVERNING CODES TO ALL CONCEALED SPACES, VOIDS, ATTICS, ETC. VERIFY TYPE REQUIRED WITH ARCHITECT PRIOR TO INSTALLATION IF NOT NOTED ON PLANS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING THE DRAWINGS AND OBTAINING THE PERMITS FOR THE FIRE SPRINKLER SYSTEMS SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES AND ORDINANCES IF FIRE PROTECTION IS REQUIRED. ALL SHOP DRAWINGS SHALL BE REVIEWED BY ARCHITECT.
17. NO PORTION OF THE WORK REQUIRING A SHOP DRAWING OR SAMPLE SUBMISSION SHALL BE COMMENCED UNTIL THE SUBMISSION HAS BEEN REVIEWED BY THE ARCHITECT. ALL SUCH PORTIONS OF THE WORK SHALL BE INSTALLED IN ACCORDANCE WITH REVIEWED SHOP DRAWINGS AND SAMPLES.
18. THE CONTRACTOR SHALL CONFINE HIS/HER OPERATIONS ON THE SITE TO AREAS PERMITTED BY THESE DOCUMENTS AND THE PROPERTY OWNERS ASSOCIATION.
19. THE JOB SITE SHALL BE MAINTAINED IN A CLEAN, ORDERLY CONDITION, FREE OF DEBRIS AND LITTER, AND SHALL NOT BE UNREASONABLY ENCUMBERED WITH ANY MATERIALS OR EQUIPMENT. EACH SUB-CONTRACTOR IMMEDIATELY UPON COMPLETION OF EACH PHASE OF HIS/HER WORK SHALL REMOVE ALL TRASH AND DEBRIS AS OF RESULT OF HIS/HER OPERATION.
20. THE GENERAL CONTRACTOR AND OWNER ARE RESPONSIBLE FOR RADON TESTING IN THE FIELD & MUST INSTALL ALL NECESSARY EQUIPMENT TO PREVENT RADON BUILD UP WITHIN THE STRUCTURE.
21. MOISTURE IS THE PREVALENT CAUSE OF MOLD GROWTH. GENERAL CONTRACTORS & SUBCONTRACTORS ARE TO BE PROACTIVE IN THE MITIGATION OF MOISTURE DURING CONSTRUCTION. 'TIGHT BUILDING' CONSTRUCTION IS ONE OF THE IMPLICATED CAUSES OF MOLD. ALL ROOFS & CRAWL SPACES & OTHER UNCONDITIONED SPACES ARE TO BE VENTILATED ADEQUATELY. IF EXCESSIVE MOISTURE IS NOTICED DURING CONSTRUCTION, THE ARCHITECT IS TO BE NOTIFIED IMMEDIATELY. ANY MODIFICATION TO THE PLANS REGARDING MOISTURE CONTROL DURING CONSTRUCTION SHALL BE REVIEWED BY ARCHITECT.

B. CHANGES TO THE DESIGN

1. CHANGES OR SUBSTITUTIONS TO THE DESIGN OR TO PRODUCTS WHICH WERE SPECIFIED IN THESE DOCUMENTS WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL FROM THE OWNER OR DESIGNER.

C. STRUCTURAL CHANGES

1. ANY CHANGES IN THE FIELD TO THE STRUCTURAL PLANS, SHALL RELIEVE THE DESIGNER AND THE STRUCTURAL ENGINEER OF ANY CONSEQUENCES WHICH MAY ARISE. ANY PROPOSED CHANGES TO THE STRUCTURAL DOCUMENTS MUST BE APPROVED BY THE DESIGNER AND STRUCTURAL ENGINEER IN WRITING.

D. DISCREPANCIES

1. ANY DISCREPANCIES FOUND WITHIN THESE DOCUMENTS SHALL BE REPORTED TO THE DESIGNER IMMEDIATELY. ANY FAILURE TO REPORT DISCREPANCIES SHALL RELIEVE THE DESIGNER OF ANY CONSEQUENCES WHICH MAY ARISE.
2. SHOULD A CONFLICT OCCUR IN OR BETWEEN DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL TAKE PRECEDENCE. UNLESS A WRITTEN DECISION FROM THE DESIGNER HAS BEEN OBTAINED WHICH DESCRIBES A CLARIFICATION OR ALTERNATE METHOD AND/OR MATERIALS.

E. DIMENSIONS

1. DIMENSIONS:
   A. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE OF DRAWINGS.
   B. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
   C. CEILING HEIGHT DIMENSIONS ARE FROM FINISH FLOOR TO FACE OF FINISH CEILING MATERIAL UNLESS NOTED OTHERWISE.
2. ALL EXTERIOR WALLS TO BE 2 x 6 STUD WALLS (5 1/2") UNLESS NOTED OTHERWISE.
3. ALL INTERIOR WALLS TO BE 2 x 4 STUD WALLS (3 1/2") UNLESS NOTED OTHERWISE.
4. WHERE LARGER STUDS OR FURRING ARE REQUIRED TO COVER PIPING AND CONDUITS, THE LARGER STUD SIZE OR FURRING SHALL EXTEND THE FULL SURFACE OF THE WALL WIDTH AND LENGTH WHERE THE FURRING OCCURS.

SITE NOTES

1. A TOPOGRAPHIC MAP OF THIS SITE WAS OBTAINED FROM RANGE WEST ENGINEERS & SURVEYORS INC. DATED: 16 JUNE 2006, PROJECT NUMBER: 19331.
2. THE CONTRACTOR IS TO VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO ANY EXCAVATION.
3. ANY EXISTING LANDSCAPING OUTSIDE OF THE LIMIT OF DISTURBANCE AND ANY TREES DESIGNATED TO REMAIN ARE TO BE FLAGGED AND PROTECTED DURING ALL CONSTRUCTION.
4. FINISH GRADE IS TO PROVIDE DRAINAGE AWAY FROM THE FOUNDATION VIA SWALES, DRAINS, ETC... AT ALL LOCATIONS.
5. PROTECT ALL TOPSOIL WHEN EXCAVATING AND REAPPLY TO ALL DISTURBED SOIL AREAS AFTER CONSTRUCTION IS COMPLETE.
6. ALL TREES TO REMAIN ARE SOLID. TREES WHICH MAY BE REMOVED ARE DASHED. SAVE ANY TREE OR LARGER NATURAL VEGETATION WHENEVER POSSIBLE.

PROJECT DIRECTORY

DESIGN G2 DESIGNS LLC 259 HAYMAKER STREET SILVERTHORNE . COLORADO. 80498 OFFICE: 720 . 982 . 7425	**STRUCTURAL ENGINEER** BACKCOUNTRY STRUCTURAL ENGINEERING PO BOX 23132 SILVERTHORNE, COLORADO 80498 OFFICE: 970 . 333 . 1511
GENERAL CONTRACTOR TBD	**OWNER** STEVE LASSA CELL: 970 . 389 . 7500
SURVEYOR RANGE WEST ENGINEERS & SURVEYORS . INC. PO BOX 589 SILVERTHORNE . CO 80498 OFFICE: 970 . 468 . 6281	**GEOTECHNICAL ENGINEER** WALTER O SHULTZ . P.E. PO BOX 1957 DILLON . CO 80435 OFFICE: 970 . 453 . 9215

SHEET INDEX

BUILDING AREA CALCULATIONS

	FINISHED	UNFINISHED	TOTAL
GARAGE	0	1,065	1,065
LOWER FLOOR	678	188	866
MAIN FLOOR	2,715	0	2,715
TOTAL:	3,393	1,253	4,646

SITE CALCULATIONS

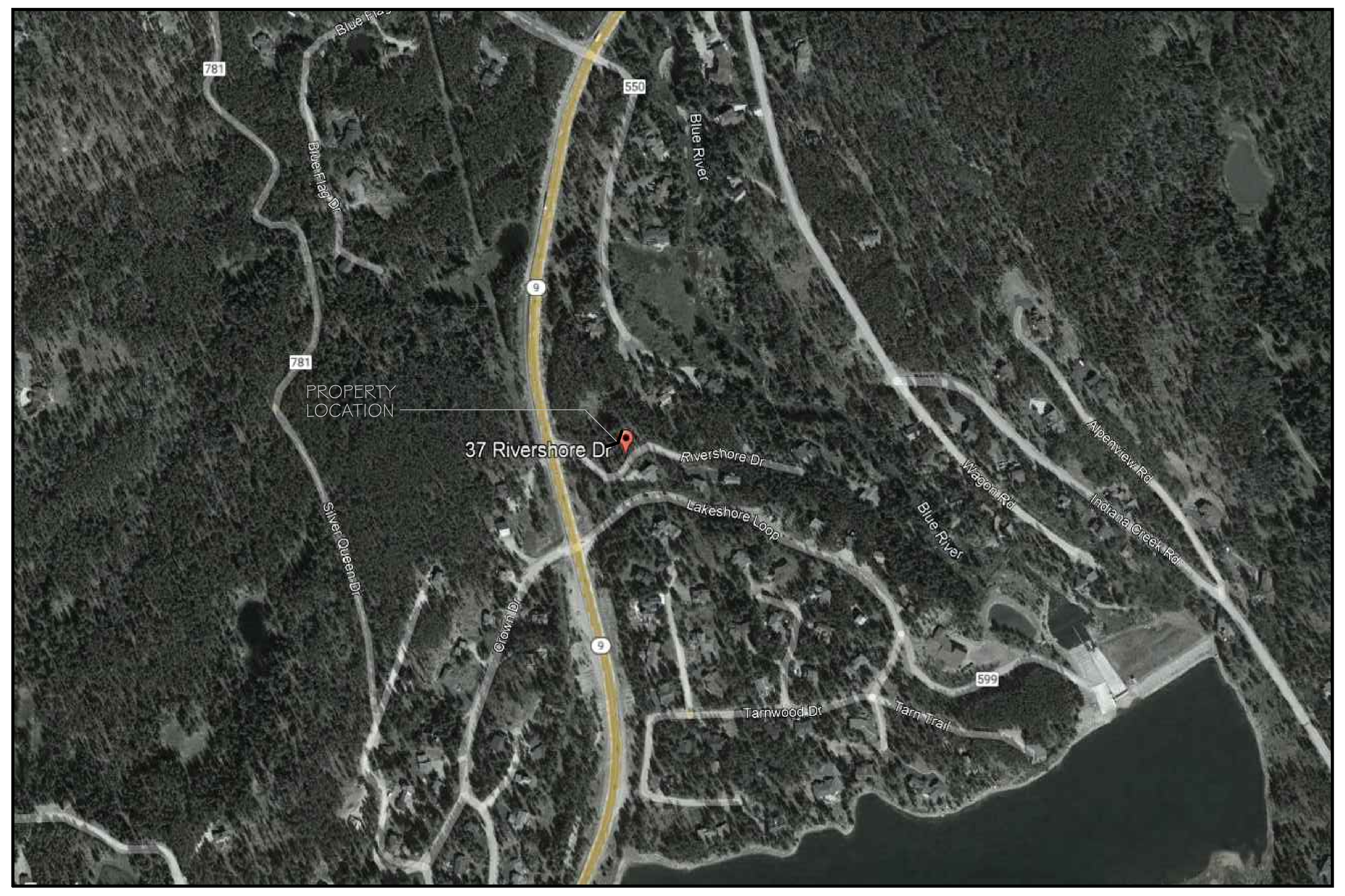
SITE AREA: .969 ACRES OR 42,207 SQUARE FEET

FOOTPRINT WITH DECKS, PATIOS & OVERHANGS: 4.456 SQUARE FEET

PAVED DRIVEWAY AREA: 2,928 SQUARE FEET

SNOWSTACK AREA: 732 SQUARE FEET (25%-MIN.)

VICINITY MAP



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LASSA RESIDENCE
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TOWN OF BLUE RIVER. SUMMIT COUNTY. COLORADO

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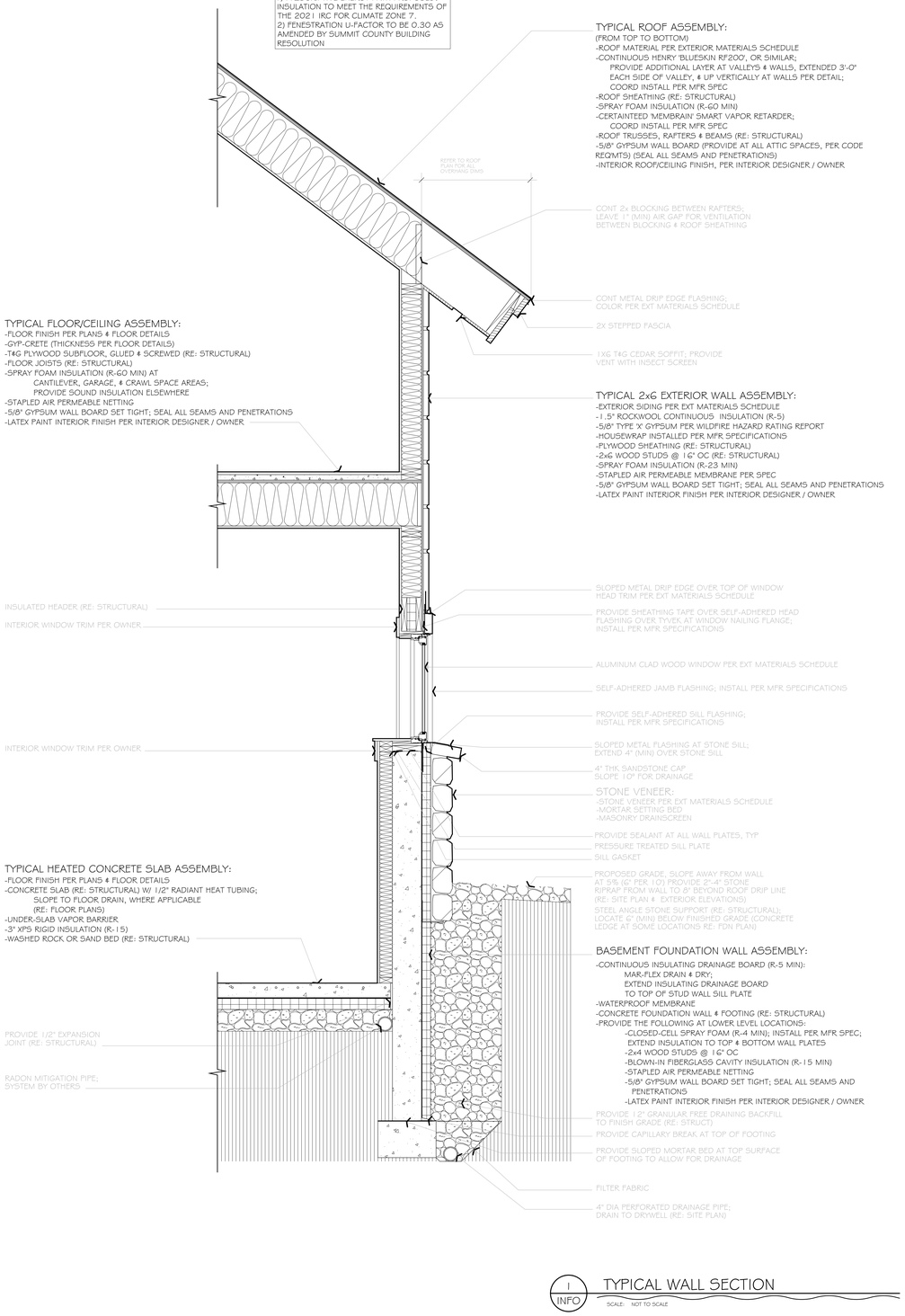
Project # 2309

INFO

NOTES: BUILDING ENERGY COMPLIANCE
1) PRESCRIPTIVE ENERGY PATH PROPOSED. INSULATION TO MEET THE REQUIREMENTS OF THE 2021 IRC FOR CLIMATE ZONE 7.
2) FENESTRATION U-FACTOR TO BE 0.30 AS AMENDED BY SUMMIT COUNTY BUILDING RESOLUTION



TYPICAL ROOF ASSEMBLY:
(FROM TOP TO BOTTOM)
-ROOF MATERIAL PER EXTERIOR MATERIALS SCHEDULE
-CONTINUOUS HENRY 'BLUESKIN RF200', OR SIMILAR;
PROVIDE ADDITIONAL LAYER AT VALLEYS & WALLS, EXTENDED 3'-0" EACH SIDE OF VALLEY, & UP VERTICALLY AT WALLS PER DETAIL; COORD INSTALL PER MFR SPEC
-ROOF SHEATHING (RE: STRUCTURAL)
-SPRAY FOAM INSULATION (R-60 MIN)
-CERTAINTEED 'MEMBRAIN' SMART VAPOR RETARDER; COORD INSTALL PER MFR SPEC
-ROOF TRUSSES, RAFTERS & BEAMS (RE: STRUCTURAL)
-5/8" GYPSUM WALL BOARD (PROVIDE AT ALL ATTIC SPACES, PER CODE REQMTS) (SEAL ALL SEAMS AND PENETRATIONS)
-INTERIOR ROOF/CEILING FINISH, PER INTERIOR DESIGNER / OWNER

CONT 2x BLOCKING BETWEEN RAFTERS; LEAVE 1" (MIN) AIR GAP FOR VENTILATION BETWEEN BLOCKING & ROOF SHEATHING

CONT METAL DRIP EDGE FLASHING; COLOR PER EXT MATERIALS SCHEDULE

2X STEPPED FASCIA

1XG T&G CEDAR SOFFIT; PROVIDE VENT WITH INSECT SCREEN

TYPICAL FLOOR/CEILING ASSEMBLY:
-FLOOR FINISH PER PLANS & FLOOR DETAILS
-GYP-CRETE (THICKNESS PER FLOOR DETAILS)
-T&G PLYWOOD SUBFLOOR, GLUED & SCREWED (RE: STRUCTURAL)
-FLOOR JOISTS (RE: STRUCTURAL)
-SPRAY FOAM INSULATION (R-60 MIN) AT CANTILEVER, GARAGE, & CRAWL SPACE AREAS; PROVIDE SOUND INSULATION ELSEWHERE
-STAPLED AIR PERMEABLE NETTING
-5/8" GYPSUM WALL BOARD SET TIGHT; SEAL ALL SEAMS AND PENETRATIONS
-LATEX PAINT INTERIOR FINISH PER INTERIOR DESIGNER / OWNER

TYPICAL 2x6 EXTERIOR WALL ASSEMBLY:
-EXTERIOR SIDING PER EXT MATERIALS SCHEDULE
-1.5" ROCKWOOL CONTINUOUS INSULATION (R-5)
-5/8" TYPE 'X' GYPSUM PER WILDFIRE HAZARD RATING REPORT
-HOUSEWRAP INSTALLED PER MFR SPECIFICATIONS
-PLYWOOD SHEATHING (RE: STRUCTURAL)
-2x6 WOOD STUDS @ 16" OC (RE: STRUCTURAL)
-SPRAY FOAM INSULATION (R-23 MIN)
-STAPLED AIR PERMEABLE MEMBRANE PER SPEC
-5/8" GYPSUM WALL BOARD SET TIGHT; SEAL ALL SEAMS AND PENETRATIONS
-LATEX PAINT INTERIOR FINISH PER INTERIOR DESIGNER / OWNER

SLOPED METAL DRIP EDGE OVER TOP OF WINDOW HEAD TRIM PER EXT MATERIALS SCHEDULE

PROVIDE SHEATHING TAPE OVER SELF-ADHERED HEAD FLASHING OVER TYVEK AT WINDOW NAILING FLANGE; INSTALL PER MFR SPECIFICATIONS

ALUMINUM CLAD WOOD WINDOW PER EXT MATERIALS SCHEDULE

SELF-ADHERED JAMB FLASHING; INSTALL PER MFR SPECIFICATIONS

PROVIDE SELF-ADHERED SILL FLASHING; INSTALL PER MFR SPECIFICATIONS

SLOPED METAL FLASHING AT STONE SILL; EXTEND 4" (MIN) OVER STONE SILL

4" THK SANDSTONE CAP SLOPE 1:0F FOR DRAINAGE

STONE VENEER:
-STONE VENEER PER EXT MATERIALS SCHEDULE
-MORTAR SETTING BED
-MASONRY DRAINSCREEN

PROVIDE SEALANT AT ALL WALL PLATES, TYP

PRESSURE TREATED SILL PLATE

SILL GASKET

PROPOSED GRADE, SLOPE AWAY FROM WALL AT 5% (6" PER 10) PROVIDE 2'-4" STONE RIPRAP FROM WALL TO 8' BEYOND ROOF DRIP LINE (RE: SITE PLAN & EXTERIOR ELEVATIONS)

STEEL ANGLE STONE SUPPORT (RE: STRUCTURAL); LOCATE 6" (MIN) BELOW FINISHED GRADE (CONCRETE LEDGE AT SOME LOCATIONS RE: FDN PLAN)

TYPICAL HEATED CONCRETE SLAB ASSEMBLY:
-FLOOR FINISH PER PLANS & FLOOR DETAILS
-CONCRETE SLAB (RE: STRUCTURAL) W/ 1/2" RADIANT HEAT TUBING; SLOPE TO FLOOR DRAIN, WHERE APPLICABLE (RE: FLOOR PLANS)
-UNDER-SLAB VAPOR BARRIER
-3" XPS RIGID INSULATION (R-15)
-WASHED ROCK OR SAND BED (RE: STRUCTURAL)

BASEMENT FOUNDATION WALL ASSEMBLY:
-CONTINUOUS INSULATING DRAINAGE BOARD (R-5 MIN): MAR-FLEX DRAIN & DRY; EXTEND INSULATING DRAINAGE BOARD TO TOP OF STUD WALL SILL PLATE
-WATERPROOF MEMBRANE
-CONCRETE FOUNDATION WALL & FOOTING (RE: STRUCTURAL)
-PROVIDE THE FOLLOWING AT LOWER LEVEL LOCATIONS:
-CLOSED-CELL SPRAY FOAM (R-4 MIN); INSTALL PER MFR SPEC; EXTEND INSULATION TO TOP & BOTTOM WALL PLATES
-2x4 WOOD STUDS @ 16" OC
-BLOWN-IN FIBERGLASS CAVITY INSULATION (R-15 MIN)
-STAPLED AIR PERMEABLE NETTING
-5/8" GYPSUM WALL BOARD SET TIGHT; SEAL ALL SEAMS AND PENETRATIONS
-LATEX PAINT INTERIOR FINISH PER INTERIOR DESIGNER / OWNER

PROVIDE 12" GRANULAR FREE DRAINING BACKFILL TO FINISH GRADE (RE: STRUCT)

PROVIDE CAPILLARY BREAK AT TOP OF FOOTING

PROVIDE SLOPED MORTAR BED AT TOP SURFACE OF FOOTING TO ALLOW FOR DRAINAGE

FILTER FABRIC

4" DIA PERFORATED DRAINAGE PIPE; DRAIN TO DRYWELL (RE: SITE PLAN)

1 INFO TYPICAL WALL SECTION
SCALE: NOT TO SCALE

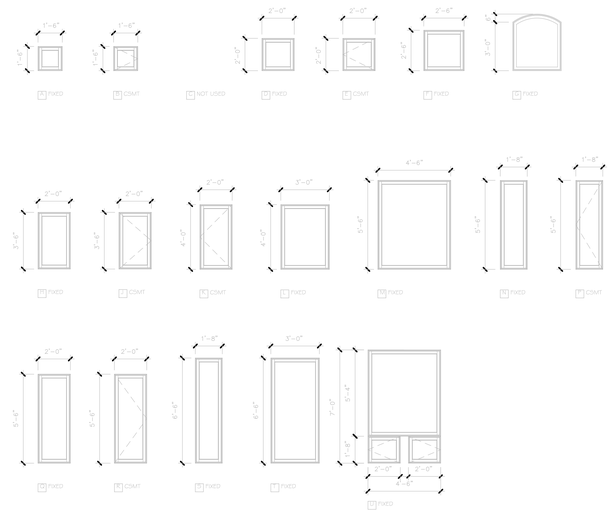
EXTERIOR MATERIALS SCHEDULE

LABEL	ITEM	COLOR	DESCRIPTION
M1	ROOF		EVA PRESTIGUE COOL COLOR 40 YEAR ASPHALT SHINGLE 'COOL BARKWOOD'
M2	FASCIA		2x RS CEDAR TO BE STAINED W/ SUPERDECK 'CAPE BLACKWOOD'
M3	SOFFIT		RS 1XG T&G CEDAR; STAIN W/ SUPERDECK MIXTURE 'COASTAL GRAY'
M4	VERTICAL SIDING		1.4G RP&D BEETLEKILL PINE BOARD & BOARD - STAIN W/ SUPERDECK 'COSTAL GRAY'
M5	HORIZONTAL SIDING EXT CORNER TRIM @ HORIZ SIDING		1x10 CEDAR LAP SIDING; STAIN W/ SUPERDECK 'NEW BARN RED'
M6	DOORS/WINDOWS		JELD-WEN PREMIUM ALUMINUM CLAD - 'DARK CHOCOLATE'
M7	DOOR/WINDOW TRIM		@ HORIZONTAL SIDING - USE SUPERDECK 'CAPE BLACKWOOD' ON 2x RS CEDAR PER DETAILS @ VERTICAL SIDING - USE 'COASTAL GRAY' @ RS CEDAR PER DETAILS; STAIN W/ SUPERDECK STAIN
M8	STONE VENEER		GALLEGOS CORPORATION 'TELLURIDE STANNED FACE'
M9	PATIOS		2"-3" FLAGSTONE & EXPOSED AGGREGATE CONCRETE PER PLANS
M10	CHIMNEY CAP		FLAT STEEL - NATURAL FINISH
M11	EXPOSED POSTS/BEAMS		DF TIMBERS PER PLANS; STAIN W/ SUPERDECK 'ENGLISH WALNUT'
M12	GARAGE DOORS		SIDING PER DETAILS/ELEVATIONS STAINED W/ SUPERDECK STAIN COMBINATION OF 'CAPE BLACKWOOD' & 'COASTAL GRAY'
M13	FLASHING, GUTTERS & DOWNSPOUTS		ALL EXPOSED METAL FLASHING, GUTTERS & DOWNSPOUTS TO BE DARK BROWN

NOTE: ALL EXPOSED METAL INCLUDING, BUT NOT LIMITED TO: FLASHING, DRIP EDGE, VENT STACKS, FLUE PIPES, ETC... SHALL BE DARK BROWN

WINDOW SCHEDULE

NOTES:
1. REFER TO FLOOR PLANS FOR WINDOW LOCATIONS.
2. REFER TO ELEVATIONS FOR WINDOW OPERATIONS.



WINDOW NOTES

1. ALL WINDOWS TO BE ALUMINUM CLAD - PER EXTERIOR MATERIALS SCHEDULE.
2. ALL INTERIOR WOOD AT THE WINDOWS TO BE PINE OR OTHER PER OWNER.
3. ALL GLAZING TO BE 2 PANES, LOW E2 AT SOUTH & WEST FACING WINDOWS, DUAL SEALED AND RATED FOR HIGH ALTITUDES.
4. ALL HARDWARE TO BE CHOSEN BY OWNER.
5. VERIFY ALL WINDOW AND ROUGH OPENINGS W/ MANUFACTURER.
6. WINDOW OPERATION IS SHOWN ON THE ELEVATIONS.
7. ALL CUSTOM WINDOWS MUST BE FIELD VERIFIED W/ FRAMED ROUGH OPENINGS PRIOR TO ORDERING.
8. ALL WINDOW OPENINGS TO BE WRAPPED WITH TYVEK PER MFR'S SPECIFICATIONS PRIOR TO SETTING WINDOWS.
9. ALL GLAZING AT HAZARDOUS LOCATIONS TO BE GLAZED WITH SAFETY MATERIAL PER LOCAL CODE.

