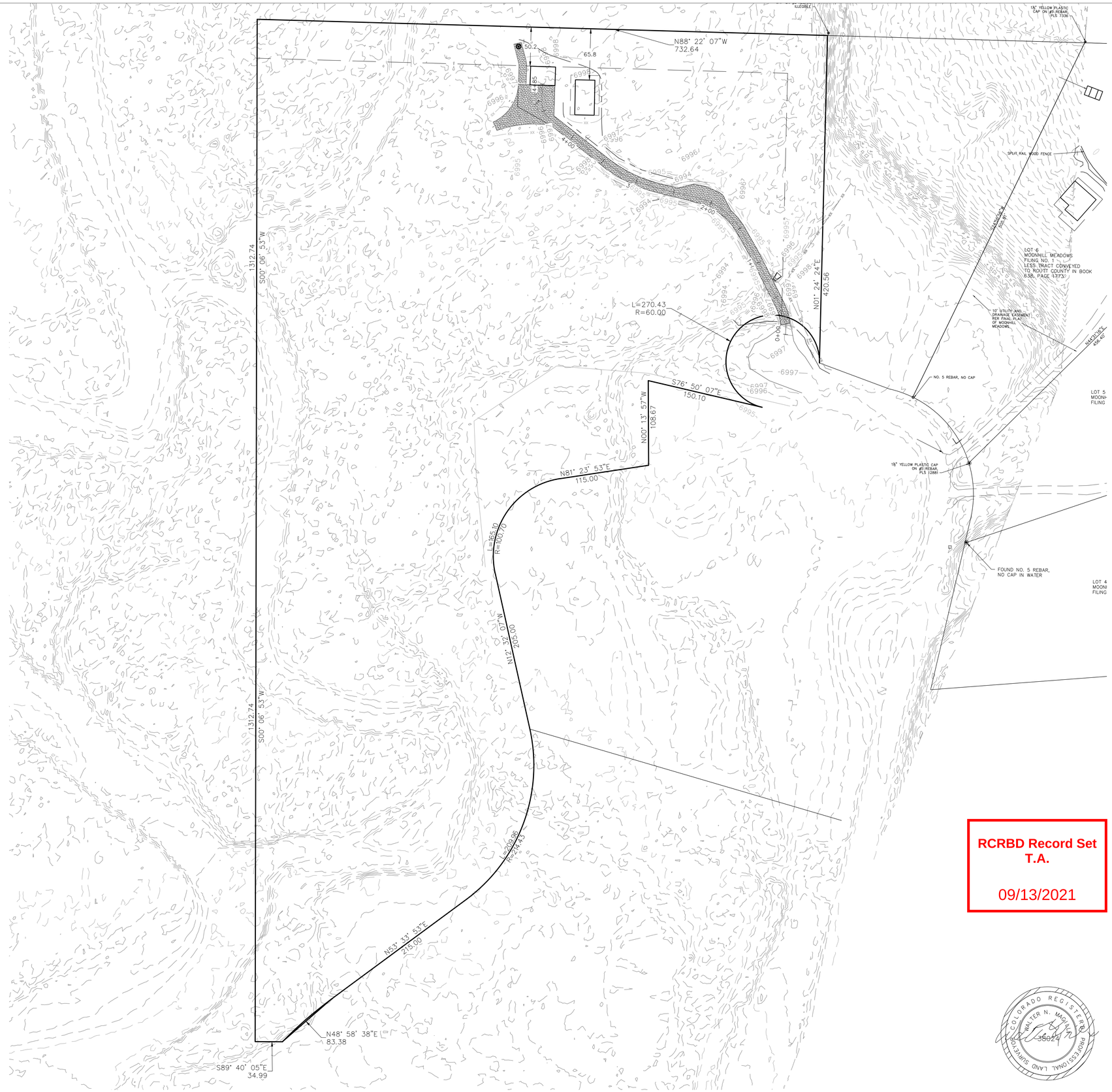
NOTES:

1. OWNER: NICHOLAS, NATHAN S & ALISON K
2. LEGAL DESCRIPTION: PT OF TR 65 SEC 17-8-85 TOTAL: 13.6 AC
3. FIELD SURVEYING COMPLETED DECEMBER 4, 2020.
4. TOPOGRAPHIC DATA GENERATED FROM FIELD SURVEYING AND 2018 LIDAR DATA.
5. PROPERTY CORNERS WERE FOUND AS INDICATED HEREON.
6. NO BENCHMARK HAS BEEN SET.
7. EXISTING BURIED UTILITIES ARE UNKNOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY LOCATES.
8. ALL DIMENSIONS AND ELEVATIONS ARE IN FEET UNLESS OTHERWISE NOTED.
9. 2:1 SLOPES SHALL BE STABILIZED WITH ENGINEER APPROVED EROSION CONTROL BLANKET. EXAMPLES INCLUDE STRAW EROSION CONTROL BLANKET AND TURF REINFORCEMENT MAT.
10. ALL DISTURBED AREAS NOT RECEIVING GRAVEL SURFACING SHALL BE REVEGETATED WITHIN ONE CONSTRUCTION SEASON.
11. FLOODPLAIN AND FLOODWAY LIMITS ARE UNKNOWN. AREA NOT MAPPED BY FEMA

LEGEND

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING EASEMENT
- BUILDING ENVELOPE
- STRAW WATTLE FOR EROSION CONTROL
- EXISTING 2 FT CONTOUR
- EXISTING 10 FT CONTOUR
- PROPOSED 2 FT CONTOUR
- PROPOSED 10 FT CONTOUR
- EXISTING WATER LINE
- CENTER LINE OF DITCH/PR DRAINAGE
- PROPOSED EDGE OF GRAVEL
- PROPOSED DRIVEWAY
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED LANDSCPAE WALL
- PROPOSED GRAVEL SURFACING
- FLOW ARROW
- PROPOSED 1" WATER SERVICE LINE
- COMMUNICATIONS SERVICE LINE
- ELECTRICAL SERVICE LINE
- COMBINED ELEC AND COMMS
- EXISTING ELECTRICAL PEDESTAL
- 72.00 SPOT GRADE
- EXISTING TREE
- RIP RAP STABILIZATION



RCRBD Record Set
T.A.

09/13/2021

COLORADO REGISTERED
WALTER N. MAGILLAN
PROFESSIONAL LAND SURVEYOR
38024

FOUR POINTS SURVEYING ENGINEERING

440 S. Lincoln Ave, Suite 4A
P.O. Box 775966
Steamboat Springs, CO 80487
(970)-871-6772
www.fourpointsse.com

No.	DATE	REVISIONS	INT

PART OF TRACT 65
SECTION 17, T8N, R85W

TBD MOON HILL DRIVE
STEAMBOAT SPRINGS, CO 80487

Horizontal Scale

60' 0 30' 60'

1" = 60'

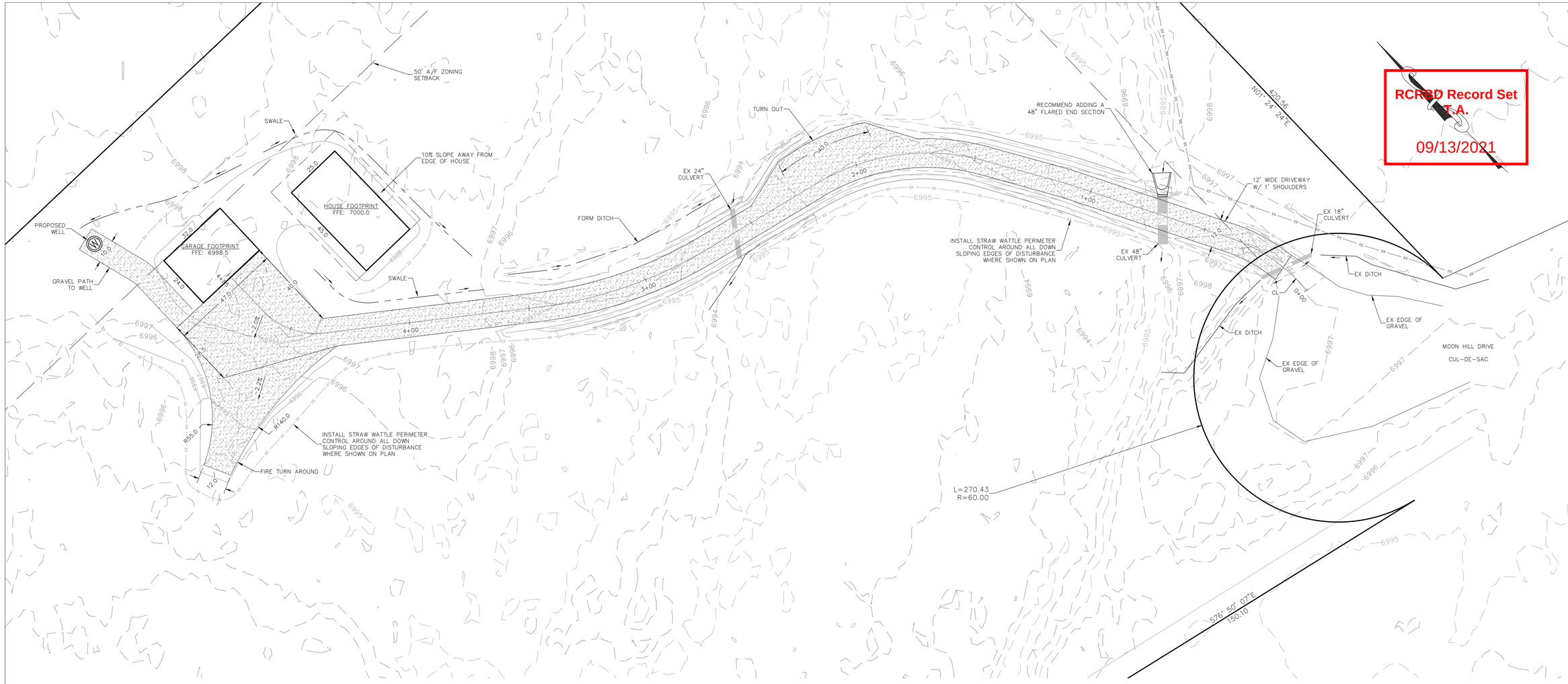
Contour Interval = 1 ft

DATE: 8-11-2021
JOB #: 1982-001
DRAWN BY: WNM
DESIGN BY: JLW
REVIEW BY: WNM

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

DRAWING: SITE PLAN

SHEET # 1



LEGEND

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- ELECTRICAL SERVICE LINE
- COMBINED ELEC AND COMMS
- EXISTING ELECTRICAL PEDESTAL
- 72.00 SPOT GRADE
- EXISTING TREE
- RIP RAP STABILIZATION

ANNOTATIONS:

BOW	BOTTOM OF WALL
CL	CENTERLINE
COMMS	COMMUNICATIONS
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EX	EXISTING
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
LF	LINEAR FEET/FOOT
INV	INVERT
R&B	ROAD AND BRIDGE
R	RADIUS
ROW	RIGHT OF WAY
PR	PROPOSED
T.O.P.	TOP OF PIPE
TYP	TYPICAL

HOUSE AND DRIVEWAY EARTHWORK QUANTITIES:

AREA OF DISTURBANCE:	20,000	SQ. FT.
TOPSOIL STRIPPING:	N/A, DEPTH UNKNOWN	
TOTAL CUT:	50	CU. YDS.
TOTAL FILL:	410	CU. YDS.
NET (FILL):	360	CU. YDS.

NOTES:
1. A FILL FACTOR OF 1.10 WAS USED FOR CUT-FILL VOLUME CALCULATIONS.
2. FILL VOLUME INCLUDES IMPORT MATERIALS. (I.E. GRAVEL, ASPHALT, CONCRETE, ETC.)

NOTES:

1. OWNER: NICHOLAS, NATHAN S & ALISON K
2. LEGAL DESCRIPTION: PT OF TR 65 SEC 17-8-85 TOTAL: 13.6 AC
3. FIELD SURVEYING COMPLETED DECEMBER 4, 2020.
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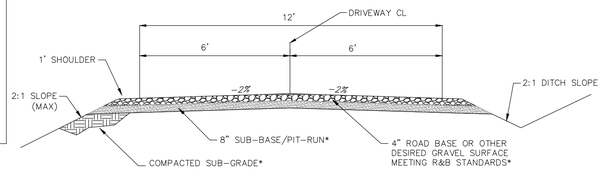
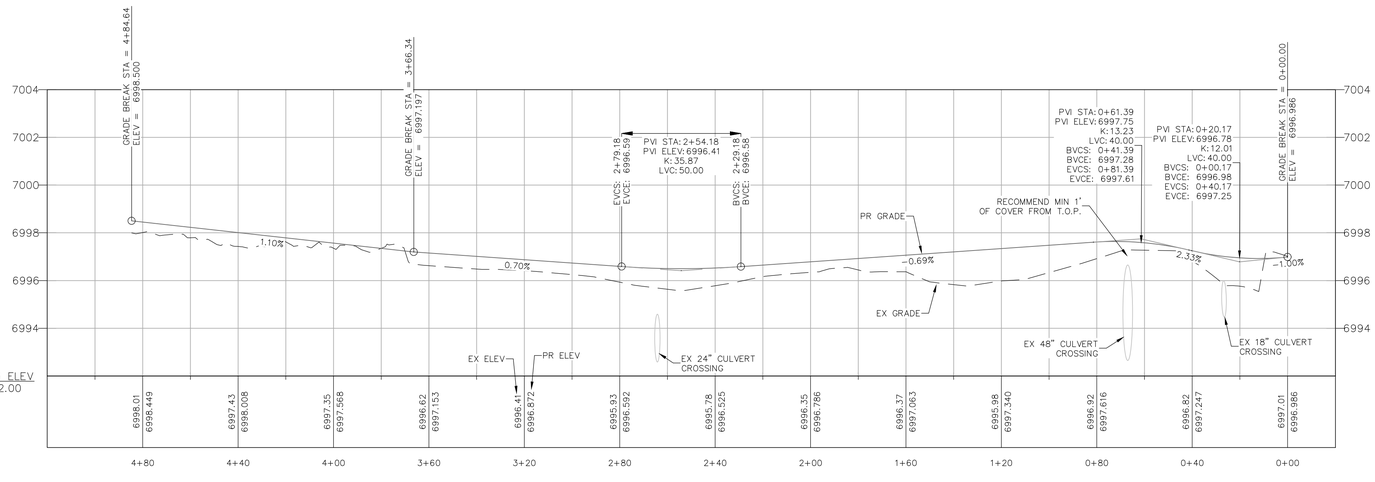


TYPICAL DRIVEWAY CROSS SECTION DETAIL: 12' DRIVEWAY
N.T.S.

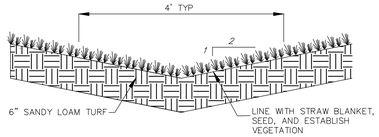
*PROVIDE SAME SURFACING FOR THE FIRE TURN OUT AND TURN AROUND



DRIVEWAY CL VERTICAL PROFILE VIEW

VERTICAL SCALE 0 1.5' 3' — 1" = 3'

HORIZONTAL SCALE 0 15' 30' — 1" = 30'



TYPICAL DRIVEWAY DRAINAGE DITCH DETAIL
N.T.S.

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No.	DATE	REVISIONS
		INT

PART OF TRACT 65
SECTION 17, T8N, R85W

TBD MOON HILL DRIVE
STEAMBOAT SPRINGS, CO 80487

Horizontal Scale

0' 10' 20'

1" = 20'

Contour Interval = 1 ft

DATE: 8-11-2021
JOB #: 1983-001
DRAWN BY: JLW
DESIGN BY: JLW
REVIEW BY: WNM

IF THIS DRAWING IS PRESENTED IN A FORMAT OTHER THAN 24" X 36", THE GRAPHIC SCALE SHOULD BE UTILIZED.

DRAWING: SITE PLAN

SHEET # 2

Timberhaven
LOG and TIMBER HOMES, LLC

THE FOLLOWING PLANS ARE:

CONSTRUCTION PLANS

FOR

PLUS PUU - NATHAN & ALISON NICHOLAS

IN

STEAMBOAT SPRINGS, CO

* NOTE : *
PLEASE PROVIDE NAME OF COUNTY WHERE BUILDING SITE IS LOCATED

COMMON FASTENERS

LOG WALLS:
- 3/8" x 12" lags – all full log courses & corners of swedish cope
- 3/8" x 10" lags – for 8" laminated hemlock logs
- 3/8" x 8" lags – half log courses of all profiles & corners of dovetail profiles
- 1/2" x 8" lags – support posts to log wall connections
- 8" polebarn nails – butt & pass corners of D profiles & all corner post connections
- 10" timber screws – swedish cope log siding corner extensions & filler corners
- 3" deck screws – corner extensions & filler corners
- 2" deck screws – swedish cope siding (fastened from interior)
- 16d galv. finish – exterior trim
- 10d galv. finish – all siding profiles

CONVENTIONAL 2x FLOOR SYSTEM:
- 16d galv. ardox nails – perimeter box/joist to ACQ sill plate
- 16d cement coated sinkers – conventional framing
- 10d cement coated sinkers – precast foundation wall blocking
- 10d galv. common nails – precast foundation wall blocking to ACQ sill plate
- 10d Common nails – joist hanger to header connection
- 8d cement coated sinkers – subflooring, metal banding, bridging, etc.
- 1 1/2" galv. Joist hanger nails – A35Z anchors & joist hanger to joist connection

INTERIOR:
- 3/8" x 8" lags – partition walls to log wall connection
- 16d cement coated sinkers – conventional framing
- 10d finish nails – interior door jambs
- 8d finish nails – interior trim
- 6d finish nails – 1x8 t&g wall finish

STAIRS:
- 3/8" x 8" lags – (spiral) tread to post
- 3/8" x 5 1/2" lags – (heavy timber and 1/2 log) stringer and treads, landing, landing support posts, (spiral) tread to railing post, 6x6 and 8" round railing posts
- 3/8" x 3" lags – (finihed and basement) landing and support posts, 4x4 railing posts
- 16d bright finish nails – (finished and basement) tread and riser nails
- 10d finish nails – railing and balusters

HEAVY TIMBER LOFT FLOOR SYSTEM:
- 3/8" x 12" lags – 8x12 and/or glu-lam beams to 8x12 and/or glu-lam beams, 8x12 and/or glu-lam beams to post connections
- 3/8" x 10" lags – 6x8/8" round loft joists to interior & exterior framed wall connections, log wall connections, & Beam connections
- 3/8" x 8" lags – 6x8 joists to log wall (fastened from log toward joist refer to 6x8 joist to log wall detail)
- 3/4" x 7" hex bolts – BH68 hanger to 6x8 joist connection or rafter connections
- 3/4" x 3" lags – BH68 hanger to beam connection
- 16d cement coated sinkers – 2x6 t&g flooring
- 8d cement coated sinkers – 1x8 t&g (composition flooring), metal banding, etc.
- 1 1/4" drywall screw – subflooring. (composition flooring)

ROOF SYSTEMS:
- 3/8" x 12" lags – glu lam beams, 6x8 rafters notched into loft joists, 4x/6x12 exposed beams, & decro purlin to log wall or framed wall connection
- 3/8" x 10" lags – purlins, 6x8 decorative ceiling beams, 6x8 rafters to glulam ridge connection
- 3/8" x 8" lags – 6x8 skylight framing, 6x8 chimney framing, 6x8 rafters to log wall connection
- 1/2" x 8" lags – support posts & rafter supports to log wall connections
- 5/8" x 8" and/or 10" hex bolts – collar ties in 2x rafter roof system (refer to collar tie details for bolt lengths)
- 5/8" x 7" hex bolts – gusset plates
- 5/8" x 3" lags – single gusset plates
- 12" timber screws – built-up roof system insulation stop, filler rafters, furring strips
- 10" timber screws – heavy timber blocking
- 16d cement coated sinkers – conventional framing
- 8d cement coated sinkers – 1x8 t&g (in built-up roof systems), sheathing, metal banding, etc.
- 16d galv. finish nails – 2x fascia, 1x fascia
- 8d galv. finish nails – soffit
- 6d finish nails – 1x8 t&g (ceiling paneling)
- 1 1/4" galv. roofing nails – shingles
- 2 1/2" galv. roofing nails – ridge cap

PORCH/DECK:
- 5/8" x 6" galv. bolt – ledger board to perimeter box connection
- 3/8" x 12" galv. lags – heavy timber porch headers to post connections
- 3/8" x 5" galv. lags – double 2x header to post connections
- 10" timber screws – porch post angle braces
- 3" deck screws – 2x6 decking
- 2" deck screws – 5/4 decking
- 16d ardox nails – ACQ conventional framing
- 10d common galv. nail – joist hanger to header and joist connections
- 1 1/2" galv. joist hanger nails – A35Z anchors
- 16d galv. finish nails – railing
- 8d galv. finish – soffit, 1x8 t&g ceiling paneling, balusters, etc.

LOG SPECIFICATIONS

Profile: 2x8 Single V-Groove log siding
Species: White pine
Corner: Mitered corners

SQUARE FOOTAGE

Total Floor Space 1st Level 1125
Total Floor Space 2nd Level 672
Total Floor Space Porch/Deck

RCRBD Record Set
T.A.
09/15/2021

COLORADO REGISTERED JOHN W. PINE 7-30-21 36114 PROFESSIONAL ENGINEER

DESIGN CONSIDERATIONS

- The Design and Engineering Specifications noted below outline the TLH general design criteria. It is the responsibility of the homeowner / contractor to review these criteria in relation to the local code requirements, which will differ from area to area. Due to this variation in code requirements, additional plan modifications and / or material package adjustments may be required to achieve compliance. A registered design professional may also be required to determine and achieve compliance during the process. Any plan modifications and / or material package adjustments that are required as a result of the local code requirements or the review by the registered design professional may require a change in the package price.
- Plumbing, hvac, and/or any specific systems: Please evaluate/verify location of 2nd floor bath areas to allow proper consideration for plumbing requirements in relation to 1st floor plan layout.
- Important: Details and requirements related to hvac, plumbing, and/or any specific systems, fixtures, etc. must be verified prior to construction. The requirements related to these may or may not require chases, duct work, raised floors, or dropped ceilings in any given area. It is beyond the scope of TLH to confirm these requirements during the initial planning stages. The homeowner and/or their assigns must assume full responsibility for the initial design approval of the home as well as the implementation of this design in relation to the above concerns.
- Metal roof considerations: all details and/or materials related to the installation, design and performance of metal roof system to be the sole responsibility of the homeowner per metal roof manufacturer's specifications. TimberHaven Log Homes LLC. materials package, as supplied, may or may not be totally compatible with metal roof manufacturer's specifications. Verify prior to installation.
- Venting drip edge is to be installed in conjunction with shingle roofs. If a metal roof is installed it is the responsibility of the contractor and/or homeowner to provide an alternate means of adequate ventilation.
- Local codes may require an attic access for spaces with or without storage. Refer to local codes for the specifications to determine the required rough opening size and location of access opening. It is the responsibility of the contractor/ homeowner to verify this information prior to construction. For truss roofs spaced at 24" o.c. the desired access location can be determined on site. For truss roofs spaced at 16" o.c. the desired access location must be provided to TLH to allow proper adjustment in the truss spacing/design to accommodate access.

FOUNDATION SPECIFICATIONS

- FOUNDATION WALL SUBSTITUTION: If the foundation wall type is modified from what is shown on plans, it is the responsibility of the Builder/Homeowner to match the design criteria that is reflected both structurally and dimensionally.

PRIMARY: (Main Home)

Block wall width:	☐ 10" Block (std.)		☐ 12" Block	☐ Other
Block wall height:	☐ 8'–0"	☐ 9'–0" (std.)	☐ 10'–0"	☐ Other
Poured wall width:	☐ 8"	☐ 10"		☐ Other
Poured wall height:	☐ 8'–0"	☐ 9'–0"	☐ 10'–0"	☐ Other
Pre-cast wall r-value:	☐ R-5	☐ R-12.5		☐ Other
Pre-cast wall height:	☐ 8'–2"	☐ 9'–0"	☐ 10'–0"	■ Other CRAWLSPACE
Framed wall width:	☐ 2x8 @ 12" o.c.			☐ Other
Framed wall height:	☐ 8'–0"	☐ 9'–0"	☐ 10'–0"	☐ Other

(Note: Framed wall typically utilized at walk out basement areas.)
Other:

SECONDARY: (Example: Area: Mudroom / Type: Block / Width: 10" / Height: Crawlspace)
Area: Type: Width: Height:
Area: Type: Width: Height:

FIREPLACE ☐ Full foundation and footing required. ☐ Zero clearance

GARAGE

Block wall:	☐ 8" block w/6" top block (std.)	☐ Other
Poured wall:	☐ 8" Wide	☐ Other
Pre-cast wall:	☐ 4'–0" High	☐ Other

PORCH/DECK

	☐ Sonotube–size	☐ Pier–size
Post foundation type:	☐ Post pad–size	☐ Other

DESIGN SPECIFICATIONS

- Standard closet depth – 2'–1 1/2"
- Standard laundry closet depth – 2'–9"
- Spacing between balusters – 4" maximum
- Stair landings – 3'–0" x 3'–0" minimum square area (wall finish to wall finish)
- Hallway width – 3'–0" minimum (wall finish to wall finish)
- Fire doors between house/garage areas
- Egress windows (minimum one per bedroom)
- Tempered windows required for the following areas:
  - All roof windows/skylights
  - All patio doors
  - All windows located within both areas
  - All windows located within 24" of a door
  - All windows located within 18" of floor
  - All windows within 5'–0" of stair landings
- High altitude glass: Andersen windows and doors with high altitude glass require a capillary breather tube. The use of this tube eliminates argon gas fill and will result in a slightly lower thermal performance (approximately 0.02 increase in window u-factor).
- Stairs – minimum tread of 10" nose to nose – maximum rise of 7 3/4"
  Finished stair – 10" nose to nose with 1" nosing
  Exposed stair – 10" nose to nose with 1/4" nosing
- 2nd floor joists are located in the 14th log course
  Measurement from top of subfloor to bottom of 6x8 floor joists is 7'–9 3/4".
  Measurement from top of subfloor to bottom of ceiling finish is 8'–5".
- Standard (4) 2x12 girder beam with support posts @ 8'–0" o.c. maximum spacing
- Standard 2x10 floor joist @ 16" o.c.
- All exterior stud walls to be 16" o.c. unless noted otherwise
- All interior stud walls to be 16" o.c. unless noted otherwise
- All interior bearing walls to be 16" o.c. unless noted otherwise
- Standard 2x rafter/pre-fab truss spacing @ 16" o.c.
- All pre-engineered structural components used in construction, including but not limited to; glu-lam beams, laminated veneer lumber, wood 'I' joists, rafters, trusses, etc, must be installed in full compliance with the manufacturer's installation requirements.
- Fireblocking to be installed to cut off all concealed draft openings & to form an effective fire barrier between stories, between a top story, roof space & for any continuous framing exceeding 10'–0".
- Lag spacing for logs to be 30" o.c.
- Consult construction manual for additional information

ENGINEERING SPECIFICATIONS

STRUCTURAL COMPONENTS	SPECIES	GRADE
Logs	White pine laminated logs	Wall log, header grade or #2
Heavy timber joists, purlins & rafters	Spruce	Header or #2
Heavy timber posts	Eastern white pine / spruce	#2 or better
8x12 beams	Eastern white pine	Header or #2
Glued laminated beams	Southern yellow pine	Architectural 24F-V4
P.T. framing lumber	Southern yellow pine	#2 or better
Conventional framing lumber	S.P.F. (Spruce/Pine/Fir)	#2 or better

DESIGN LOADS
- Floor load (1st and 2nd floor systems) – designed for 40 lb./sq. ft. live load
- Floor load (Porch/deck floor systems) – designed for 40 lb./sq. ft. live load
- Floor load (Balcony floor systems) – designed for 60 lb./sq. ft. live load

LIVE LOAD: 85 . PSF
- WIND LOAD: 90 . MPH
- All connections per applicable code unless otherwise noted
- All connections specified are Simpson or equal

INSULATION VALUES
- R-21 insulation for exterior stud walls
- R-38 insulation minimum @ Beam and purlin roof system, 6x8 rafter roof system, 2x12 rafter roof system, and pre-fab truss roof systems (VERIFY PER LOCAL CODES)

Insulation values are as follows: Roof two layers of 4" polyiso foam R-54 also walls appear satisfactory as continuous SIP.

INDEX OF PLANS

COMMON ABBREVIATIONS & SYMBOLS

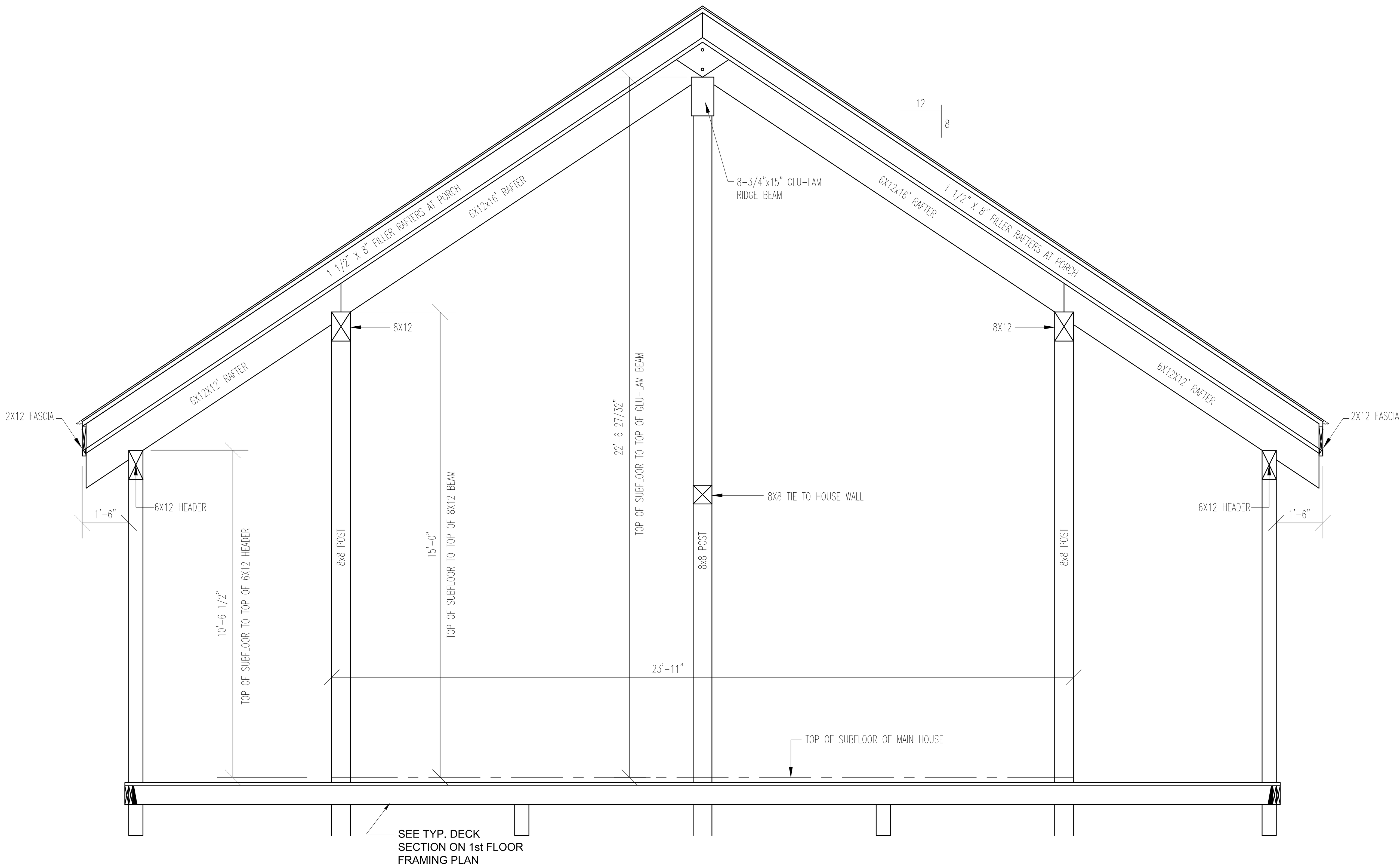
ABBREVIATION:	SYMBOL:	STANDS FOR:	STD.		Standard
B.O. OR B/O		By Others/By Owner	T&G		Tongue & Groove
B&P		Beam and Purlin	TYP.		Typical
CONC.		Concrete	U.N.O.		Unless Noted Otherwise
CONT.		Continuous	W/		With
CTR. LINE	—·——·— or ℄	Centerline	W.I.C.		Walk–in–closet
DECO		Decorative	W.P.		White Pine
DIA.	ø	Diameter	W.W.F.		Welded Wire Fabric
DIM.		Dimension		@	At
EGRESS		Emergency Exit Window	#5 BAR		Number 5 Round Bar (5/8" Rebar)
ELEV.	◆	Elevation Or Starting Point Symbol	GALV.		Galvanized
GA.		Gauge			
HEM.		Hemlock			
INS. or INSUL.		Insulation			
INT. or EXT.		Interior Or Exterior			
LVL		Laminated Veneer Lumber			
MEAS.		Measurement			
MIN. or MAX.		Minimum Or Maximum			
MISC.		Miscellaneous			
N.T.S.		Not to scale			
O.C.		On Center			
O.H.		Over hang			
P.T.		Pressure Treated			
REF.		Reference			
REQ'D		Required			
R.O. OR R/O		Rough Opening			
S.P.F.		Spruce/Pine/Fir			

These symbols identify details that are drawn at a larger scale than plan view to depict how a particular area is to be built. The letter identifies the name of the section. The triangle points in the direction that the section is to be viewed.

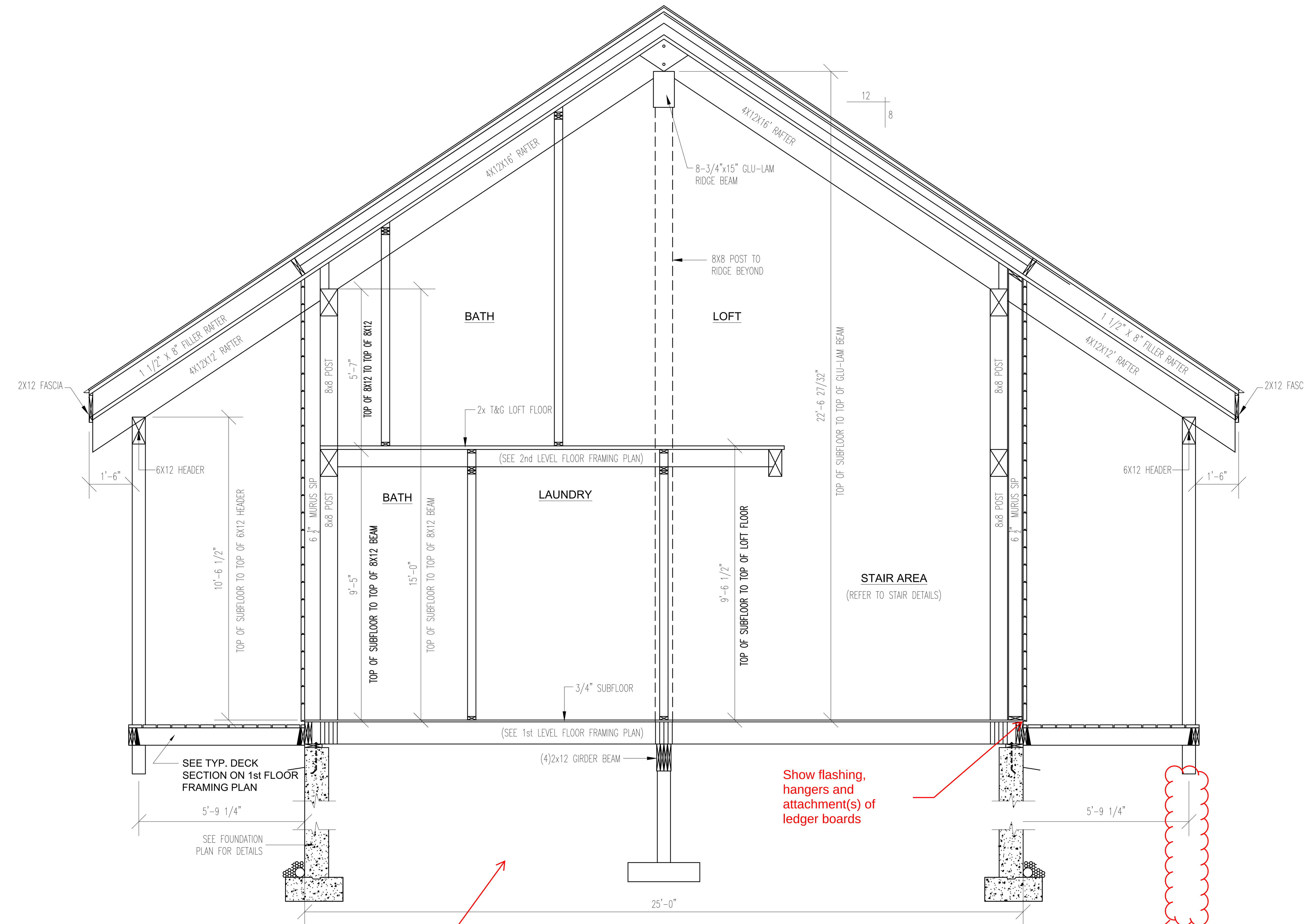
These symbols identify cross sections through the entire home (roof to foundation) to depict what a particular area would look like if you sliced through it. The letter identifies the name of the section & the sheet number tells you which sheet the section is located on. The triangle points in the direction that the section is to be viewed.

RCRBD Record Set
T.A.

09/15/2021



SECTION H-H



SECTION J-J

Show flashing, hangers and attachment(s) of ledger boards

Please show crawl space requiements to include vapor barrier, insulation, ventilation and portions of the Radon system.

Show deck piers and footing sizes and connection details

4.All construction shall comply with the 2018 local code amendments as shown on approved plans.
Energy provisions from the International Energy Conservation Code—Residential Provisions applicable to residential buildings which fall under the scope of this code are shown in the attached checklist.
The plans need to show this information. A building section cut or typical wall section through the representative wall and floors as required to show the thermal envelope as required to accurately show in detail shall be submitted (include location of all building and section cuts on the plans).
All information shall be using Zone 7, Dry. Details shall include, but are not limited to, as applicable:
1. Insulation materials and their R-values (include per inch).
2. Fenestration U-factors and air leakage.
3. Area-weighted U-factor calculations (if applicable).
4. Mechanical system design criteria (if applicable). Specify method and type of heat.
5. Equipment and system controls.
6. Duct sealing, duct and pipe insulation and location.
7. Air sealing details.
8. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding three air changes per hour.

DO NOT SCALE DRAWING –CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

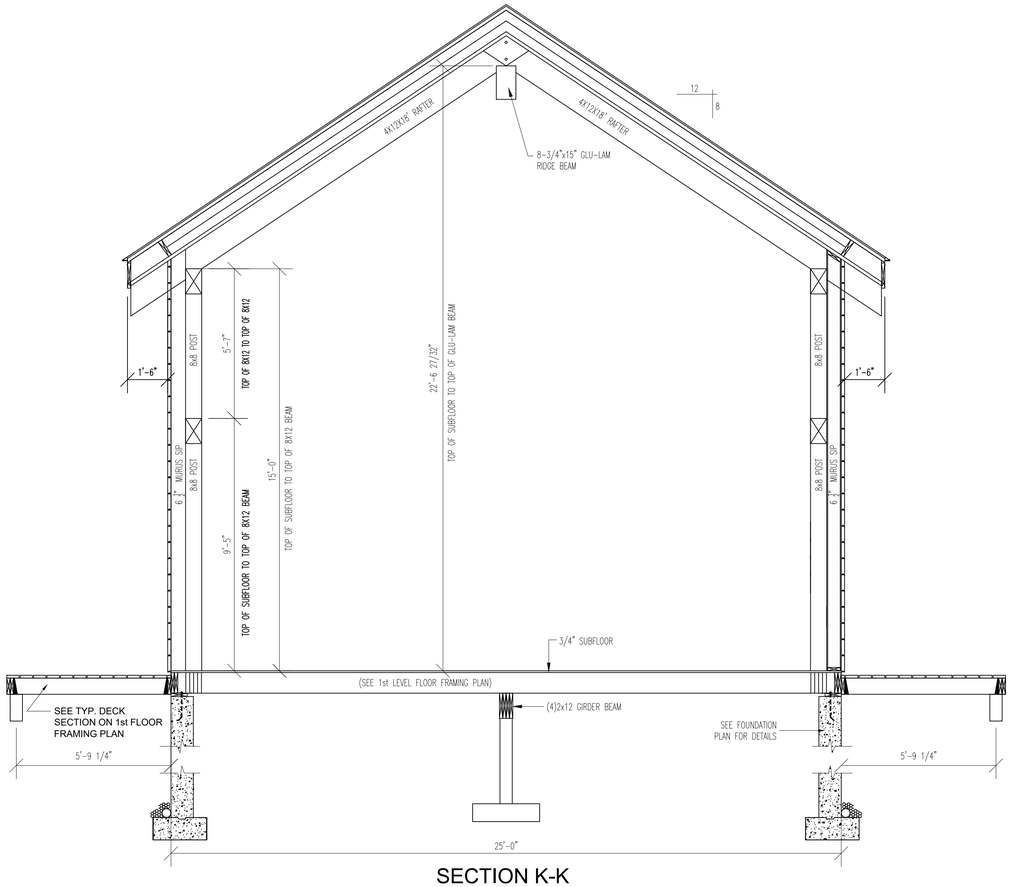
COLORADO REGISTERED PROFESSIONAL ENGINEER — CARL JOHN W... — 35114 — 7-30-21

Timberhaven Log and Timber Homes, LLC

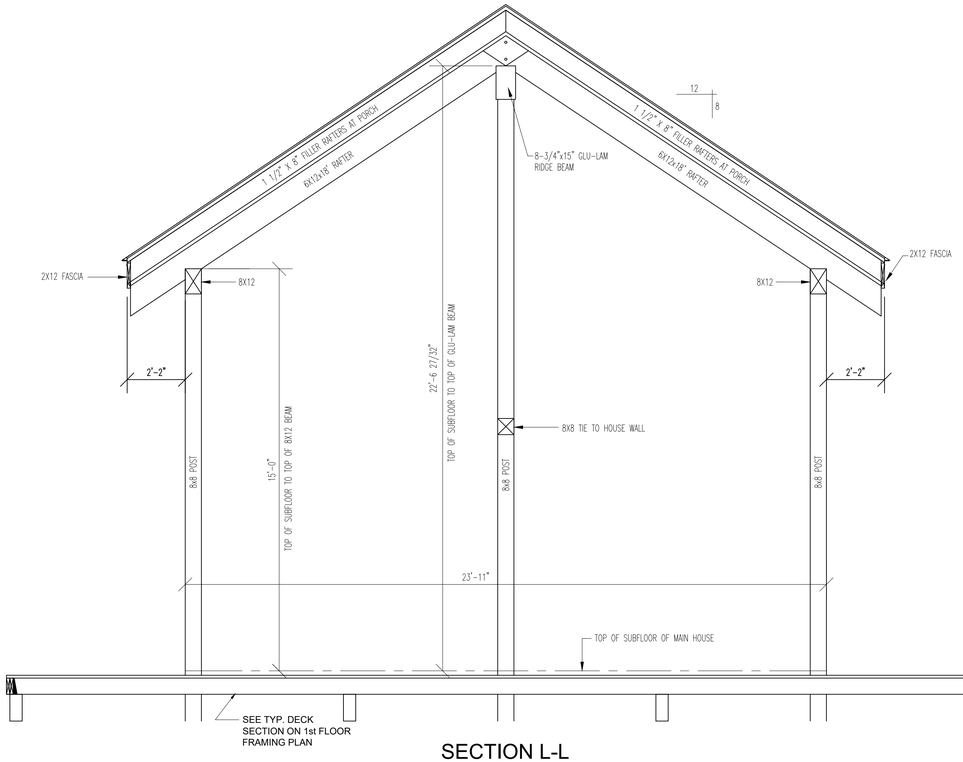
RESIDENCE FOR: NATHAN & ALISON NICHOLAS - PLUS PUU		
PLAN NAME: SECTIONS		
PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: ----	FINAL DATES: 7/27/21
DRAWN BY: WRZR	DRAWN BY: ----	DRAWN BY: WRZR
FINAL REV. DATES: ----	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: ----		PROJ. NO. ----
SALES REP. / DEALER: TLH		DWG. NO. TLH-10454
		SHEET NO. 9 OF 11

RCRBD Record Set
T.A.