DOOR NOTES

1. ALL DOOR HARDWARE TO BE CHOSEN BY OWNER.
2. INSULATE ALL EXTERIOR DOOR SHIM SPACES.
3. PROVIDE WEATHERSTRIPPING AND THRESHOLDS AT ALL EXTERIOR DOORS.
4. ALL DOOR OPENINGS TO BE WRAPPED WITH TYVEK PRIOR TO SETTING DOOR JAMBS.
5. ALL EXTERIOR DOORS (EXCEPT FRONT DOOR) TO BE ALUMINUM CLAD PER EXTERIOR MATERIALS SCHED.

INTERIOR FINISH NOTES

1. ALL MANUFACTURERS' INSTALLATION SPECIFICATIONS AND INSTRUCTIONS ARE TO BE FOLLOWED.
2. TYPICAL WALL BASE TRIM: PER OWNER.
3. TYPICAL INTERIOR DOOR CASING: PER OWNER.
4. TYPICAL INTERIOR WINDOW CASING/TRIM: PER OWNER.
5. TYPICAL WALLS AND CEILINGS TO RECEIVE 1/2" GYP BOARD, UNLESS NOTED OTHERWISE. ALL GYP BOARD TO RECEIVE TAPE, THREE COATS OF MUD LIGHT HAND TROWELED TEXTURE, PRIMER, AND TWO COATS OF PAINT UNLESS NOTED OTHERWISE. SAMPLES OF TEXTURE TO BE SUPPLIED ON SITE & SELECTED BY OWNER AND DESIGNER AT THAT TIME. ROUND CORNER BEAD TO BE USED THROUGHOUT.
6. KITCHEN CABINETS AND LAUNDRY CABINETS PER OWNER.
7. PROVIDE 1/2" CEMENTITIOUS 'TILE BACKER' UNDERLAYMENT AT ALL CERAMIC TILE AND WITHIN 2'-0" OF ANY WATER SOURCE.
8. ALL PLUMBING FIXTURES PER INTERIOR SPECIFICATIONS.
9. ALL VANITY CABINETS TO BE PER OWNER, 36" HIGH, WIDTH PER FLOOR PLANS.
10. ALL FLOORING PER OWNER.
11. ALL INTERIOR WALLS TO HAVE R-11 BATT INSULATION FOR SOUNDPROOFING.

MECHANICAL/PLUMBING NOTES

1. HEATING SYSTEM: IN-FLOOR RADIANT HEAT.
2. HEATING SYSTEM AT GARAGE: IN-SLAB RADIANT HEAT.
3. IN-FLOOR RADIANT HEAT PIPING TO COME WITH A 20 YEAR WARRANTY, MINIMUM - TO BE APPROVED BY G.C.
4. BOILER TO BE SIZED BY MECHANICAL COMPANY IN BID AND APPROVED BY GC.
5. MECHANICAL CONTRACTOR TO PROVIDE VENT PIPES PER TOWN STANDARDS FOR ALL VENTS INCLUDING, BUT NOT LIMITED TO: KITCHEN HOODS, DRYER VENTS, BATH VENTS, UTILITY VENTS, ECT... THE VENTS ARE TO BE SIZED PER THE MANUFACTURER'S SPECIFICATIONS.
6. ALL PLUMBING TO BE INSTALLED PER THE APPLICABLE CODE.
7. WET PLUMBING DROPS FROM SECOND TO FIRST FLOOR TO BE ABS. ALL OTHER DRAIN VENT PIPES TO BE ABS.
8. MECHANICAL CONTRACTOR TO PROVIDE GAS CHIMNEY FOR BOILER.
9. ALL WATER PIPE TO BE COPPER AND SIZED TO ALLOW AN ADEQUATE SUPPLY TO EACH FIXTURE.
10. HOT WATER RECIRCULATING SYSTEM AND PUMP TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
11. WATER HEATER TO BE SIZED TO ALLOW TWO TUBS TO BE USED SIMULTANEOUSLY.
12. EXTERIOR FROST-FREE HOSE BIBBS TO BE PLACED PER FLOOR PLANS.
13. INSTALL BALL VALVE SHUT-OFF AT MECHANICAL ROOM.
14. INSTALL BALL VALVE AT HOT AND COLD WATER AT WATER HEATER.
15. PLUMBER TO SUPPLY ROOF JACKS AND GAS CHIMNEY FOR HOT WATER HEATER AS REQUIRED.
16. 3/4" COPPER PIPE TO EACH SHOWER FIXTURE, TYPICAL (PER CONTRACTOR).

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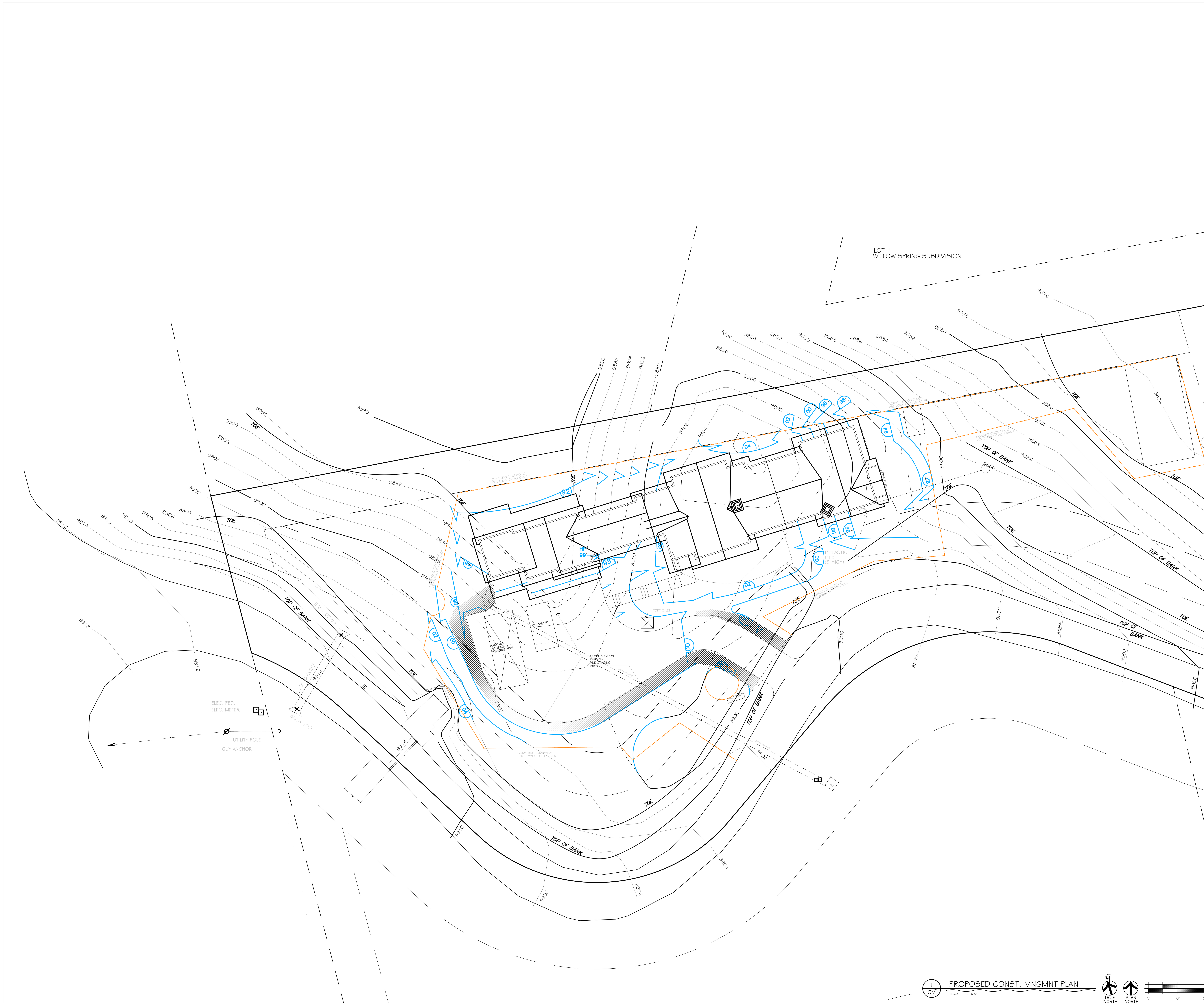
LASSA RESIDENCE
LOT 2, RIVERSIDE SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE: INFORMATION SHEET #2

ISSUE:	DATE:
PERMIT	07/11/2023

Project # 2309

INFO #2



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LASSA RESIDENCE

LOT 2, RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE: PROPOSED LANDSCAPE PLAN

ISSUE:	DATE:
PERMIT	07/11/2023

Project # 2309

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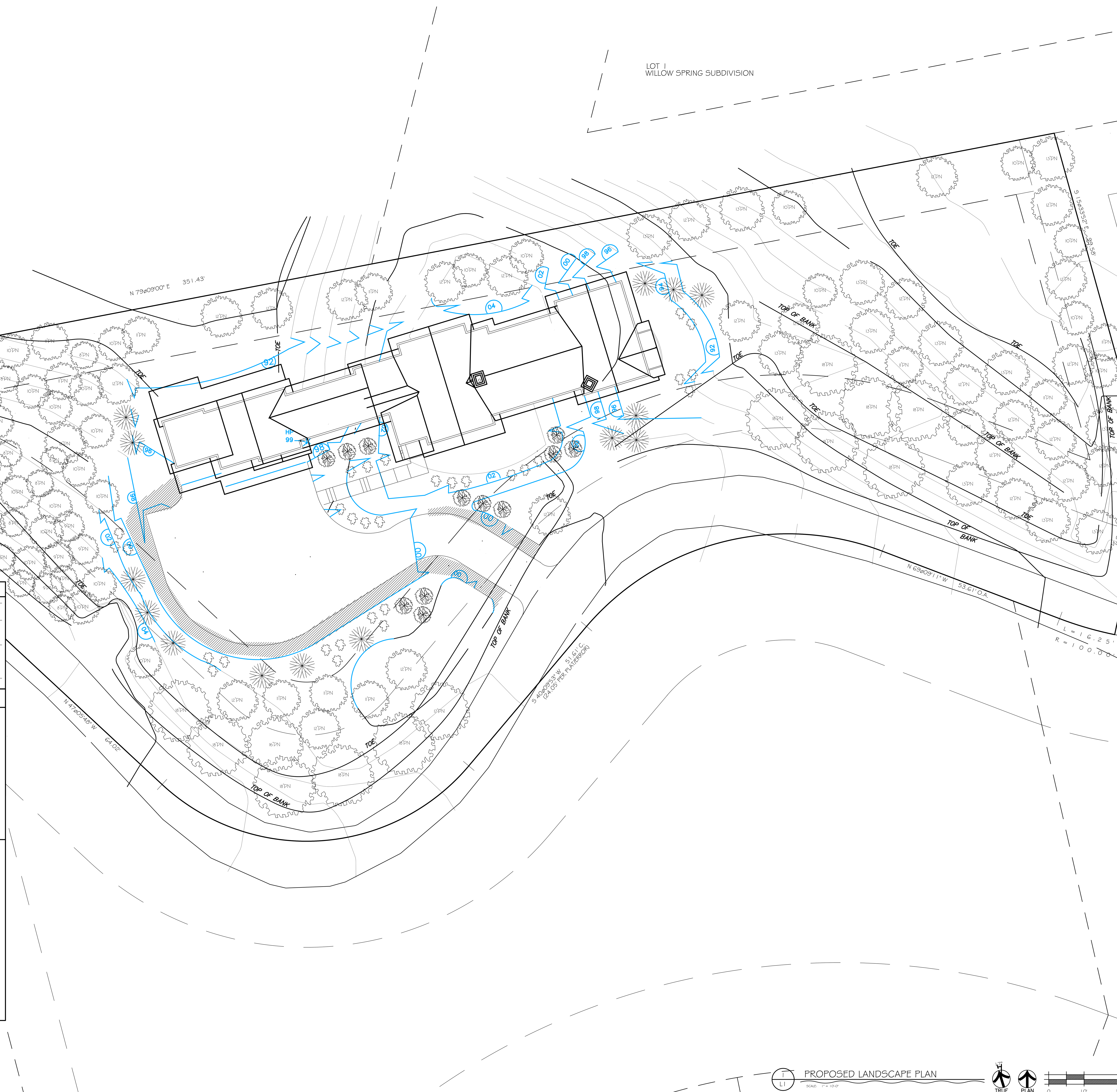
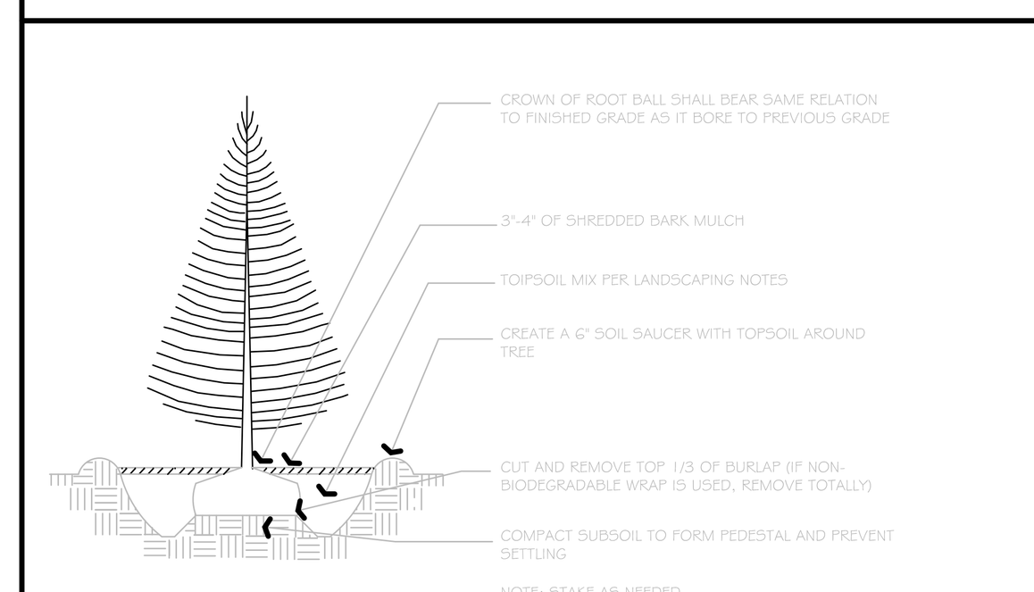


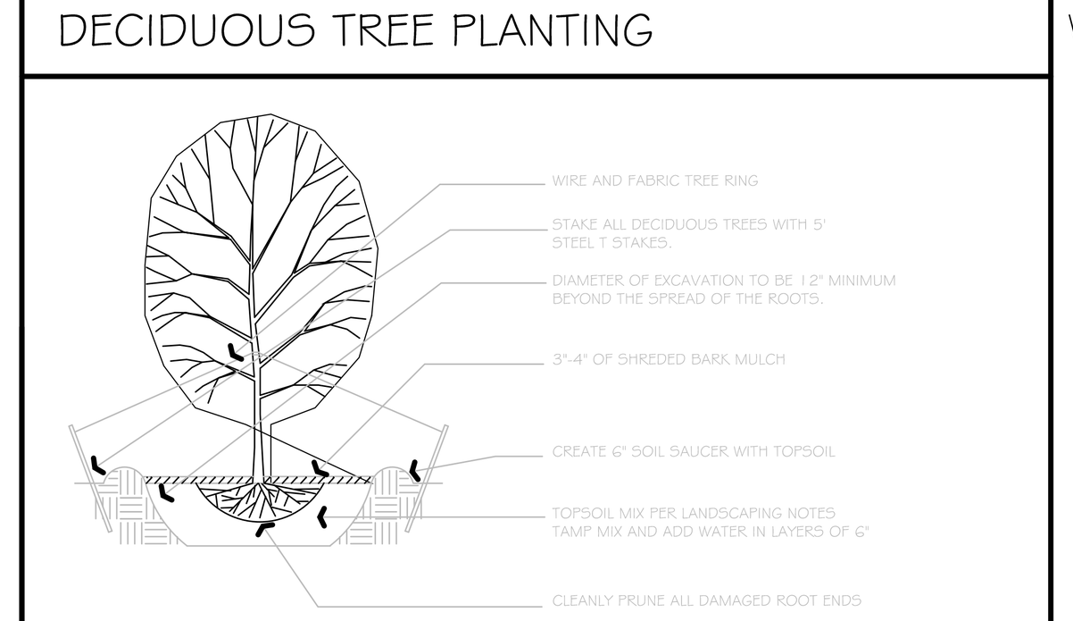
PLANT LEGEND

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE
	30	5 GAL NATIVE SHRUBS		5 GAL
	12	POPULUS TREMULOIDES (50% MULTI-STEM)	ASPEN	2" CAL
	14	PICEA PUNGENS	COLORADO SPRUCE	6'-8' HT

CONIFEROUS TREE PLANTING



DECIDUOUS TREE PLANTING



EROSION CONTROL METHODS: CONTROL ALL RUN-OFF WITHIN SITE PER SUBDIVISION STANDARDS AND TOWN REQUIREMENTS BY UTILIZING SINGLY OR IN COMBINATION, NONEROSIVE DRAINAGE MATS, SILT FENCING, DIVERSION SWALES, AND DIKES AS NECESSARY TO TRAP, INTERCEPT, AND DIVERT RUNOFF.

NATIVE LANDSCAPING AREA IN CONTACT WITH BUILDING ENVELOPE WILL BE PROTECTED FROM ROOF RUNOFF AS SHOWN IN WALL SECTION. RIVER ROCK RIPRAP IS TO EXTEND 8" BEYOND DRIP LINE.

DRIP IRRIGATION SYSTEM TO ALL TREES PER TOWN STANDARDS.

ALL DISTURBED AREAS OF SITE MUST RECEIVE TOP SOIL, NATIVE SEEDING, AND LANDSCAPE PLANTINGS PER THE SUBDIVISION REQUIREMENTS.

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L1

LOT 1
WILLOW SPRING SUBDIVISION

TRACT 'B'
PRIVATE OPEN SPACE

LOT 4

LOT 2
RIVERSHORE SUB
0.969 ACRES
42,207 SQ FT
ADDRESS: 0037
RIVERSHORE DR

LOT 1

LOT 3

TRACT A

SITE CALCULATIONS

SITE AREA: .969 ACRES OR 42,207 SQUARE FEET FOOTPRINT

WITH DECKS, PATIOS & OVERHANGS: 4,456 SQUARE FEET PAVED

DRIVEWAY AREA: 2,928 SQUARE FEET

SNOWSTACK AREA: 732 SQUARE FEET (25%-MIN.)

1 PROPOSED SITE PLAN
A1.1 SCALE: 1" = 10'-0"

TRUE NORTH
PLAN NORTH
0 10 20

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LASSA RESIDENCE
LOT 2 RIVERSHORE SUBDIVISION
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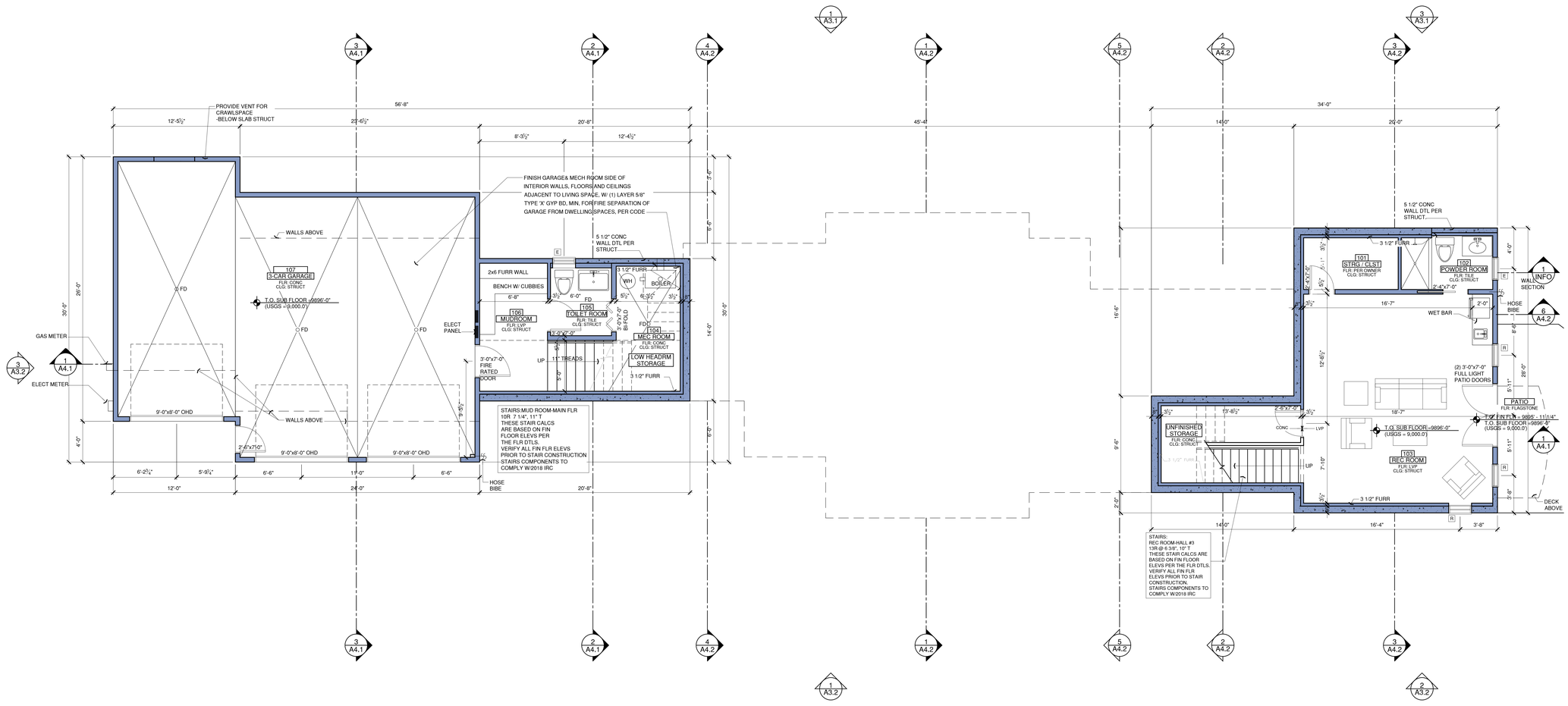
A1.1

FLOOR PLAN NOTES:

- CHASES TO BE 1-HOUR RATED PER CODE WHERE NECESSARY
- VIF UTILITY METER LOCATION WITH SERVICE PROVIDER
- LOCATE INTERIOR DOORS 6" (MIN) FROM NEAREST PERPENDICULAR WALL, OR CENTERED IN WALL UNLESS NOTED OTHERWISE
- REFER TO TYP EXTERIOR WALL SECTION (1/INFO) FOR EXTERIOR WALLS SPECIFICATIONS
- G.C. & ELECTRICIAN TO INSTALL ALL THE NECESSARY PRE-WIRE FOR FUTURE SOLAR PANELS PER OWNER AND CODE
- ALL CEILINGS TO BE FINISH PER OWNER AT STRUCTURE UNLESS NOTED OTHERWISE
- REFER TO EXTERIOR ELEVATIONS AND EXTERIOR MATERIAL SCHEDULE FOR ALL EXT. MATERIALS & FINISHES
- PROVIDE SMOKE & CARBON MONOXIDE DETECTORS PER CODE
- ALL INTERIOR FINISHES TO BE COORDINATED WITH OWNER
- SPRINKLER SYSTEM TO BE INSTALLED PER LOCAL CODE.
- G.C. & ELECTRICIAN TO INSTALL ALL THE NECESSARY PRE-WIRE FOR FUTURE SOLAR PANELS PER OWNER AND CODE



1 A2.1 LOWER FLOOR PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH 0 1' 2' 4' 6'

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LASSA RESIDENCE

LOT 2 RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE: LOWER FLOOR PLAN

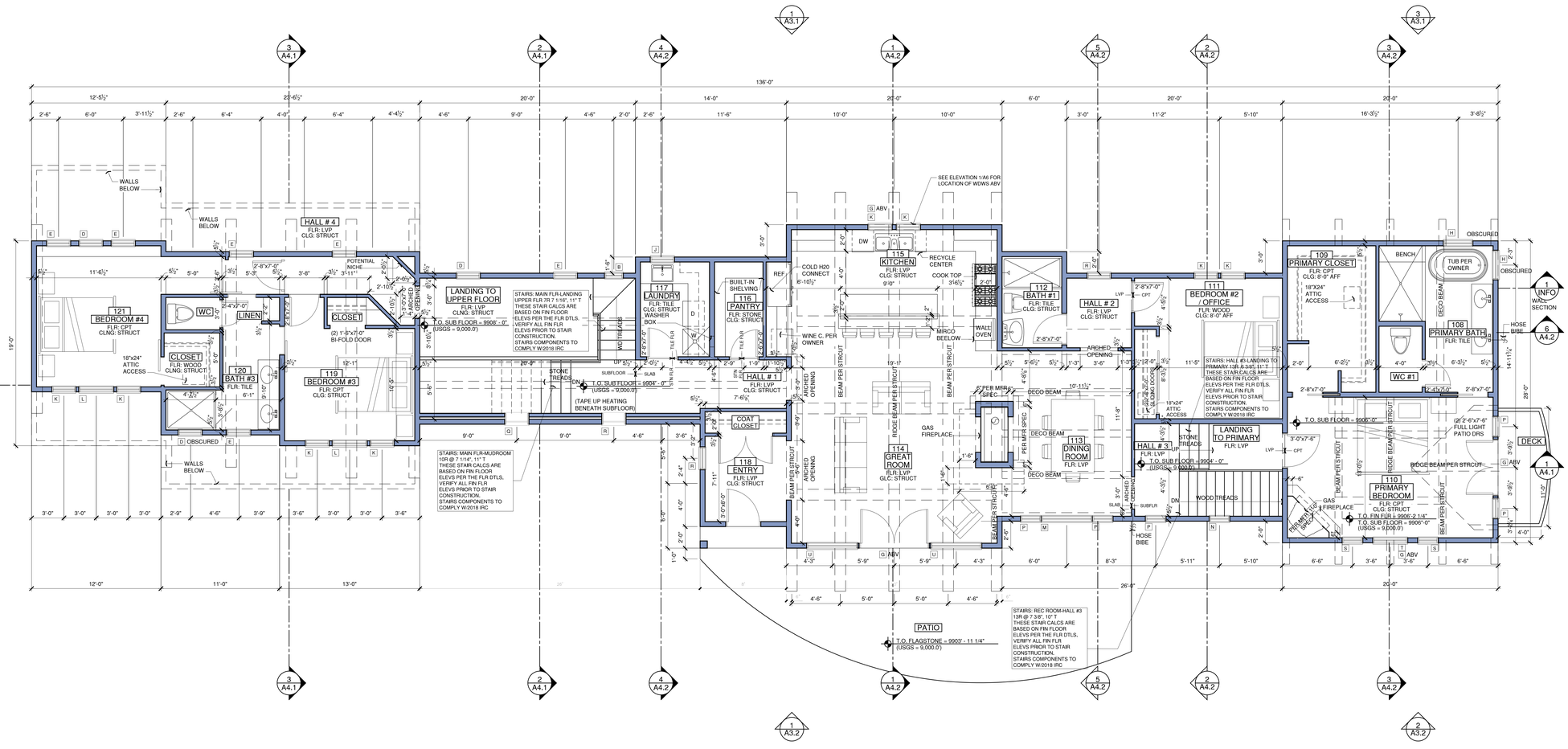
ISSUE:	DATE:
PERMIT	07/11/2023

Project # 2309

A2.1

FLOOR PLAN NOTES:

- CHASES TO BE 1-HOUR RATED PER CODE WHERE NECESSARY
- VIF UTILITY METER LOCATION WITH SERVICE PROVIDER
- LOCATE INTERIOR DOORS 6" (MIN) FROM NEAREST PERPENDICULAR WALL, OR CENTERED IN WALL UNLESS NOTED OTHERWISE
- REFER TO TYP EXTERIOR WALL SECTION (1/INFO) FOR EXTERIOR WALLS SPECIFICATIONS
- G.C. & ELECTRICIAN TO INSTALL ALL THE NECESSARY PRE-WIRE FOR FUTURE SOLAR PANELS PER OWNER AND CODE
- ALL CEILINGS TO BE FINISH PER OWNER AT STRUCTURE UNLESS NOTED OTHERWISE
- REFER TO EXTERIOR ELEVATIONS AND EXTERIOR MATERIAL SCHEDULE FOR ALL EXT. MATERIALS & FINISHES
- PROVIDE SMOKE & CARBON MONOXIDE DETECTORS PER CODE
- ALL INTERIOR FINISHES TO BE COORDINATED WITH OWNER
- SPRINKLER SYSTEM TO BE INSTALLED PER LOCAL CODE.
- G.C. & ELECTRICIAN TO INSTALL ALL THE NECESSARY PRE-WIRE FOR FUTURE SOLAR PANELS PER OWNER AND CODE



1 A2.2 MAIN FLOOR PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

0 1' 2' 4' 8'

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LOT 2, HUEBSCHER SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE: MAIN FLOOR PLAN

ISSUE:	DATE:
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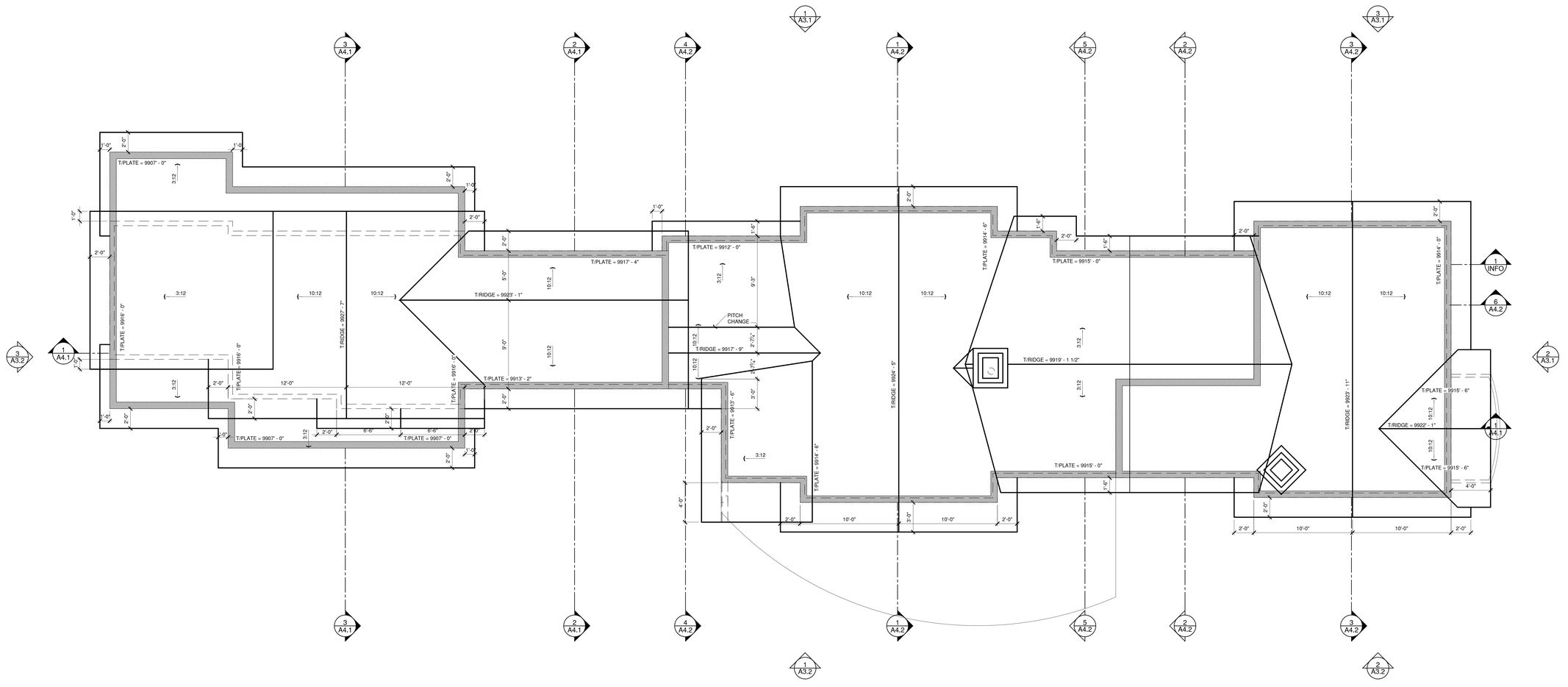
Project # 2309

A2.2

ROOF PLAN NOTES:

- G.C. TO INSTALL SNOW GUARDS, GUTTERS, DOWNSPOUTS AND HEAT TAPE ABOVE ALL DECKS, PATIO, WALKWAYS, AND DRIVE WAYS. SNOW GUARD DESIGN AND LAYOUT FOR ROOF TO BE ENGINEERED BY TRA SNOW & SUN INC. OR SIMILAR (SNOW GUARDS SHOWN ON ROOF PLAN ONLY FOR PRELIMINARY BIDDING PURPOSE)
- INSTALL SOFFIT MOUNTED RECEPTACLES PER OWNER AND LOCAL CODE
- REFER TO EXTERIOR ELEVATIONS AND EXTERIOR MATERIAL SCHEDULE FOR ALL EXT. MATERIALS & FINISHES
- EXTEND DOWNSPOUTS ENDS 4' MIN FROM FOUNDATION WALLS OR AS REQUIRED FOR DRAINAGE
- G.C. & ELECTRICIAN TO INSTALL ALL THE NECESSARY PRE-WIRE FOR FUTURE SOLAR PANELS PER OWNER AND CODE



1 A2.3 ROOF PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

0 1' 2' 4' 8'

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LOT 2, RIVERSHORE SUBDIVISION
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TITLE: ROOF PLAN

ISSUE:	DATE:
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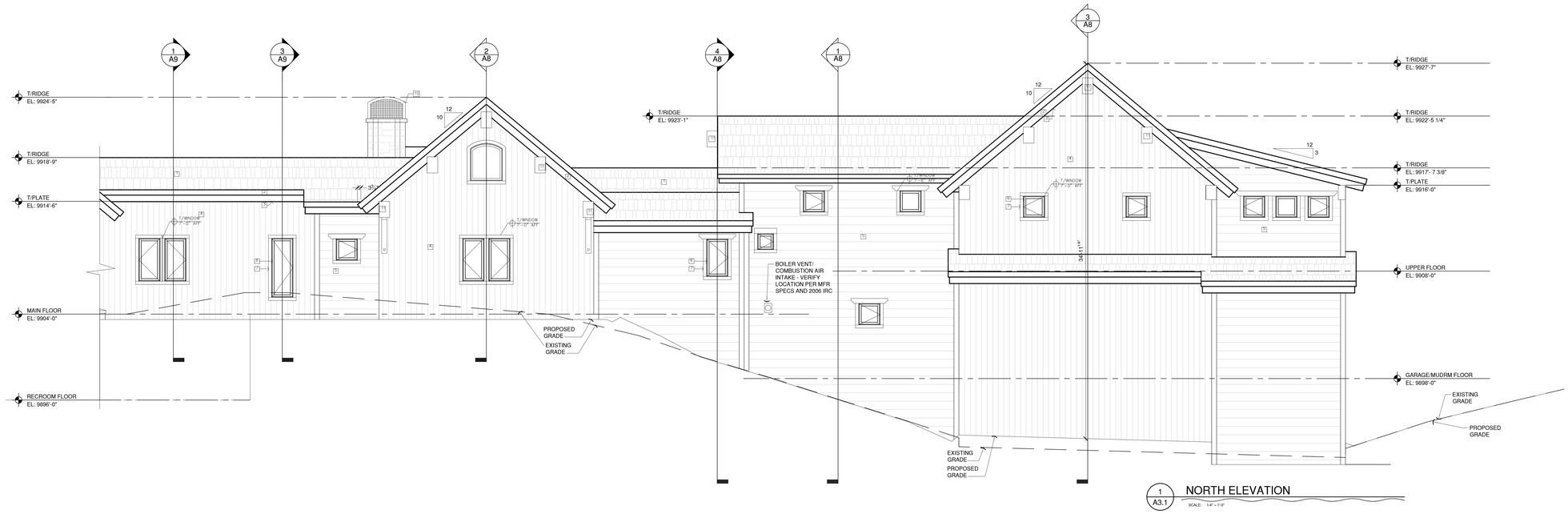
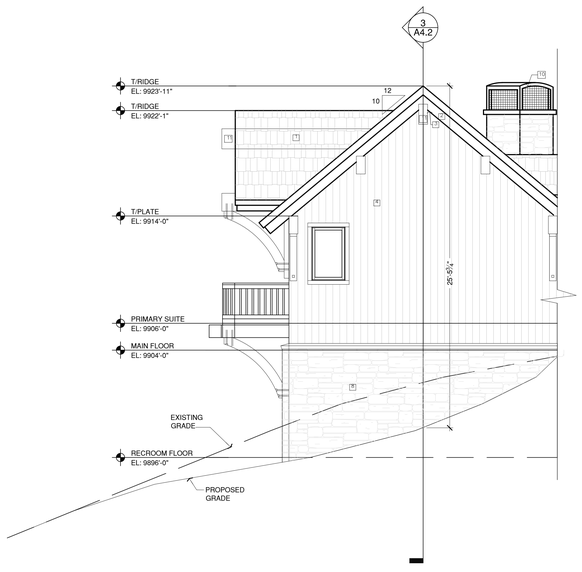
Project # 2309

A2.3



1 A3.1 NORTH ELEVATION

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



3 A3.1 NORTH ELEVATION

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

2 A3.1 EAST ELEVATION

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

0 1' 2' 4' 8'

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TITLE: EXTERIOR ELEVATIONS

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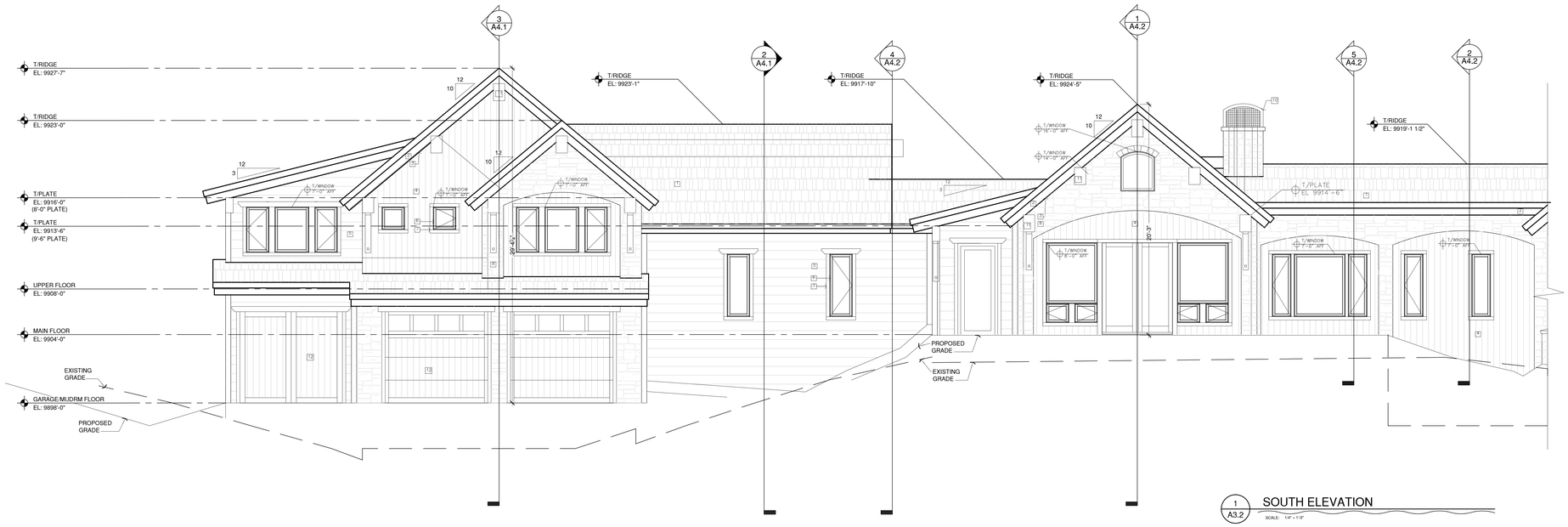
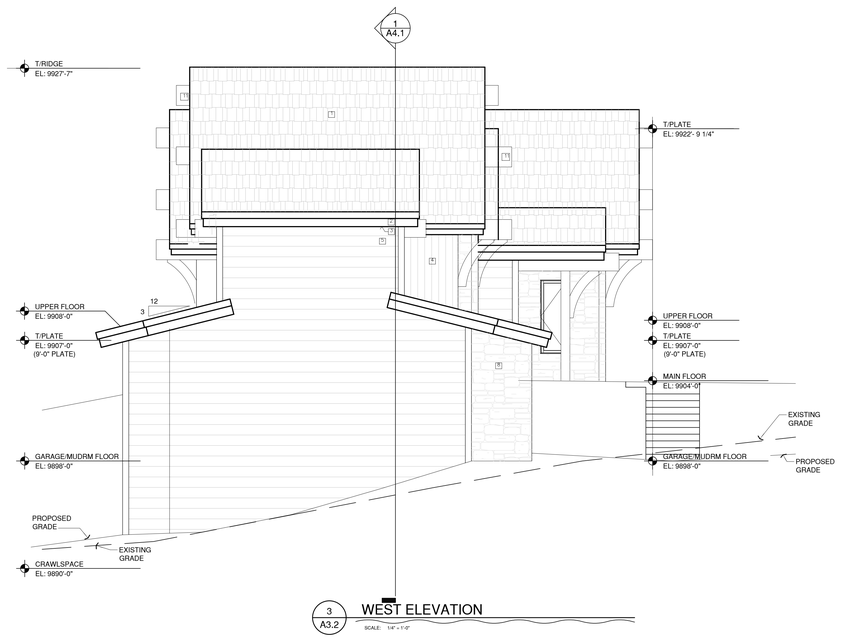
Project # 2309

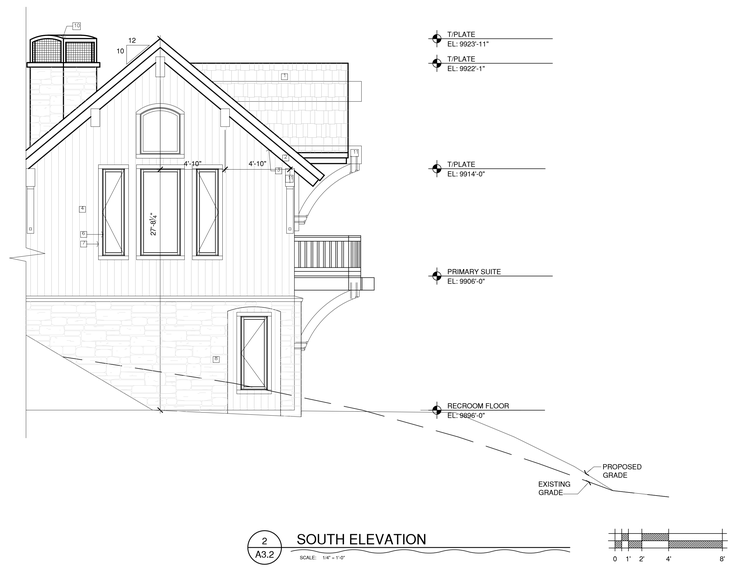
A3.1



1 A3.2 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



3 A3.2 WEST ELEVATION
SCALE: 1/4" = 1'-0"



2 A3.2 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

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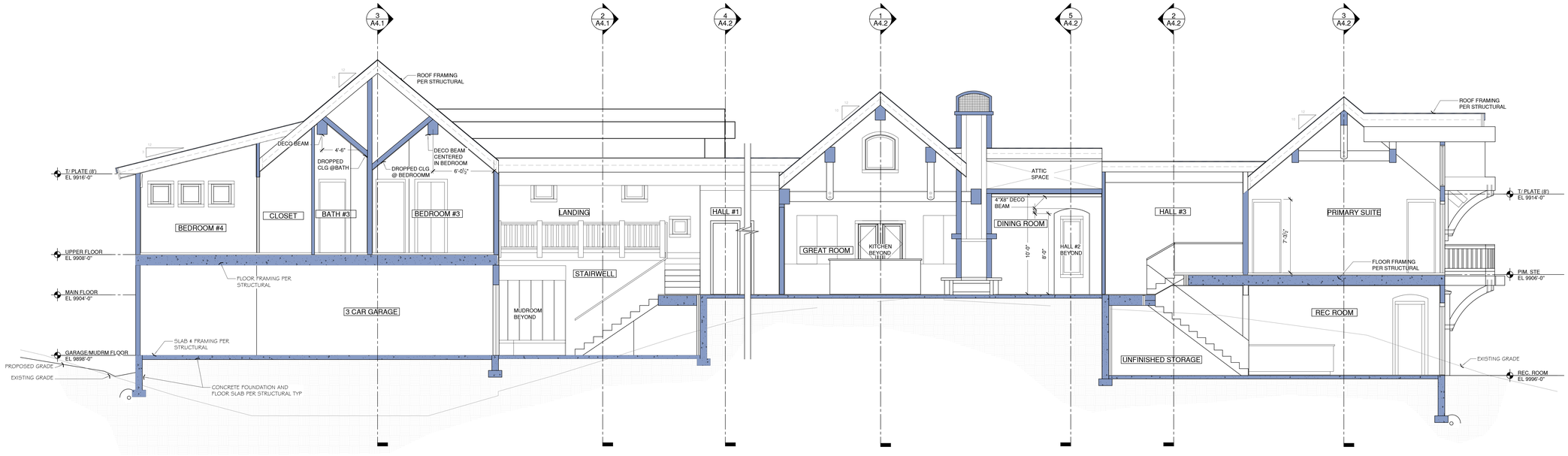
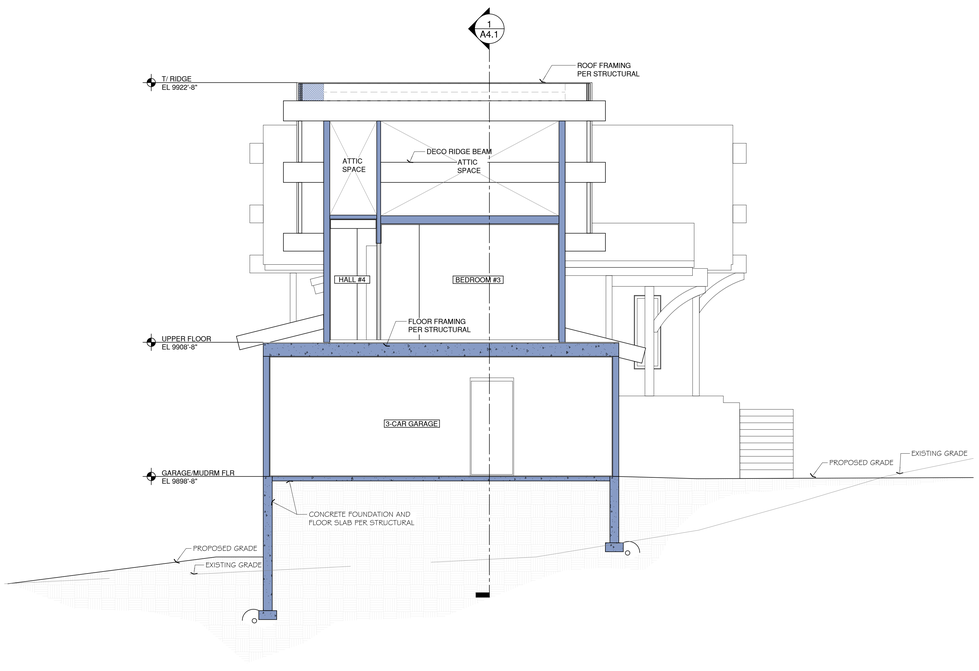
Project # 2309

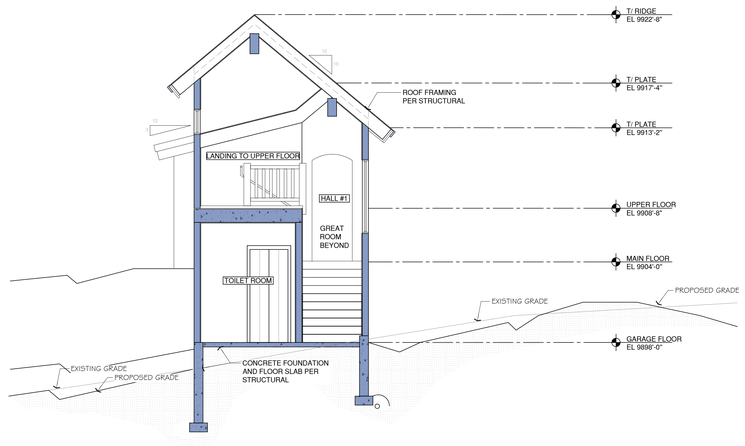
A3.2



1 A4.1 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"



3 A4.1 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"



2 A4.1 **BUILDING SECTION**
SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

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LASSA RESIDENCE
LOT 2 RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE: BUILDING SECTIONS

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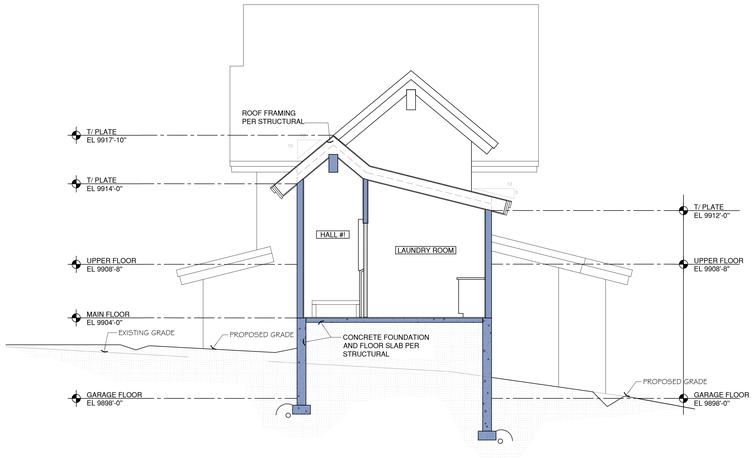
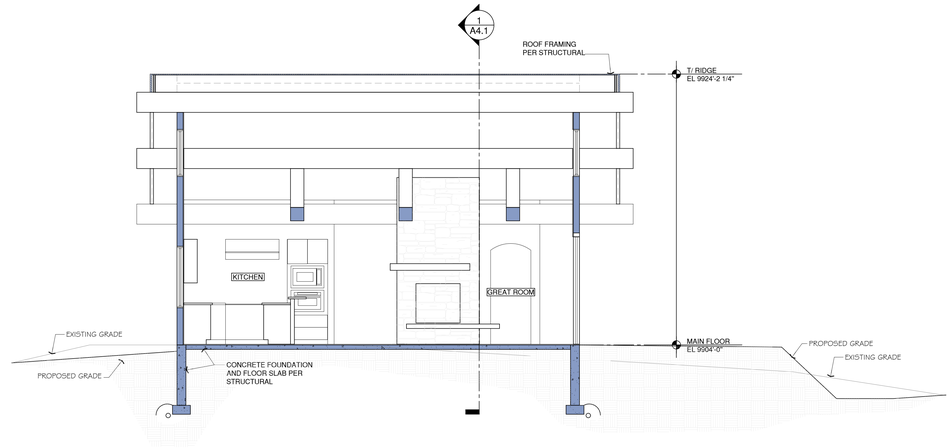
Project # 2309

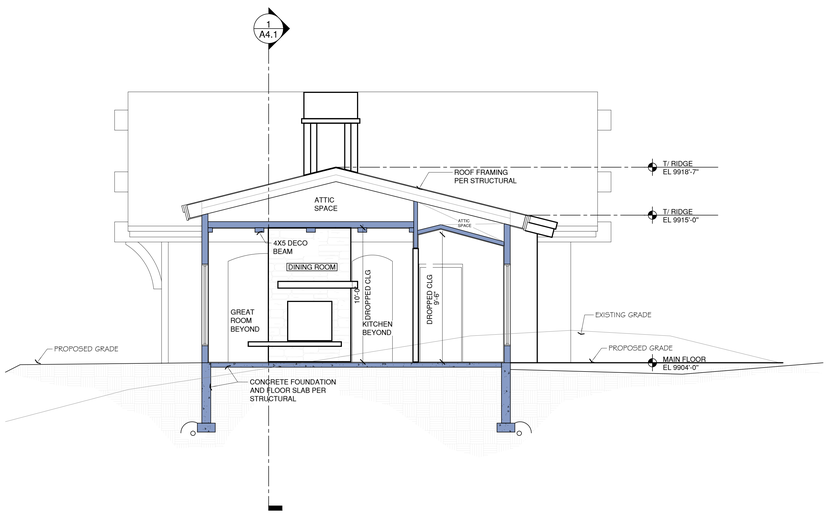
A4.1



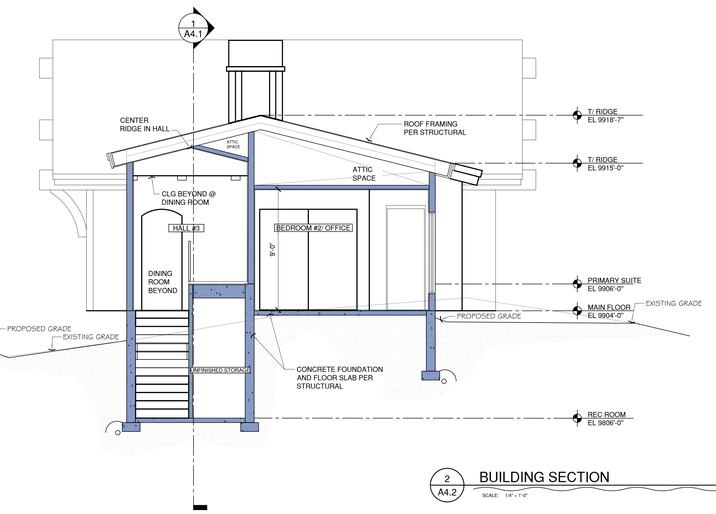
4 A4.2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



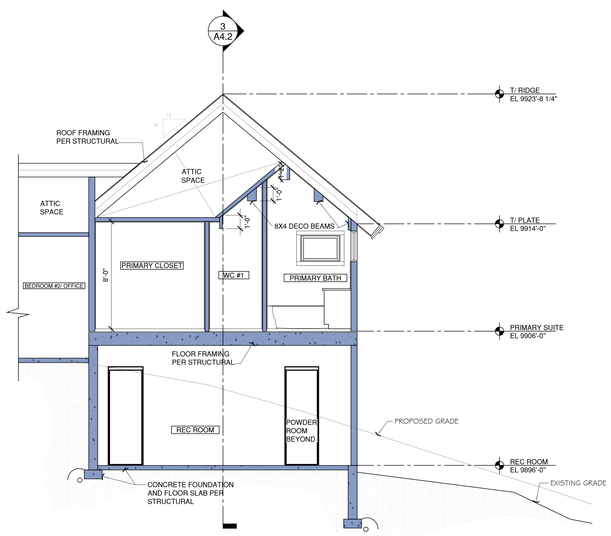
1 A4.2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



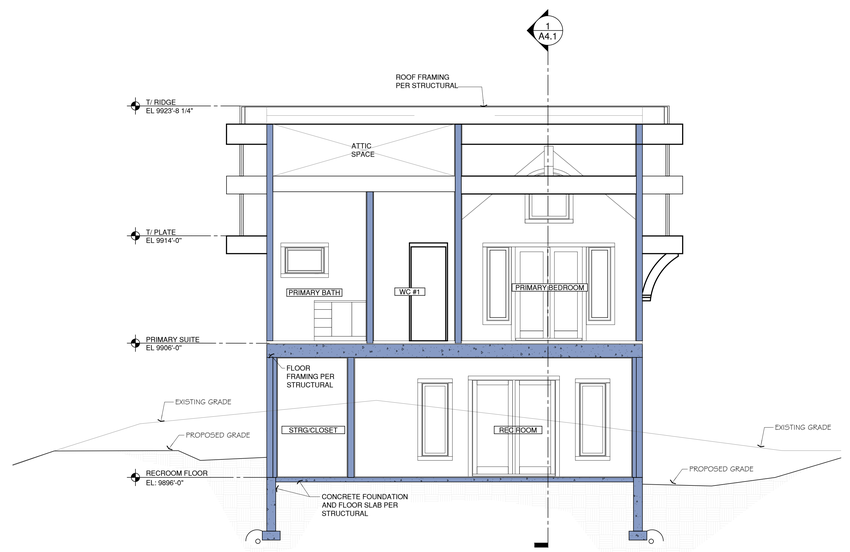
5 A4.2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



2 A4.2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



6 A4.2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



3 A4.2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

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LASSA RESIDENCE
LOT 3, RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER, SUMMIT COUNTY, COLORADO

TITLE: BUILDING SECTIONS

ISSUE:	DATE:
PERMIT	07/11/2023

Project # 2309

A4.2

<u>Design Criteria</u>

1. Building Code: 2018 International Residential Code
2. Live Loading:
   - 2.1. Residential:
     - 2.1.1. Floors = 40 PSF
     - 2.1.2. Balconies = 160 PSF
   - 2.2. Snow:
     - 2.2.1. Ground Snow = 143 PSF
     - 2.2.2. Flat Roof Snow = 100 PSF
     - 2.2.3. Importance Factor = 1.0
     - 2.2.4. Exposure Factor = 1.0
     - 2.2.5. Thermal Factor = 1.0
3. Wind Loading:
   - 3.1. Wind Speed (3 second gust) = 115 MPH
   - 3.2. Wind Importance Factor = 1.0
   - 3.3. Exposure Category = B

<u>Foundations:</u>

1. Foundation design is in accordance with the recommendations contained in the soils investigation Report Number 09–72 prepared by Walter O. Schultz PE dated October 21, 2009.
2. Foundation design is in accordance with the recommendations contained in the soils report referenced. All recommendations and precautions contained in the report shall be adhered to by the Owner and Contractor except where otherwise specifically noted. Geotechnical Engineer is sole judge of the suitability of underlying material to support foundations and shall approve bearing material before foundation installation.
3. Foundations and retaining walls have been designed for the following assumed design pressures:
   - 3.1. Allowable Bearing Pressure = 4000 psf
   - 3.2. Active Pressure = 55 psf/ft
   - 3.3. At Rest Pressure = 35 psf/ft
4. Bottom of exterior footings, grade beams, and walls shall bear a minimum 40 in. below final exterior grade for frost protection.
5. Foundation walls or grade beams having earth placed on each side shall have both sides filled simultaneously to maintain a common elevation.
6. Brace all foundation walls against sliding, which backfill is to be placed until floor slabs at the top and bottom of the wall are in place.
7. Foundation design does not consider forces due to hydrostatic pressures. Proper drainage is required to prevent forces.