09/15/2021



SECTION K-K



SECTION L-L

DO NOT SCALE DRAWING –CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

7-30-21

Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR:
NATHAN & ALISON NICHOLAS - PLUS PUU

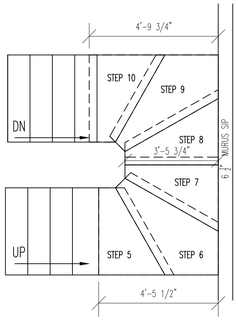
PLAN NAME:
SECTIONS

PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: ____	FINAL DATES: 7/27/21
DRAWN BY: WRZR	DRAWN BY: ____	DRAWN BY: WRZR
FINAL REV. DATES: ____	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: ____		PROJ. NO. ____
SALES REP. / DEALER: TLH		DWG. NO. TLH-10454
		SHEET NO. 10 OF 11

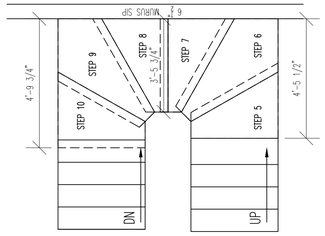
RCRBD Record Set
T.A.
09/15/2021

STAIR FASTENERS

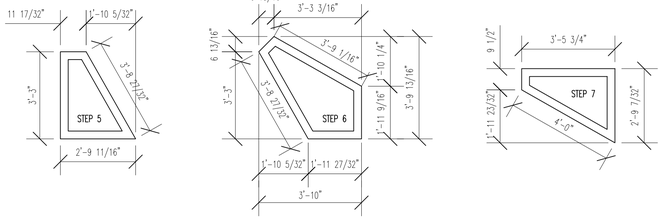
- **3/8" x 8" LAGS**: (SPIRAL) TREAD TO POST
- **3/8" x 5 1/2" LAGS**: (HEAVY TIMBER AND 1/2 LOG) STRINGERS AND TREADS, LANDING, LANDING SUPPORT POSTS, (SPIRAL) TREAD TO RAILING POST, AND 6x6 AND 8" ROUND RAILING POSTS
- **3/8" x 3" LAGS**: (FINISHED AND BASEMENT) LANDING AND SUPPORT POSTS, AND 4x4 RAILING POSTS
- **16d BRIGHT FINISH NAILS**: (FINISHED AND BASEMENT) TREAD AND RISER NAILS
- **10d FINISH NAILS**: RAILING AND BALUSTERS

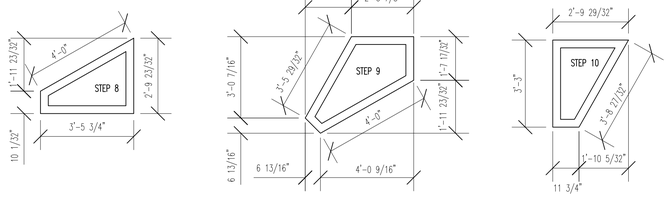


PLAN VIEW STAIRS TO 2ND LEVEL



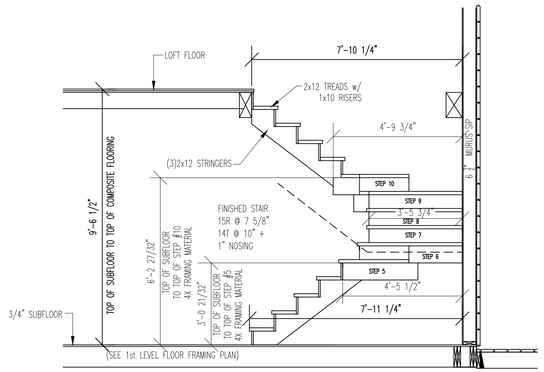
PLAN VIEW STAIRS TO 2ND LEVEL





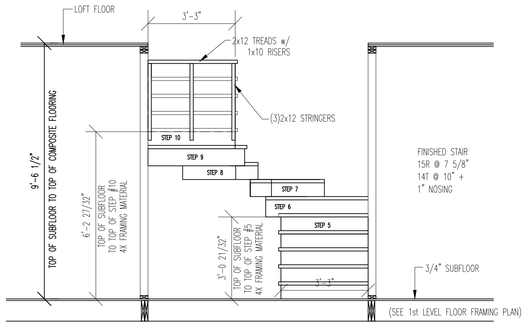
1ST LEVEL WINDER TREAD DETAILS

* WINDER TREADS RECEIVE 2X6 T&G FLOOR FINISH *
* WINDER TREADS FRAMED w/ 4X12 W.P. MATERIAL AND RIPPED TO HEIGHT AS REQ'D IN FIELD *



STAIR DETAIL SIDE VIEW

* WINDER TREADS RECEIVE 2X6 T&G FLOOR FINISH *
* WINDER TREADS FRAMED w/ 4X12 W.P. MATERIAL AND RIPPED TO HEIGHT AS REQ'D IN FIELD *



STAIR DETAIL FRONT VIEW

* WINDER TREADS RECEIVE 2X6 T&G FLOOR FINISH *
* WINDER TREADS FRAMED w/ 4X12 W.P. MATERIAL AND RIPPED TO HEIGHT AS REQ'D IN FIELD *

DO NOT SCALE DRAWING –CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

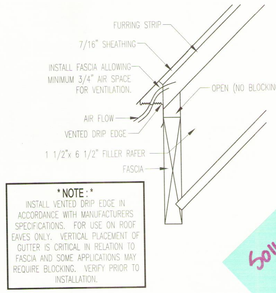
COLORADO REGISTERED CARL JOHN WAYNE PROFESSIONAL ENGINEER
7-30-21
35114

Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR:
NATHAN & ALISON NICHOLAS - PLUS PUU

PLAN NAME:
STAIR DETAILS

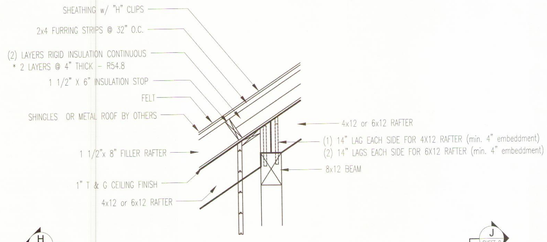
PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: ----	FINAL DATES: 7/27/21
DRAWN BY: WRZR	DRAWN BY: ----	DRAWN BY: WRZR
FINAL REV. DATES: ----	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: ----		PROJ. NO.: ----
SALES REP. / DEALER: TLH		DWG. NO.: TLH-10454
		SHEET NO.: 11 OF 11



TYP. VENTING DRIP EDGE @ EAVE
NOT TO SCALE

Soils
3000 max.
0 min.

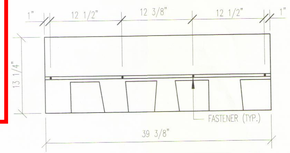
Jonah M
819-5740
W80. 1:00



RAFTER CONNECTION @ 8X12 BEAM
NOT TO SCALE

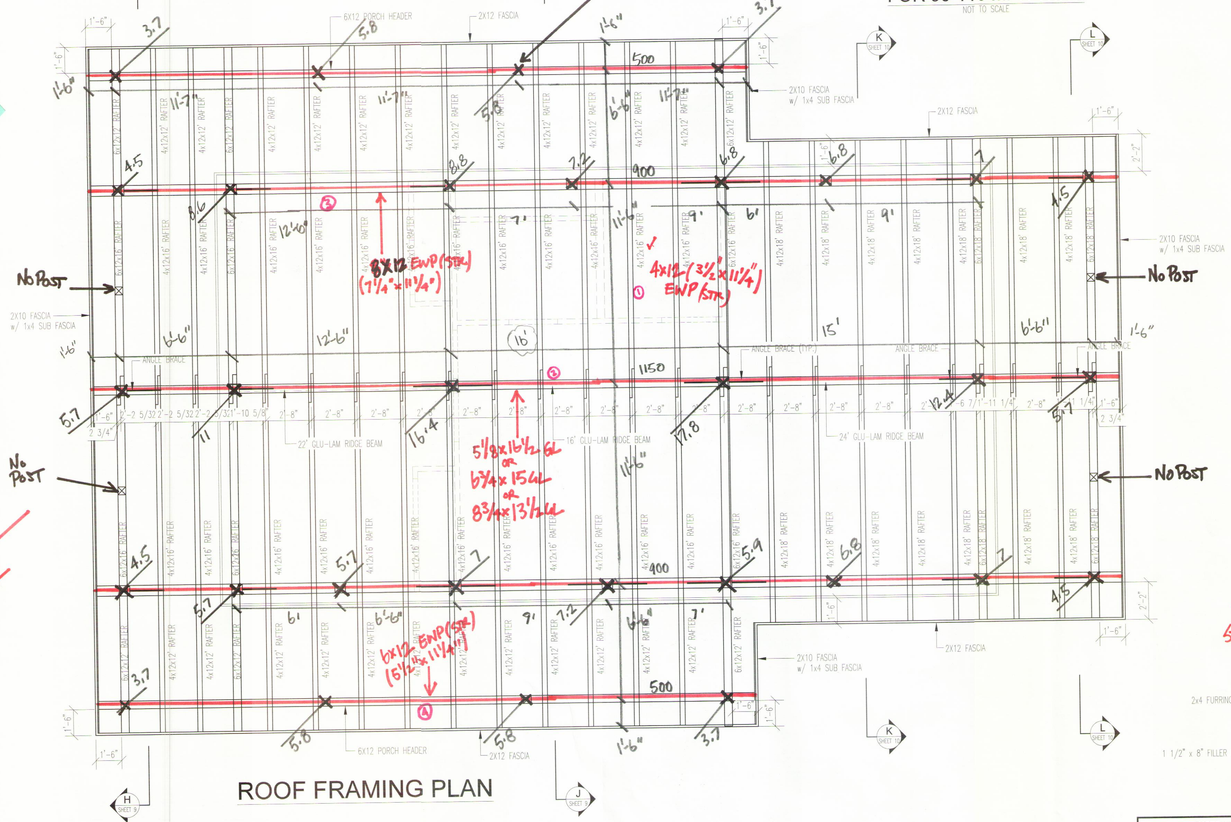
RCRBD Record Set
T.A.

09/15/2021

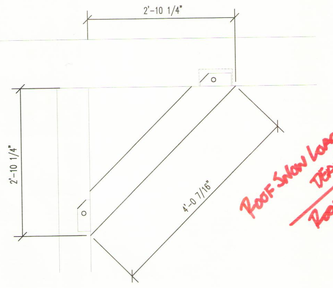


* NOTE :*
ONE FASTENER AT 1" & 13 1/2" FROM EACH END. FOR ADDITIONAL INFORMATION SEE SHINGLE WRAPPER.

SHINGLE APPLICATION
FOR 90-110 MPH WIND
NOT TO SCALE



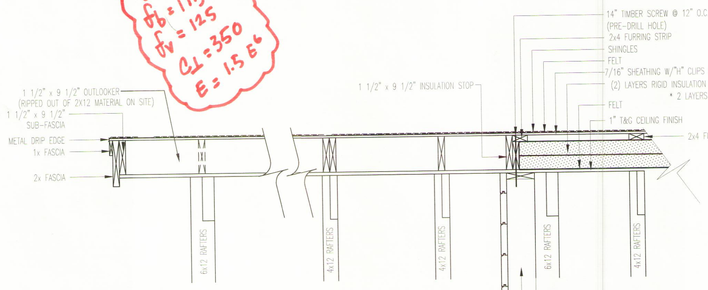
ROOF FRAMING PLAN



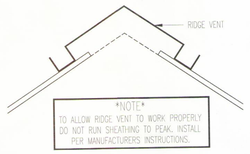
Roof Snow Load = 85
Terr = 15
Roof = 100

POST TO GLU-LAM RIDGE
6X8 ANGLE BRACE DETAIL
NOT TO SCALE

All Timbers:
Eastern White Pine
f_b = 1150
f_v = 125
C_L = 350
E = 1.5 E6

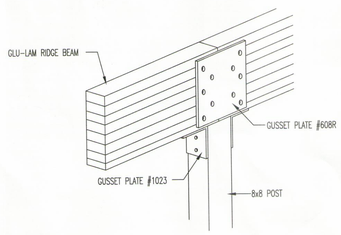


HEAVY TIMBER RAFTER ROOF EXTENDED
OVER PORCH ROOF
NOT TO SCALE



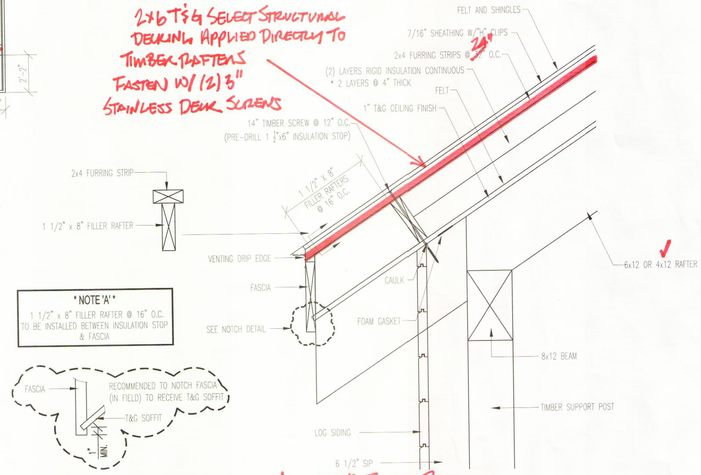
NOTE
TO ALLOW RIDGE VENT TO WORK PROPERLY, DO NOT RUN SHEATHING TO PEAK. INSTALL PER MANUFACTURERS INSTRUCTIONS.

TYP. RIDGE VENT
NOT TO SCALE



TYP. 8x8 POST TO
GLU-LAM CONNECTION

2x6 T&G Select Structural Decking Applied Directly to Timber Rafters Fasten w/ (2) 3" Stainless Deck Screws



* NOTE 'A' *
1 1/2" x 8" FILLER RAFTER @ 16" O.C. TO BE INSTALLED BETWEEN INSULATION STOP & FASCIA

Attached to Timber Posts
w/ (2) 12" Timberlok @ 12" o.c.

TYP. EAVE OVERHANG
NOT TO SCALE

ROOF FRAMING/SECTIONS GENERAL NOTES

- **GENERAL SPECIFICATONS** : SEE COVERSHEET.
- **DETAILS** : REFER TO APPLICABLE PLANS FOR ADDITIONAL INFORMATION
- **ROOF SHEATHING** : ALL ROOF SHEATHING IS TO BE 7/16"
- **INTERIOR PARTITION HEIGHTS** : REFER TO SECTIONS FOR APPROPRIATE LOG COURSE HEIGHT. FINAL HEIGHT DETERMINED BY ACTUAL LOG COURSE STACK HEIGHT.
- **PRECUT DRAWINGS FOR BEAM AND PURLIN ROOF SYSTEMS:** PRE-CUT DRAWINGS WILL TAKE PRIORITY @ HEAVY TIMBER ROOF AREA IF ANY DESCRIPANCY EXISTS - CONSULT PRE-CUT ROOF FRAMING PLAN FOR ADDITIONAL INFORMATION.
- **ICE & WATER SHIELD APPLIED IN/ON THE FOLLOWING AREAS:** ANY INSULATED ROOF AREAS WITH A PITCH LESS THAN 4/12, ALL ROOF VALLEY AREAS, ONLY ROOF EAVES OF INSULATED AREAS (2 ROWS), ANY INSULATED ROOF PITCH TRANSITIONS FROM ONE ROOF ONTO ANOTHER, EXAMPLE: SUNROOM AREA TO HOUSE ROOF AREA, ANY ROOF PITCH TRANSITIONS FROM NON-INSULATED ROOF AREAS ONTO AN INSULATED, ROOF AREA. EXAMPLE: PORCH ROOF TO HOUSE ROOF.
- **INSTALLATION OF INSULATION:** IT IS IMPERATIVE THAT WALL AND ROOF SYSTEMS ARE INSULATED IN A MANNER THAT CREATES A CONTINUOUS INSULATED ENVELOPE TO ENSURE THERE IS NO HEAT LOSS. IF UNFACED INSULATION IS INSTALLED, A CONTINUOUS POLY VAPOR BARRIER SHOULD BE UTILIZED. IF FACED INSULATION IS INSTALLED, THE PAPER FACING MUST BE INSTALLED TO THE FACE OF THE FRAMING MEMBER TO CREATE A CONTINUOUS VAPOR BARRIER. AIR TRANSFER FROM HEATED AREA TO COLD AREA WILL CAUSE CONDENSATION. PROPER INSTALLATION OF INSULATION IS THE RESPONSIBILITY OF THE BUILDER.
- **DETAILS**: ALL DETAIL REFERENCES NOT NOTED ARE FOUND WITHIN THE DETAIL SHEETS AND TIMBERHAVEN CONSTRUCTION MANUAL. PLEASE REFER TO THE OTHER SHEETS AND MANUAL, TYPICAL.
- **MATERIALS INCLUDED** : ALL DETAILS PERTAINING TO MATERIAL NOT SUPPLIED BY TLH MUST BE VERIFIED PRIOR TO ACTUAL CONSTRUCTION. SEE APPROPRIATE QUOTE AND ALL APPLICABLE CHANGE ORDERS FOR MATERIALS TO BE SUPPLIED BY TLH.

ROOF SYSTEM FASTENERS

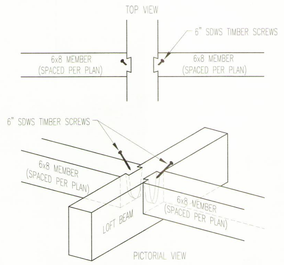
- **3/8" x 12" LAGS** : GLU-LAM BEAMS, 6x8 RAFTERS NOTCHED INTO LOFT JOISTS, 4x/6x12 EXPOSED BEAMS, DECRO PURLINS TO LOG WALL OR FRAMED WALL CONNECTION
- **3/8" x 10" LAGS** : PURLINS, 6x8 DECORATIVE CEILING BEAMS, 6x8 RAFTERS TO GLULAM RIDGE CONNECTION
- **3/8" x 8" LAGS** : 6x8 SKYLIGHT FRAMING, 6x8 CHIMNEY FRAMING, 6x8 RAFTERS TO LOG WALL CONNECTION
- **1/2" x 8" LAGS** : SUPPORT POSTS & RAFTER SUPPORTS TO LOG WALL CONNECTIONS
- **5/8" x 8" AND/OR 10" HEX BOLTS** : COLLAR TIES IN 2x RAFTER ROOF SYSTEM (REFER TO DETAILS FOR BOLT LENGTHS)
- **5/8" x 7" HEX BOLTS** : GUSSET PLATES
- **5/8" x 3" LAGS** : SINGLE GUSSET PLATES
- **14" TIMBER SCREWS** : BUILT-UP ROOF SYSTEM INSULATION STOP, FILLER RAFTERS, FURRING STRIPS
- **10" TIMBER SCREWS** : HEAVY TIMBER BLOCKING
- **16d CEMENT COATED SINKERS** : CONVENTIONAL FRAMING
- **8d CEMENT COATED SINKERS** : 1x8 T&G (IN BUILT-UP ROOF SYSTEM), SHEATHING, METAL BANDING, ETC.
- **16d GALV. FINISH NAILS** : 2x FASCIA, 1x FASCIA
- **8d GALV. FINISH NAILS** : SOFFITS
- **6d FINISH NAILS** : 1x8 T&G (CEILING PANELING)
- **1 1/4" GALV. ROOFING NAILS**: SHINGLES
- **2 1/2" GALV. ROOFING NAILS** : RIDGE CAP

DO NOT SCALE DRAWING – CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

Timberhaven LOG and TIMBER HOMES, LLC

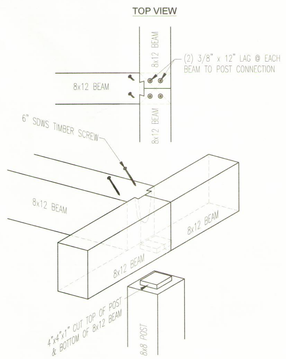
RESIDENCE FOR: NATHAN & ALISON NICHOLAS - PLUS PUU
PLAN NAME: ROOF FRAMING PLAN

PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: -----	FINAL DATES: 5/7/21
DRAWN BY: WRZR	DRAWN BY: -----	DRAWN BY: WRZR
FINAL REV. DATES: -----	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: -----		PROJ. NO: -----
SALES REP / DEALER: TLH		DWG. NO: TLH-10454
		SHEET NO: 8 OF 11



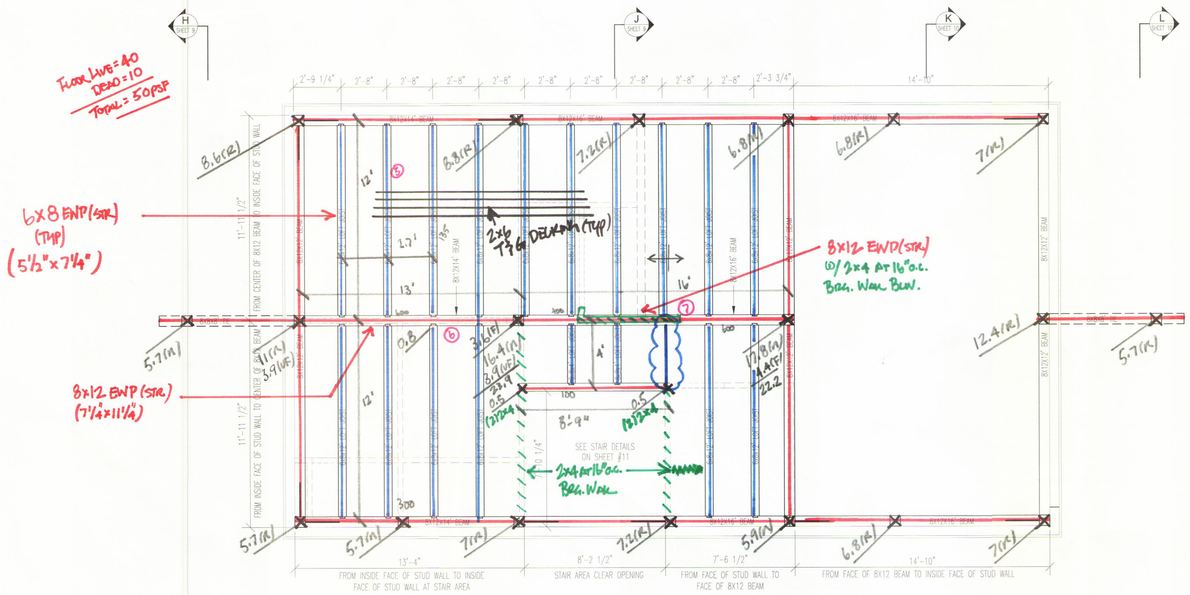
TYP. 6x8 JOIST/TIE CONNECTION
@ LOFT BEAM

NOT TO SCALE



TYP. 8x12 BEAM
CONNECTION @ 8x8 POST

NOT TO SCALE



SECOND LEVEL FLOOR FRAMING PLAN

HEAVY TIMBER LOFT FLOOR SYSTEM FASTENERS

- **3/8" x 12" LAGS** : 8x12 AND/OR GLU-LAM BEAMS TO 8x12 AND/OR GLU-LAM BEAMS, 8x12 AND/OR GLU-LAM BEAMS TO POST CONNECTIONS, 6X8 JOISTS TO LOG WALL (REFER TO 6X8 JOIST TO LOG WALL DETAIL)
- **3/8" X 10" LAGS** : 6x8/8" ROUND LOFT JOIST TO INTERIOR & EXTERIOR FRAMED WALL CONNECTIONS, LOG WALL CONNECTIONS, BEAM CONNECTIONS
- **3/8" X 8" LAGS** : 6x8 JOISTS TO LOG WALL (FASTENED FROM LOG TOWARD JOIST REFER TO 6x8 JOIST TO LOG WALL DETAIL)
- **3/4" x 7" HEX BOLTS** : BH68 HANGER TO 6x8 JOIST CONNECTION
- **3/4" x 3" LAGS** : BH68 HANGER TO BEAM CONNECTION OR RAFTER CONNECTIONS
- **16d CEMENT COATED SINKERS** : 2x6 T&G FLOORING
- **8d CEMENT COATED SINKERS** : 1x8 T&G (COMPOSITION FLOORING), METAL BANDING, ETC.
- **1 1/4" DRYWALL SCREW** : SUBFLOORING

2nd FLOOR FRAMING GENERAL NOTES

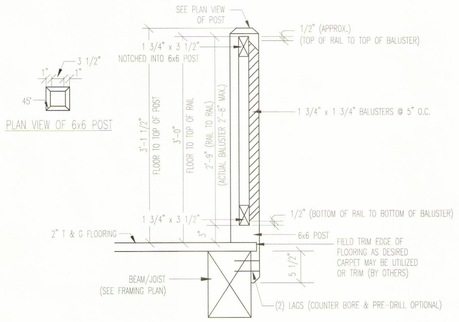
- **GENERAL SPECIFICATONS** : SEE COVERSHEET.
- **DETAILS** : REFER TO APPLICABLE DETAILS FOR 2ND FLOOR FRAMING INFORMATION
- **BROKEN LINES** : BROKEN LINES INDICATE PARTITION WALLS BELOW
- **DETAILS**: ALL DETAIL REFERENCES NOT NOTED ARE FOUND WITHIN THE DETAIL SHEETS AND TIMBERHAVEN CONSTRUCTION MANUAL. PLEASE REFER TO THE OTHER SHEETS AND MANUAL, TYPICAL.
- **MATERIALS INCLUDED** : ALL DETAILS PERTAINING TO MATERIAL NOT SUPPLIED BY TLH MUST BE VERIFIED PRIOR TO ACTUAL CONSTRUCTION. SEE APPROPRIATE QUOTE AND ALL APPLICABLE CHANGE ORDERS FOR MATERIALS TO BE SUPPLIED BY TLH.

RCRBD Record Set
T.A.

09/15/2021

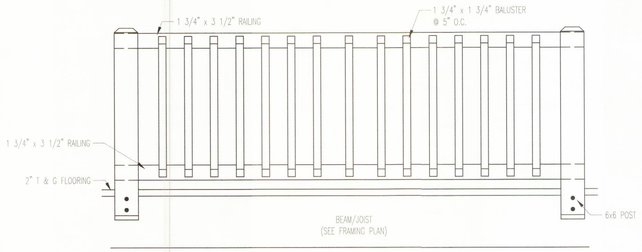
- 2x STUD WALL -
TYP. 6x8 JOIST/EXPOSED
BEAM OVER NONBEARING
INTERIOR DOOR

NOT TO SCALE



TYP. HANDRAIL DETAIL
@ STAIRS & LOFT

NOT TO SCALE



HANDRAIL SCHEMATIC

NOT TO SCALE

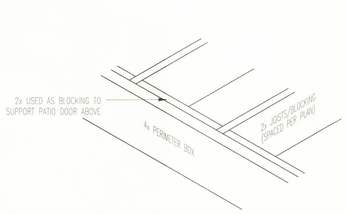
DO NOT SCALE DRAWING - CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

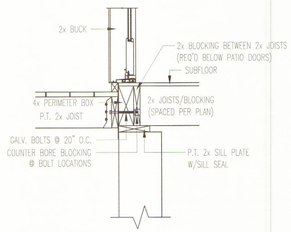
Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR: NATHAN & ALISON NICHOLAS - PLUS PUU

PLAN NAME: SECOND FLOOR FRAMING PLAN

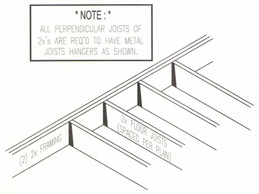
PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: ____	FINAL DATES: 5/7/21
DRAWN BY: WRZR	DRAWN BY: -----	DRAWN BY: WRZR
FINAL REV. DATES: ____	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: -----		PROJ. NO. ----
SALES REP. / DEALER: TLH		DWG. NO. TLH-10454
		SHEET NO. 7 OF 11





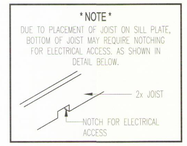
BLOCKING BELOW PATIO DOOR REF. D

NOT TO SCALE



2x PERPENDICULAR JOIST DETAIL

NOT TO SCALE



TYP. ELECTRICAL NOTCH DETAIL

NOT TO SCALE

CONVENTIONAL 2x FLOOR SYSTEM FASTENERS

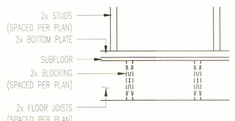
- **16d GALV. ARDOX NAILS**: PERIMETER BOX/JOIST TO ACQ SILL PLATE
- **16d CEMENT COATED SINKERS**: CONVENTIONAL FRAMING
- **10d CEMENT COATED SINKERS**: PRE-CAST FOUNDATION WALL BLOCKING
- **10d GALV. COMMON NAILS**: PRE-CAST FOUNDATION WALL BLOCKING TO ACQ SILL PLATE
- **10d COMMON NAILS**: JOIST HANGER TO HEADER CONNECTION.
- **8d CEMENT COATED SINKERS**: SUBFLOORING, METAL BANDING, BRIDGING, ETC.
- **1 1/2" GALV. JOIST HANGER NAILS**: A35Z ANCHORS AND JOIST HANGER TO JOIST CONNECTION.

1st FLOOR FRAMING GENERAL NOTES

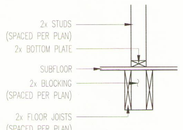
- **GENERAL SPECIFICATONS** : SEE COVERSHEET.
- **DETAILS** : REFER TO APPLICABLE DETAILS FOR 1ST FLOOR FRAMING INFORMATION
- **FLOOR FRAMING** : JOISTS DOUBLED UNDER PARTITION WALLS ABOVE
- **STAIR OPENING** : (2) 2X JOISTS REQUIRED AROUND STAIR OPENING
- **OWNER SUPPLIED FLOOR SYSTEMS** : A SOLID/SUBSTANTIAL PERIMETER BOX IS REQUIRED TO RECEIVE THE 3/8X12" LAG UTILIZED FOR CONNECTION OF 1st LOG ROW TO THE SUBFLOOR SYSTEM, AS WELL AS PROVIDING THE REQUIRED SUPPORT FOR THE LOG WALL SYSTEM ABOVE.
- **DETAILS**: ALL DETAIL REFERENCES NOT NOTED ARE FOUND WITHIN THE DETAIL SHEETS AND TIMBERHAVEN CONSTRUCTION MANUAL. PLEASE REFER TO THE OTHER SHEETS AND MANUAL, TYPICAL.
- **MATERIALS INCLUDED** : ALL DETAILS PERTAINING TO MATERIAL NOT SUPPLIED BY TLH MUST BE VERIFIED PRIOR TO ACTUAL CONSTRUCTION. SEE APPROPRIATE QUOTE AND ALL APPLICABLE CHANGE ORDERS FOR MATERIALS TO BE SUPPLIED BY TLH.

RCRBD Record Set
T.A.

09/15/2021



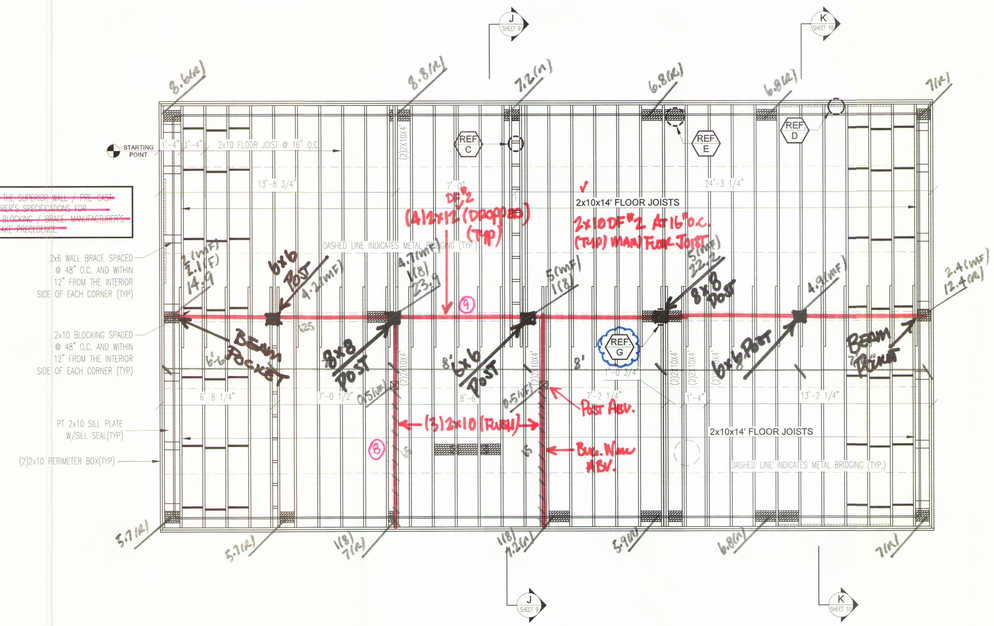
SIDE VIEW



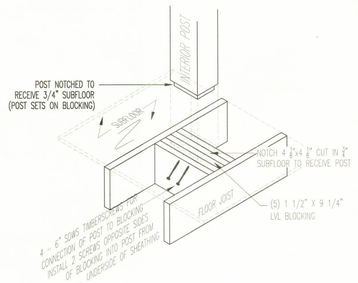
FRONT VIEW

TYP. 1st FLOOR FRAMING BELOW PLUMBING WALL REF. C

NOT TO SCALE

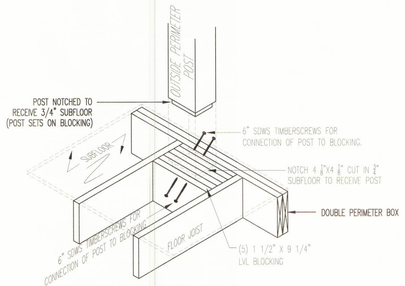


FIRST LEVEL FLOOR FRAMING PLAN



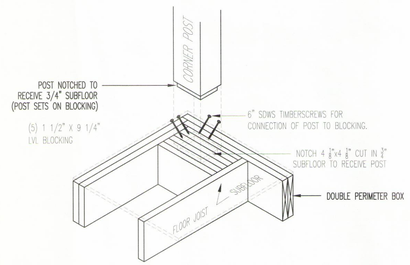
INTERIOR POST BLOCKING @ FLOOR JOIST REF. O

NOT TO SCALE



PERIMETER POST BLOCKING @ FLOOR JOIST REF. E

NOT TO SCALE



CORNER POST BLOCKING @ FLOOR JOIST REF. F

NOT TO SCALE

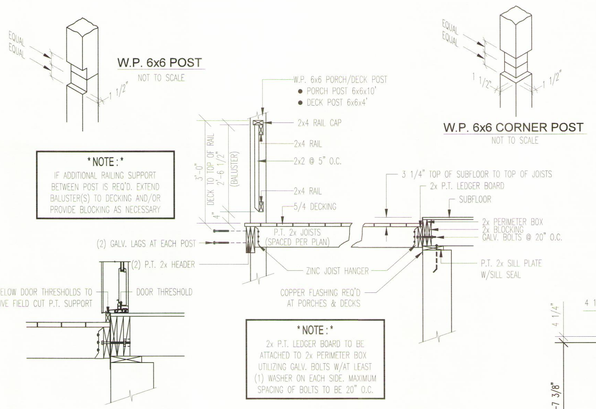
DO NOT SCALE DRAWING –CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR: NATHAN & ALISON NICHOLAS - PLUS PUU

PLAN NAME: FIRST FLOOR FRAMING PLAN

PRELIMINARY DATES: 5/19/21	FINAL PRELIM. DATES: -----	FINAL DATES: 5/7/21
DRAWN BY: WRZR	DRAWN BY: -----	DRAWN BY: WRZR
FINAL REV. DATES: -----	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: -----		PROJ. NO. -----
SALES REP. / DEALER: TLH		DWG. NO. TLH-10454
		SHEET NO. 5 OF 11



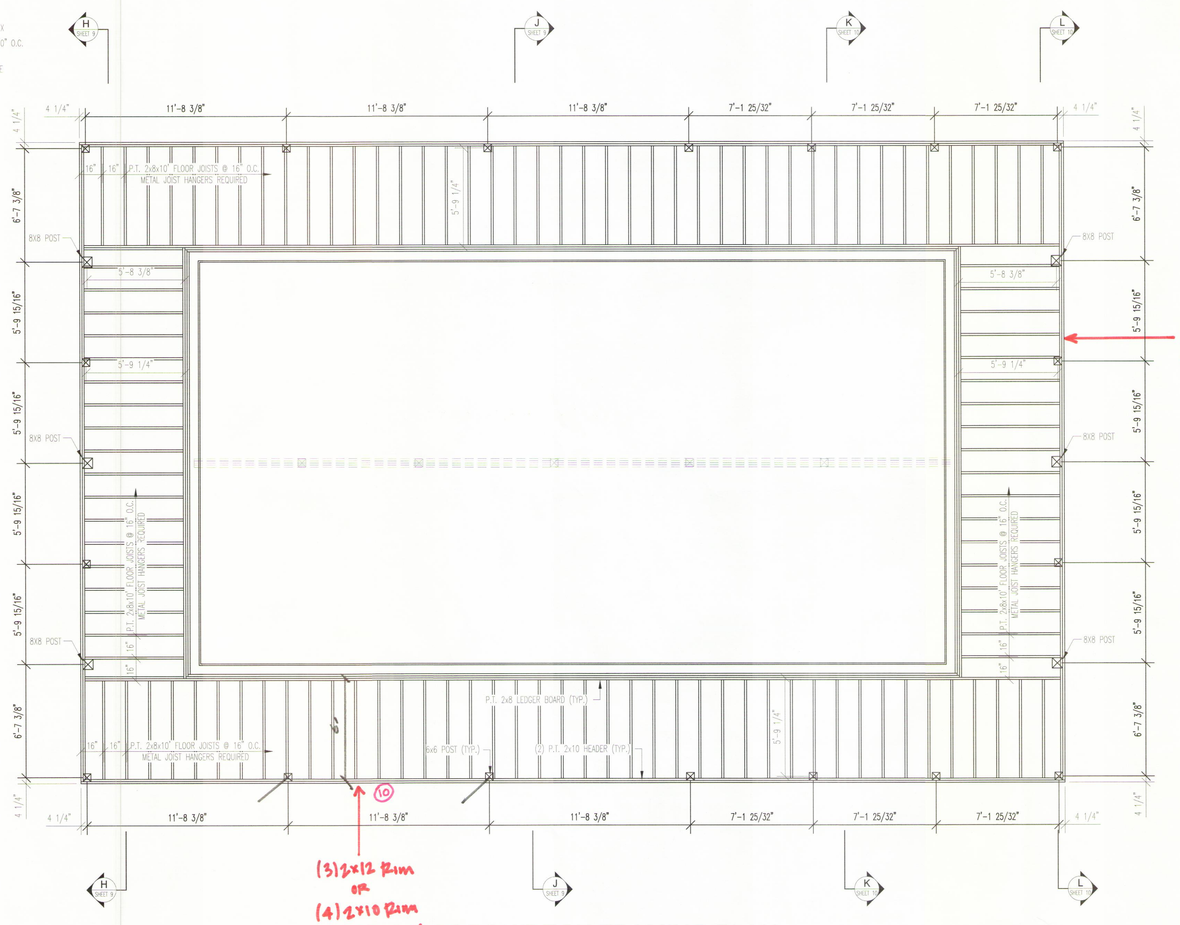
TYP. PORCH/DECK SECTION
NOT TO SCALE

PORCH/DECK FASTENERS

- **5/8" x 6" GALV. BOLT** : LEDGER BOARD TO PERIMETER BOX CONNECTION
- **3/8"x 5" GALV. LAGS** : DOUBLE 2x HEADER TO POST CONNECTIONS
- **2" DECK SCREWS** : 5/4 DECKING
- **16d ARDOX NAILS** : ACQ CONVENTIONAL FRAMING
- **10d COMMON GALV. NAIL** : JOIST HANGER TO HEADER AND JOIST CONNECTIONS
- **1 1/2" GALV. JOIST HANGER NAILS** : A35Z ANCHORS
- **16d GALV. FINISH NAILS** : RAILING
- **8d GALV. FINISH** : SOFFIT, 1x8 T&G CEILING PANELING, BALUSTERS, ETC.
- **10" TIMBER SCREWS** : PORCH POST ANGLE BRACES
- **3" DECK SCREWS** : 2x6 DECKING
- **3/8"x 12" GALV. LAGS** : HEAVY TIMBER PORCH HEADERS TO POST CONNECTIONS

RCRBD Record Set
T.A.

09/15/2021



(3)2x12 Rim
OR
(4)2x10 Rim
NA NA

PORCH/DECK FRAMING PLAN

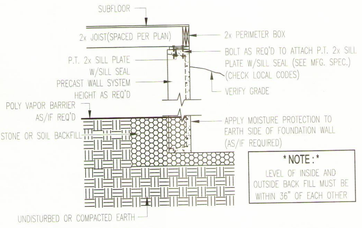
DO NOT SCALE DRAWING – CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

Timberhaven LOG and TIMBER HOMES, LLC

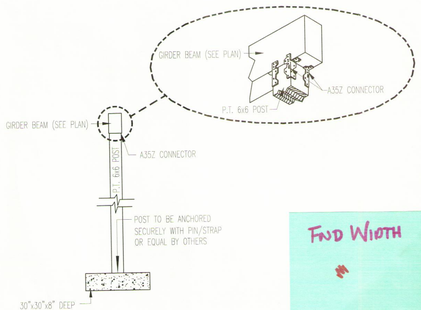
RESIDENCE FOR:	NATHAN & ALISON NICHOLAS - PLUS PUU
PLAN NAME:	PORCH/DECK FRAMING PLAN
PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: -----
DRAWN BY: WR7R	DRAWN BY: -----
FINAL REV. DATES: -----	MODEL: CUSTOM
DRAWN BY: -----	
SALES REP/ F. DEALER: TLH	
FINAL DATES: 5/7/21	
DRAWN BY: WR7R	
SCALE: 1/4" = 1'-0"	
PROJ. NO. -----	
DWG. NO. TLH-10454	
SHEET NO. 6 OF 11	

RCRBD Record Set
T.A.

09/15/2021

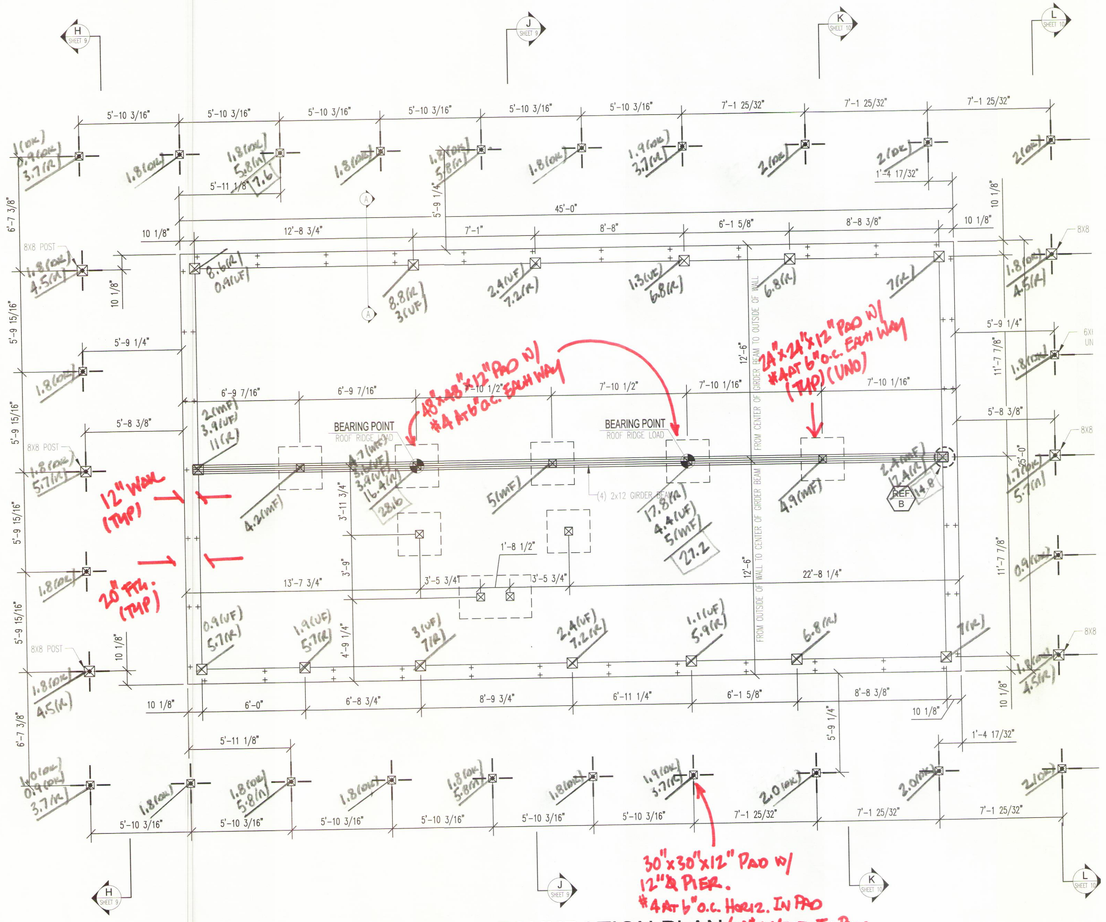


SECTION A-A
NOT TO SCALE



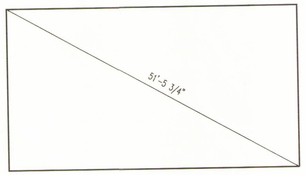
TYP. POST TO
GIRDER CONNECTION
NOT TO SCALE