<u>Cast-In-Place Concrete and Reinforcement</u>

1. Concrete shall conform to applicable provisions of ACI 301 and 318.
2. Minimum concrete compressive strength at 28 days and unit weight:

Usage	Strength, PSI	Weight, PCF
Unless Noted Below	4000	145
Footing	3000	145
Walls	4000	145
Slabs on Grade	4000	145

3. Maximum water/cement ratio:
   - 3.1. f'c=3000 psi 0.60 max w/c ratio
   - 3.2. f'c=4000 psi 0.50 max w/c ratio
4. Portland Cement shall be Type I/II.
5. Concrete placement in extreme temperatures (cold or hot):
   - 5.1. When placing concrete in hot weather, follow recommendations of ACI 305.
   - 5.2. When placing concrete in cold weather (temperatures below 40 degrees Fahrenheit , follow recommendations of ACI 306.
6. Reinforcement shall be fabricated and placed per ACI Manual and Standard of Practice (ACI 315).
   - 6.1. Unless noted, provide continuous reinforcing around corners and through construction/control joints.
   - 6.2. Keep reinforcement clean and free of dirt, oil, and scale. Oil forms prior to placing reinforcement.
   - 6.3. Add (2) #5's around all four sides of each opening, extending 2'-0" minimum beyond opening.
7. Reinforcing:
   - 7.1. Bars: ASTM A615–grade 60, except grade 40 for bars noted as field bent, stirrups, and ties. ASTM 706–grade 60 for reinforcing to be welded.
   - 7.2. Welded Wire Fabric: ASTM A185
8. Splice bars with contact laps unless noted otherwise:

Bar Size	Splice Length
#3	19"
#4	25"
#5	31"

9. Minimum concrete cover over reinforcing shall be:
   - 9.1. Concrete Cast against earth 3"
   - 9.2. Concrete exposed to earth and weather 2"
   - 9.3. Concrete not exposed to earth and weather 3/4"
10. Epoxy and Expansion anchors, unless noted otherwise, shall be prepared and installed in accordance with the manufacturer's installation instructions and minimum embedment specified on plans.
    - 10.1. Epoxy anchors, such as threaded rods, rebar dowels, and similar anchors, shall be installed using one of the following adhesives: Simpson "SET" adhesive or Hilti HIT HY150/HIT–ICE adhesive.
    - 10.2. Expansion anchors shall be one of the following: Simpson Strong–Bolt, Hilti Kwik Bolt TZ, or Red Head Trubolt.

<u>Structural Steel</u>

1. Steel Sections:
   - 1.1. Wide Flange and WT sections – ASTM A992 or ASTM 572 Grade 50, Fy=50 ksi
   - 1.2. Other rolled shapes, M, S, HP, C, MC, and angles – ASTM A36, Fy=36 ksi
   - 1.3. Pipe – ASTM A53, Fy=35 ksi
   - 1.4. Square and Rectangular HSS – ASTM A500, Fy=46 ksi
   - 1.5. Round HSS – ASTM A500, Fy=42 ksi
   - 1.6. Plate – ASTM A36, Fy=36 ksi
   - 1.7. Anchor rods – ASTM F1554 Grade 36, Fy=36 ksi
2. All structural steel shall be fabricated and erected per the current edition of AISC Steel Construction Manual.
3. Connections:
   - 3.1. Engineer of Record has designed all connections. If a connection design is inadvertently omitted from contract documents the contractor shall request connection design from the Structural Engineer.
   - 3.2. Bolted Connections:
     - 3.2.1. Minumum bolt diameter: 3/4"ϕ A325 unless noted otherwise
     - 3.2.2. Snug tight bolts unless noted otherwise
   - 3.3. Welded Connections:
     - 3.3.1. Welding Qualifications: Welding shall be done only by welding operators currently qualified according to AWS D1.1.
     - 3.3.2. E70XX series electrodes
     - 3.3.3. 3/16" continuous fillet welds unless noted otherwise
4. Shop Cleaning and Painting
   - 4.1. Coordinate all shop painting of structural steel with Architect's painting requirements as specified on the architectural drawings and specifications. Primer paint shall be compatible with architectural finish paint. Clean structural steel scheduled to receive architectural finish paint in accordance with SP–6 "Commercial Blast Cleaning".
   - 4.2. Members that are exposed to earth or weather in the finished structure shall be hot–dipped galvanized unless noted otherwise. Galvanizing shall not contaminate or otherwise impede the welding process.
5. Shop Drawings.
   - 5.1. Submit Shop Drawings including complete details and schedules for fabrication and shop assembly of members, and details, schedules, procedures and diagrams showing the sequence of erection.
     - 5.1.1. Include details of cuts, connections, camber, holes and other pertinent data. Indicate welds by standard AWS symbols, show size, length and type of each weld.
     - 5.1.2. Provide setting drawings, templates and directions for the installation of anchor bolts and other anchorages to be installed under other Sections of Work.

<u>Wood Framing</u>

1. All framing and details not specifically specified shall comply with the prescriptive (non–engineered) requirements of the International Residential Code.
2. Products: Unless noted other wise on the drawings, all wood framing shall have the following minimum properties and be at a moisture content of 19% or less:
   - 2.1. Studs: Hem–Fir Stud Grade or better @ 16" o.c.
   - 2.2. Light Framing (4x of less):
     - 2.2.1. Hem–Fir No. 1 (HF No. 1)
       - Flexural Stress Fb = 975 psi
       - Compressive Srtess Fc = 1350 psi
       - Horizontal Shear Stress Fv = 150 psi
       - Modulus of Elasticity E = 1,500,000 psi
     - 2.2.2. Hem–Fir No. 2 (HF No. 2)
       - Flexural Stress Fb = 850 psi
       - Compressive Stress Fc = 1300 psi
       - Horizontal Shear Stress Fv = 150 psi
       - Modulus of Elasticity E = 1,300,000 psi
   - 2.3. Heavy Timbers (5x5 or larger):
     - 2.3.1. Douglas Fir–Larch No. 1 (DFL No. 1)

Beams (d>b+2")	Columns (d≤b+2")
Fb = 1350 psi	Fb = 1200 psi
Fc = 925 psi	Fc = 1000 psi
Fv = 170 psi	Fv = 170 psi
E = 1,600,000 psi	E = 1,600,000 psi

     - 2.3.2. Douglas Fir–Larch No. 2 (DFL No. 2)

Beams (d>b+2")	Columns (d≤b+2")
Fb = 875 psi	Fb = 750 psi
Fc = 600 psi	Fc = 700 psi
Fv = 170 psi	Fv = 170 psi
E = 1,600,000 psi	E = 1,600,000 psi

   - 2.4. See architectural drawings for appearance grading of members.
   - 2.5. Sills: All sill plates shall be pressure treated Hem Fir or Southern Pine.
   - 2.6. Glulams per ANSI A190.1:
     - 2.6.1. Designation 24F–V4:
       - Flexural Stress Top Fbx+ = 2400 psi
       - Flexural Stress Bottom Fbx– = 1850 psi
       - Horizontal Shear Stress Fvx = 265 psi
       - Compressive Stress Fc = 1650 psi
       - Tension Stress Ft = 1100 psi
       - Modulus of Elasticity Ex = 1,800,000 psi; Eaxial = 1,700,000 psi
   - 2.7. Engineered Wood:
     - 2.7.1. Laminated Strand Lumber – 1 1/2" Wide (LSL – 1.3E Studs):
       - Flexural Stress Fb = 1700 psi
       - Compressive Parallel to Grain Fc|| = 1400 psi
       - Compressive Prep to Grain Fc⊥ = 680 psi
       - Horizontal Shear Stress Fv = 400 psi
       - Modulus of Elasticity E = 1,300,000 psi
     - 2.7.2. Laminated Strand Lumber – 1 1/4" (LSL – 1.55E Beams):
       - Flexural Stress Fb = 2325 psi
       - Compressive Parallel to Grain Fc|| = 2050 psi
       - Compressive Prep to Grain Fc⊥ = 800 psi
       - Horizontal Shear Stress Fv = 310 psi
       - Modulus of Elasticity E = 1,550,000 psi
     - 2.7.3. Laminated Veneer Lumber – 1 3/4" (LVL – 1.9E):
       - Flexural Stress Fb = 2600 psi
       - Compressive Parallel to Grain Fc|| = 2510 psi
       - Compressive Prep to Grain Fc⊥ = 750 psi
       - Horizontal Shear Stress Fv = 285 psi
       - Modulus of Elasticity E = 1,900,000 psi
   - 2.8. Wood I–Joist: Boise Cascade "BCI" engineered wood I–Joists
     - 2.8.1. Substitution of equal product is acceptable upon Submittal of equal by contractor and approval by structural engineer.
   - 2.9. Structural Panels (Plywood or OSB):
     - 2.9.1. Sheathing for roofs and walls shall conform to APA PS–1 standards. Lay panel with long dimension perpendicular to joists with short edges staggered. All panels shall be exposure I, U.N.O. on plan.
     - 2.9.2. Panel grades and thickness:

Element	APA Span Rating (min)	Min Thickness (in)
Roofs	40/20	19/32
Floors(STRUD–I T&G)	24 oc Single Floor	23/32
Shear Walls	32/16	15/32
Exterior Walls	32/16	15/32

3. Connectors
   - 3.1. All blots, metal connectors, hangers, anchors, and fasteners in contact with preservative treated wood shall be hot dipped galvanized or stainless steel.
   - 3.2. Anchor Bolts:
     - 3.2.1. Provide 1/2"ϕ embedded bolts @ 32" OC (max), with 7" minimum embed, tops of walls for attaching sill plates, except provide anchor bolts @ 16" OC under shear walls. As a minimum, provide 2 bolts, each within 12" of the ends of each piece of sill plate.
     - 3.2.2. Provide 1/4"x3"x3" plate washers at all shear wall anchor bolt connections to sill plates.
   - 3.3. Nails:
     - 3.3.1. Minimum nailing shall comply with Table 2304.9.1 of the IBC unless more stringent requirements are shown on these drawings.
     - 3.3.2. All nails are to be common nails. Where power nails are used, the shall be equivalent in diameter to the common nails indicated.
   - 3.4. Bolts:
     - 3.4.1. All bolts shall conform to ASTM 307.
     - 3.4.2. Holes for bolts shall be 1/16" oversize.
     - 3.4.3. Retighten all bolts prior to closing in.
   - 3.5. Lag Screws:
     - 3.5.1. Lag screws shall penetrate the main member a minimum of 8 times the shaft diameter.
     - 3.5.2. Lead holes for lag screws shall be 60% to 70% of lag shank diameter in compliance with AITC criteria.
4. Installations:
   - 4.1. Floor and Roof Sheathing:
     - 4.1.1. Floors: Glue and nail 8d @ 6" OC edges and 8d @ 12" OC field, unless noted otherwise on plans
     - 4.1.2. Roofs: Nail 8d @ 6" OC edges and 8d @ 12" OC field, unless noted otherwise on plans
   - 4.2. Wall Sheathing:
     - 4.2.1. Walls not designated as Shear Walls, nail 8d @ 6" OC edges and 8d 12" OC field
   - 4.3. Shear Walls:
     - 4.2.3. Where shear walls are noted on the plans the sheathing is used as part of the lateral load resisting system. Typical details for wood panel shear walls in the drawings and the following requirements apply:
       - 4.2.3.1. The shear wall extends between consecutive "king" studs at adjacent wall openings.
       - 4.2.3.2. All panel edges within the extent of the shear wall shall be blocked with flat 2x4 blocking.
       - 4.2.3.3. Where shear walls bear on joists or beams, provide 5–16d nails through sill plate to joist below at each stud space within the width of the shear wall.
       - 4.2.3.4. Where floor and roof diaphragms abut shear walls, provide a minimum of 8d @ 3" o.c. nailing to blocking or rim joist and Simpson A35 connection at 32" o.c. between blocking or rim joist and shear wall top plate.
       - 4.2.3.5. Provide hold–downs to foundation walls on all boundary elements.
   - 4.3. General Framing Tolerances:
     - 4.3.1. Framing members which will be covered by finishes such as wallboard, plaster, or ceramic tile set in a mortar setting bed, shall be within the following limits:
       - 4.3.1.1. Layout of walls and partitions: 1/4 from intended position;
       - 4.3.1.2. Plates and runners: 1/4 inch in 8 feet from a straight line;
       - 4.3.1.3. Studs: 1/4 inch in 8 feet out of plumb, not cumulative;
       - 4.3.1.4. Face of framing members: 1/4 inch in 8 feet from a true plane.
     - 4.3.2. Framing members which will be covered by ceramic tile set in dry–set mortar, latex–portland cement mortar, or organic adhesive shall be within the following limits:
       - 4.3.2.1. Layout of walls and partitions: 1/4 inch from intended position;
       - 4.3.2.2. Plates and runners: 1/8 inch in 8 feet from a straight line;
       - 4.3.2.3. Studs: 1/8 inch in 8 feet out of plumb, not cumulative; Face of framing members: 1/8 in 8 feet from a true plane

<u>Submittals</u>

1. See Material section of these General Notes for required shop drawings.
2. Manufacturers Data: Submit two (2) copies of manufacturer's specifications and installation instructions for each product specified.
3. Shop Drawings: Submit four (4) prints or one (1) electronic copy of each shop drawing. Shop drawings shall be reviewed by Contractor prior to submission and shall bear the Contractors approval stamp. Allow 14 calendar days in the Structural Engineers office for review of shop drawings.

<u>MISCELLANEOUS NOTES</u>

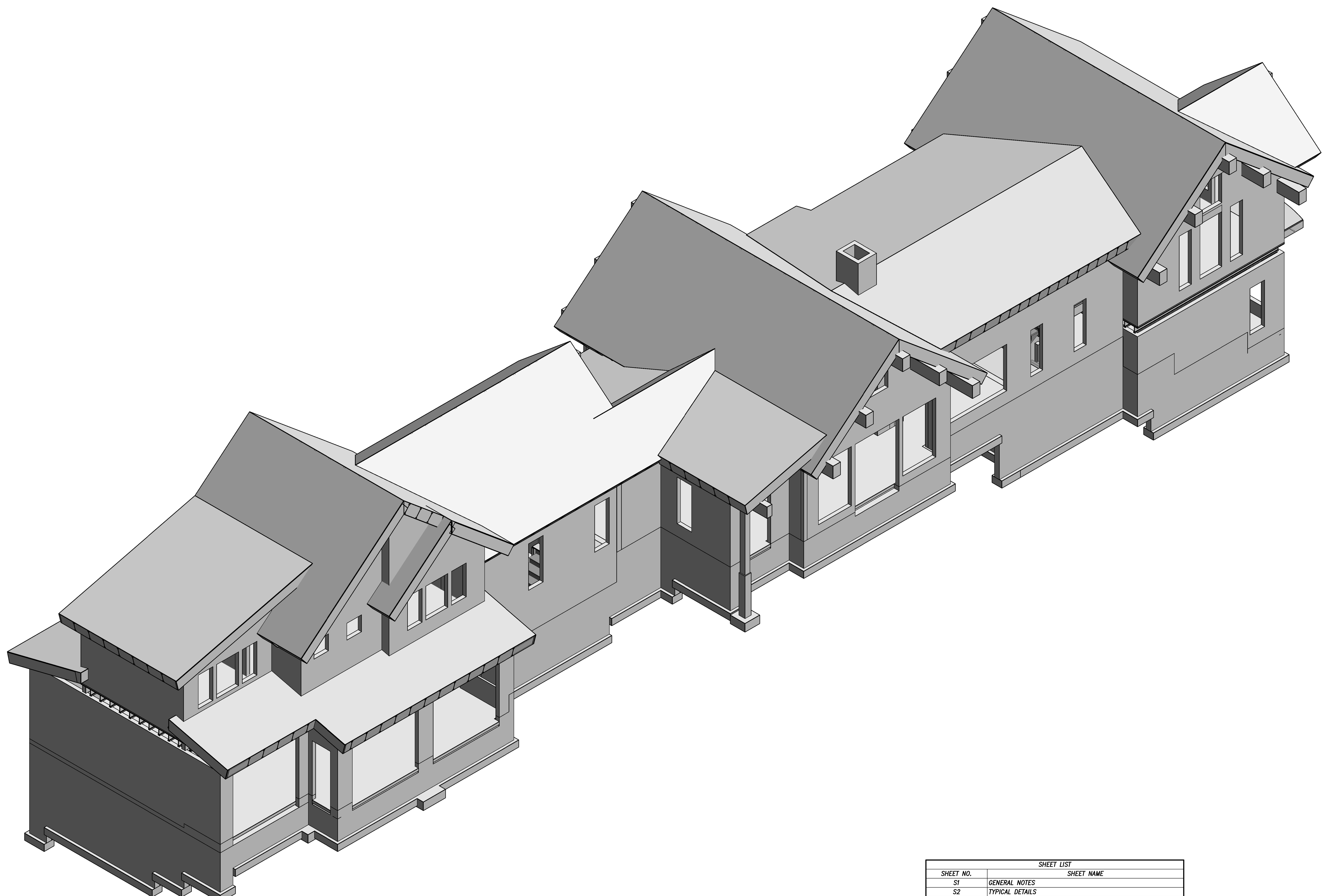
1. The Contractor is solely responsible for all safety regulations, programs and precautions related to all work on this project.
2. The Contractor is solely responsible for the protection of persons and property either on or adjacent to the project and shall protect it against injury, damage, or loss.
3. Means and methods of construction and erection of structural materials are solely the Contractor's responsibility.
4. Do not place equipment when shipping or operating weight exceeds weight indicated on structural drawings..
5. Fireproofing of structural elements is not shown on the structural drawings. Refer to the specifications and architectural drawings for fire rating requirements.
6. Do not scale these drawings, use the dimensions shown.
7. No structural modifications, alterations, or repairs shall be made without prior review by Structural Engineer. Submit details and calculations prepared by a professional engineer registered in state where project is located and employed by contractor.

<u>Quality Control</u>

1. The Contractor is responsible for quality control, including workmanship and materials furnished by his subcontractors and suppliers.
2. Inspection or testing by the Owner does not relieve the Contractor of his responsibility to perform the work in accordance with the Contract Documents.
3. Workmanship: The Contractor is responsible and shall bear the cost of correcting work which does not conform to the specified requirements.
4. Correct deficient work by means acceptable to the Architect. The cost of extra work incurred by the Architect to approve corrective work shall be borne by the Contractor.

<u>Structural Special Inspection, Testing, and Observation</u>

1. Special Inspection beyond normal city and county inspection is not required per IBC 1704.



SHEET LIST	
SHEET NO.	SHEET NAME
S1	GENERAL NOTES
S2	TYPICAL DETAILS
S3	LOWER LEVEL/FOUNDATION PLAN
S4	MAIN LEVEL FRAMING PLAN
S5	ROOF FRAMING PLAN
S6	DETAILS
S7	DETAILS
S8	DETAILS
S9	DETAILS

<u>GENERAL LEGEND</u>

Symbol	Meaning	Symbol	Meaning
1 / A101	ELEVATION VIEW	X	INDICATES ADDENDUM NUMBER
1 / A101	SECTION CUT		INDICATES STEPS AND SLOPES IN DECKS & SLABS
1 / A101	DETAIL CALL OUT	XXX'–YY" / T/SLAB	ELEVATION CALLOUT Name = T.O. (OR B.O.) OBJECT Elevation = OBJECT ELEVATION

<u>STRUCTURAL ABBREVIATIONS</u>

ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION
ALT	alternate	KLF	kips per lineal foot
ARCH	architectural	LBS	pounds
BOT	bottom	LLH	long leg horizontal
BLDG	building	LLV	long leg vertical
BM	beam	LSL	laminated strand lumber
BTWN	between	LVL	laminated veneer lumber
CIP	cast–in–place	MAX	maximum
CLR	clear	MECH	mechanical
CMU	concrete masonry unit	MIN	minimum
COL	column	(N)	new construction
CONC	concrete	OC	on center
CONT	continuous	OH	opposite hand
DIA, ϕ	diameter	PAF	powder actuated fastener
DIM	dimension	PERP	perpendicular
DTL	detail	PJP	partial joint penetration
DWGS	drawings	PL, ℄	plate
DWL	dowel	PLF	pounds per lineal foot
EA	each	REINF	reinforcement
EF	each face	REQD	required
ELEV	elevation	SOG	slab on grade
EW	each way	SCHED	schedule
EXIST, (E)	existing construction	SIP	structural insulating panel
EXP	expansion	STFNR	stiffener
FDN	foundation	STL	steel
FLR	floor	THK	thickness
FTG	footing	TRAN	transverse
GLB	glulam	TYP	typical
HORIZ	horizontal	UNO	unless noted otherwise
ICF	insulated concrete form	VERT	vertical
KIP	1000 lbs	WWF	welded wire fabric

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THE STRUCTURAL ENGINEERS SEAL ON THIS DRAWING INDICATES THAT THE INFORMATION SHOWN AND THE CALCULATIONS PERTAINING TO THAT INFORMATION HAVE BEEN PREPARED BY QUALIFIED PEOPLE UNDER THE DIRECTION OF THE ENGINEER–OF–RECORD. THE SEAL DOES NOT IMPLY RESPONSIBILITY FOR INFORMATION PREPARED BY OTHERS NOR FOR ANY INFORMATION NOT SHOWN ON THIS DRAWING AND SUCH RESPONSIBLITY IS SPECIFICALLY DISCLAIMED. ON PHASED PROJECTS, DRAWINGS THAT ARE ISSUED BUT NOT SEALED SHALL BE CONSIDERED TO BE PRELIMINARY IN NATURE AND ARE ISSUED FOR INFORMATION ONLY.