FND WIDTH
M



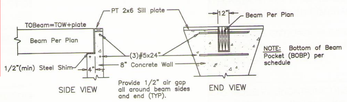
FOUNDATION PLAN

— + — - INDICATES CENTERLINES FOR POST PIERS

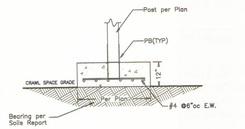


FOUNDATION DIAGONALS SCHEMATIC
NOT TO SCALE

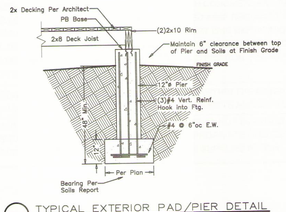
DARKENED LINE REPRESENTS OUTSIDE OF FOUNDATION WALL (DIM. TO OUTSIDE OF WALL)
DIAGONAL MEASUREMENTS MUST BE AS NOTED



FND TYPICAL BEAM POCKET DETAIL
Scale: 1/2"=1'-0"



FND TYPICAL INTERIOR PAD DETAIL
Scale: 1/2"=1'-0"



FND TYPICAL EXTERIOR PAD/PIER DETAIL
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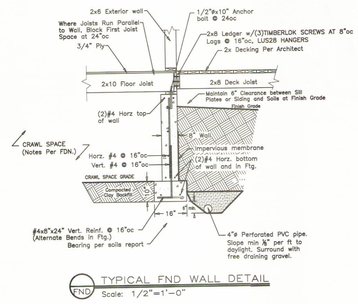


FND TYPICAL FND WALL DETAIL
Scale: 1/2"=1'-0"

DO NOT SCALE DRAWING -CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

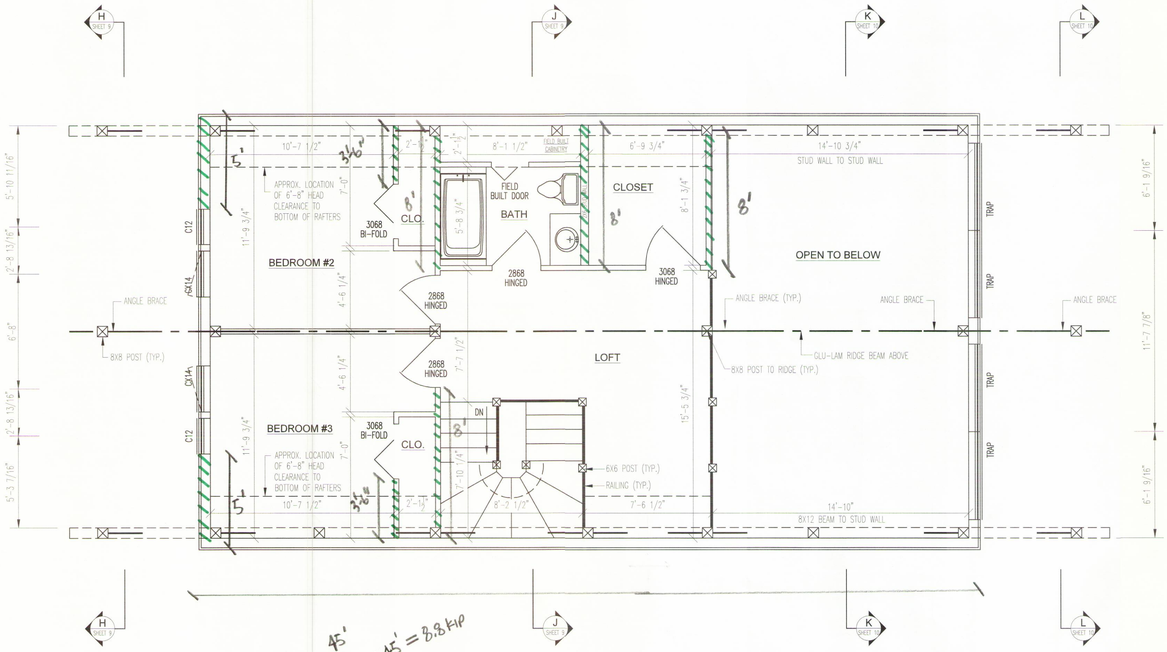
Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR:
NATHAN & ALISON NICHOLAS - PLUS PUU

PLAN NAME:
FOUNDATION PLAN

PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: -----	FINAL DATES: 5/7/21
DRAWN BY: WRZR	DRAWN BY: -----	DRAWN BY: WRZR
FINAL REV. DATES: -----	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: -----		PROJ. NO. -----
SALES REP. / DEALER: TLH		DWG. NO. TLH-10454
		SHEET NO. 4 OF 11

WINDOW & DOOR SCHEDULE				
MODEL #	QTY	ROUGH OPENING	DESCRIPTION	COMMENTS
FC2100(30) (O)	1	3'-2 1/2" x 6'-9 1/4"	THERMA-TRU OUTSWING ENTRY DOOR	
FWG6068R	1	6'-0" x 6'-8"	ANDERSEN FRENCHWOOD GLIDING PATIO DOORS	
FC2100(30)	2	3'-2 1/2" x 6'-10 1/2"	THERMA-TRU OUTSWING ENTRY DOOR	
FWG6068L	1	6'-0" x 6'-8"	ANDERSEN FRENCHWOOD GLIDING PATIO DOORS	
FWH6068SAL	1	6'-0" x 6'-8"	ANDERSEN FRENCHWOOD HINGED PATIO DOOR	
CX14	3	2'-8" x 4'-0 1/2"	ANDERSEN CASEMENT WINDOW	
C12	2	2'-0 5/8" x 2'-0 5/8"	ANDERSEN CASEMENT WINDOW	
C13 (T)	1	2'-0 5/8" x 3'-0 1/2"	ANDERSEN CASEMENT WINDOW (TEMPERED)	
C23	1	4'-0 1/2" x 3'-0 1/2"	ANDERSEN CASEMENT WINDOW	
CUSTOM PICTURE	4	3'-8 13/16" x 7'-0"	CUSTOM PICTURE WINDOW	
AN2281	1	5'-3 1/4" x 1'-9"	ANDERSEN TWIN AWNING WINDOW	
TRAP	4	SEE WINDOW DETAIL	CUSTOM TRAPEZOID	
2868	8	2'-10" x 6'-10"	RAISED PANEL WHITE PINE INTERIOR HINGED DOOR	
3068	1	3'-2" x 6'-10"	RAISED PANEL WHITE PINE INTERIOR HINGED DOOR	
3068	2	3'-2" x 6'-10"	RAISED PANEL WHITE PINE BI-FOLD DOORS	
5068	1	5'-2" x 6'-10"	RAISED PANEL WHITE PINE BI-FOLD DOORS	
FIELD BUILT DOOR	1	FIELD BUILT DOOR	RAISED PANEL WHITE PINE BI-FOLD DOORS	

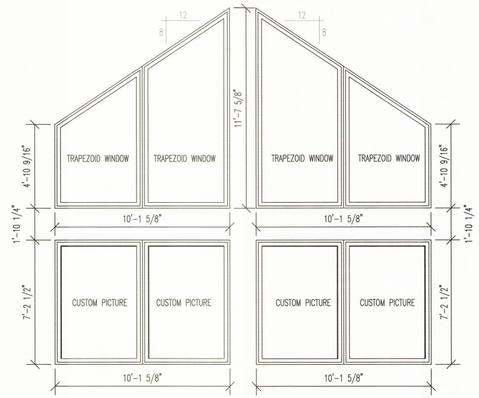


2nd LEVEL FLOOR PLAN

TOTAL FLOOR SPACE = 672 SQ. FT.

45'
26 PSF x 7'-6" = 195 PLF x 45' = 8.8 KIP
(ESR-4693) 1/2" CDX SIP = 380 PLF
5/8" Int. Drywall, Board = 175 PLF
10' SIP = 3.8 KIP
39' Wall = 6.8 KIP
10.6 KIP > 8.8 KIP

CROSS-HATCHING INDICATES A BRACED WALL PANEL. DEFINED AS A full-height section of wall constructed to resist in-plane shear loads through interaction of framing members, sheathing material and anchors.
The panel's length meets the requirements of its particular bracing method, and contributes toward the total amount of bracing required along its braced wall line in accordance with Section R602.10.1. Method LIB shall have gypsum board fastened to not less than one side with nails or screws in accordance with Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed 8 inches 1/2" gypsum sheathing 1 1/2" galvanized roofing nail; staple galvanized, 1 1/2" long; 1 1/4" screws, Type W or S
d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.



CUSTOM WINDOW DETAILS

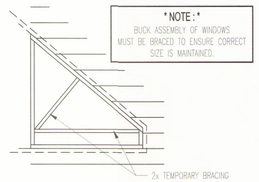
3/8" = 1'-0"

* NOTE : WINDOW DIMENSIONS SHOWN ARE FOR ROUGH OPENINGS (FROM BUCK TO BUCK)

* * VIEWED FROM OUTSIDE OF HOME LOOKING INSIDE * *

RCRBD Record Set
T.A.

09/15/2021



BRACING DETAIL

NOT TO SCALE

** NOTE **

SOME BUILDERS PREFER TO SHEET ASSEMBLY SOLID WITH PLYWOOD OR OSB TO MAINTAIN SIZE OF ASSEMBLY AND TO OFFER SOME WEATHER PROTECTION UNTIL WINDOWS ARE INSTALLED.

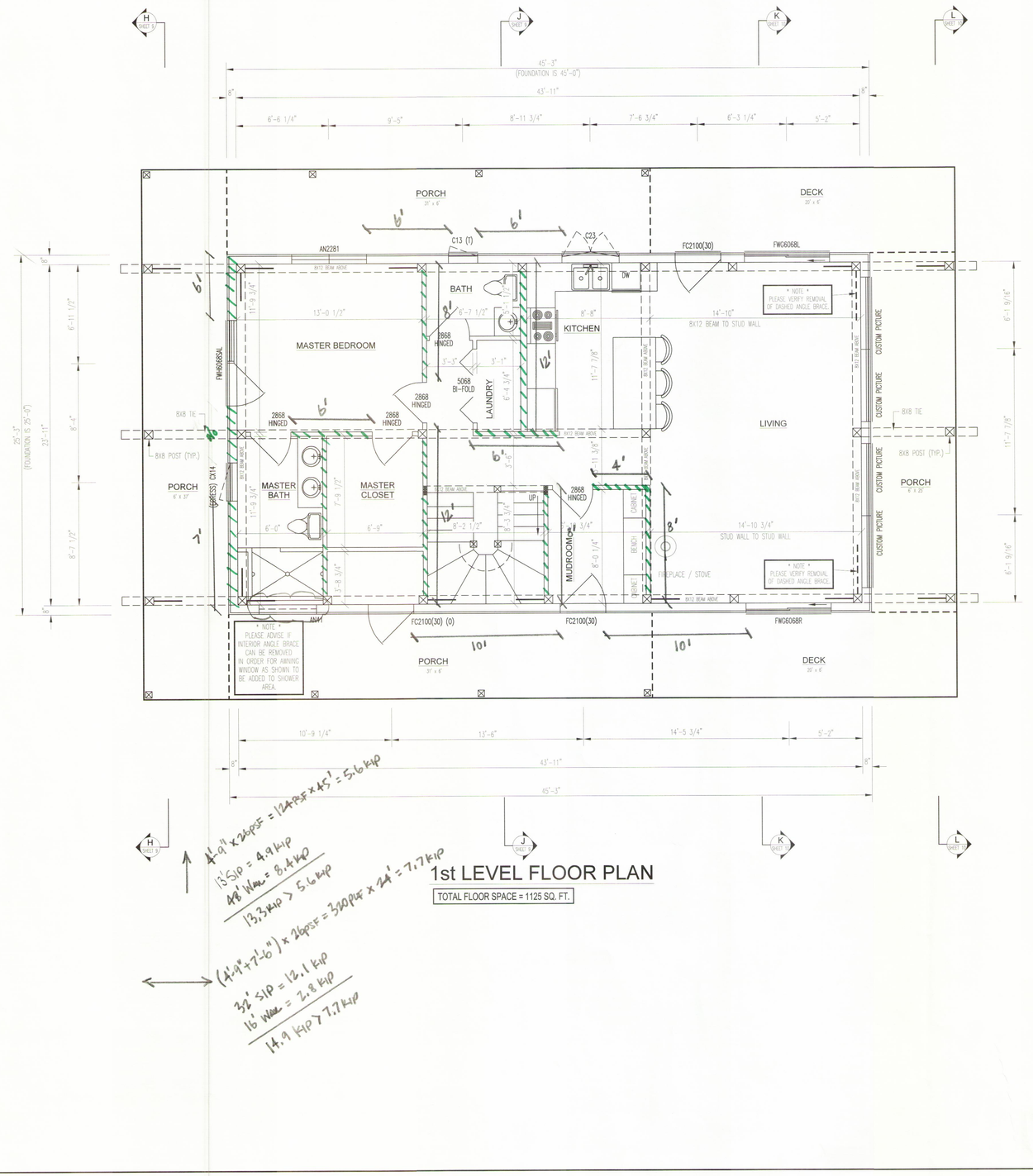
DO NOT SCALE DRAWING -CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR:
NATHAN & ALISON NICHOLAS - PLUS PUU

PLAN NAME:
2ND LEVEL FLOOR PLAN

PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: ____	FINAL DATES: 5/7/21
DRAWN BY: WRZR	DRAWN BY: ____	DRAWN BY: WRZR
FINAL REV. DATES: ____	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: ____		PROJ. NO. ____
SALES REP. / DEALER: TLH		DWG. NO. TLH-10454
		SHEET NO. 3 OF 11



4'-9" x 26PSF = 124PSF x 45' = 5.6 KIP
15 SIP = 4.9 KIP
48' Wall = 8.4 KIP
13.3 KIP > 5.6 KIP

(4'-9" + 7'-6") x 26PSF = 390PSF x 24' = 7.7 KIP
32' SIP = 12.1 KIP
16' Wall = 2.8 KIP
14.9 KIP > 7.7 KIP

1st LEVEL FLOOR PLAN

TOTAL FLOOR SPACE = 1125 SQ. FT.

FLOOR PLAN GENERAL NOTES

- **GENERAL SPECIFICATONS** : SEE COVERSHEET.
- **DETAILS** : REFER TO APPLICABLE DETAILS FOR FLOOR PLAN INFORMATION
- **INTERIOR PARTITION HEIGHTS** : REFER TO SECTIONS FOR APPROPRIATE HEIGHT.
- **MULLED WINDOWS** : WINDOWS MAY NEED MULLED ON SITE DUE TO SIZE OR TYPE.
- DETAILS: ALL DETAIL REFERENCES NOT NOTED ARE FOUND WITHIN THE DETAIL SHEETS AND TIMBERHAVEN CONSTRUCTION MANUAL. PLEASE REFER TO THE OTHER SHEETS AND MANUAL, TYPICAL.
- **MATERIALS INCLUDED** : ALL DETAILS PERTAINING TO MATERIAL NOT SUPPLIED BY TLH MUST BE VERIFIED PRIOR TO ACTUAL CONSTRUCTION. SEE APPROPRIATE QUOTE AND ALL APPLICABLE CHANGE ORDERS FOR MATERIALS TO BE SUPPLIED BY TLH.

INTERIOR FASTENERS

- **3/8" x 8" LAGS** : PARTITION WALLS TO LOG WALL CONNECTION
- **16d CEMENT COATED SINKERS**: CONVENTIONAL FRAMING
- **10d FINISH NAILS**: INTERIOR DOOR JAMBS
- **8d FINISH NAILS**: INTERIOR TRIM
- **6d FINISH NAILS**: 1x8 T&G WALL FINISH

RCRBD Record Set
T.A.

09/15/2021

CROSS-HATCHING INDICATES A BRACED WALL PANEL. DEFINED AS A full-height section of wall constructed to resist in-plane shear loads through interaction of framing members, sheathing material and anchors.
The panel's length meets the requirements of its particular bracing method, and contributes toward the total amount of bracing required along its braced wall line in accordance with Section R602.10.1. Method LIB shall have gypsum board fastened to not less than one side with nails or screws in accordance with Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed 8 inches 1/2" gypsum sheathing 1 1/2" galvanized roofing nail; staple galvanized, 1 1/2" long;
1 1/4" screws, Type W or S
d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.

DO NOT SCALE DRAWING -CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

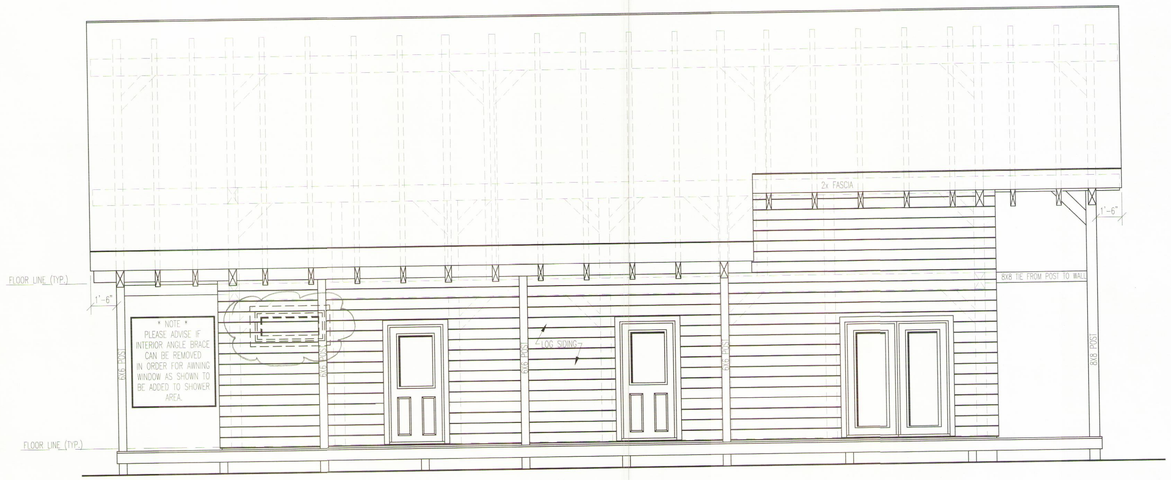
Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR: NATHAN & ALISON NICHOLAS - PLUS PUU
PLAN NAME: 1ST LEVEL FLOOR PLAN

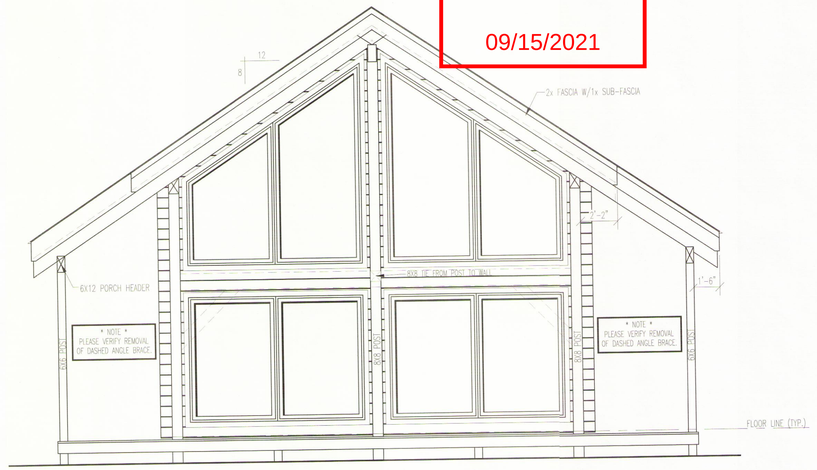
PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: -----	FINAL DATES: 5/7/21
DRAWN BY: WRZR	DRAWN BY: -----	DRAWN BY: WRZR
FINAL REV. DATES: -----	MODEL: CUSTOM	SCALE: 1/4" = 1'-0"
DRAWN BY: -----		PROJ. NO.: -----
SALES REP. / DEALER: TLH		DWG. NO.: TLH-10454
		SHEET NO.: 2 OF 11

RCRBD Record Set
T.A.

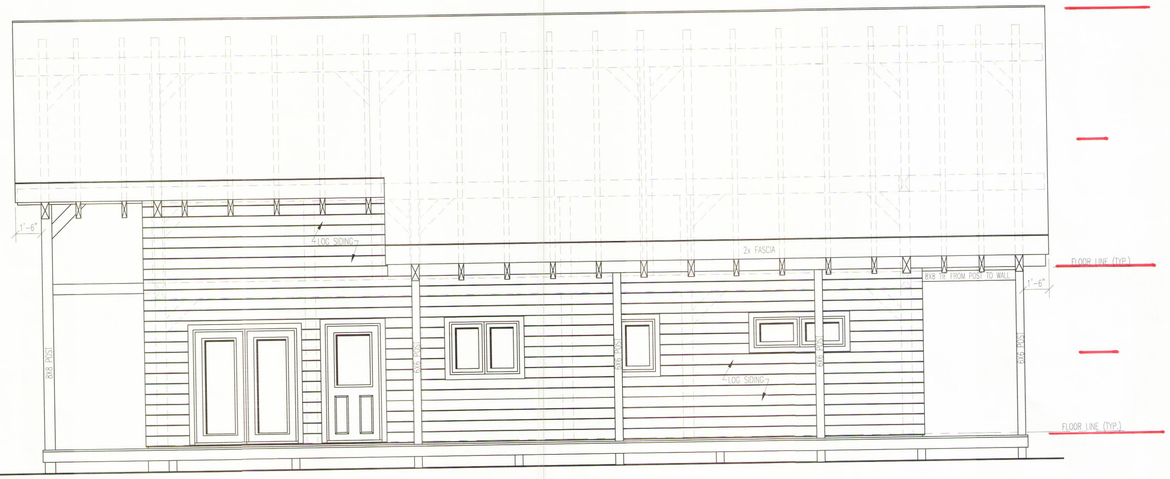
09/15/2021



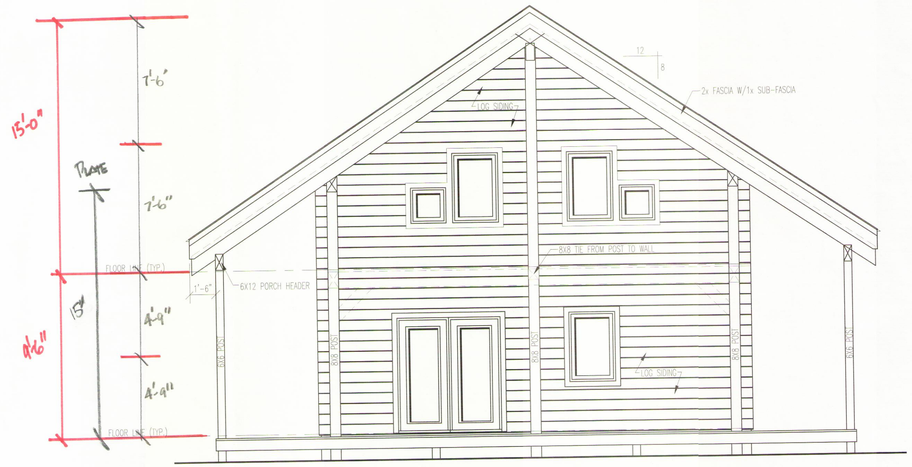
FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION

ELEVATION GENERAL NOTES

- **GENERAL SPECIFICATONS** : SEE COVERSHEET.
- **DETAILS** : REFER TO APPLICABLE DETAILS FOR ELEVATION INFORMATION
- **SHINGLE NOTE** : ADHERE TO MANUFACTURERS INSTRUCTIONS TO APPLY SHINGLES TO A ROOF WITH LESS THAN 4/12 PITCH
- **OVERHANGS** : ALL OVERHANGS ARE 2'-0" UNLESS NOTED OTHERWISE (SEE ROOF FRAMING PLAN)
- **VERIFY GRADE ON SITE**: STEPS & POSTS TO GRADE BY OTHERS.
- **PIER SIZE**: SPECIFICATIONS FOR SIZE OF PIERS & PIER PADS, SONOTUBES ECT., IS TO BE DETERMINED BY OTHERS IN RELATION TO LOCAL CODES AND SOIL CONDITIONS. PROVIDED BY OTHERS.
- **LOG SIDING SKIRT BOARD** : LOG SIDING SKIRT BOARD IS NOT PROVIDED BELOW PORCHES & DECKS. 2 ROWS OF LOG SIDING SKIRT BOARD PROVIDED FOR 6x8 & 8x8 LOG PROFILES WITH MORTISE AND TENON CORNERS. FLASHING PROVIDED (IN LIEU OF LOG SIDING SKIRT BOARD) FOR SWEDISH COPE AND ALL LOG PROFILES WITH DOVETAIL & SADDLE NOTCH CORNERS.
- **DETAILS**: ALL DETAIL REFERENCES NOT NOTED ARE FOUND WITHIN THE DETAIL SHEETS AND TIMBERHAVEN CONSTRUCTION MANUAL. PLEASE REFER TO THE OTHER SHEETS AND MANUAL, TYPICAL.
- **MATERIALS INCLUDED** : ALL DETAILS PERTAINING TO MATERIAL NOT SUPPLIED BY TLH MUST BE VERIFIED PRIOR TO ACTUAL CONSTRUCTION. SEE APPROPRIATE QUOTE AND ALL APPLICABLE CHANGE ORDERS FOR MATERIALS TO BE SUPPLIED BY TLH.