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS ON THE PROJECT TO CLEARLY DEFINE ALL OF THE REQUIREMENTS FOR THE CONSTRUCTION. WHERE CONFLICTS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

COLORADO LICENSED PROFESSIONAL ENGINEER
PATRICK T. GIBERSON
42691
07.11.2023

LASSA RESIDENCE

LOT 2 . RIVERSHORE SUBDIVISION

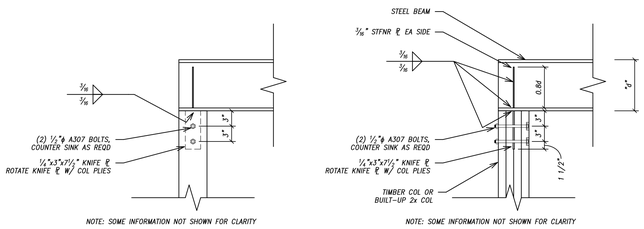
TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

TITLE: **GENERAL NOTES**

ISSUE	DATE
STRUC REVIEW	6 JUN 2023
PERMIT	11 JUL 2023

PROJECT # A0727

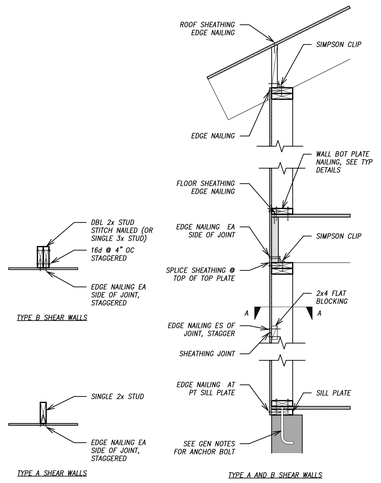
S1



NOTE: SOME INFORMATION NOT SHOWN FOR CLARITY

NOTE: SOME INFORMATION NOT SHOWN FOR CLARITY

13 TYP STEEL BEAM TO WOOD COL CONN
1" = 1'-0"



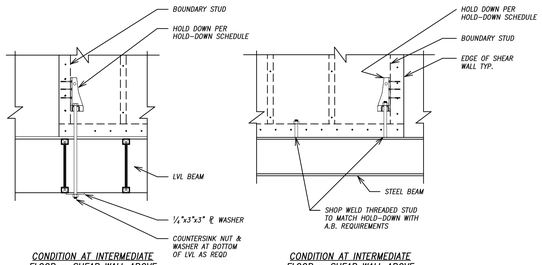
TYPE B SHEAR WALLS

TYPE A SHEAR WALLS

TYPE A AND B SHEAR WALLS

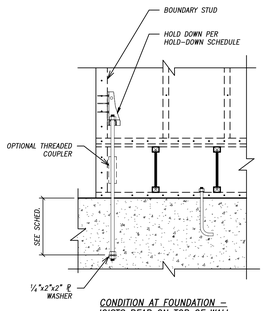
SECTION A-A

12 TYP WOOD SHEAR WALL DTLS
3/4" = 1'-0"



CONDITION AT INTERMEDIATE FLOOR – SHEAR WALL ABOVE LVL BEAM

CONDITION AT INTERMEDIATE FLOOR – SHEAR WALL ABOVE STEEL BEAM



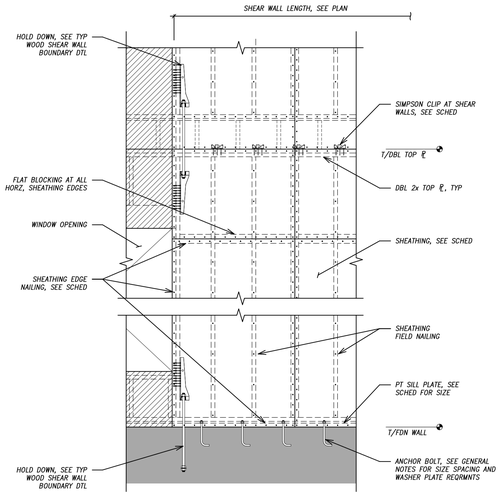
CONDITION AT FOUNDATION – JOISTS BEAR ON TOP OF WALL

HOLD DOWN SCHEDULE				
SHEAR WALL TYPE	ANCHOR BOLT DIAM.	SIMPSON HOLD-DOWN	SDS SCREWS	NO. OF BNDRY STUDS
A	⅝"	HDU2	6-SDS ¼"x2½"	2
B	⅞"	HDU8	20-SDS ¼"x2½"	3

ANCHOR BOLT EMBEDMENT	
ANCHOR BOLT TYPE AND DIAMETER	EMBEDMENT DEPTH
⅝"ϕ EMBEDDED ANCHOR BOLT	12"
⅝"ϕ EPOXIED ANCHOR BOLT	12"
⅞"ϕ EMBEDDED ANCHOR BOLT	14"
⅞"ϕ EPOXIED ANCHOR BOLT	14"

EPOXIED ANCHOR BOLTS SHALL BE SECURED WITH HILTI HY150 INJECTION ADHESIVE OR EQUIVALENT

11 TYP WOOD WALLS- BOUNDARY DTL
3/4" = 1'-0"



SHEAR WALL SCHEDULE						
SHEAR WALL TYPE	SHEATHING	PANEL EDGE FRAMING	SILL PLATE	PANEL EDGE NAILING	PANEL FIELD NAILING	RIM JOIST OR BLOCKING CONN TO TOP PLATE
A 425 PLF	15/32" APA ONE-SIDED	SINGLE 2x	SINGLE PT 2x	10d @ 4" OC (0.148"x3")	10d @ 12" OC (0.148"x3")	SIMPSON A35 @ 16" OC
B 550 PLF	15/32" APA ONE-SIDED	DBL 2x OR SINGLE 3X	SINGLE PT 2x	10d @ 3" OC (0.148"x3")	10d @ 12" OC (0.148"x3")	SIMPSON A35 @ 8" OC
C 1110 PLF	15/32" APA TWO-SIDED	DBL 2x OR SINGLE 3X	SINGLE PT 2x	10d @ 3" OC (0.148"x3")	10d @ 12" OC (0.148"x3")	SIMPSON A35 @ 8" OC, @ RIM SIMPSON LTP5 @ 12" OC, @ BLKNG

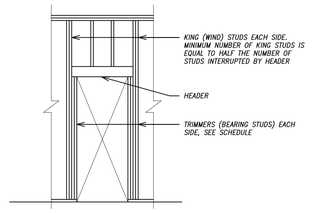
10 TYP WOOD SHEAR WALLS SCHED
1/2" = 1'-0"

SPAN	DIMENSIONED LUMBER HEM-FIR	LVL ALTERNATES	NO. OF BEARING STUDS AT EACH END
3'-0"	(2) 2x10 or (3) 2x8	(2) 1¾"x5½" or (3)1¾"x5½"	2
4'-0"	(2) 2x12 or (3) 2x12	(2) 1¾"x7¼" or (3) 1¾"x5½"	2
5'-0"	N/A (3) 2x12	(2) 1¾"x7¼" or (3) 1¾"x7¼"	2
6'-0"	N/A N/A	(2) 1¾"x9½" or (3) 1¾"x7¼"	2
7'-0"	N/A N/A	(2) 1¾"x11⅞" or (3) 1¾"x9½"	3
8'-0"	N/A N/A	(2) 1¾"x11⅞" or (3) 1¾"x9½"	3
9'-0"	N/A N/A	(2) 1¾" x 14" or (3) 1¾"x11⅞"	3
10'-0"	N/A N/A	(2) 1¾"x16" or (3) 1¾"x11⅞"	3

HEADERS IN LOAD BEARING AND EXTERIOR WALLS

SPAN	DIMENSIONED LUMBER HEM-FIR	LVL ALTERNATES	NO. OF BEARING STUDS AT EACH END
3'-0"	(2) 2x4 or (3) 2x4	(2)1-3/4"x5-1/2"or(3)1-3/4"x5-1/2"	1
4'-0"	(2) 2x6 or (3) 2x4	(2)1-3/4"x5-1/2"or(3)1-3/4"x5-1/2"	1
5'-0"	(2) 2x6 or (3) 2x6	(2)1-3/4"x5-1/2"or(3)1-3/4"x5-1/2"	1
6'-0"	(2) 2x8 or (3) 2x6	(2)1-3/4"x5-1/2"or(3)1-3/4"x5-1/2"	1
7'-0"	(2) 2x10 or (3) 2x8	(2)1-3/4"x7-1/4"or(3)1-3/4"x5-1/2"	1
8'-0"	(2) 2x10 or (3) 2x8	(2)1-3/4"x7-1/4"or(3)1-3/4"x7-1/4"	1
9'-0"	(2) 2x12 or (3) 2x10	(2)1-3/4"x7-1/4"or(3)1-3/4"x7-1/4"	1
10'-0"	N/A (3) 2x12	(2)1-3/4"x9-1/4"or(3)1-3/4"x7-1/4"	1

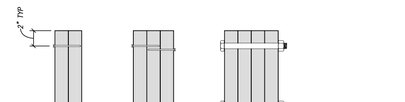
RECOMMENDED HEADERS IN NON-LOAD BEARING WALLS



ELEVATION

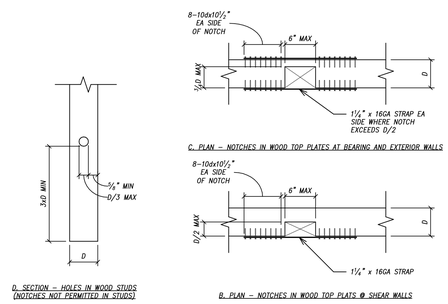
NOTES:
1. THIS SCHEDULE APPLIES TO HEADERS WHICH ARE NOT EXPLICITLY CALLED OUT ON PLAN WITH SPANS OF 10'-0" OR LESS
2. HEADERS IN LOAD BEARING WALLS DESIGNED FOR 1500 PLF DEAD + LIVE LOAD.
3. HEADERS IN NON-LOAD BEARING WALLS DESIGNED FOR 400 PLF DEAD + LIVE LOAD.
4. DIMENSIONED LUMBER HEADERS TO BE No. 2 HEMP-FIR.
5. LVL = LAMINATED VENEER LUMBER
6. DEFLECTION CRITERIA IS L/360
7. HEADERS SUPPORTING POINT LOADS FROM BEAMS OR COLUMNS SHOULD NOT BE SIZED FROM THIS TABLE. NOTIFY STRUCTURAL ENGINEER.

9 TYP WOOD HEADER SCHED
1 : 1



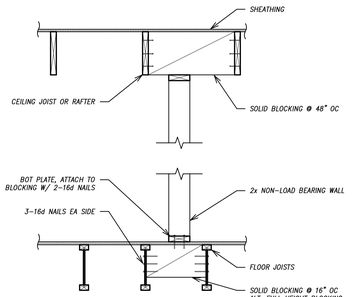
NOTES:
ALL MULTIPLE WOOD MEMBERS MUST BE FASTENED TOGETHER TO ACT AS A SINGLE UNIT. LAMINATIONS SHALL BE CONTINUOUSLY GLUED WITH EXTERIOR GLUE AND NAILED WITH TWO ROWS OF 16d @ 12" O.C. OR BOLTED WITH TWO ROWS OF ½"ϕ A307 @ 12" O.C. (SEE DETAIL ABOVE). LAMINATIONS SHALL BE DRY (LESS THAN 16% MOISTURE CONTENT) WHEN GLUED. DO NOT SPLICE LAMINATIONS.

8 TYPICAL BUILT-UP BEAM
1 1/2" = 1'-0"

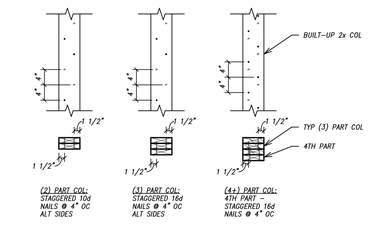


NOTES:
1. CONTACT STRUCTURAL ENGINEER FOR HOLES/NOTCHES EXCEEDING ABOVE LIMITATIONS.
2. FOR ENGINEERED WOOD PRODUCTS, SEE MANUFACTURES RECOMMENDATIONS FOR NOTCHES AND HOLES.

WOOD 05 - TYP REQMNTS FOR HOLES & NOTCHES IN WOOD MEM.
7 1" = 1'-0"



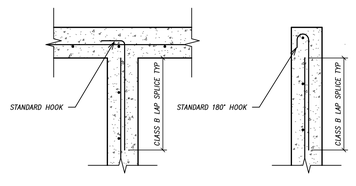
6 TYP NON-BEARING PARTITION
3/4" = 1'-0"



5 TYP
3/4" = 1'-0"

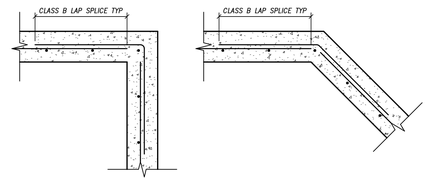
TYPICAL IBC MINIMUM NAILING REQUIREMENTS		
CONNECTION	COMMON NAILS	LOCATION
1. JOIST OR RAFTERS AT ALL BEARINGS	3–8d	TOENAIL
2. BRIDGING TO JOIST	2–8d	TOE NAIL EA END
3. 1"x6" SUBFLOOR OR LESS TO EA JOIST	2–8d	FACE NAIL
4. WIDER THAN 1"x6" SUBFLOOR TO EA JOIST	3–8d	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2–16d	BLIND AND FACE
6. SOLE PLATE TO JOIST OR BLOCKING	16d@16" OC	FACE NAIL
7. TOP PLATE TO STUD	2–16d	END NAIL
8. STUD TO SOLE PLATE	4–8d OR 2–16d	TOE NAIL END NAIL
9. DOUBLE STUDS	16d@24" OC	FACE NAIL
10. DOUBLE TOP PLATES	16d@16" OC 8–16d EA SIDE OF SPLICE	FACE NAIL LAP SPLICE FACE NAIL
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3–8d	TOE NAIL
12. BLOCKING BETWEEN STUDS	2–10d	TOE NAIL
13. RIM JOIST TO TOP PLATE	8@6" OC	TOE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d@16" OC	ALONG EA EDGE
15. CEILING JOIST TO TOP PLATE	3–8d	TOE NAIL
16. CONTINUOUS HEADER TO STUD	4–8d	TOE NAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS	3–16d	FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS	3–16d	FACE NAIL
19. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2–8d	FACE NAIL
20. 1"x8" SHEATHING TO EACH BEARING	3–8d	FACE NAIL
21. WIDER THAN 1"x8" SHEATHING TO EACH BEARING	3–8d	FACE NAIL
22. BUILT-UP CORNER STUDS	16d@24" OC	FACE NAIL
23. BUILT-UP GIRDER AND BEAMS	20d@32" OC 2–20d	FACE NAIL T&B STAGGER OPPOSITE SIDES FACE NAIL AT ENDS AND AT EA SPLICE
24. 2" PLANKS	16d @ EA BEARING	FACE NAIL
25. WOOD STRUCTURAL PANELS	--	SEE GENERAL NOTES AND TYPICAL DETAILS

4 TYP MIN NAILING REQMNTS
3/4" = 1'-0"



INTERSECTIONS

END OF WALL

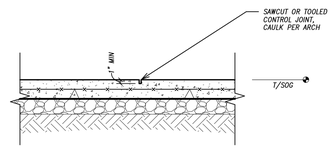


RIGHT ANGLE CORNERS

OBTUSE ANGLE CORNERS

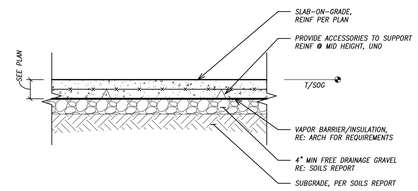
NOTE:
DOWELS & CORNER BARS MATCH HORZ REINF EXPECT USE #5 DOWELS & CORNER BARS FOR HORZ BARS #6 AND LARGER.

3 TYP WALL CORNER REINF - SNGL LINE OF REINF
3/4" = 1'-0"



NOTES:
1. SAWCUT CONTROL JOINT WITHIN 8 HOURS OF PLACEMENT.
2. PROVIDE CONTROL JOINTS AT 15 FT MAX OC EACH WAY UNO
3. RE: ARCH FOR CONTROL JOINT LAYOUT

2 TYP SOG CONTROL JOINT
3/4" = 1'-0"



1 TYP SOG
3/4" = 1'-0"

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PROFESSIONAL ENGINEER

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LOT 2 . RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

TITLE: TYPICAL DETAILS

ISSUE	DATE
STRUC REVIEW	6 JUN 2023
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PROJECT # A0727

S2

PLAN LEGEND

CONCRETE CONSTRUCTION
- CIP CONCRETE WALL ABOVE
- CIP CONCRETE WALL ABOVE W/ WINDOW
- CIP CONCRETE WALL ABOVE W/ DOOR
- CIP/PC WALL BELOW
- PC CONCRETE COLUMN ABOVE
- CIP/PC CONCRETE COLUMN BELOW

STEEL CONSTRUCTION
- BEAM / GIRDER
- COLUMN ABOVE
- COLUMN BELOW

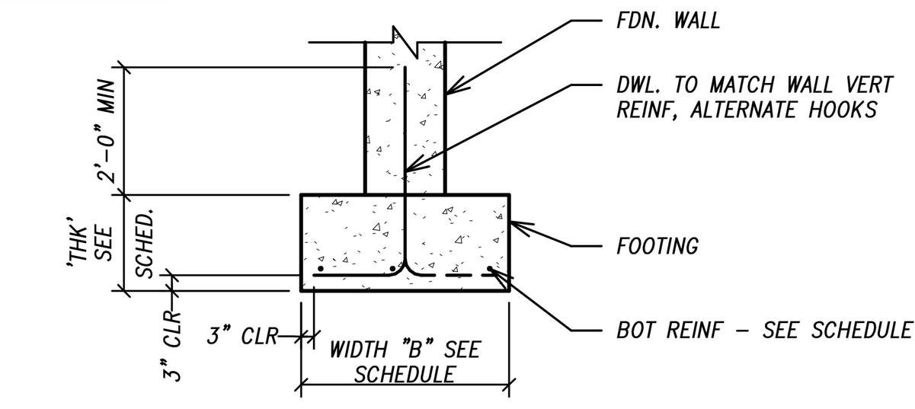
WOOD CONSTRUCTION
- FRAME WALL ABOVE
- FRAME WALL ABOVE W/ WINDOW
- FRAME WALL ABOVE W/ DOOR
- FRAME WALL BELOW
- TRUSS
- BEAM / GIRDER
- JOIST
- COLUMN ABOVE
- COLUMN BELOW

PLAN KEYS
- F6 / 97'-0" — FOOTING NOTATION: F6 = FTG TYPE PER SCHEDULE; 97'-0" = T/ FOOTING ELEVATION
- S — S: FOOTING / FOUNDATION STEP
- T=+XXXK: TRANSFER LOAD (K)
- BEAM POCKET
- H1 = JOIST HANGER TYPE, SEE JOIST HANGER SCHEDULE

LATERAL ELEMENTS
- LATERAL ELEMENT ABOVE
- LATERAL ELEMENT BELOW
- LATERAL ELEMENT ABOVE & BELOW
- A X'-Y'' — WOOD SHEAR WALL DESIGNATION AND MINIMUM REQUIRED LENGTH, SEE SHEAR WALL SCHEDULE
- HD — HOLD DOWN FOR WOOD SHEAR WALL, SEE HOLD DOWN SCHEDULE

ISOLATED FOOTING SCHEDULE					
MARK	WIDTH "B"	LENGTH "L"	THICKNESS	REINFORCEMENT	COMMENT
F1	5'-0"	7'-8"	1'-0"	#5 @ 12" OC BOT EW	
FSQ2	2'-0"	2'-0"	1'-0"	(3) #5 EW BOT	
FSQ3	3'-0"	3'-0"	1'-0"	(4) #5 EW BOT	

CONTINUOUS FOOTING SCHEDULE				
MARK	WIDTH "B"	THICKNESS	REINFORCEMENT	COMMENT
FC16	1'-4"	10"	(2) #5 CONT.	
FC48	4'-0"	10"	#5 @ 12" OC TOP EW	

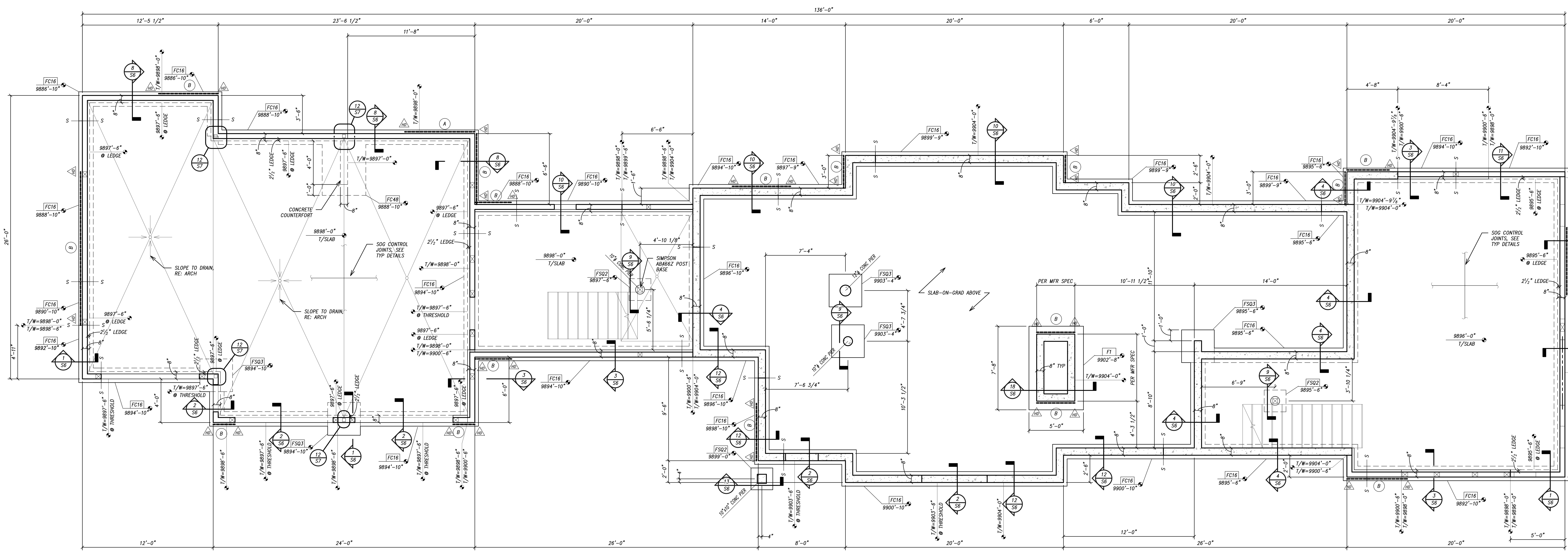


TYPICAL WALL FOOTING

FOOTING NOTES:

1. FOOTINGS SHALL BEAR ON PROOF ROLLED NATIVE SOIL OR COMPACTED FILL AS SPECIFIED IN THE SOILS REPORT.
2. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT. THE GEOTECHNICAL ENGINEER SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL.
3. FOOTINGS DESIGNED FOR ALLOWABLE BEARING PRESSURE OF 4000 PSF.
4. CENTER CONTINUOUS FOOTING UNDER WALLS U.N.O. COLUMN FOOTINGS ARE CENTERED UNDER COLUMNS, U.N.O.
5. BEARING ELEVATIONS ARE SUBJECT TO ADJUSTMENT AS REQUIRED BY SUITABILITY OF BEARING MATERIAL.
6. DOWELS TO MATCH VERTICAL WALL AND PILASTER REINF. U.N.O. EXTEND DWLS 24" MIN. ABOVE FTG. U.N.O.
7. SEE COLUMN SCHEDULE AND WALL DETAILS FOR FOOTING DOWELS.
8. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

(2) FOOTING SCHEDULE
1/2" = 1'-0"



(1) LOWER LEVEL
1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. TYPICAL FOUNDATION IS CONCRETE WALLS ON SPREAD FOOTINGS.
2. LOWER LEVEL FLOOR IS 4" SOG OVER 4" FREE DRAINAGE GRANULAR BASE MATERIAL. REINF WITH 6x6xW1.4xW1.4 WWF CHAIRED AT MID HEIGHT OF SLAB OR #3 @ 16" OC EA WAY CHAIRED AT MID HEIGHT OF SLAB FOR INCREASED CRACK CONTROL.
3. TYPICAL WOOD STUD WALL IS 2x6 HF STUDS @ 16" OC
4. TYPICAL BUILT-UP COLUMN IS (3) PART 2x6 HF No. 2, SHOWN AS THUS ☒ UNO.
5. SEE PLANS FOR FOOTING, WALL, AND SOG ELEVATIONS. GC TO VERIFY FOOTING AND WALL ELEVATIONS WITH GRADE REQUIREMENTS. CONTACT THE STRUCTURAL ENGINEER WITH ANY ELEVATION CHANGES PRIOR TO CONSTRUCTION.
6. SEE S1 FOR GENERAL NOTES AND LEGEND
7. SEE S2 FOR TYPICAL DETAILS
8. SEE PLAN FOR FOUNDATION SCHEDULE

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THE STRUCTURAL ENGINEERS SEAL ON THIS DRAWING INDICATES THAT THE INFORMATION SHOWN AND THE CALCULATIONS PERTAINING TO THAT INFORMATION HAVE BEEN PREPARED BY QUALIFIED PEOPLE UNDER THE DIRECTION OF THE ENGINEER-OF-RECORD. THE SEAL DOES NOT IMPLY RESPONSIBILITY FOR INFORMATION PREPARED BY OTHERS NOR FOR ANY INFORMATION NOT SHOWN ON THIS DRAWING AND SUCH RESPONSIBLITY IS SPECIFICALLY DISCLAIMED. ON PHASED PROJECTS, DRAWINGS THAT ARE ISSUED BUT NOT SEALED SHALL BE CONSIDERED TO BE PRELIMINARY IN NATURE AND ARE ISSUED FOR INFORMATION ONLY.

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS ON THE PROJECT TO CLEARLY DEFINE ALL OF THE REQUIREMENTS FOR THE CONSTRUCTION. WHERE CONFLICTS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

COLORADO LICENSED PROFESSIONAL ENGINEER
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42691
07.11.2023

LASSA RESIDENCE
LOT 2 . RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

TITLE: **LOWER LEVEL/FOUNDATION PLAN**

ISSUE	DATE
STRUC REVIEW	6 JUN 2023
PERMIT	11 JUL 2023

PROJECT # A0727

S3

PLAN LEGEND

CONCRETE CONSTRUCTION

- CIP CONCRETE WALL ABOVE
- CIP CONCRETE WALL ABOVE W/ WINDOW
- CIP CONCRETE WALL ABOVE W/ DOOR
- CIP/PC WALL BELOW
- PC CONCRETE COLUMN ABOVE
- CIP/PC CONCRETE COLUMN BELOW

STEEL CONSTRUCTION

- BEAM / GIRDER
- COLUMN ABOVE
- COLUMN BELOW

WOOD CONSTRUCTION

- FRAME WALL ABOVE
- FRAME WALL ABOVE W/ WINDOW
- FRAME WALL ABOVE W/ DOOR
- FRAME WALL BELOW
- TRUSS
- BEAM / GIRDER
- JOIST
- COLUMN ABOVE
- COLUMN BELOW

PLAN KEYS

- F6 / 97'-0" — FOOTING NOTATION: F6 = FTG TYPE PER SCHEDULE; 97'-0" = T/ FOOTING ELEVATION
- S — S — FOOTING / FOUNDATION STEP
- T=±XXXK — TRANSFER LOAD (K)
- BEAM POCKET
- H1 — H1 = JOIST HANGER TYPE, SEE JOIST HANGER SCHEDULE

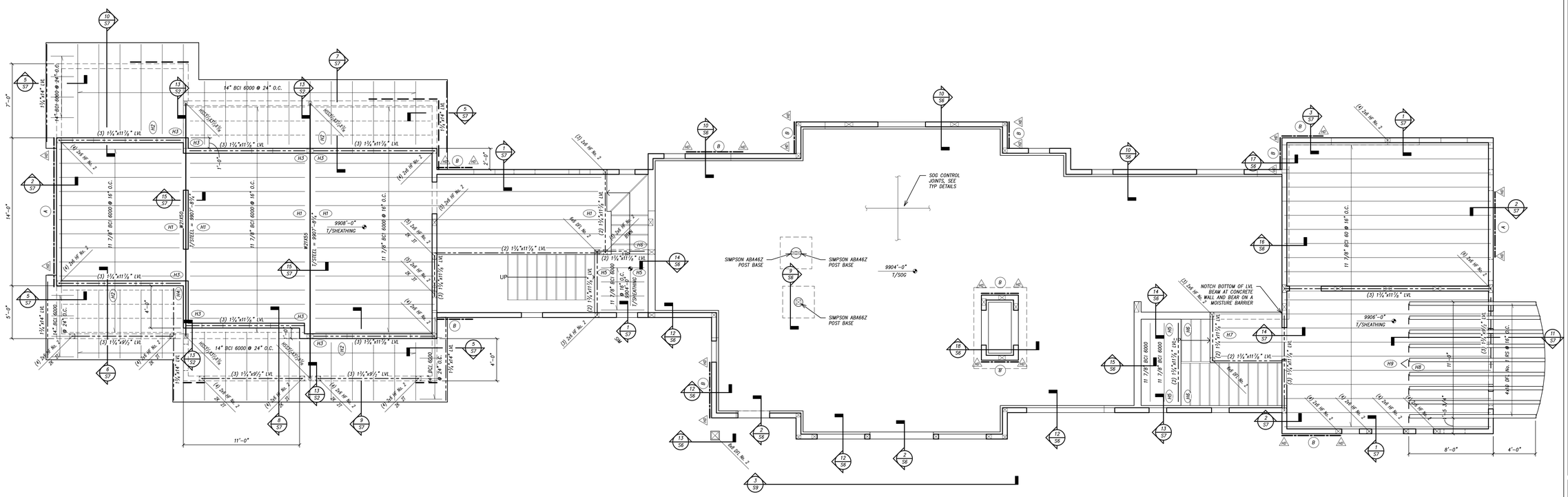
LATERAL ELEMENTS

- LATERAL ELEMENT ABOVE
- LATERAL ELEMENT BELOW
- LATERAL ELEMENT ABOVE & BELOW
- A X'-YY" — WOOD SHEAR WALL DESIGNATION AND MINIMUM REQUIRED LENGTH, SEE SHEAR WALL SCHEDULE
- HD — HOLD DOWN FOR WOOD SHEAR WALL, SEE HOLD DOWN SCHEDULE

JOIST & BEAM HANGER SCHEDULE

MARK	SIMPSON HANGER	FASTENERS			MEMBERS		ALLOWABLE LOADS		COMMENTS
		TOP FLANGE	FACE	JOIST/BEAM	SUPPORTED	SUPPORTING	LOAD (LBS)	UPLIFT (LBS)	
H1	ITS2.37/11.88	4-10dx1.5	2-10dx1.5	2-STRONG-GRIP	11⅞" I-JOIST	3x DFL NAILER	1265	75	--
H2	LSSUI35	--	10-10d	7-10dx1.5	14" I-JOIST	LVL	1140	710	WEB STFNR REQD
H3	HWU5.50/11.875	4-16dx2.5	4-16dx2.5	6-10d	(3) 11⅞" LVL	3x DFL NAILER	5430	970	--
H4	LSSUI25	--	10-10d	7-10dx1.5	14" LVL	LVL	1140	710	--
H5	IUS2.37/11.88	--	10-10dx1.5	2-STRONG-GRIP	11⅞" I-JOIST	LVL	970	75	--
H6	HUC412	--	16-10dx1.5	6-10d	(2) 11⅞" LVL	LVL	1630	760	--
H7	U3510/14	--	14-10d	6-10dx1.5	11⅞" I-JOIST	LVL	1705	730	WEB STFNR REQD
H8	U410R	--	14-16d	6-16d	4x10 ROUGH	LVL	1555	865	--
H9	U14	--	14-16d	6-10dx1.5	11⅞" LVL	11⅞" I-JOIST	2015	730	WEB STFNR REQD
H10	U3510/14	--	14-10dx1.5	6-10dx1.5	14" I-JOIST	LVL	1385	730	WEB STFNR REQD
H11	HUC0612-SDS	--	14-SDS ¼x2½	16-SDS ¼x2½	(3) 11⅞" LVL	COLUMN	5315	2340	--

(2) HANGER SCHEDULE
12" = 1'-0"



(1) MAIN LEVEL
1/4" = 1'-0"

MAIN LEVEL FRAMING PLAN NOTES:

1. TYPICAL FLOOR FRAMING IS 1½" GYPCRETE TOPPING OVER ¾" SHEATHING SUPPORTED BY WOOD I-JOIST FRAMING, UNO
2. GREAT ROOM FLOOR IS 4" SOG OVER RIGID INSULATION AND 4" FREE DRAINAGE GRANULAR BASE MATERIAL. REINF WITH 6x6xW1.4xW1.4 WWF CHAIRED AT MID HEIGHT OF SLAB OR #3 @ 16" OC EA WAY CHAIRED AT MID HEIGHT OF SLAB FOR INCREASED CRACK CONTROL.
3. SEE PLAN FOR T/SHEATHING AND T/SOG ELEVATIONS
4. TYPICAL WOOD STUD WALL IS 2x6 HF STUDS @ 16" OC
5. TYPICAL BUILT-UP COLUMN IS (3) PART 2x6 HF No. 2, SHOWN AS THUS ☒ UNO.
6. SEE THE BCI BUILDERS GUIDE FOR ALLOWABLE JOIST AND LVL BEAM PENETRATIONS. FOR ALL OTHER BEAM PENETRATIONS NOT SHOWN ON PLAN CONTACT THE STRUCTURAL ENGINEER FOR GUIDANCE.
7. SEE S1 FOR GENERAL NOTES AND LEGEND
8. SEE S2 FOR TYPICAL DETAILS AND HEADER SCHEDULE
9. SEE PLAN FOR HANGER SCHEDULE

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TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

TITLE: **MAIN LEVEL FRAMING PLAN**

ISSUE	DATE
STRUC REVIEW	6 JUN 2023
PERMIT	11 JUL 2023

PROJECT # A0727

S4

PLAN LEGEND

CONCRETE CONSTRUCTION
- CIP CONCRETE WALL ABOVE
- CIP CONCRETE WALL ABOVE W/ WINDOW
- CIP CONCRETE WALL ABOVE W/ DOOR
- CIP/PC WALL BELOW
- PC CONCRETE COLUMN ABOVE
- CIP/PC CONCRETE COLUMN BELOW

STEEL CONSTRUCTION
- BEAM / GIRDER
- COLUMN ABOVE
- COLUMN BELOW

WOOD CONSTRUCTION
- FRAME WALL ABOVE
- FRAME WALL ABOVE W/ WINDOW
- FRAME WALL ABOVE W/ DOOR
- FRAME WALL BELOW
- TRUSS
- BEAM / GIRDER
- JOIST
- COLUMN ABOVE
- COLUMN BELOW

PLAN KEYS
- F6 / 97'-0" — FOOTING NOTATION
  F6 = FTG TYPE PER SCHEDULE
  97'-0" = T/ FOOTING ELEVATION
- S —— S — FOOTING / FOUNDATION STEP
- T=+XXXK — TRANSFER LOAD (K)
- BEAM POCKET
- H1 — H1 = JOIST HANGER TYPE
  SEE JOIST HANGER SCHEDULE

LATERAL ELEMENTS
- LATERAL ELEMENT ABOVE
- LATERAL ELEMENT BELOW
- LATERAL ELEMENT ABOVE & BELOW
- A X'-YY" — WOOD SHEAR WALL DESIGNATION AND MINIMUM REQUIRED LENGTH
  SEE SHEAR WALL SCHEDULE
- HD — HOLD DOWN FOR WOOD SHEAR WALL
  SEE HOLD DOWN SCHEDULE

JOIST & BEAM HANGER SCHEDULE

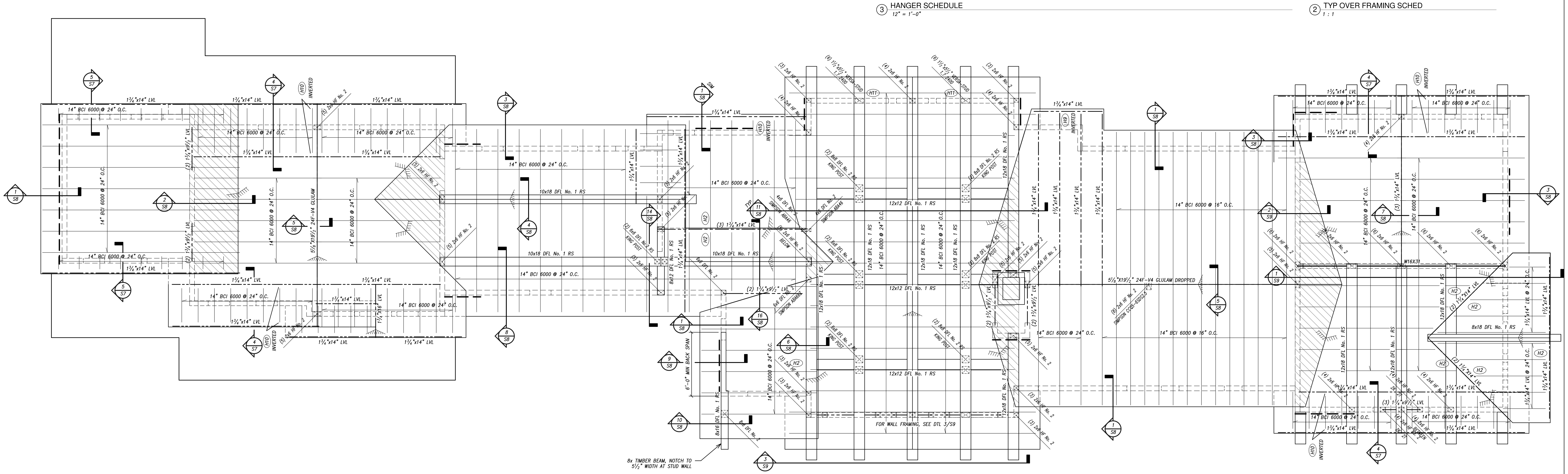
MARK	SIMPSON HANGER	FASTENERS			MEMBERS		ALLOWABLE LOADS		COMMENTS
		TOP FLANGE	FACE	JOIST/BEAM	SUPPORTED	SUPPORTING	LOAD (LBS)	UPLIFT (LBS)	
H1	ITS2.37/11.88	4-10dx1.5	2-10dx1.5	2-STRONG-GRIP	11⅞" I-JOIST	3x DFL NAILER	1265	75	--
H2	LSSUI35	--	10-10d	7-10dx1.5	14" I-JOIST	LVL	1140	710	WEB STFNR REQD
H3	HWU5.50/11.875	4-16dx2.5	4-16dx2.5	6-10d	(3) 11⅞" LVL	3x DFL NAILER	5430	970	--
H4	LSSUI25	--	10-10d	7-10dx1.5	14" LVL	LVL	1140	710	--
H5	IUS2.37/11.88	--	10-10dx1.5	2-STRONG-GRIP	11⅞" I-JOIST	LVL	970	75	--
H6	HUC412	--	16-10dx1.5	6-10d	(2) 11⅞" LVL	LVL	1630	760	--
H7	U3510/14	--	14-10d	6-10dx1.5	11⅞" I-JOIST	LVL	1705	730	WEB STFNR REQD
H8	U410R	--	14-16d	6-16d	4x10 ROUGH	LVL	1555	865	--
H9	U14	--	14-16d	6-10dx1.5	11⅞" LVL	11⅞" I-JOIST	2015	730	WEB STFNR REQD
H10	U3510/14	--	14-10dx1.5	6-10dx1.5	14" I-JOIST	LVL	1385	730	WEB STFNR REQD
H11	HUCQ612-SDS	--	14-SDS ¼x2½	16-SDS ¼x2½	(3) 11⅞" LVL	COLUMN	5315	2340	--

3 HANGER SCHEDULE
12" = 1'-0"

FRAMING MEMBER	MAX SPAN	
	SPACING = 16" O.C.	SPACING = 24" O.C.
2x4 HF-No.2	4'-0"	3'-0"
2x6 HF-No.2	6'-0"	5'-0"
2x8 HF-No.2	8'-0"	6'-6"
2x10 HF-No.2	10'-0"	8'-0"
2x12 HF-No.2	12'-0"	9'-0"

NOTES:
1. OVER FRAMING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
2. THE SCHEDULE ABOVE IS INTENDED TO AID THE GENERAL CONTRACTOR IN SELECTION OF FRAMING MEMBERS FOR VARIOUS SIZE AND SPACING. OVER FRAME SPANS SHOULD BE LIMITED TO THOSE ABOVE.
3. FRAMING MEMBERS DESIGNED FOR 15 PSF DL + 1.43*Pf (FLAT ROOF SNOW). OVER FRAMING USUALLY OCCURS AT INTERSECTIONS OF ROOF PLANES. THE 43% INCREASE ACCOUNTS FOR DRIFTING SNOW USUALLY SEEN IN THESE AREAS.
4. DEFLECTION CRITERIA USED = L/180.

2 TYP OVER FRAMING SCHED
1 : 1



1 ROOF FRAMING PLAN
1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. TYPICAL ROOF FRAMING IS ⅝" SHEATHING SUPPORTED BY WOOD I-JOISTS, AND TIMBER BEAMS, UNO
2. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, TOP OF PLATE ELEVATIONS, AND RIDGE ELEVATIONS.
3. SEE THE BCI BUILDERS GUIDE FOR ALLOWABLE JOIST AND LVL BEAM PENETRATIONS. FOR ALL OTHER BEAM PENETRATIONS NOT SHOWN ON PLAN CONTACT THE STRUCTURAL ENGINEER FOR GUIDANCE.
4. SEE S1 FOR GENERAL NOTES AND LEGEND
5. SEE S2 FOR TYPICAL DETAILS AND HEADER SCHEDULE
6. SEE PLAN FOR HANGER SCHEDULE
7. SEE PLAN FOR OVER FRAMING SCHEDULE. OVER FRAMING DENOTED BY HATCHED REGIONS.

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TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

TITLE: **ROOF FRAMING PLAN**

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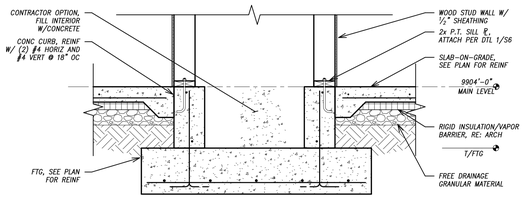
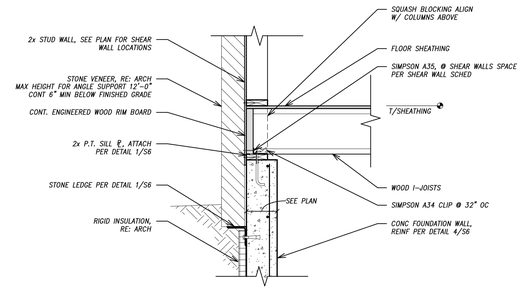
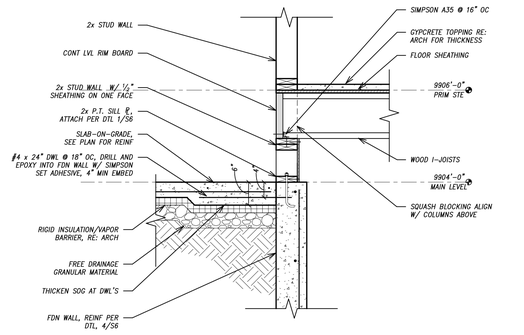
S5



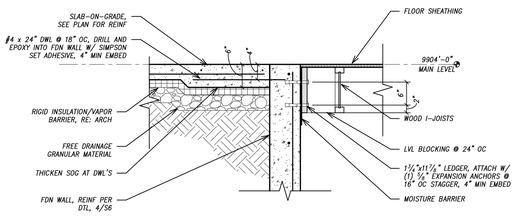
18 FOUNDATION DETAIL
3/4" = 1'-0"



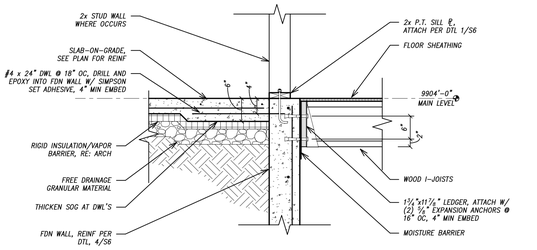
17 FOUNDATION DETAIL
3/4" = 1'-0"



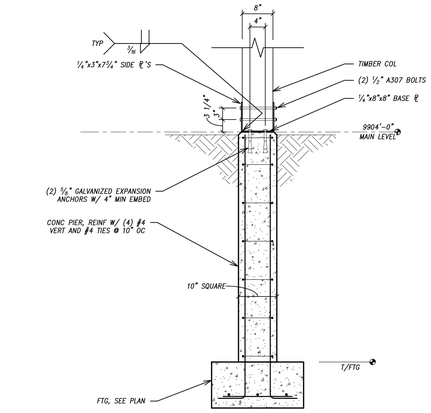
16 FOUNDATION DETAIL
3/4" = 1'-0"



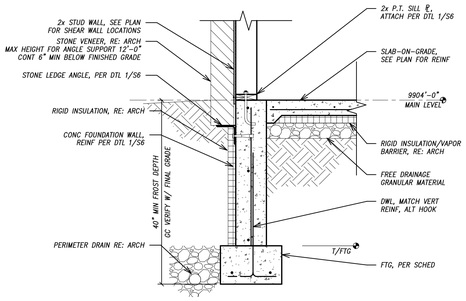
15 FOUNDATION DETAIL
3/4" = 1'-0"



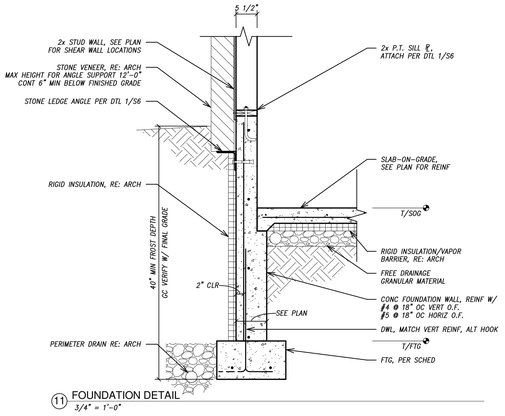
14 FOUNDATION DETAIL
3/4" = 1'-0"



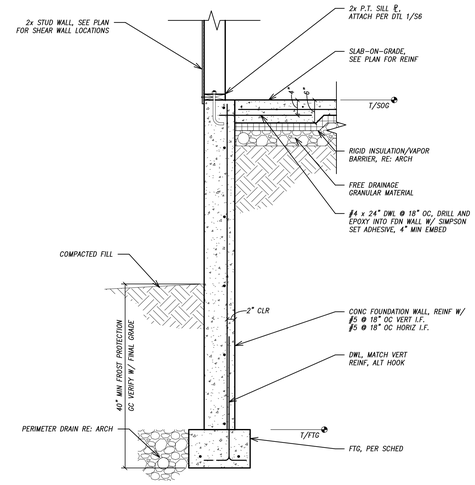
13 FOUNDATION DETAIL
3/4" = 1'-0"



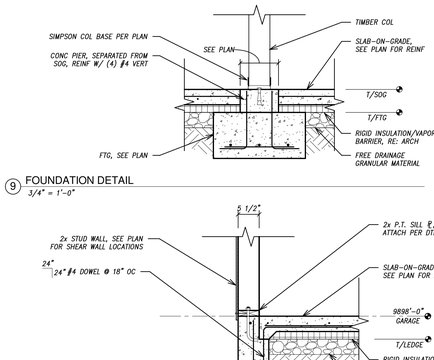
12 FOUNDATION DETAIL
3/4" = 1'-0"



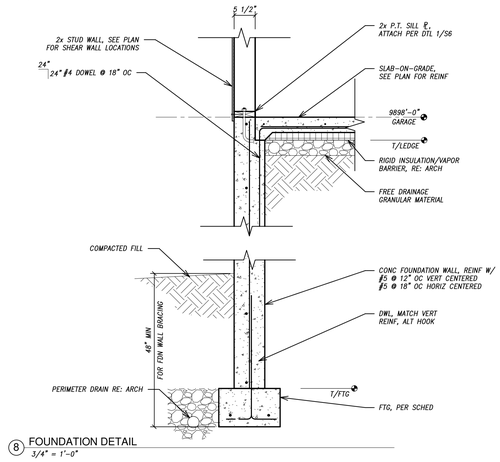
11 FOUNDATION DETAIL
3/4" = 1'-0"



10 FOUNDATION DETAIL
3/4" = 1'-0"



9 FOUNDATION DETAIL
3/4" = 1'-0"

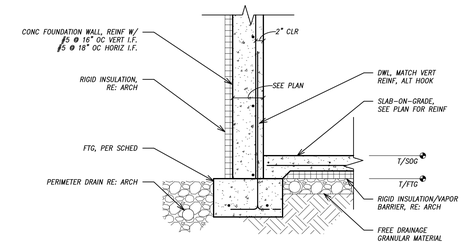


8 FOUNDATION DETAIL
3/4" = 1'-0"

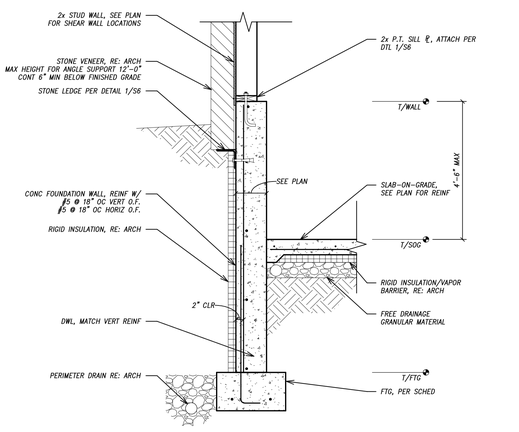
7 NOT USED
3/4" = 1'-0"

6 NOT USED
3/4" = 1'-0"

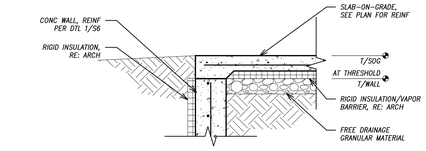
5 NOT USED
3/4" = 1'-0"



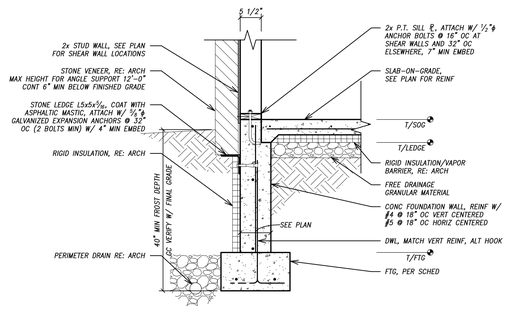
4 FOUNDATION DETAIL
3/4" = 1'-0"



3 FOUNDATION DETAIL
3/4" = 1'-0"



2 FOUNDATION DETAIL
3/4" = 1'-0"



1 FOUNDATION DETAIL
3/4" = 1'-0"

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TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

TITLE: DETAILS

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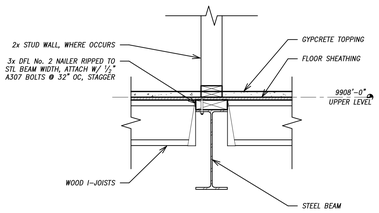
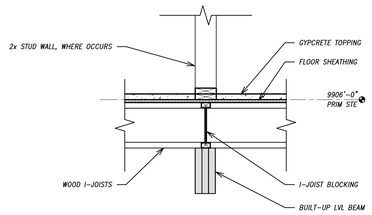
PROJECT # A0727

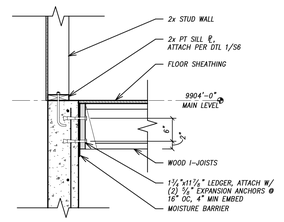
S6



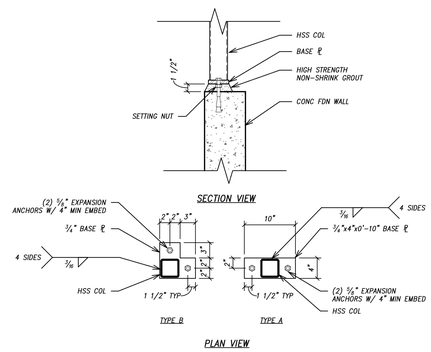
15 FRAMING DETAIL
3/4" = 1'-0"



14 FRAMING DETAIL
3/4" = 1'-0"



13 FRAMING DETAIL
3/4" = 1'-0"



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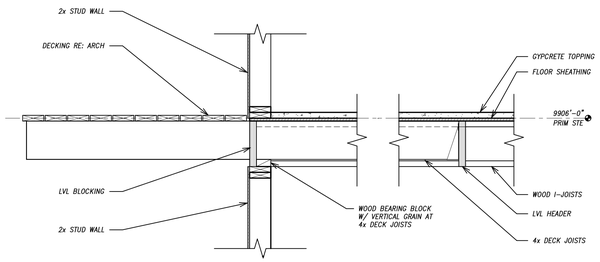

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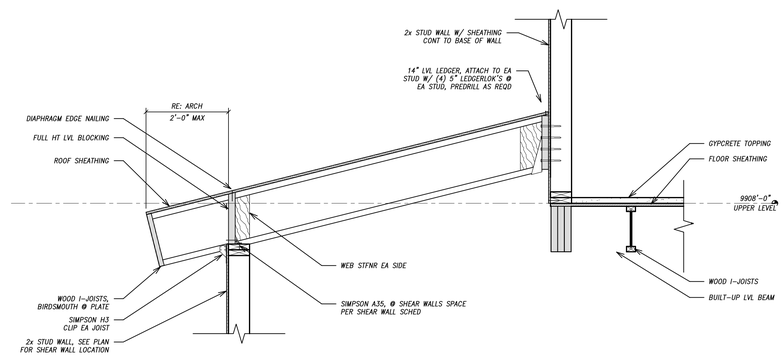

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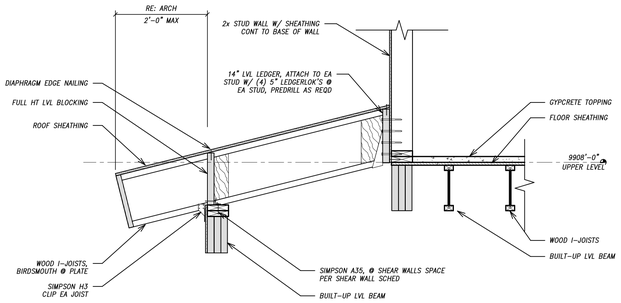

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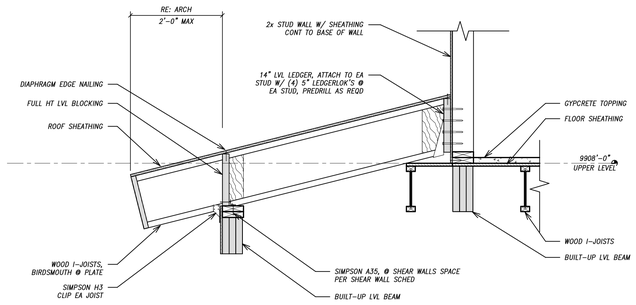

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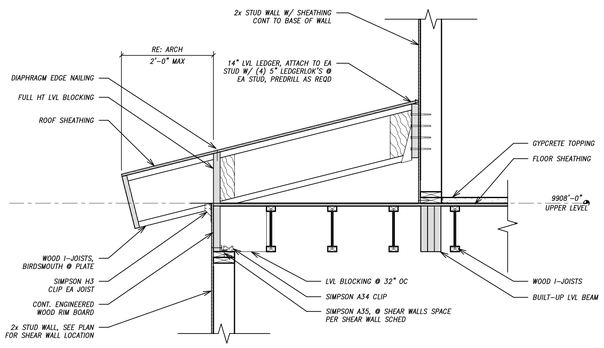

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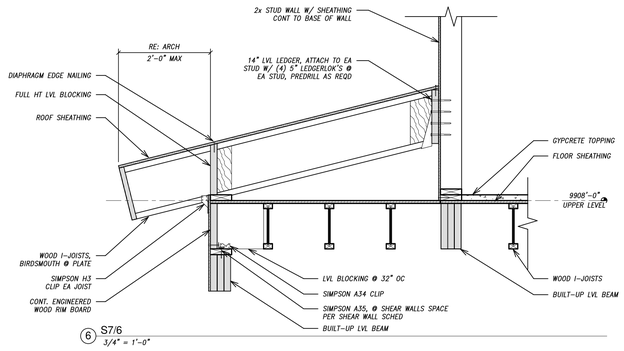

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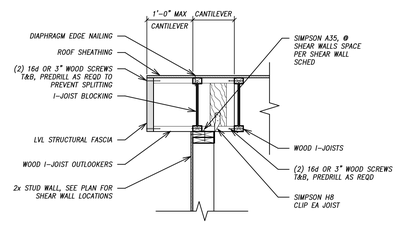

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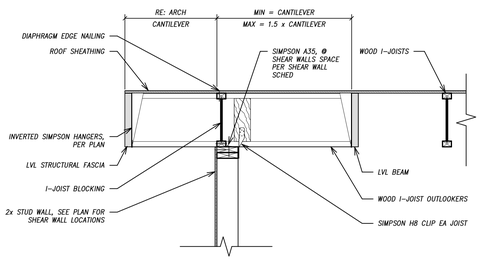

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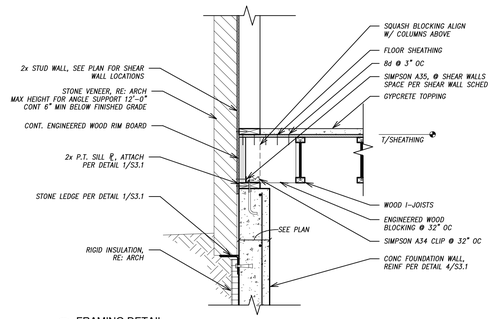

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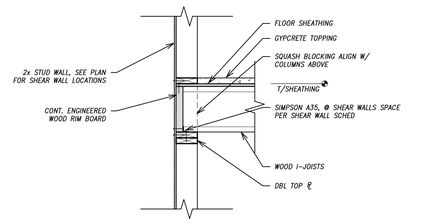

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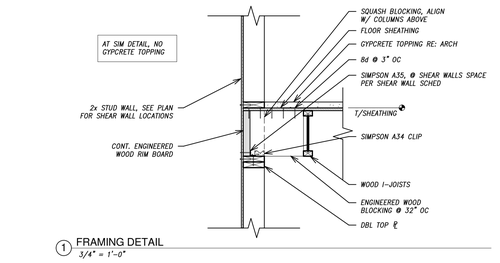

1 FRAMING DETAIL
3/4" = 1'-0"

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COLORADO LICENSED
JEFFREY T. GIBERSON
42691
07.11.2023
PROFESSIONAL ENGINEER