DO NOT SCALE DRAWING - CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD

Timberhaven LOG and TIMBER HOMES, LLC

RESIDENCE FOR:	NATHAN & ALISON NICHOLAS - PLUS PUU
PLAN NAME:	ELEVATIONS
PRELIMINARY DATES: 3/19/21	FINAL PRELIM. DATES: -----
DRAWN BY: WRZR	DRAWN BY: -----
FINAL REV. DATES: -----	MODEL: CUSTOM
DRAWN BY: -----	
SALES REP. / DEALER: TLH	
FINAL DATES: 5/7/21	
DRAWN BY: WRZR	
SCALE: 1/4" = 1'-0"	
PROJ. NO. -----	
DWG. NO. TLH-10454	
SHEET NO. 1 OF 11	

8-30-21

PERMIT # PRAB210091

SCALE 1/4" = 1'

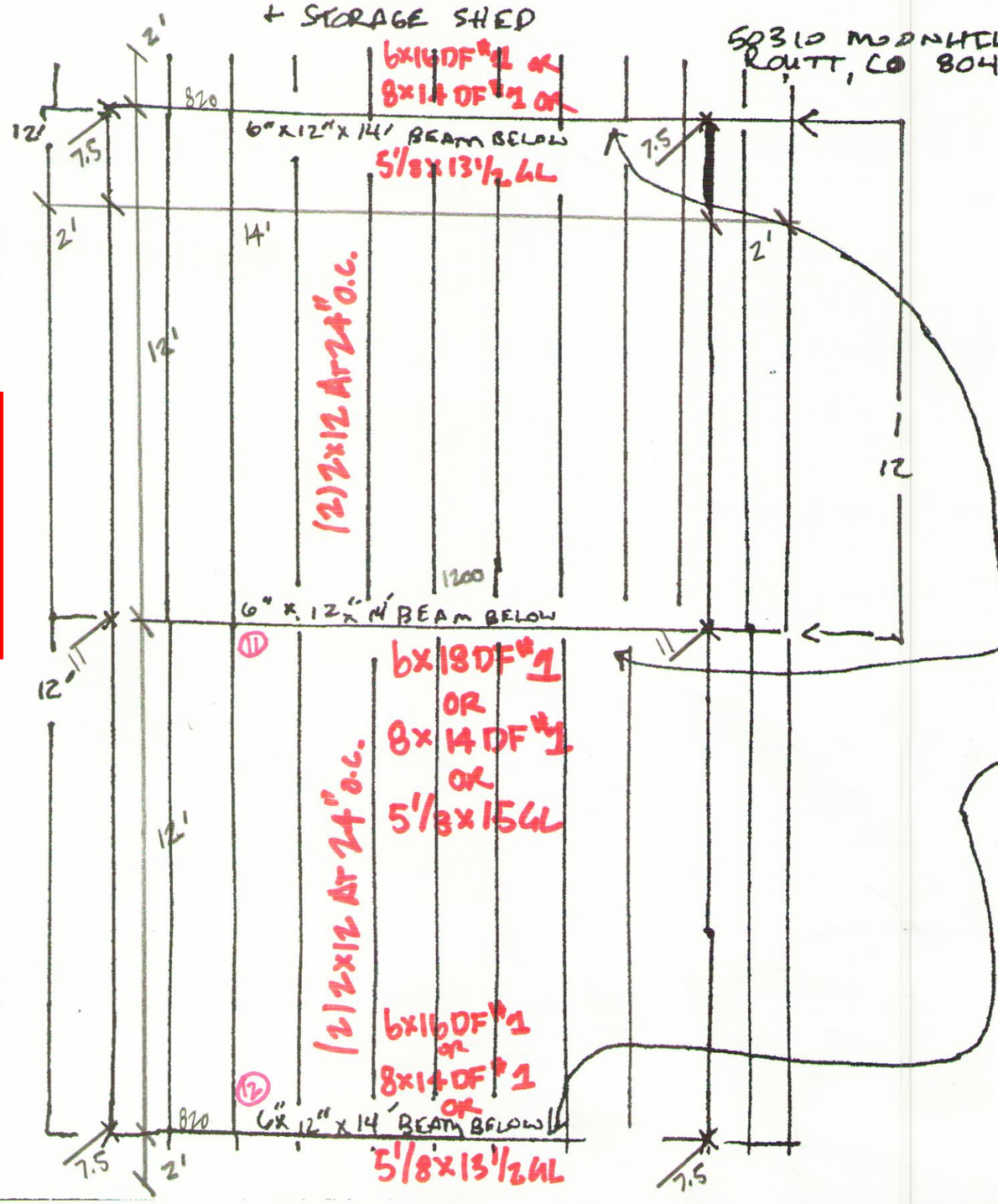
STORAGE SHED SIDE ROOF FRA

PAGE 9

NICHOLAS GARAGE + STORAGE SHED

5810 MOONHILL DR, LOUTT, CO 80487

SL=85
DL=15
TL=100



NOTE 1 ON RAFTE

RAFTERS MARRY AT M
BEAM. RAFTERS ARE
BLOCKED, BIRDSMOUTHE
AND HURRICANE CLI
TO BEAM BELOW

NOTE 2: ALL RAFTE
ARE BLOCKED AND BIR
TO BEAMS AT EXTERIOR
LINE. ALL ARE HURRI
CLIPPED

RCRBD Record Set
T.A.

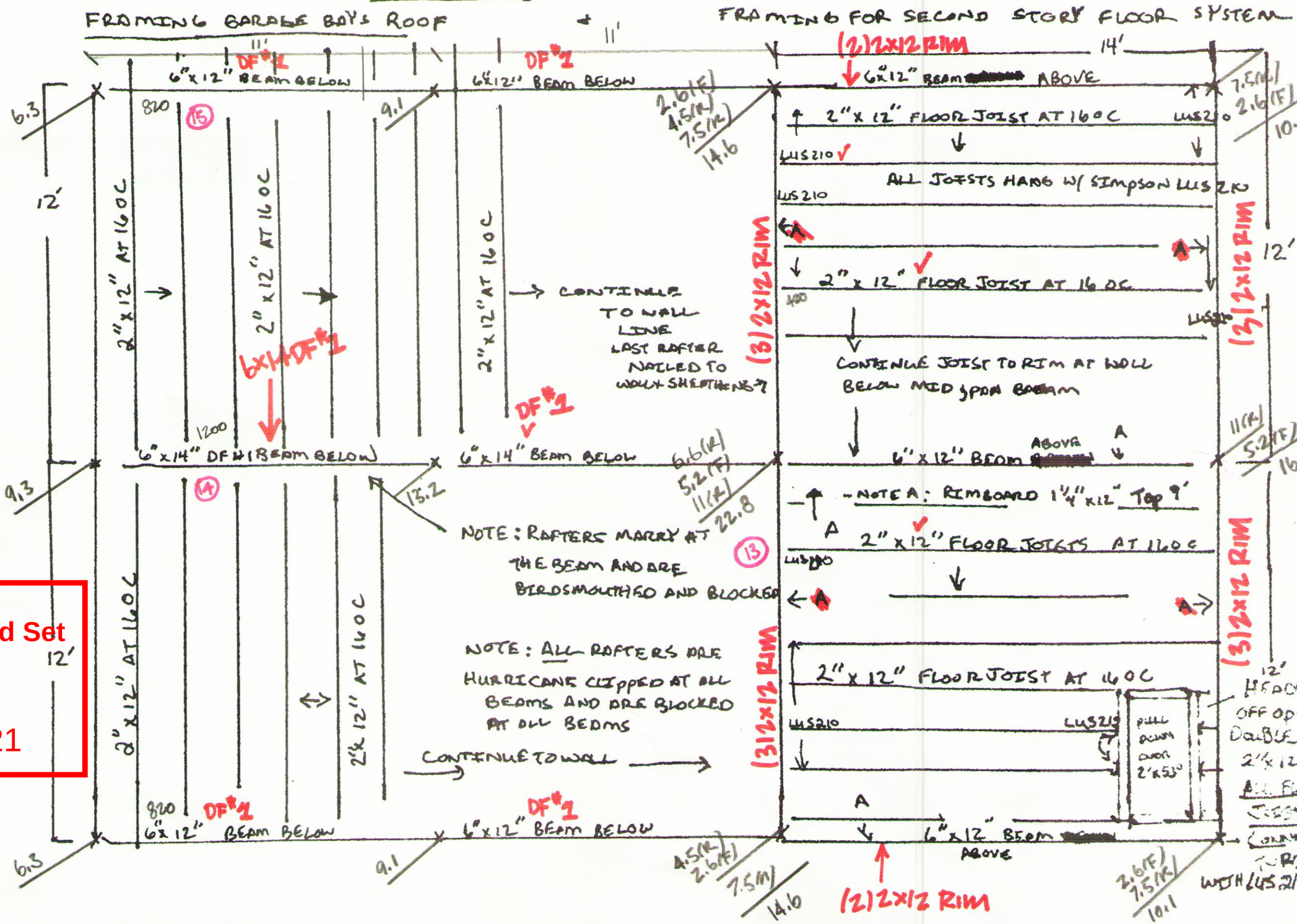
09/15/2021

80487

8-30-21

SCALE: 1/4"=1'

NICHOLS GARAGE & UNHEATED STORAGE SHED



RCRBD Record Set
T.A.

09/15/2021

8-30-21

PRAB

PERMIT # 210091

RCRBD Record Set
T.A.
09/15/2021

NICHOLAS GARAGE AND STORAGE SHED

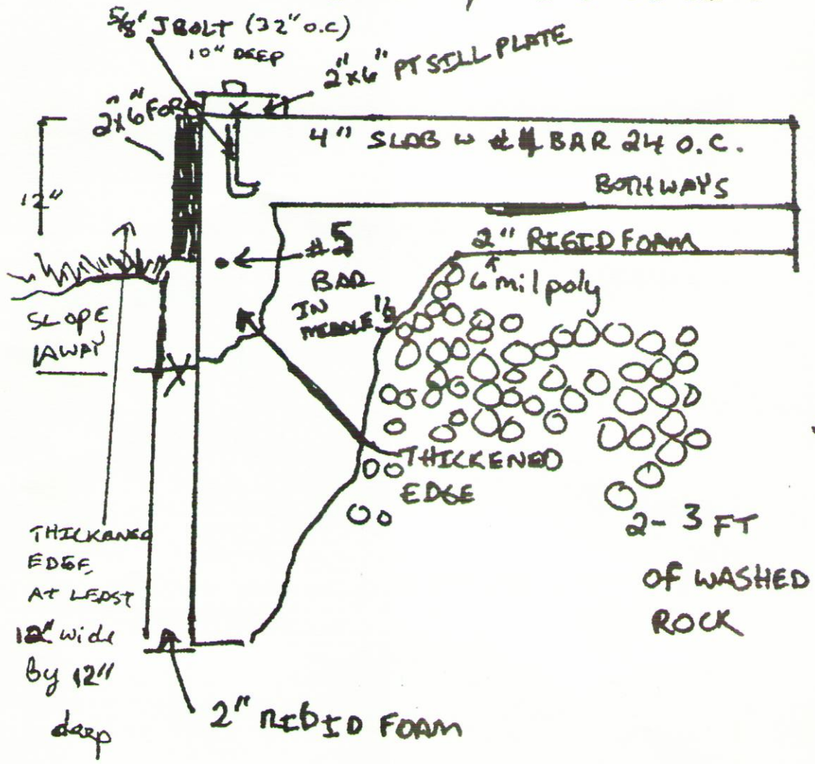
PAGE 6

50310 MOONHILL DR,
ROUTT, CO 80487

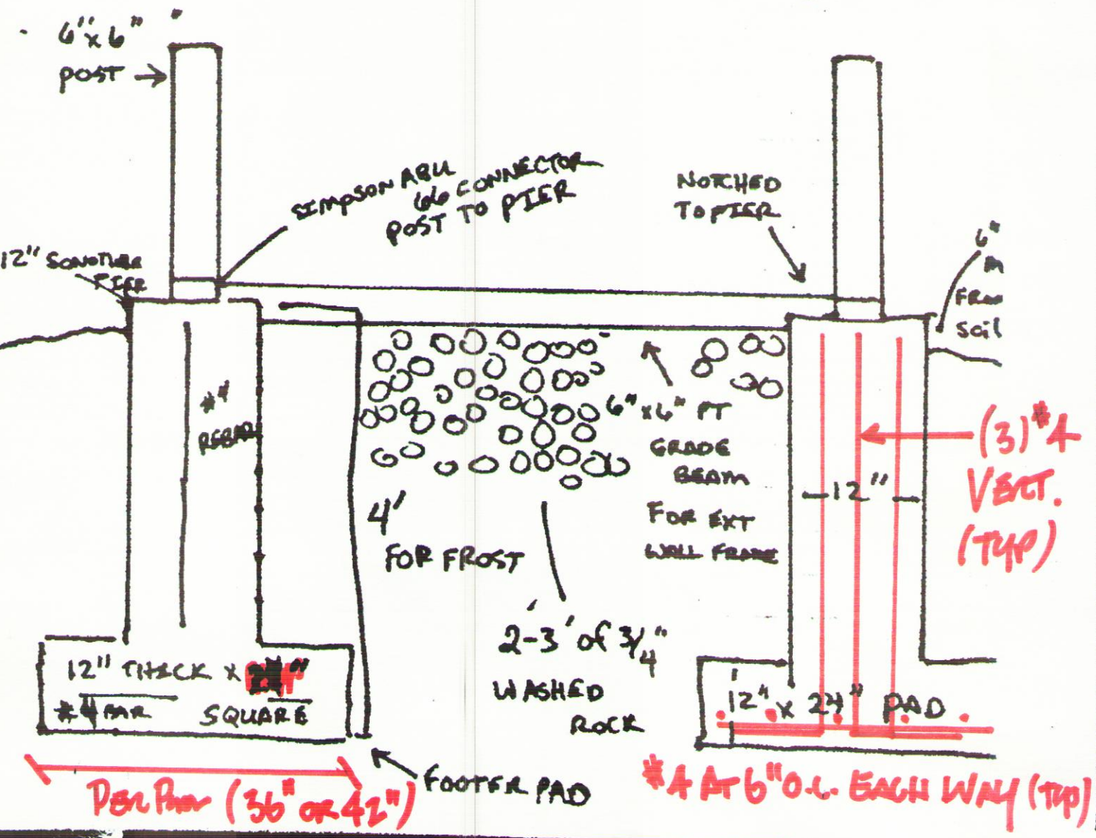
FOUNDATION NOTES

NOTE OR DETAIL #1 + #4

SLAB ON GRADE W/ THICKENED EDGE



NOTES 2 and 3 FOR DETAILS A and X



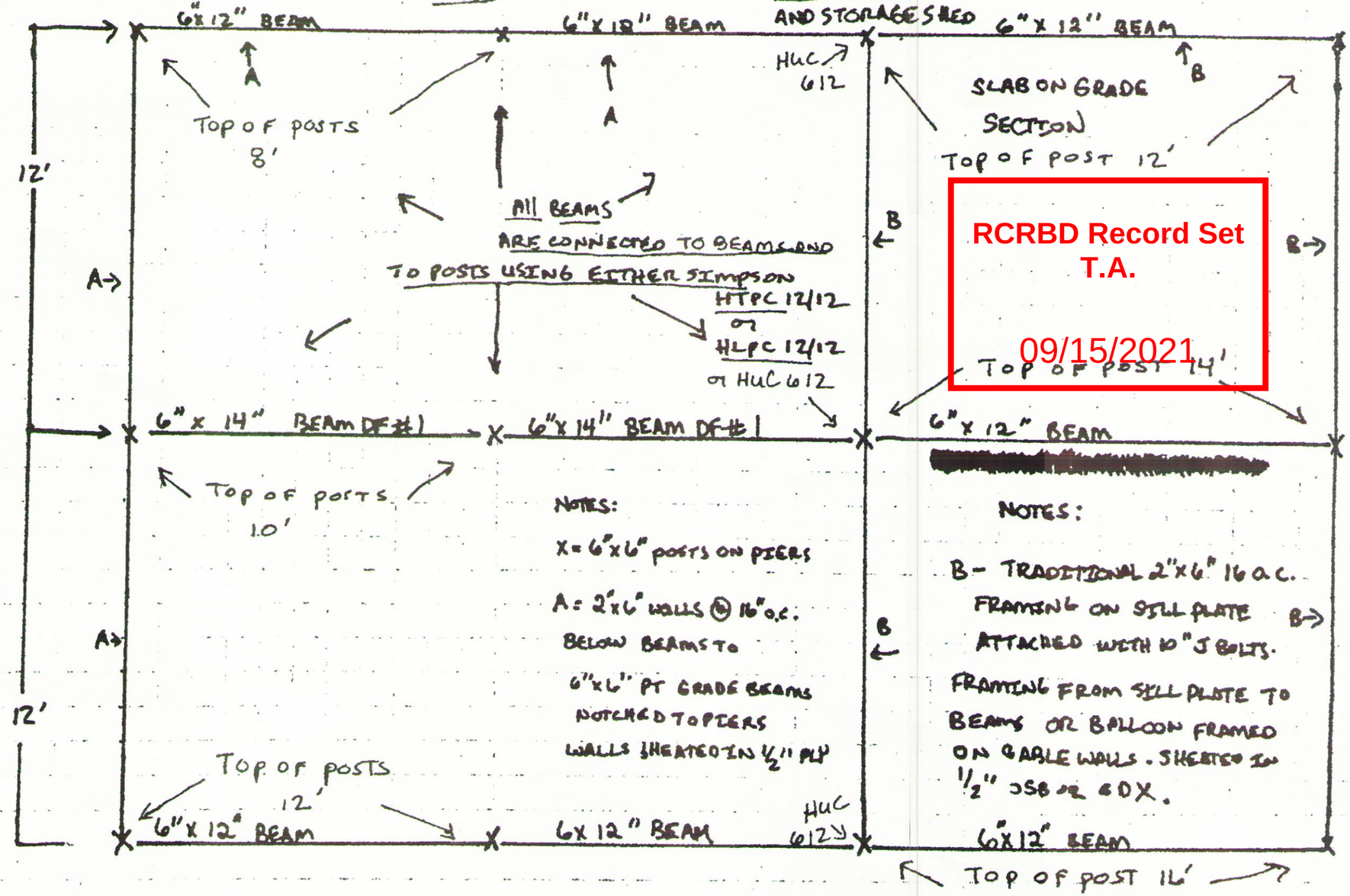
80487

8-30-21

SCALE: 1/4" = 1'

NICHOLAS GARAGE AND STORAGE SHED

FRAMING DETAILS GARAGE BAYS FIRSTFLOOR AND STORAGE SHED



8-30-21

PRAB
PERMIT # 210091

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PAGE 5
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SCALE: 1/4" = 1'

NICHOLAS GARAGE AND STORAGE SHED UNHEATED

FOUNDATION PLAN

50310 MOONHILL DR, ROUTT, CO 80487

11' C.O.P TO C.O.P

11' C.O.P TO C.O.P.

NOTES:

1) A - DETAIL 2, PAGE 6

2) X - DETAIL 3, PAGE 6

3) B - DETAIL 4, PAGE 6

ENCLOSED STORAGE AREA
SLAB ON GRADE WITH
THICKENED EDGE
(DETAIL 1 PAGE 6)

NOTE ON SLAB EXPANSION JOINT AND CONTROL JOINT. SEE NOTES (FOUNDATION) 16 + 17 FROM ENGINEER

Top of post 12'

Top of post 14'

Top of post 16'

36"x36"x12" PAD W/10" ø PIER (TYP)(UNO)

42"x42"x12" PAD W/ 10" ø PIER

11' CENTER OF POST TO CENTER OF POST

11' C.O.P TO C.O.P.

GARAGE BAY #1

GARAGE BAY # 2

11' C.O.P TO C.O.P.