LASSA RESIDENCE

LOT 2 . RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

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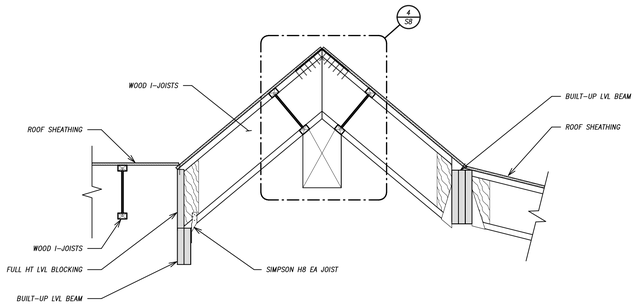
PERMIT	11 JUL 2023

PROJECT # A0727

S7



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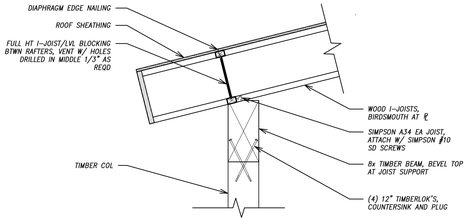

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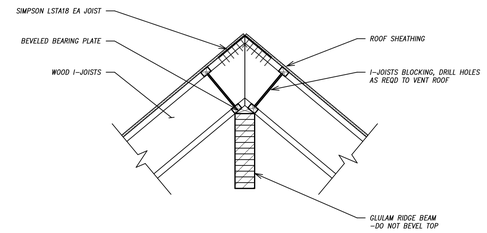

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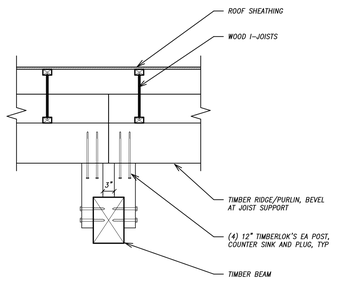

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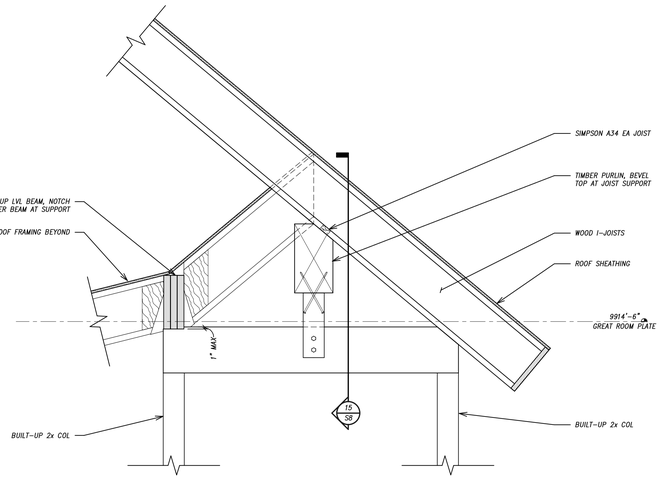

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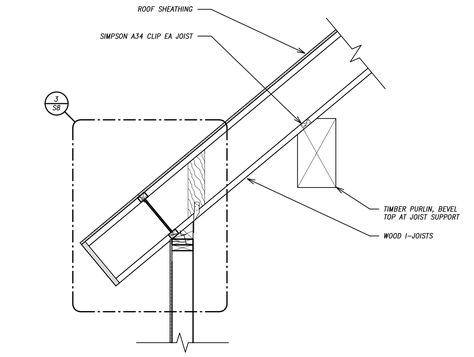

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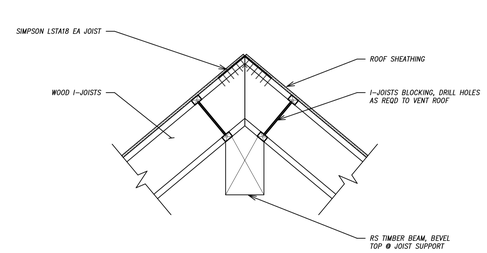

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3/4" = 1'-0"

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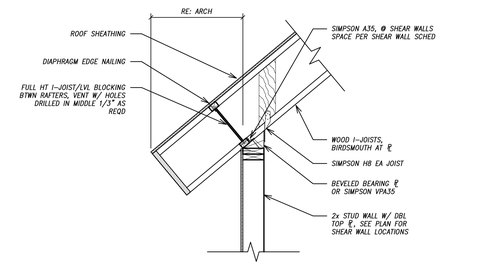
3/4" = 1'-0"



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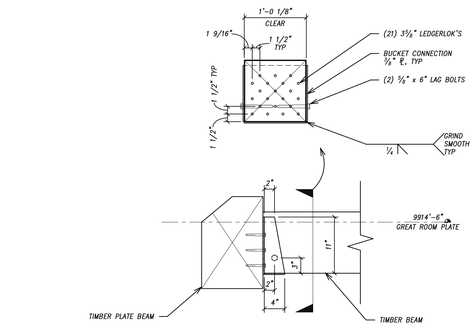

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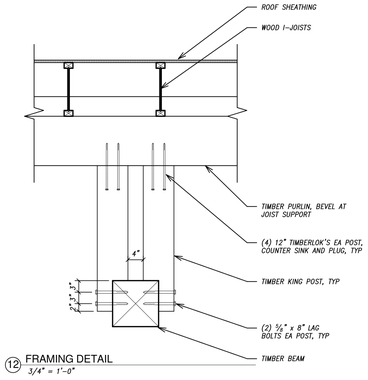

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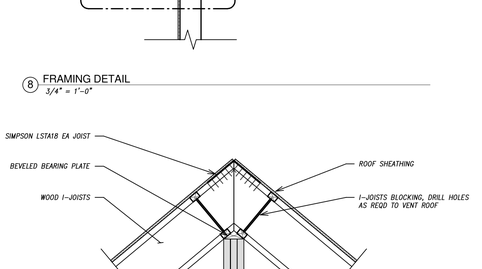

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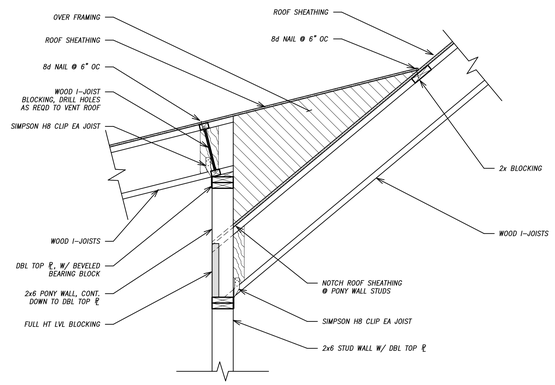

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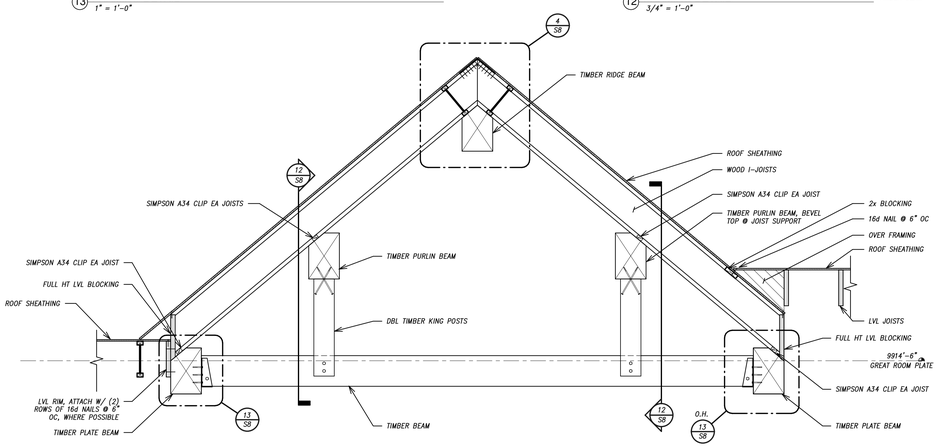

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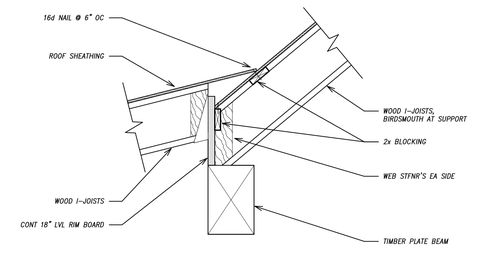

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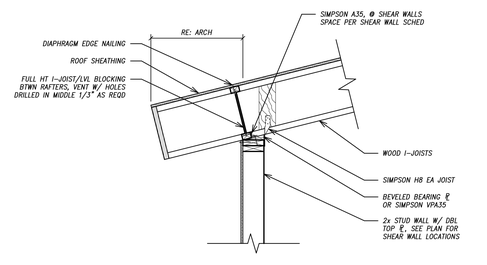

1 FRAMING DETAIL
3/4" = 1'-0"

Backcountry Structural Engineering
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THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS ON THE PROJECT TO CLEARLY DEFINE ALL OF THE REQUIREMENTS FOR THE CONSTRUCTION. WHERE CONFLICTS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

COLORADO LICENSED
JEFFREY T. GIBERSON
42691
07.11.2023
PROFESSIONAL ENGINEER

LASSA RESIDENCE

LOT 2 . RIVERSHORE SUBDIVISION
TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

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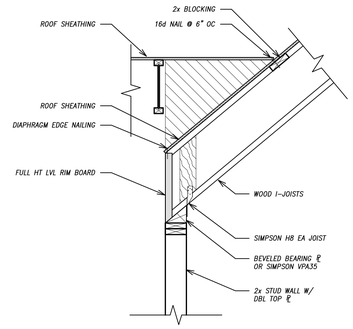

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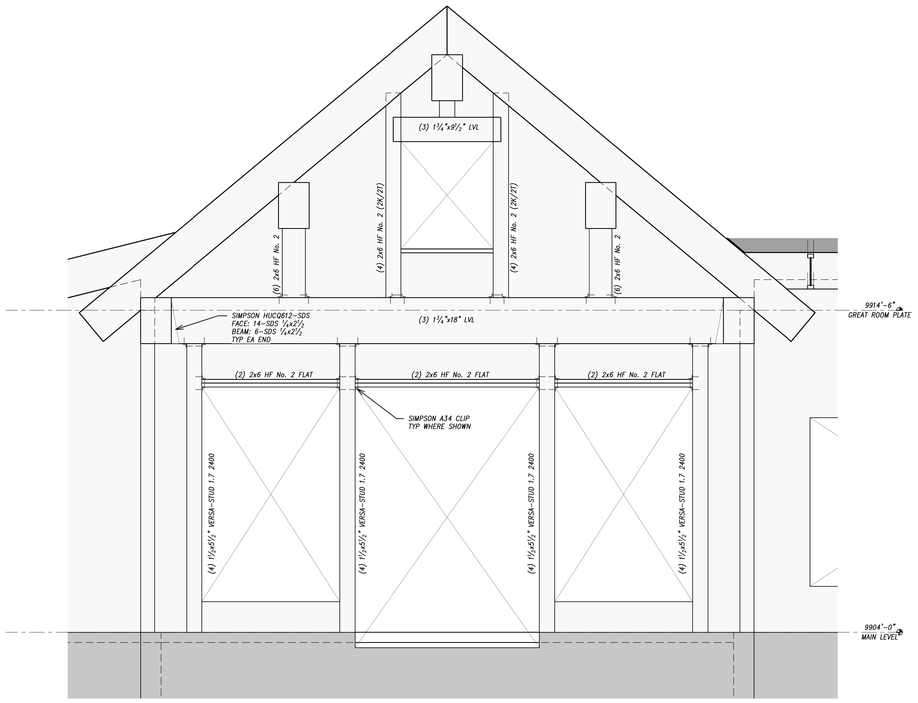
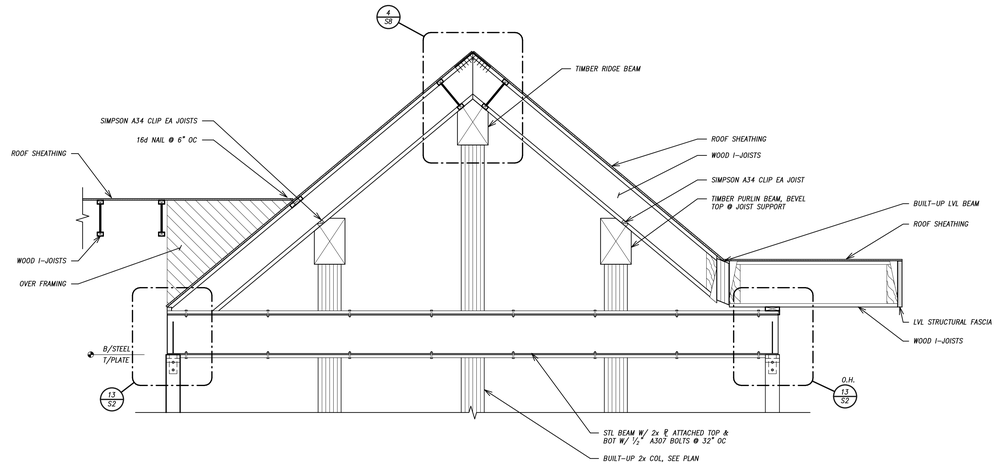


3 ROOF FRAMING PLAN
1/2" = 1'-0"



1 FRAMING DETAIL
1/2" = 1'-0"

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42691
07.11.2023
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TOWN OF BLUE RIVER . SUMMIT COUNTY COLORADO

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PROJECT # A0727

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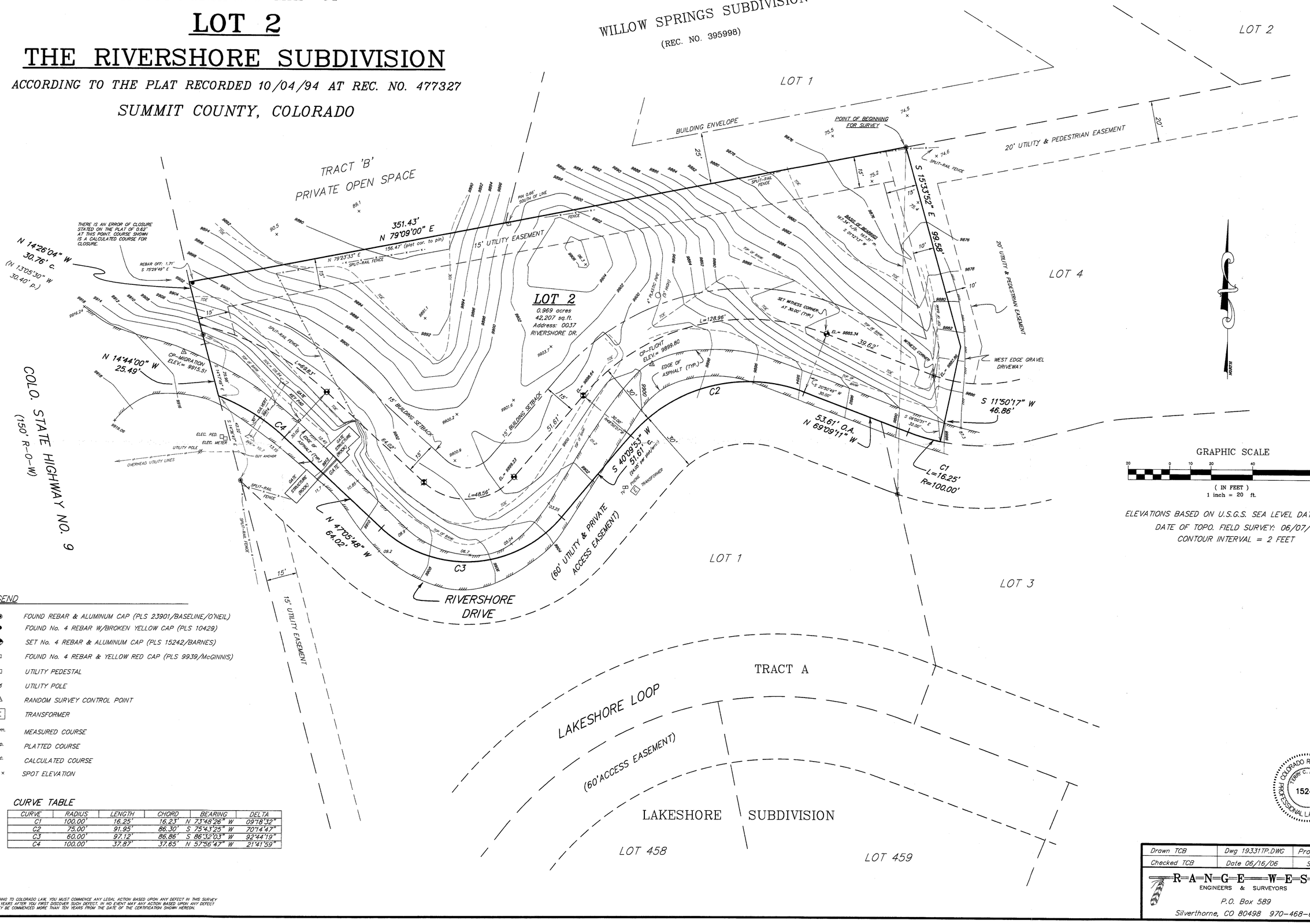
A TOPOGRAPHIC MAP OF

LOT 2

THE RIVERSHORE SUBDIVISION

ACCORDING TO THE PLAT RECORDED 10/04/94 AT REC. NO. 477327

SUMMIT COUNTY, COLORADO



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

ELEVATIONS BASED ON U.S.G.S. SEA LEVEL DATUM (1929)
DATE OF TOPO. FIELD SURVEY: 06/07/06
CONTOUR INTERVAL = 2 FEET

LEGEND

- FOUND REBAR & ALUMINUM CAP (PLS 23901/BASELINE/O'NEIL)
- FOUND No. 4 REBAR W/BROKEN YELLOW CAP (PLS 10429)
- SET No. 4 REBAR & ALUMINUM CAP (PLS 15242/BARNES)
- FOUND No. 4 REBAR & YELLOW RED CAP (PLS 9939/McGINNIS)
- UTILITY PEDESTAL
- UTILITY POLE
- CP — RANDOM SURVEY CONTROL POINT
- E — TRANSFORMER
- m. — MEASURED COURSE
- p. — PLATTED COURSE
- c. — CALCULATED COURSE
- 69.2 × — SPOT ELEVATION

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	100.00'	16.25'	16.23'	N 73°48'26" W	09°18'32"
C2	75.00'	91.95'	86.30'	S 75°43'25" W	70°14'47"
C3	60.00'	97.12'	86.86'	S 86°32'03" W	92°44'19"
C4	100.00'	37.87'	37.65'	N 57°56'47" W	21°41'59"

COLORADO REGISTERED
TERRY C. BARNES
15242
PROFESSIONAL LAND SURVEYOR

Drawn TCB	Dwg 19331TP.DWG	Project 19331
Checked TCB	Date 06/16/06	Sheet 1 of 1

R-A-N-G-E-W-E-S-T INC.
ENGINEERS & SURVEYORS
P.O. Box 589
Silverthorne, CO 80498 970-468-6281

NOTE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO 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.

C:\PV\19331\19331TP Fri Jun 16 15:31:31 2006

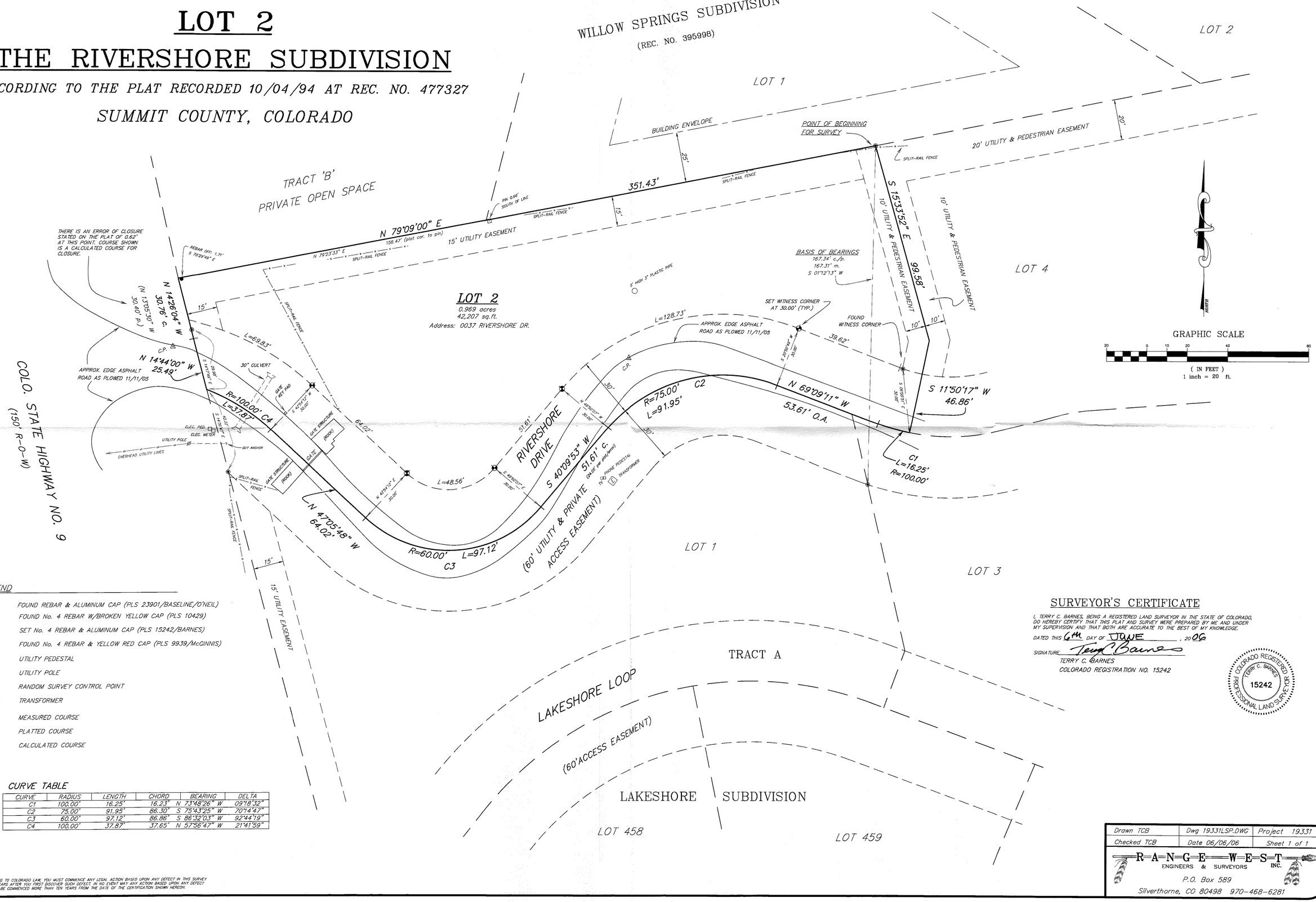
A LAND SURVEY PLAT OF

LOT 2

THE RIVERSHORE SUBDIVISION

ACCORDING TO THE PLAT RECORDED 10/04/94 AT REC. NO. 477327

SUMMIT COUNTY, COLORADO



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- □ UTILITY PEDESTAL
- ⌀ UTILITY POLE
- CP △ RANDOM SURVEY CONTROL POINT
- E TRANSFORMER
- m. MEASURED COURSE
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SURVEYOR'S CERTIFICATE

I, TERRY C. BARNES, BEING A REGISTERED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT AND SURVEY WERE PREPARED BY ME AND UNDER MY SUPERVISION AND THAT BOTH ARE ACCURATE TO THE BEST OF MY KNOWLEDGE.

DATED THIS 6TH DAY OF JUNE, 2006

SIGNATURE Terry C. Barnes

TERRY C. BARNES

COLORADO REGISTRATION NO. 15242

COLORADO REGISTERED TERRY C. BARNES 15242 PROFESSIONAL LAND SURVEYOR

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Drawn TCB	Dwg 19331LSP.DWG	Project 19331
Checked TCB	Date 06/06/06	Sheet 1 of 1

RANGE WEST INC.
ENGINEERS & SURVEYORS
P.O. Box 589
Silverthorne, CO 80498 970-468-6281

C:\PJ\19331\19331LSP Tue Jun 6 08:24:57 2006

SUBSOIL STUDY
FOR FOUNDATION DESIGN
PROPOSED RESIDENCE
LOT 2, RIVERSHORE SUB
TOWN OF BLUE RIVER
SUMMIT COUNTY, COLORADO

JOB NO. 09-72

DATE:
OCTOBER 21, 2009

PREPARED FOR:

ALLEN-GUERRA DESIGN BUILD
P.O. BOX 7404
BRECKENRIDGE, COLORADO 80424

PREPARED BY:

WALTER O. SCHULTZ P.E.
P.O. BOX 1957
DILLON, CO 80435

TABLE OF CONTENTS

PURPOSE AND SCOPE OF STUDY

This report presents the results of a subsoil study for a proposed residence to be located on Lot 2, Rivershore Sub, Summit County, Colorado. The project site is shown on Fig. 1. The purpose of the study was to develop recommendations for the foundation design. The study was conducted in accordance with the verbal agreement for geotechnical engineering services to Allen-Guerra Design Build dated October 19, 2009.

A field exploration program consisting of an exploratory pit was conducted to obtain information on subsurface conditions. Samples of the subsoils obtained during the field exploration were tested in the laboratory to determine their classification, compressibility or swell and other engineering characteristics. The results of the field exploration and laboratory testing were analyzed to develop recommendations for foundation types, depths and allowable pressures for the proposed building foundation. This report summarizes the data obtained during this study and presents my conclusions, design recommendations and other geotechnical engineering considerations based on the proposed construction and the subsoil conditions encountered.

PROPOSED CONSTRUCTION

The proposed residence will be a two to three story structure over a walkout basement. Grading for the structure is to be moderate with cut depths between about four to ten feet. I assume moderately heavy foundation loadings, typical of the proposed type of construction.

If buildings loadings, location or grading plans change significantly from those described above, I should be notified to reevaluate the recommendations contained in this report.

SITE CONDITIONS

The lot was vacant at the time of the study. The lot is irregular in shape with the southern boundary serpentine following Rivershore Drive and the northern boundary along Tract B private open space and Lot 1 Willow Springs Sub. The western boundary of the lot is Colorado Highway 9. Occupied Lot 4 borders on the east. The building site is located in the central area of the lot and is a medium sized knoll with sides sloping moderately to steeply downward from the building site. Vegetation consists of scattered pines. Several boulders were noted at the surface.

FIELD EXPLORATION

The field exploration for the project was conducted on October 20, 2009. One exploratory pit was excavated at the location shown on Fig. 1 to evaluate the subsurface conditions. The pit was dug with a rubber-tracked mini-backhoe. The pit was logged.

Samples of the subsoils were taken with disturbed sampling methods. Depths at which the samples were taken are shown on the Test Pit Log, Fig. 2. The samples were returned to the laboratory for review by the project engineer and testing of the natural coarse granular soils is shown.

SUBSURFACE CONDITIONS

Logs of the subsurface conditions encountered at the site are shown on Fig. 2. The subsoils consist of about four inches of topsoil overlying relatively dense sandy gravel containing cobbles and boulders.

Laboratory testing performed on samples obtained from the pit included gradation analysis, Proctor value and Atterberg limits. Results of the laboratory preformed on the samples of the natural coarse granular soils are shown.

No free water was encountered in the pit at the time of excavation and the subsoils were slightly moist to moist.

DESIGN RECOMMENDATIONS

FOUNDATIONS

Considering the subsoil conditions encountered in the exploratory pit and the nature of the proposed construction, I recommend the building be founded with spread footings bearing on the natural granular soils. The design and construction criteria presented below should be observed for a spread footing foundation system.