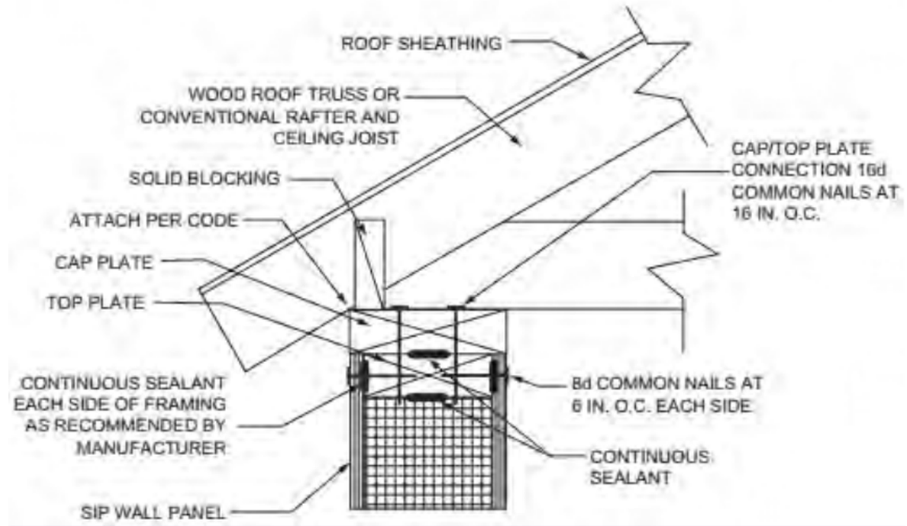
11' C.O.P. TO C.O.P.

14'

6.3 9.1 14.6 10.1 12' 24' 4.3 13.2 22.8 16.2 12' 12' 6.3 9.1 14.6 10.1

level/loc.	Typical Timber Rafter 1			Longest Ridge GL 2			Plate Beam 3			Porch E
defl=L/ :	360			360	48		360	48		
length	**11.5** P: (lbs)		at : <L/2	**16** P: (lbs)		at<L/2	**12.5** P: (lbs)		at<L/2	**1**
w	**267**	**0**	**5.75**	**1150.0**	**0**	**2.50**	**900.0**	**0**	**6.25**	
memwdx:	**3.5**	**5.25**	**3.5**	**3.5**	**5.25**	**8.75**	**7.25**	**7.25**	**5.125**	
d =Sreq	7.2	6.7	10.2	27.5	13.9	11.2	9.99	11.4	10.1	
d =I req	8.5	7.30	9.0	18.9	15.6	13.4	10.9	10.7	11.5	
d =Av req	4.53	2.2	3.3	19.7	8.3	5.9	8.1	6.0	6.0	5
MemTyp	Eastern White Pin	DF#1>5x5	DF#2>5x5	DF #2 north ML		GL 24f-1.8	Eastern Whit	DF#1>5x5	GL 24f-1.8	Easterr
Fb	1,750	1350	875	1,000	2,600	2,400	1,750	1350	2,400	1,7
E	1.50E+06	1600000	1300000	1.60E+06	1.90E+06	1.80E+06	1.50E+06	1600000	1.80E+06	1.50E-
Fv	125	170	170	180	285	240	125	170	240	
Fcp	350	625	625	625	750	650	350	625	650	
P at end	**1.54**	**(1.5)**		**9.20**	**(9.2)**		**5.63**	**(5.6)**		**2**
# stdsEE	0.835510204	0.31	0.47	2.80	1.56	1.08	1.48	0.83	1.13	1.004
Ab sq.in.	4.4			14.7			16.1			
Varea=	1322			8280			4905			2
M=ftlbs	4414			36800			17578			8
S>	30.3	39.2	60.5	441.6	169.8	184.0	120.5	156.3	87.9	5
I>	183	171	210.8	1987	1673	1766	791	742	659	
Av sq.in.	15.9	11.7	11.7	69.0	43.6	51.8	58.9	43.3	30.7	

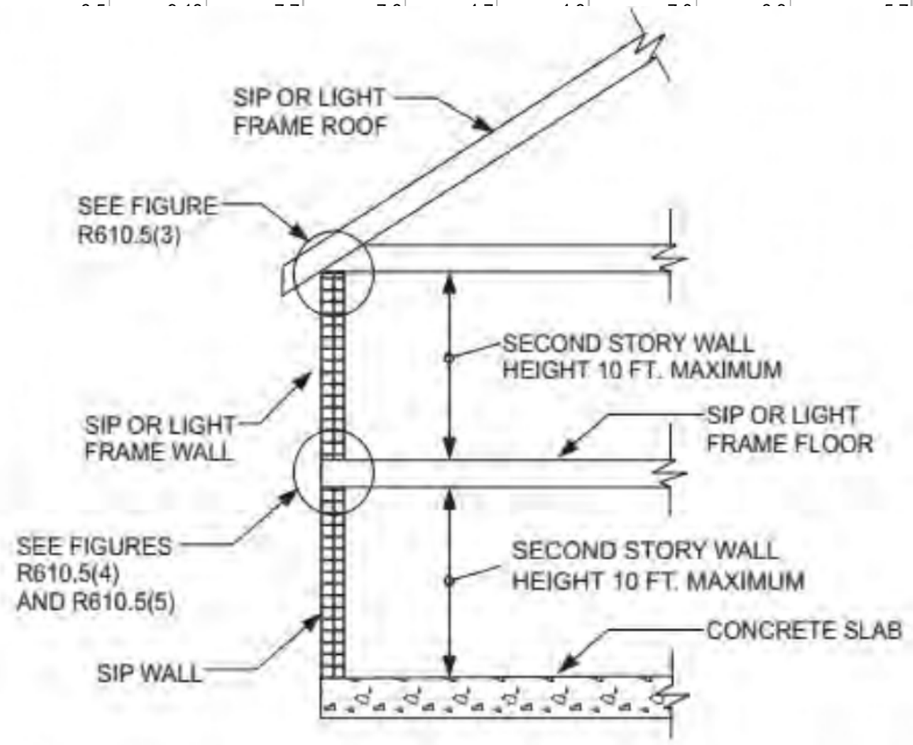
level/loc.	Main Floor Beam 9			Main Floor Joist			Deck Rim Beam 10			Garage
defl=L/ :	360			360	48		360	48		
length	**8** P: (lbs)		at : <L/2	**12.5** P: (lbs)		at<L/2	**9** P: (lbs)		at<L/2	
w	**625**	**0**	**4.00**	**66.5**	**0**	**2.50**	**285.0**	**0**	**4.50**	
memwdx:	**6**	**1.75**	**3.125**	**1.5**	**5.25**	**5.125**	**3**	**3.5**	**5.125**	
d =Sreq	8.4	8.9	6.9	7.9	2.6	2.8	9.03	4.8	4.1	1



For SI: 1 inch = 25.4 mm.

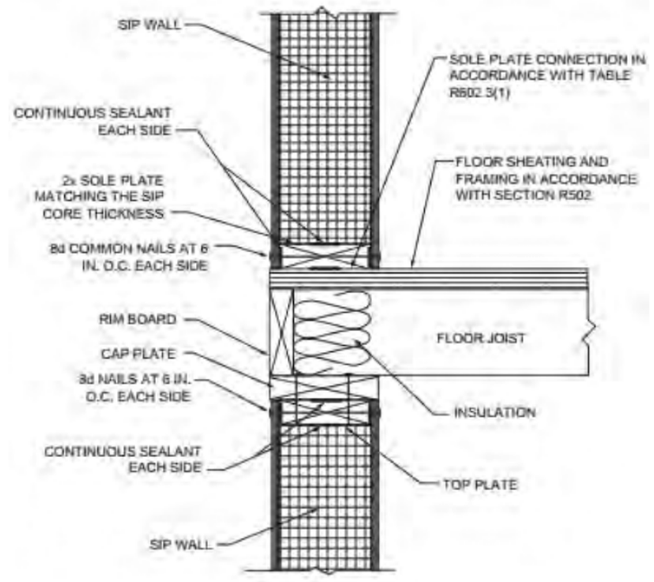
Note: Figure illustrates SIP-specific attachment requirements. Other connections shall be made in accordance with Tables R602.3(1) and (2), as appropriate.

FIGURE R610.5(3)
TRUSSED ROOF TO TOP PLATE CONNECTION



For SI: 1 foot = 304.8 mm.

Note: Figure illustrates SIP-specific attachment requirements. Other connections shall be made in accordance with Tables R602.3(1) and (2), as appropriate.



For SI: 1 inch = 25.4 mm.

Note: Figure illustrates SIP-specific attachment requirements. Other connections shall be made in accordance with Tables R602.3(1) and – (2), as appropriate.

FIGURE R610.5(4)
SIP WALL-TO-WALL PLATFORM FRAME CONNECTION

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SCALE: 1/4" = 1'

NICHOLAS GARAGE
AND
STORAGE SHED
UNHEATED

SOUTHSIDE EXTERIOR

50310 MOONHILL DR,
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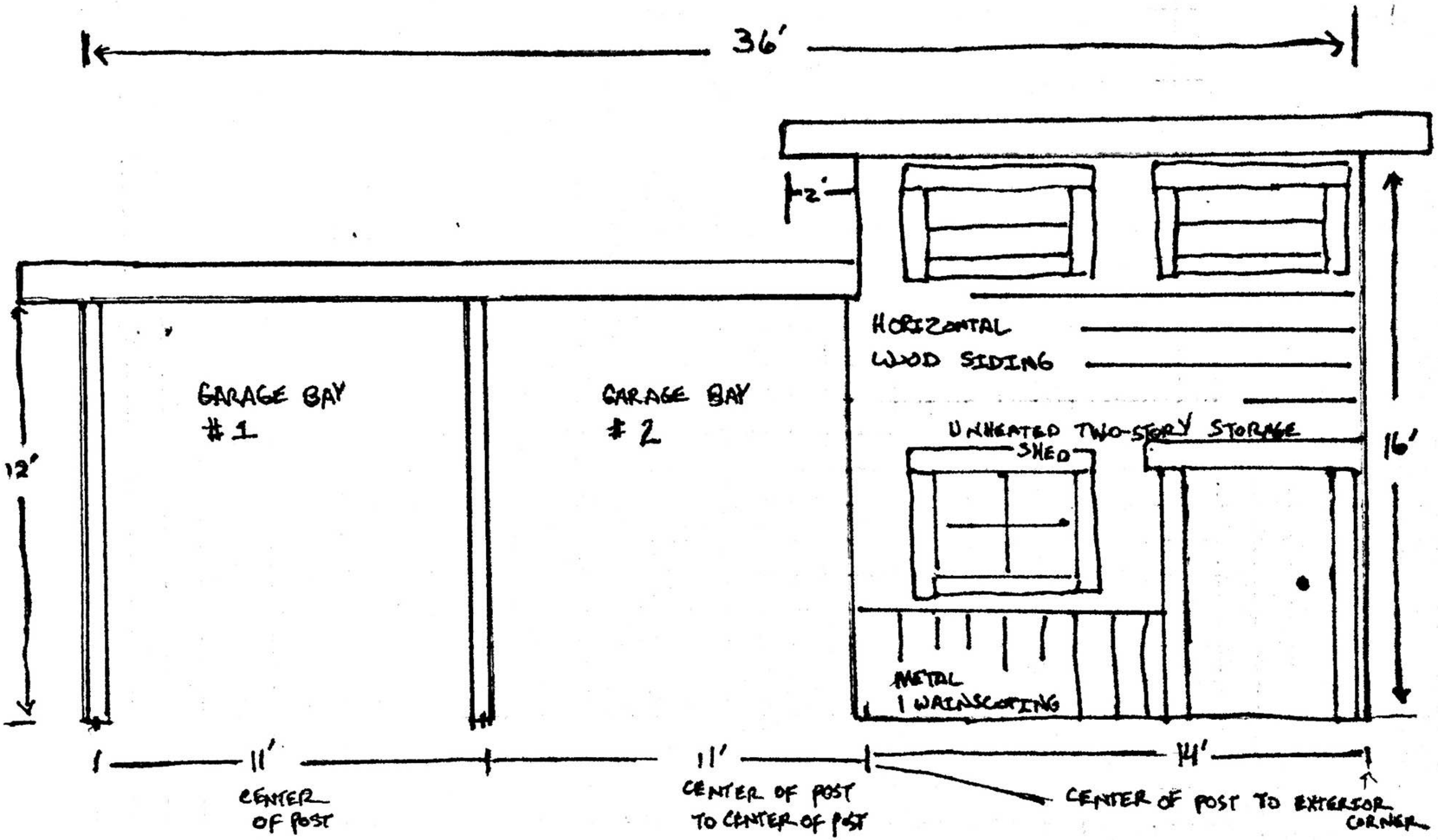


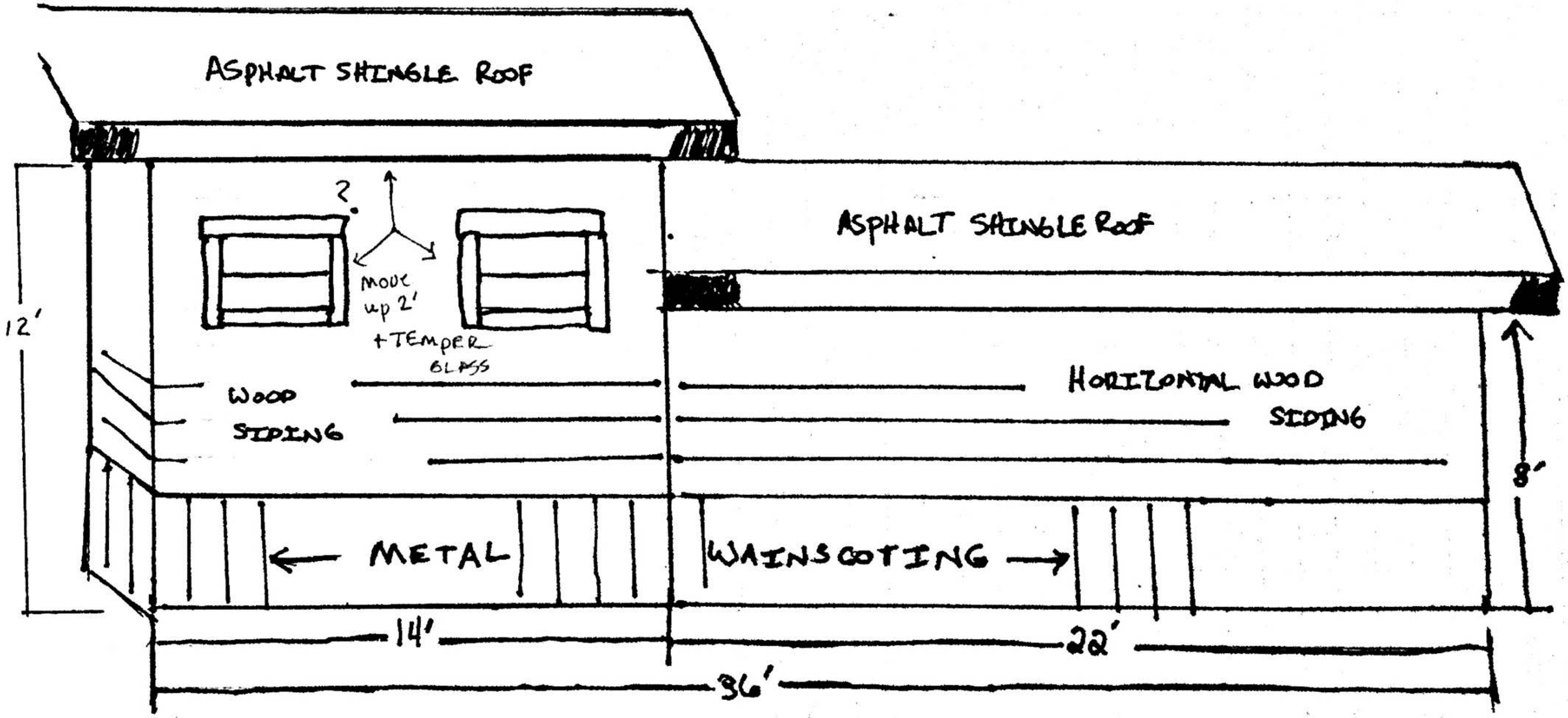
SCALE: 1/4" = 1'

NICHOLAS GARAGE AND STORAGE SHED

NORTHSIDE EXTERIOR

50310 MOONHILL DR,
ROUTT, CO
80487

PERMIT # PRAB210091



COLORADO REGISTERED
JOHN W. RINKE
35114
PROFESSIONAL ENGINEER
8-30-21

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SCALE: 1/4" = 1'

NICHOLAS GARAGE
AND STORAGE SHED
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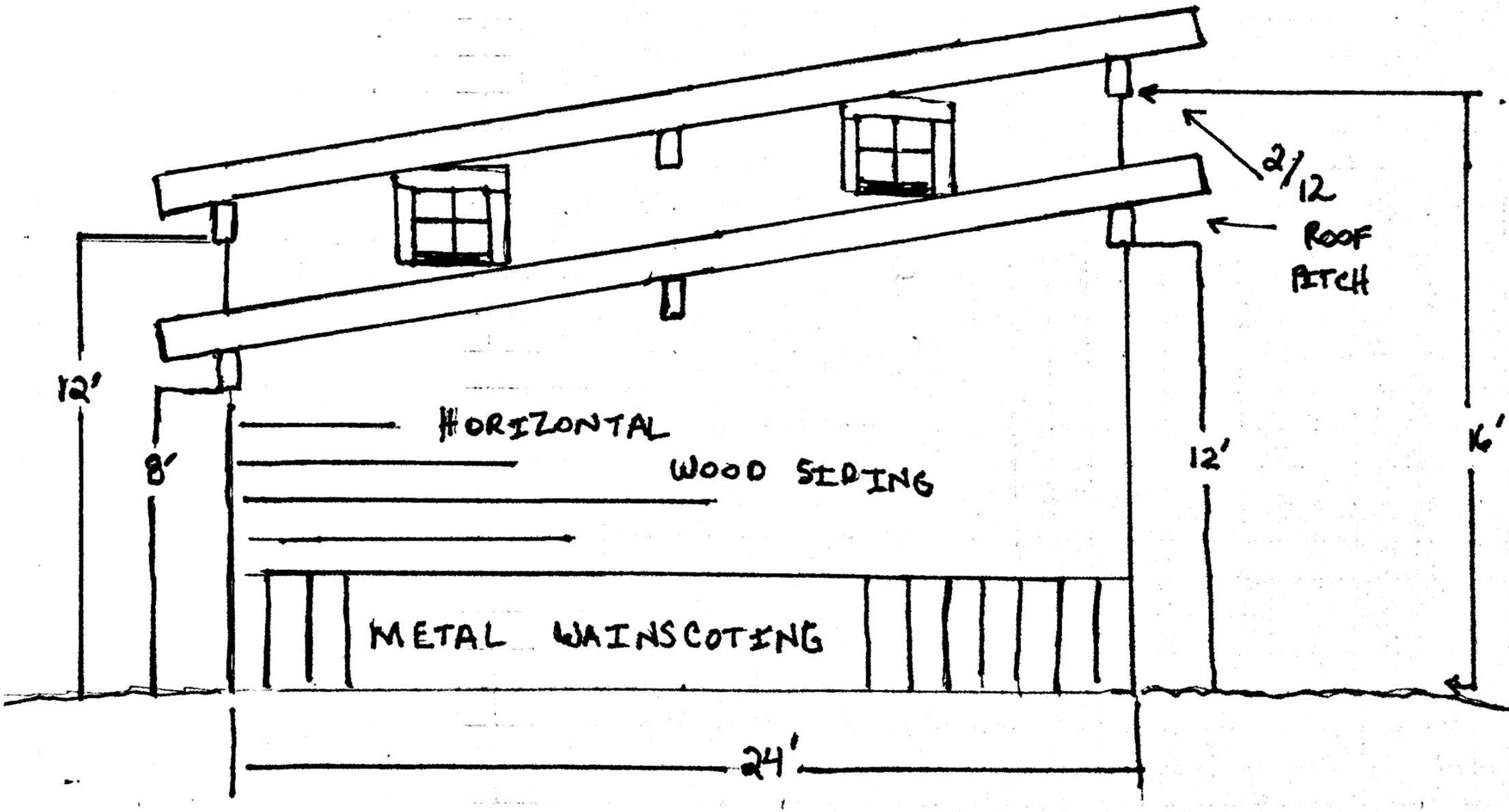
WEST SIDE
EXTERIOR



PERMIT # PRAB210091

SCALE: 1/4" = 1'

NICHOLAS GARAGE
AND
STORAGE SHED

EASTSIDE EXTERIOR

50310 MOONHILL DR,
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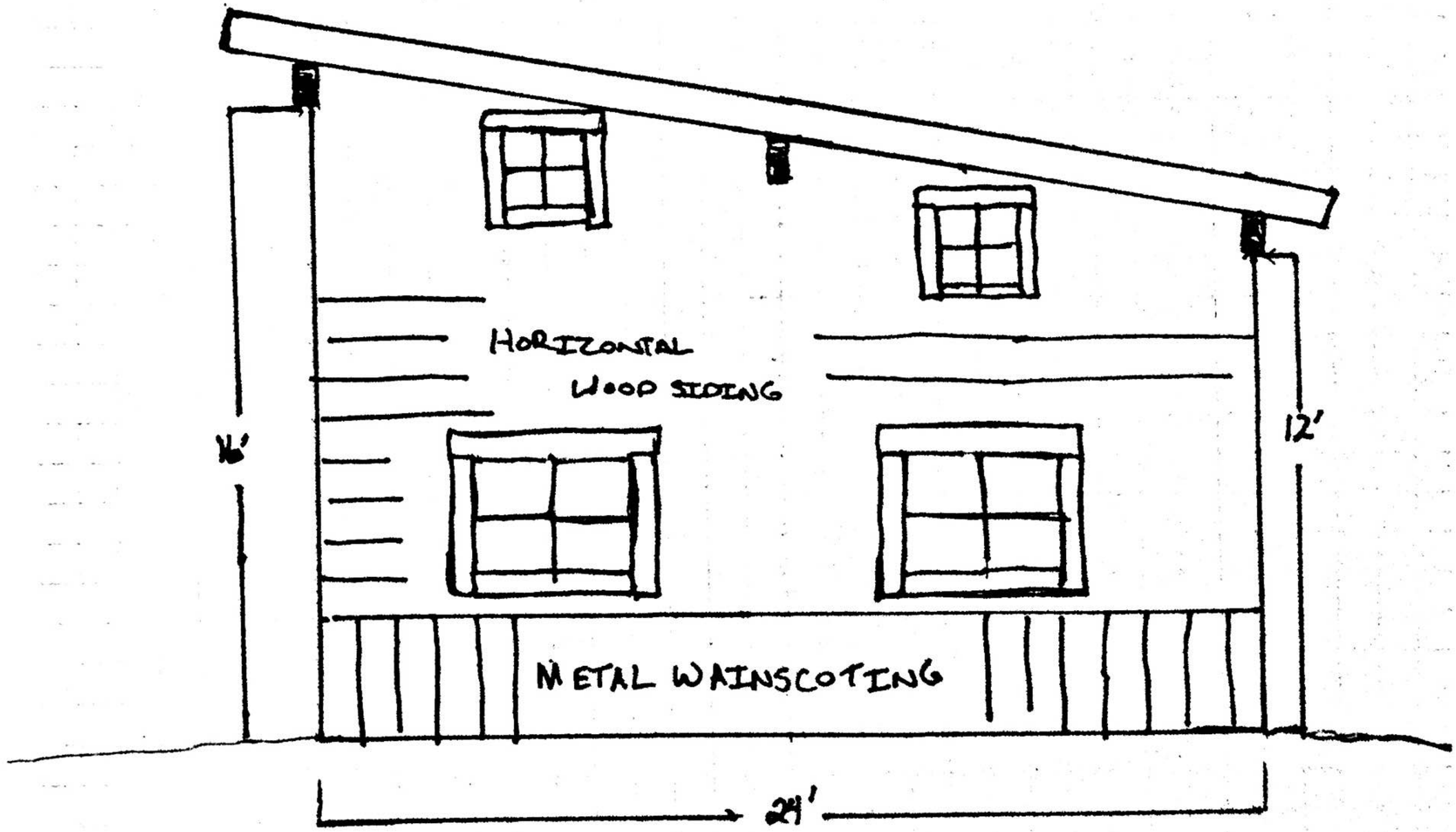
2/12 ROOF PETCH