1) Footings placed on the undisturbed granular soils should be designed for an allowable soil bearing pressure of 4000 psf. Based on experience, I expect settlement of footings designed and constructed as discussed in this section will be about 1 inch or less.
2) The footings should have a minimum width of 16 inches for continuous walls and 2 feet for isolated pads.
3) Exterior footings and footings beneath unheated areas should be provided with adequate soil cover above their bearing elevation for frost protection. Placement of foundations at least 40 inches below exterior grade is typically used in this area.
4) Continuous foundation walls should be reinforced top and bottom to span local anomalies (by assuming an unsupported length of at least 5 feet.) Foundation walls acting as retaining structures should also be designed to resist lateral earth pressures as discussed in the "Foundation and Retaining Walls" section of this report.
5) All existing fill, topsoil and any loose or disturbed soils should be removed and the footing bearing level extended down to relatively dense natural granular soils or on properly compacted fill. If water seepage is encountered, the footing areas should be dewatered before concrete placement.

6) Any fill placed for foundation support should be granular and compacted to at least 100% ASTM D-698 Proctor density. Fill should be placed in maximum loose lifts of 8 inches at a moisture content of – 2 % to + 1% of optimum moisture content with a maximum depth of two feet.

7) A representative of the geotechnical engineer should observe all footing excavations prior to concrete placement to evaluate bearing conditions.

FOUNDATION AND RETAINING WALLS

Foundation walls and retaining structures which are laterally supported and can be expected to undergo only a slight amount of deflection should be designed for lateral earth pressure computed on the basis of an equivalent fluid unit weight of 55 pcf for backfill consisting of the on-site soils. Cantilevered retaining structures which are separated from the building and can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 35 pcf for backfill consisting of the on-site soils.

All foundation and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent footings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. The buildup of water behind a wall or an upward sloping backfill surface will increase the lateral pressure imposed on a foundation wall or retaining structure. An underdrain should be provided to prevent hydrostatic pressure buildup behind walls.

Backfill should be placed in uniform lifts and compacted to at least 90% of ASTM D-698 Proctor density (at a moisture content near optimum.) Backfill in pavement and walkway areas should be compacted to at least 95% of ASTM D-698 Proctor density. Care should be taken not to over compact the backfill or use large equipment near the wall, since this could cause excessive lateral pressure on the wall. Some settlement of deep foundation wall backfill should be expected, even if the material is placed correctly, and could result in distress to facilities constructed on the backfill.

I recommend on-site granular soils for backfilling foundation walls and retaining structures because their use results in lower lateral earth pressures. Subsurface drainage recommendations are discussed in more detail in the "Underdrain System" section of this report. Imported granular wall backfill should contain less than 10% passing the No. 200 sieve, be similar to the onsite granular soil and have a maximum size of 6 inches.

The lateral resistance of foundation or retaining wall footings will be a combination of the sliding resistance of the footing on the foundation materials and passive earth pressure against the side of the footing. Resistance to sliding at the bottoms of the footings can be calculated based on a coefficient of friction of 0.40. Passive pressure of compacted backfill against the sides of the footings can be calculated using an equivalent fluid unit weight of 400 pcf. The coefficient of friction and passive pressure values recommended above assume ultimate soil strength. Suitable factors of safety should be included in the design to limit the strain, which will occur at the ultimate strength, particularly in the case of passive resistance. Fill placed against the sides of the footings to resist lateral loads should be a nonexpansive granular material compacted to at least 95% of ASTM D-698 Proctor density at a moisture content near optimum.

FLOOR SLABS

The natural on-site soils, exclusive of topsoil, are suitable to support lightly to moderately loaded slab-on-grade construction. To reduce the effects of some differential movement, floor slabs should be separated from all bearing walls and columns with expansion joints which allow unrestrained vertical movement. Floor slab control joints should be used to reduce damage due to shrinkage cracking. The requirements for joint spacing and slab reinforcement should be established by the designer based on experience and the intended slab use. A (minimum) 4-inch layer of free-draining gravel may be placed beneath basement level slabs to facilitate drainage. This material should consist of minus 2-inch aggregate with at least 50% retained on the No. 4 sieve and less than 2% passing the No. 200 sieve.

All fill materials for support of floor slabs should be compacted to at least 95% of ASTM D-698 Proctor density at a moisture content near optimum. Required fill can consist of the on-site soils devoid of vegetation, topsoil and oversized rock.

UNDERDRAIN SYSTEM

Although free water was not encountered during the exploration, it has been my experience in mountainous areas that local perched groundwater may develop during times of heavy precipitation or seasonal runoff. Frozen ground during spring runoff can create a perched condition. I recommend below-grade construction, such as retaining walls, crawlspace and basement areas, be protected from wetting and hydrostatic pressure buildup by an underdrain system. Refer to attached detail.

The drains should consist of drainpipe placed in the bottom of the wall backfill surrounded above the invert level with free-draining granular material. The drain should be placed at each level of excavation and at or below lowest adjacent footing grade and sloped at a minimum 1% to a suitable gravity outlet. Free-draining granular material used in the underdrain system should contain less than 2% passing the No. 200 sieve, less than 50% passing the No. 4 sieve and have a maximum size of 2 inches. The drain gravel backfill should be at least 1 ½ feet deep. Geocomposite wall drain should extend to within 1 to 2 feet of finish grade and connect to the drain gravel or pipe.

SITE GRADING

The risk of construction-induced slope instability at the site appears low. I assume the cut depths for the basement level will not exceed, one level, about 8 to 10 feet. Fills should be limited to about 8 to 10 feet deep, especially at the downhill side of the residence where the slope steepens. Embankment fills should be compacted to at least 95% of ASTM D-698 Proctor density near optimum moisture content. Prior to fill placement, the subgrade should be carefully prepared by removing all vegetation and topsoil and compacting to 95% ASTM D-698 Proctor density. The fill should be benched into the portions of the hillside exceeding 20% grade.

Permanent unretained cut and fill slopes should be graded at 2 horizontal to 1 vertical or flatter and protected against erosion by revegetation or other means. The risk of slope instability will be increased if seepage is encountered in cuts and flatter slopes may be necessary. If seepage is encountered in permanent cuts, an investigation should be conducted to determine if the seepage will adversely affect the cut stability. This office should review site-grading plans for the project prior to construction.

SURFACE DRAINAGE

The following drainage precautions should be observed during construction and maintained at all times after the building has been completed:

1) Inundation of the foundation excavations and underslab areas should be avoided during construction.

2) Exterior backfill should be adjusted to near optimum moisture and compacted to at least 95% of ASTM D-698 Proctor density in pavement and slab areas and to at least 90% of ASTM D-698 Proctor density in landscape areas.

2) The ground surface surrounding the exterior of the building should be sloped to drain away from the foundation in all directions. I recommend a minimum slope of 12 inches in the first 10 feet in unpaved areas and a minimum slope of 3 inches in the first 10 feet in paved areas. Free- draining wall backfill should be capped with about 2 feet of the on-site soils to reduce surface water infiltration.

4) Roof downspouts and drains should discharge will beyond the limits of all backfill.

5) Landscaping which requires regular heavy irrigation should be located at least 10 feet from foundation walls.

6) Consideration should be given to use of xeriscape to reduce the potential for wetting of soils below the foundation caused by irrigation.

LIMITATIONS

This study has been conducted in accordance with generally accepted geotechnical engineering principles and practices in this area at this time. I make no warranty either expressed of implied. The conclusions and recommendations submitted in this report are based upon the data obtained from the exploratory pit excavated at the location indicated on Fig. 1, the proposed type of construction and my experience in the area. My findings include interpolation and extrapolation of the subsurface conditions identified at the exploratory pit and variations in the subsurface conditions may not become evident until excavation is performed. If conditions encountered during construction appear different from those described in this report, I should be notified so that re-evaluation of the recommendations may be made.

This report has been prepared for the exclusive use by the client for design purposes. I am not responsible for technical interpretations by others of the information. As the project evolves, I should provide continued consultation and field services during construction to review and monitor the implementation of my recommendations, and to verify that the recommendations have been appropriately interpreted. Significant design changes may require additional analysis or modifications to the recommendations presented herein. I recommend on-site observation of excavation and foundation bearing strata and testing of structural fill by a representative of the geotechnical engineer.

Sincerely,

WALTER O. SCHULTZ PE

COLORADO REGISTERED WALTER O. SCHULTZ 19696 PROFESSIONAL ENGINEER

TEST PIT LOG

LOT 2, RIVERSHORE SUB, TOWN OF BLUE RIVER
SUMMIT COUNTY, COLORADO

PIT NO.1

0-4" TOPSOIL AND VEGETATION

4"-8' SANDY GRAVEL W/ COBBLE & BOULDERS, DENSE, MOIST BROWN

NO FREE WATER ENCOUNTERED DURING EXCAVATION

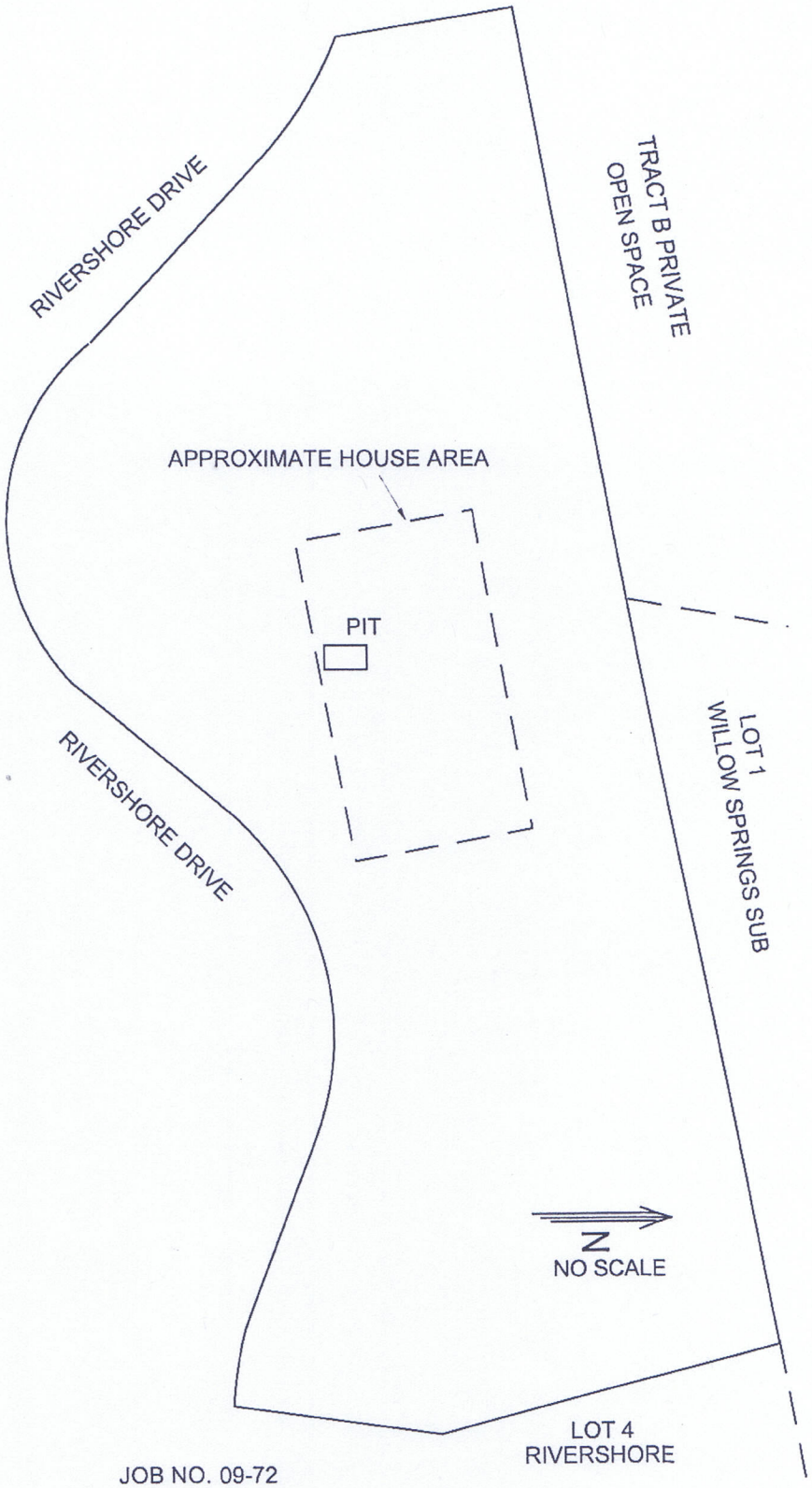
COMPOSITE SAMPLES TAKEN

JOB NO: 09-72

FIGURE 2

COLO. STATE HWY 9

TEST PIT LOCATION
LOT 2, RIVERSHORE SUB
TOWN OF BLUE RIVER
SUMMIT COUNTY, CO

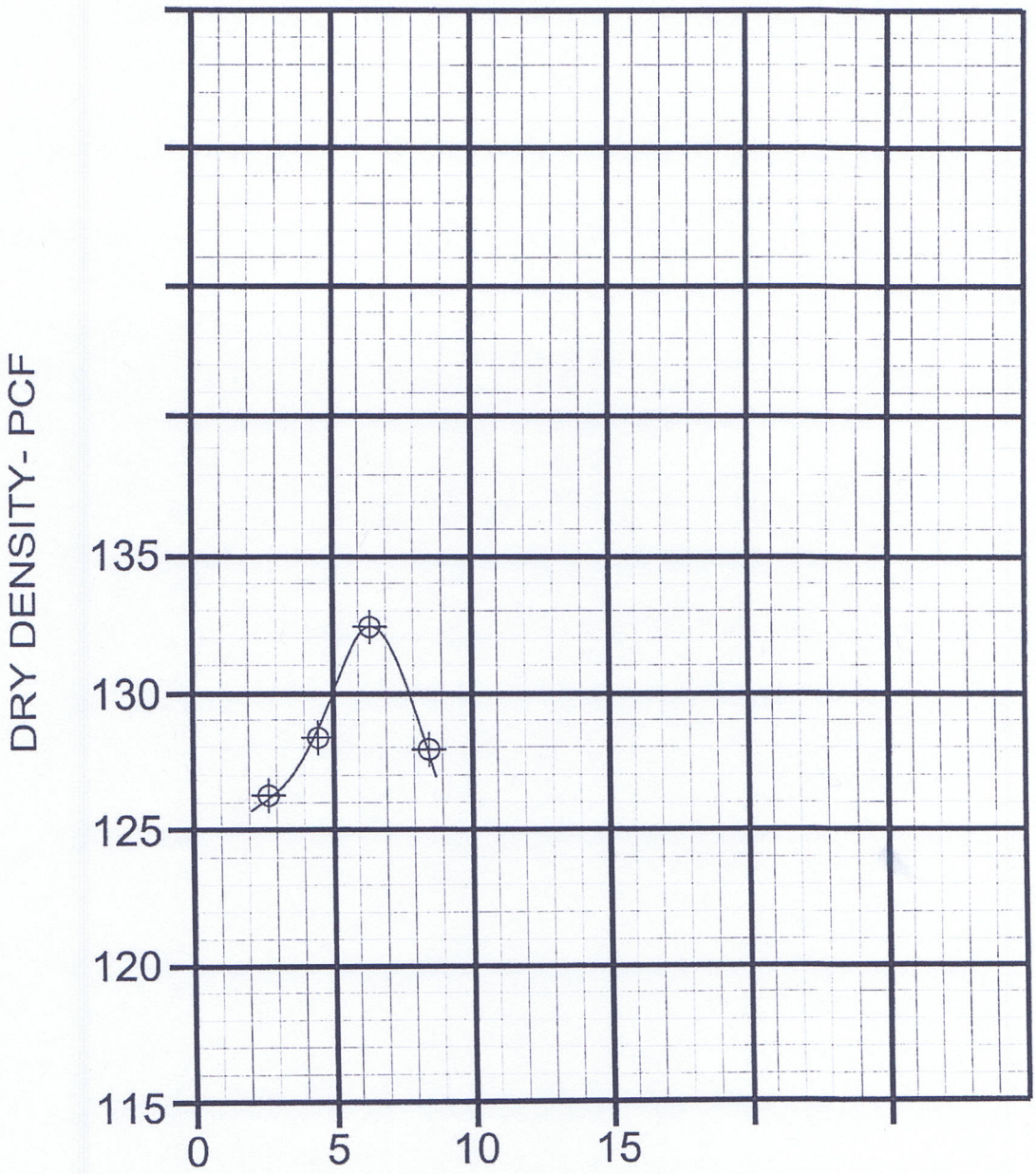


JOB NO. 09-72

WALTER O. SCHULTZ P.E. 09-72SITE

WALTER O. SCHULTZ P.E.
P.O. BOX 1957
DILLON, CO 80435

MOISTURE/DENSITY RELATIONSHIP



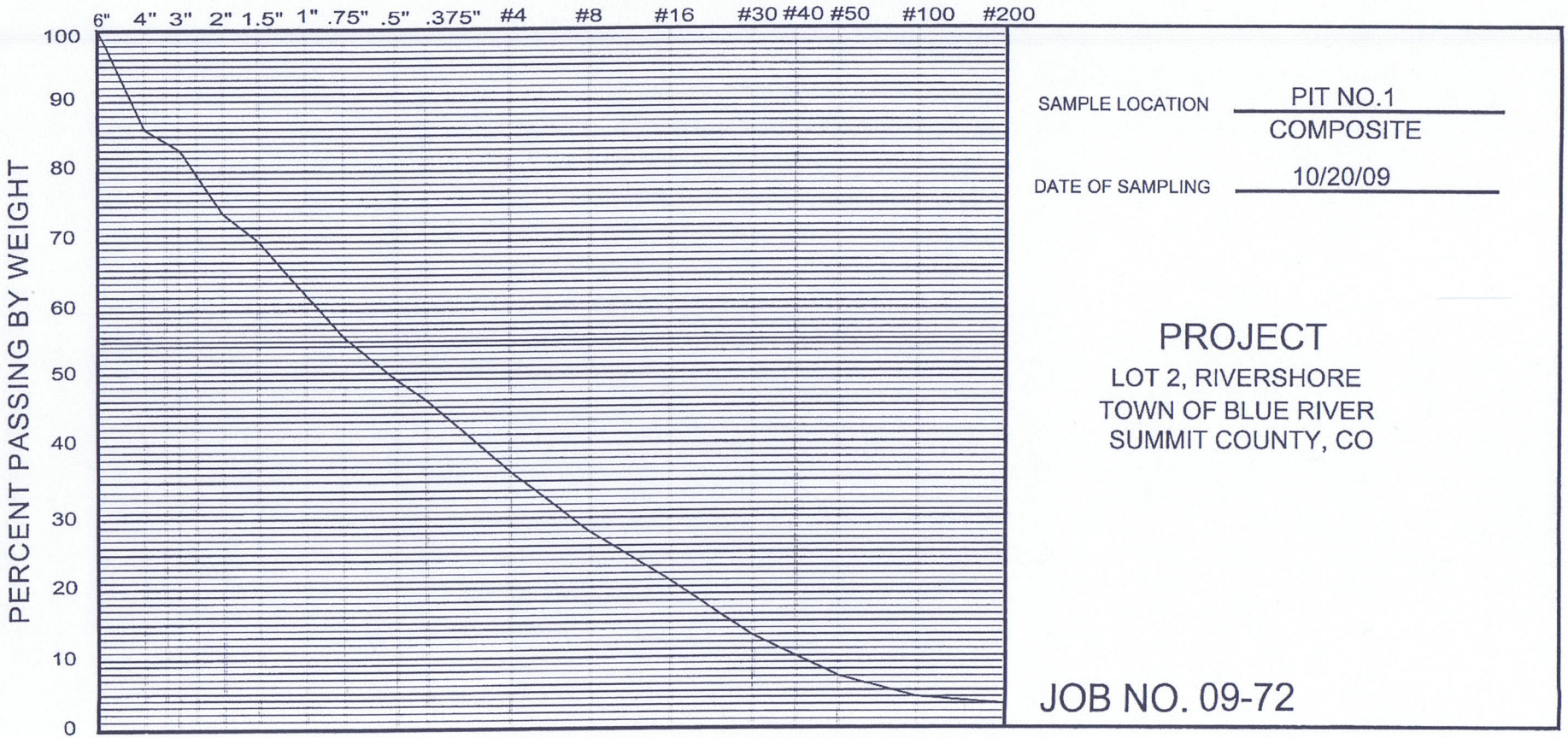
DRAWING NO. 09-72P

PIT NO.	SAMPLE NO.	DATE	DEPTH FEET	MAXIMUM DRY DENSITY	OPTIMUM MOISTURE	PROCTOR METHOD
1	1	10/20/09	COMPOSITE	132.4 PCF	6.4 %	ASTM D- 698D

SOIL TYPE	PROJECT NO. 09-72
SANDY GRAVEL	LOT 2, RIVERSHORE TOWN OF BLUE RIVER SUMMIT COUNTY, CO

PARTICLE SIZE ANALYSIS CHART

U. S. STANDARD SIEVE SIZE



SAMPLE LOCATION PIT NO.1
COMPOSITE

DATE OF SAMPLING 10/20/09

PROJECT

LOT 2, RIVERSHORE
TOWN OF BLUE RIVER
SUMMIT COUNTY, CO

JOB NO. 09-72

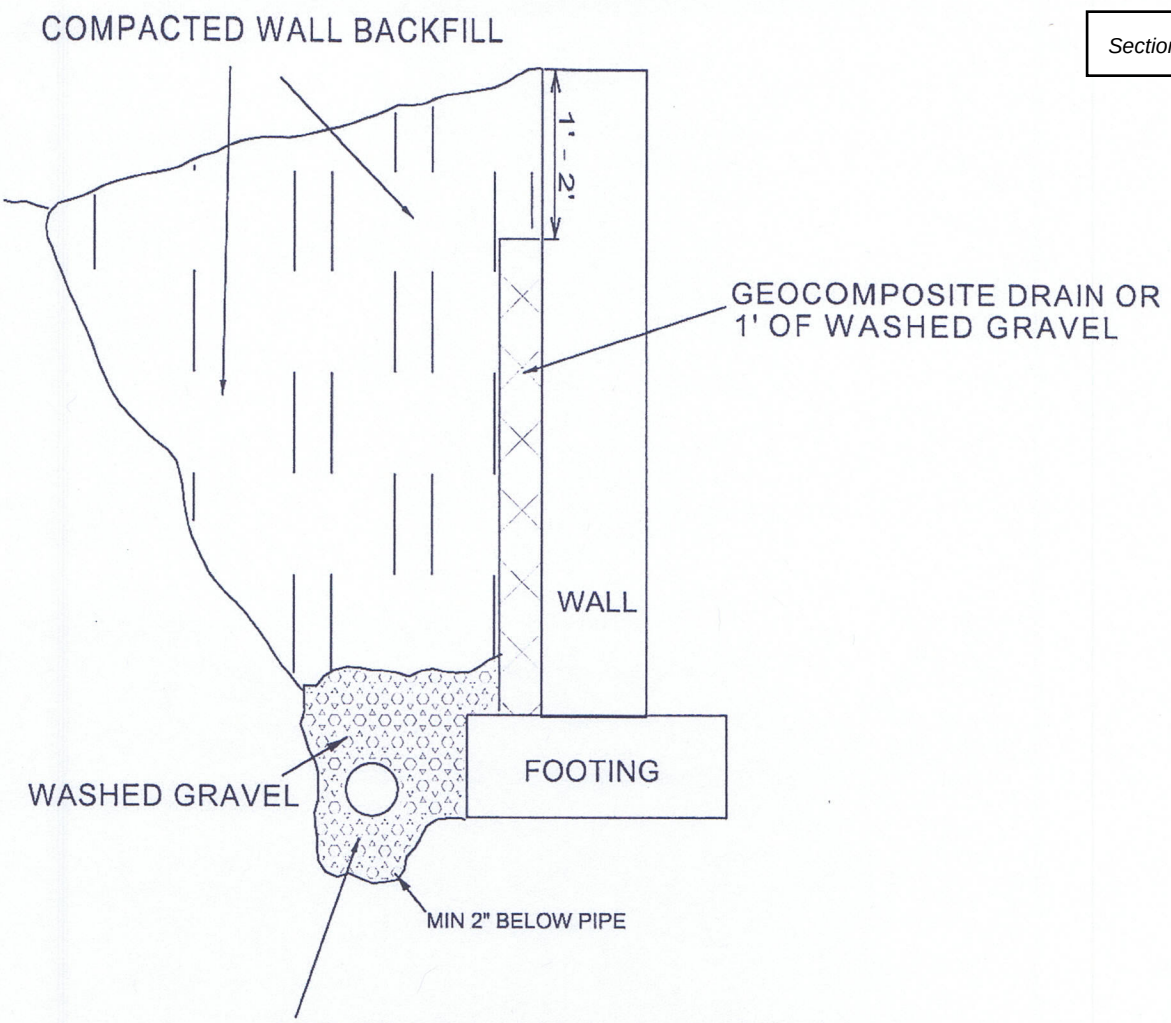
LIQUID LIMIT NP PLASTIC LIMIT NP PLASTICITY INDEX NP

WALTER O. SCHULTZ P.E.
P.O. BOX 1957
DILLON, CO 80435

GRAVEL	SAND	SILT & CLAY
64 %	33 %	3 %

09-72G

CLASSIFICATION — SANDY GRAVEL



WALLDRAIN

TYPICAL DRAIN SYSTEM CROSS SECTION

WALTER O. SCHULTZ P.E.
P.O. BOX 1957
DILLON, CO 80435

STAFF REPORT

TO: Planning Commission

FROM: Kyle Parag, Building Official

RE: Modification to Town adopted Ground Snow Load

DATE: January 14, 2024

BACKGROUND/ANALYSIS:
Every jurisdiction is required to determine a snow load as part of the local climatic conditions specific to the location of the jurisdiction. This snow load is used in calculations by engineers for structural loads imposed on all portions of a structure and used by inspectors to determine structural stability of structures within the Town Limits of Blue River. Historically, Blue River's snow load has been determined to be 100 lbs/sqft, roof snow load. As a roof snow load, the IRC does not permit any reduction for the loads actually imposed on the structure other than pitch reductions.

Heavy snow fall weighs about 1.5 lbs/sqft*inch, which means the current 100 lbs/sqft design criteria equates to a snow accumulation of about 66". In addition to the weight of the compounding snow accumulation, freeze-thaw cycles can create ice, exponentially increasing the total weight. Ice/snow mixtures weigh about 5lbs/sqft*inch. With the analysis of the ice and snow combination, the 100 lb/sqft can be exceeded with only about 20" of late season snow and ice combination accumulation.

Most of the building safety industry uses ground load rather than roof load, which is typically converted by reducing the ground load by 30%. With that conversion, and for comparisons in this document, Blue River would have a current design ground snow load of 142 lb/sqft.

Newer recent data that uses this ideology has indicated the 2% snow load with the addition of the loading for ice for some of the Blue River properties goes up to 227lbs/sqft. 2% snow load is derived from similar methods of the rainfall statistics, such as 100-year rain. A 2% snow load would mean that the load is expected to be obtained with a chance of 2% in any given year, and/or expected every 50 years.
When using the tool below, residential structures are Risk Category II.
https://asce7hazardtool.online
For additional information:
https://assets.ccaps.umn.edu/documents/CPE-Conferences/structural/2022Structural722ASCE.pdf

The current snow load design criteria the Town uses (142 lb/sqft) is currently on par with the highest snow loads required by jurisdictions throughout Colorado. This snow load poses challenges for the design of structures and promotes steeper roof designs. A significant increase in snow load will create additional costs for the construction of new homes. However, with recent data indicating the relative probability of significantly exceeding the current design loads is likely, I recommend an increase in design snow loads.

As the building official, I am recommending increasing the roof snow load to 140 lbs/sqft (200 lbs/sqft ground snow load).
The above snow load has been determined based on the latest data available and to the best of the staff's knowledge, provides the safest and most reasonable design conditions for the Town of Blue River, without creating undue costs and burdens on the community.
This change will be written in the Town code as part of the climatic conditions table of the IRC, and the value will be used for the local determination in accordance with 1608.2 of the IBC.

STAFF RECOMMENDATION
Staff recommends the commission provide a recommendation to the Board of Trustees to approve an ordinance to increase the design snow load for the Town of Blue River.