2018 International Energy Conservation Code Checklist for General Prescriptive Method

Building Components Thermal Envelope R402: General Prescriptive Method to Compliance	
Vapor Retarder: Class I =Poly Class II =Kraft-Faced insulation Class III = Paint	Follow IRC Section R702.7 or IBC Section 1405.3 Class of vapor retarder is based upon selected methods of insulating the exterior walls of the structure.
Windows and Doors U-Factor = 0.30	R402.1.5 Total UA Alternative may be used to lower the U-Factor
Skylights U-Factor = 0.55	R402.1.5 Total UA Alternative may be used to lower the U-Factor
Ceiling Insulation with Attic Space = R49	R402.2.1 reduction to R38 wherever the full height of uncompressed R-38 extends over the wall top plate at the eaves.
Ceiling Insulation without Attic Space = R-49	R402.2.2 reduction to R30 provided when roof/ceiling assemblies don't have sufficient space.
Wood Framed Wall Insulation : 2x6 wall = R20/5 Wood Framed Wall Insulation: 2x6 wall = R22/3 Wood Framed Wall Insulation: 2x6 wall = R27/0	R20 in the cavity of the wall and R5 continuous insulation, R22 in the cavity of the wall and R3 continuous insulation, or R27 in the cavity of the wall and no continuous insulation. Walls with Structural Sheathing see Section R402.2.7 for reduction
Wood Framed Wall Insulation: 2x4 wall = R13/10	R13 in the cavity of the wall and R10 continuous insulation. Walls with Structural Sheathing see Section R402.2.7 for reduction
Mass Walls R-19/21	Defined & Reviewed based upon formula from Section 402.2.5
Floor Insulation = R38	See Section 402.2.8 for definition and exception
Basement Wall Insulation = R-15/19	See Section 402.2.9 for definition R15 continuous on either side or R19 on interior side. See footnotes in R402.1.2 for alternatives
Concrete Slab on Grade Insulation = R10/4ft	See Section R402.2.10 Insulation depth shall be depth of the footing minimum of 4 feet. R-5 insulation shall be provided under the full slab area of a heated slab .
Crawl Space Wall Insulation = R15/19	See Section R402.2.11 for definition R15 continuous on either side or R19 on interior side.
Fenestration Air Leakage: windows, sliding doors, skylights	</= 0.3 cfm/sf Exception for site built windows, skylights, and doors.
Fenestration Air Leakage: Swinging Doors	</= 0.5 cfm/sf Exception for site built doors.
Air Leakage: The building thermal envelop shall be constructed to limit air leakage.	All products installed in accordance with manufactures instructions and be labeled in accordance with the requirements of the 2018 IECC.
Fireplaces new wood-burning units	See Section R402.4.2 Information on tight fitting doors and labels required.

2018 International Energy Conservation Code Checklist for General Prescriptive Method

Building Systems R403: General Prescriptive Method to Compliance	
Programmable thermostats required for all heating and cooling equipment installed in a dwelling unit.	See Section R403.1.1: Thermostat to have daily schedules and temperature setback for scheduled times of the day.
Duct Insulation: Attic spaces R8 when 3” diameter or greater	See Section R403.3.1 for exception where ducts are completely within the building thermal envelope.
Duct Insulation: Attic spaces R6 when less than 3” diameter	See Section R403.3.1 for exception where ducts are completely within the building thermal envelope.
Sealing: Mandatory for ducts, air handlers and filter boxes.	See Section R403.3.2 for exceptions.
Hot water boiler outdoor temperature setback:	See Section R403.2 Hot water boilers that supply heat to the building through one or two-pipe heating systems shall have an outdoor set-back control that lowers the temperature based on outdoor temperature.
Mechanical System Piping insulation: Mandatory	See Section R403.4 mechanical piping carrying fluids above 105 F or below 55 F shall be insulated with R3 minimum.
Circulating systems / Heat trace systems/ Demand recirculation systems:	See Section R403.5.1.1, R403.5.1.2, R403.5.2 for information on operations and controls for pumps and specific electric heat trace systems.
Hot water pipe insulation required to be R3	See Section R403.5.3 for list of required piping that requires R3
Mechanical Ventilation: The building should be provided with mechanical ventilation or approved method per requirements.	See Section R403.6 and R403.6.1 for definitions and refer the 2015 IRC Sections M1507 for system design and requirements.
Systems serving multiple dwelling units:	See Section R403.8 Shall comply with Sections C403 and C404 of the IECC – Commercial provisions in lieu of Section R403
Snow melt systems and ice system controls:	See Section R403.9 Automatic controls shutting system when pavement temperature >50 F and no precipitations falling, automatic or manual control to shutoff as outdoor temp > 40 F
Pools/ Permanent & Portable Spas:	See Sections R403.10 through R403.12 Heaters, Time Switches, Covers, Energy Consumption.
Equipment Sizing and Efficiency Rating	See Section R403.7 and refer to IRC M1401.3

GENERAL

ROOF SNOW LOAD=85psf

1. DESIGN LIVE LOADS: Floor=40psf, Wind 80mph exp. B
2. RESPONSIBILITY: The contractor is responsible for cross referencing all plans and inspecting work placement at the site to assure that no omissions or discrepancies exist that might adversely affect construction or the integrity of the finished product. Job site and construction safety are not addressed in these plans and are the responsibility of the contractor. These responsibilities are industry standard.
3. These plans are intended to be in accordance with 2018 IBC and IRC codes. All construction to be in conformance with these codes.

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FOUNDATION

1. Foundation designed in accordance with **N.W.C.C.'s** site specific soils report, which is hereby made a part of these drawings. Maximum allowable soil bearing pressure = **3000** psf, **0** min. Lateral earth pressures determined from equivalent fluid weights of **45**pcf for granular free draining backfill, and **60**pcf for native backfill. Proper authorization for use of the report or its recommendations are the responsibility of the owner.
2. We recommend excavating contractor verify during excavation (and before construction of any part of the foundation) that soils types and conditions match those described in the pit log(s) of the above mentioned soils report.
3. Remove topsoils, organic material, and any questionable material below pads and footers. All pads and footings exposed to frost must maintain **the required 4' frost depth**. Minimum pad thickness = 12". The footing elevations of this design are indicated in economical relation to architectural elements. Proper soil bearing and/or the soil report may require lower footings.
4. Drainage and grading details to divert surface drainage at least 10' away from the structure. Do not backfill against any foundation or retaining wall until all supporting floor and slab systems are in place and securely anchored, or other adequate wall support is provided.
5. Where exterior backfill rises above any adjacent floor, use **granular free draining** backfill from drain tile up. Exterior backfill may be **native** inorganic material where final grade is below lowest floor (UNO). Before placing finish topsoil, we recommend capping backfill with a Mirafi fabric under 12" of water impermeable material (e.g. clay).
6. Provide 4" diameter perforated PVC draintile in a 12" by 12" gravel envelope at lowest levels of and perimeter of excavation sloped a minimum of 1/8" per foot to an adequate daylighting drain. Provide cleanouts and screen end. Mirafi or other filter barriers will help prevent drain clogging. Test draintile before and after backfilling.
7. All construction and materials to conform with ACI 318.
8. Reinforcing bar to be deformed 60ksi steel (per ASTM A-615). Lap all rebar splices and corners 30 bar diameters minimum.
9. Concrete 28 day compressive strength = 3000psi.
10. Concrete cover: Concrete cast against and permanently exposed to earth: footing, pad = 3". Concrete exposed to earth or weather: walls, slabs = 1.5"
11. Consolidate concrete per ACI 309. Cast in place concrete shall be poured continuously so as to prevent cold joints.
12. Provide 5/8" diameter by 10"min anchor bolts at 32" on center with an embedment of 7" to connect framing to foundation (UNO). Anchor bolts to be located not more than 12" from foundation corner (TYP). Use galvanized anchor bolts with pressure treated plates. Finish all concrete wall tops to within 1/8" of specified elevations.

THERMASHEATH®
INSULATION FOR THE BUILDING ENVELOPE

PRODUCT DESCRIPTION
Rmax Thermasheath® is an energy-efficient thermal insulation board composed of a closed-cell polyisocyanurate (polyiso) foam core bonded to reinforced aluminum foil facers with clear coating for limited protection against oxidation on each side.

COMPLIANCES
- ASTM C1289 Type I, Class 1 and 2
- International Building Code (IBC) Section 2603, Foam Plastic
- ASHRAE 90.1
- DrJ TER 1309-03
- ESR-1864, ICC Evaluation Service
- International Energy Conservation Code (IECC)
- Miami-Dade County Product Control Approved
- RR 25322, City of Los Angeles Research Report
- California Code of Regulations, Title 24 (BHFTI License T1523)
- Tested per NFPA 285 to comply with IBC Section 2603.5.5
- Tested per NFPA 286 (ICC-ES AC12 Appendix B)
- Water-Resistive Barrier (WRB) per ICC-ES AC71 (ASTM E331, AATCC Test Method 127)
- Class A Flame Spread and Smoke Developed Indices per IBC Chapter 8, Interior Finishes (1" min.)
- 1, 2, 3 or 4 hour Fire Rated Assemblies as shown in the UL Fire Resistance Directory.

NOTE: For details, requirements and/or limitations, refer to Third-Party Evaluation Reports

APPLICATIONS
Exterior walls (Type I-IV): Masonry, steel stud, FRTW stud; wood stud (Type V); concrete foundation; exterior ducting; limited roofing applications

THERMAL PROPERTIES / PRODUCT DATA
"R" means resistance to heat flow. The higher the R-value, the greater the insulating power.

NOMINAL THICKNESS	THERMAL R-VALUE[1]
Inches	°F•ft²•hr/Btu
0.50	3.2
0.75	5.0
1.00	6.0
1.10	6.7
1.25	7.8
1.50	9.6
1.55	10.0
1.75	11.4
2.00	13.1
2.10	13.9
2.30	15.3
2.50	16.7
2.90	19.6
3.00	20.3
3.50	23.9
3.70	25.3
4.00	27.4
4.50	31.0

[1]Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.

Thermasheath® is shipped in bundles that are approximately 48" high and wrapped in plastic for easy handling. Visit www.rmax.com for a complete list of thicknesses and packaging information.

TYPICAL PHYSICAL PROPERTIES
Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.

PROPERTY	TEST METHOD	RESULTS
Density, Overall, Nominal	ASTM D1622	2.0 pcf
Compressive Strength	ASTM D1621	20 psi[1]
Flexural Strength	ASTM C203	60 psi
Flame Spread, Core[2]	ASTM E84	≥ 1" 25 or Less < 1" 75 or Less
Smoke Developed, Core[2]	ASTM E84	< 450
Air Permeance	ASTM E2178	< 0.02 L/(s·m²)
Water Vapor Permeance	ASTM E96	< 0.03 perm
Water Absorption	ASTM C209 ASTM C272	< 0.2% Vol. 0.3% max
Dimensional Stability, Length and Width	ASTM D2126	< 1% Linear Change
Mold Resistance	ASTM D3273	10, no defacement
Service Temperatures		250°F max

[1]Also available in 25 psi upon request. Less than 1" is standard at 16 psi.
[2]Flame spread and smoke numbers are shown for comparison purposes only and are not intended to represent the performance of Thermasheath® and related components under actual fire conditions.

APPLICATION / INSTALLATION

NOTE: For use as a code prescribed Water-Resistive Barrier over wood or steel studs, refer to the Water-Resistive Barrier section for specific installation and securement details.

General – Thermasheath® shall be installed vertically or horizontally with all edges tightly butted. Vertical joints must be backed by framing or structural sheathing. Taping the joints is acceptable, although not required. Rmax recommends using a pressure sensitive tape such as R-SEAL Construction Tape, R-SEAL 3000, or equivalent.

Securement – Rmax recommends a minimum of eight fasteners per 4'x8' board. Additional fasteners may be required in locations expected to experience additional loading (heavy wind drafts, gusts, accelerated wear and tear, etc.) prior to attachment of covering material (cladding, furring, thermal barrier, etc.) or when not being covered. Exact number of fasteners also depends on the type being used and the capacity, consult fastener manufacturer. Fasten to wood framing using washers with roofing nails or bugle head screws, cap nails, or staples. The fasteners shall be long enough to penetrate wood framing a minimum of 1". Fasten to metal framing using self-taping screws and plastic washers. The fasteners shall be long enough to penetrate metal framing a minimum of four threads. Secure to concrete surfaces using plastic masonry fasteners with washer or a quality grade construction adhesive. TRUFAST Walls fasteners, sold by Rmax, are a great option for fastening Thermasheath® to wood, steel and concrete substrates. Refer to the Rmax/TRUFAST Walls Fastener List and Installation Guide for more details.

Water-Resistive Barrier – When Thermasheath® is installed over wood or steel studs with the joints sealed, it serves as a code prescribed Water-Resistive Barrier (WRB). For use as a WRB, Thermasheath® shall be installed with vertical board joints placed directly over wood framing spaced a maximum of 24" o.c. Use a minimum 3/4" cap nail spaced 12:16 o.c. or 1 3/8" staples spaced 12" o.c. at all vertical framing. All insulation board joints must be covered by R-SEAL Construction Tape or R-SEAL 3000. All transitions and throughwall penetrations must be flashed to comply with applicable code.

LIMITATIONS

Thermasheath® is not recommended, nor warranted, for use as a commercial roof insulation. Consult Rmax Sales for suitable commercial roof insulation products.
Thermasheath® is not a structural panel; stud walls insulated with Thermasheath® must be properly braced for lateral loads according to the requirements of local Building Codes.

WARNING

Polyiso is an organic material which will burn when exposed to an ignition source of sufficient heat and intensity and may contribute to flames spreading.
Installations utilizing Thermasheath® must be fully protected on the inhabited side of the building by a thermal barrier such as a minimum of 1/2" gypsum wallboard. Consult local building codes and insurance authorities regarding special applications or details required when using Thermasheath® as an exposed product in uninhabited spaces.

Per the IBC, a WRB is required behind the exterior wall veneer. The code also has provisions regarding vapor retarders, type and location, based on the assembly, climate zone and the amount of continuous insulation. It is up to the design professional to specify an assembly that will perform adequately and meet these requirements.

WARRANTY

See Rmax "Sales Policy" for terms and conditions. Rmax does not assume any responsibility or liability for the performance of any products other than those manufactured by Rmax.
NOTE: All Rmax products must be tarped, placed on skids and kept dry before and throughout construction.

- SIP panels – I have hi-lighted the system R-values. This is important, as a change in temperature changes the performance.
  - System R-value @ 75 degrees Fahrenheit = R23
  - System R-value @ 40 degrees Fahrenheit = R25
- Rmax-Thermasheath – (2) layers of 4.0 (nominal thickness) will be utilized. (1) layer of 4.0 @ R27.4 x 2 = total value of R54.8.

PIMA POLYISOCYANURATE INSULATION MANUFACTURERS ASSOCIATION

Proudly Made and Engineered in the U.S.A.

ENERGY STAR PARTNER

RMAX SALES OFFICES / PLANT

Central
13524 Welch Road
Dallas, TX 75244
(P) 972-387-4500
(F) 972-387-4673

East
1649 South Batesville Road
Greer, SC 29650
(P) 864-297-1382
(F) 864-234-7548

West
210 Lyon Drive
Fernley, NV 89408
(P) 775-575-4849
(F) 775-575-5035

rmax@rmax.com / www.rmax.com

RMAX BUILDING TRUST Sika

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09/15/2021

WINDOW & DOOR SCHEDULE

MODEL #	QTY	ROUGH OPENING	U-VALUE	DESCRIPTION	COMMENTS
FC2100(30) (O)	1	3'-2 1/2" x 6'-9 1/4"	.25	THERMA-TRU OUTSWING ENTRY DOOR	
FWG6068R	1	6'-0" x 6'-8"	.30	ANDERSEN FRENCHWOOD GLIDING PATIO DOORS	
FC2100(30)	2	3'-2 1/2" x 6'-10 1/2"	.25	THERMA-TRU OUTSWING ENTRY DOOR	
FWG6068L	1	6'-0" x 6'-8"	.30	ANDERSEN FRENCHWOOD GLIDING PATIO DOORS	
FWH6068SAL	1	6'-0" x 6'-8"	.30	ANDERSEN FRENCHWOOD HINGED PATIO DOOR	
CX14	3	2'-8" x 4'-0 1/2"	.29	ANDERSEN CASEMENT WINDOW	
C12	2	2'-0 5/8" x 2'-0 5/8"	.29	ANDERSEN CASEMENT WINDOW	
C13 (T)	1	2'-0 5/8" x 3'-0 1/2"	.29	ANDERSEN CASEMENT WINDOW (TEMPERED)	
C23	1	4'-0 1/2" x 3'-0 1/2"	.29	ANDERSEN CASEMENT WINDOW	
CUSTOM PICTURE	4	3'-8 13/16" x 7'-0"	.27	CUSTOM PICTURE WINDOW	
AN2281	1	5'-3 1/4" x 1'-9"	.29	ANDERSEN TWIN AWNING WINDOW	
AN41 (T)	1	4'-0 1/2" x 1'-9"	.29	ANDERSEN AWNING WINDOW (TEMPERED)	OPERABLE
TRAP	4	SEE WNDOW DETAIL	.27	CUSTOM TRAPEZOID	
2868	10	2'-10" x 6'-10"		RAISED PANEL WHITE PINE INTERIOR HINGED DOOR	
3068	1	3'-2" x 6'-10"		RAISED PANEL WHITE PINE INTERIOR HINGED DOOR	
5068	1	5'-2" x 6'-10"		RAISED PANEL WHITE PINE BI-FOLD DOORS	
FIELD BUILT DOOR	1	FIELD BUILT DOOR		RAISED PANEL WHITE PINE BI-FOLD DOORS	

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RCRBD Record Set
T.A.

09/13/2021

June 3, 2021

Nathan Nicholas
1701 Constellation Drive
Colorado Springs, CO 80905

Job Number: 20-11970

Subject: Subsoil and Foundation Investigation, Proposed Nicholas Residence, Tract 65, Section 17, T8N, R85W, Routt County, Colorado.

Nathan,

This report presents the results of the Subsoil and Foundation Investigation for the proposed Nicholas Residence to be constructed within Tract 65 in Section 17 of Township 8 North, Range 85 West in Routt County, Colorado. The approximate location of the project site is shown in Figure #1.

NWCC, Inc. (NWCC) scope of our work included obtaining data from observations made at the site, the logging of three test pits, sampling of the probable foundation soils, and laboratory testing of the samples obtained. This report presents recommendations for economically feasible and safe type foundations, as well as allowable soil pressures and other design and construction considerations that are advisable, but not necessarily routine to quality design and building practices.

Proposed Construction: NWCC understands a single-family residence will be constructed at the site. NWCC has assumed the proposed residence will consist of a one to two-story wood framed structure. We have assumed that the lower level of the residence and garage will be constructed with concrete slab-on-grade floor systems placed near or above the existing ground surface.

For design purposes, we have assumed that the building loads will be light to moderate typical of this type of residential construction. If loadings or conditions are significantly different from those above, NWCC should be notified to reevaluate the recommendations in this report.

Site Conditions: The proposed building site is situated northwest of Moon Hill Drive in Routt County, Colorado. The proposed building site was vacant at the time of our field investigation and a gravel driveway had been constructed to the building site. The vegetation at the site consists of grasses, weeds, deciduous brush and cottonwood trees.

The topography of the site is relatively flat and generally slopes gently down to the south-southwest on the order of 1 to 3 percent.

Subsurface Conditions: To investigate the subsurface conditions at the sites, three test pits were advanced on September 22, 2020 with a mini-trackhoe. The approximate test pit locations are shown in Figure #2.

The subsurface conditions encountered were variable and generally consisted of a layer of topsoil and organics overlying natural sands and gravels to the maximum depth investigated, 6 feet below the existing ground surface (bgs). Graphic logs of the exploratory test pits, along with the associated Legend and Notes, are presented in Figure #3.

A layer of topsoil and organic materials was encountered at the ground surface and was approximately 12 inches in thickness. Natural sands and gravels were encountered below the layer of topsoil and organics in all of the test pits and extended to the maximum depth investigated in each test pit. The natural sands and gravels were clean to slightly silty, fine to coarse grained with cobbles and occasional small boulders, very low to non-plastic, medium dense to dense, moist to wet and brown in color. A sample of the natural sands and gravels classified as a GP soil in accordance with the Unified Soil Classification System. The laboratory test results are presented in Table 1.

Groundwater was encountered at depths of 3 ½ to 4 feet bgs in each of the test pits at the time of our investigation. The seasonal groundwater table appears to be within 1 foot of the existing ground surface. It should be noted that the groundwater conditions at the site can be expected to fluctuate with changes in precipitation and runoff.

Foundation Recommendations: Based on the soils encountered in the test pits, the results of the field and laboratory investigations and the proposed construction, NWCC believes an economically feasible type of foundation system is spread footings or individual pads with grade beams founded on the natural sands and gravels or on properly compacted structural fill materials placed over the natural sands and gravels.

1) Footings placed on the natural sands and gravels or properly compacted structural fill materials placed over the natural sands and gravels should be designed using an allowable soil bearing pressure of 3,000 psf. Based on anticipated geologic site conditions, NWCC recommends a **Site Class C** designation be used in structural design calculations in accordance with Table 20.3-1 in Chapter 20 of ASCE 7.

2) Footings or pad sizes should be computed using the above soil pressures and placed on the natural undisturbed sands and gravels found below the layer of topsoil and organic materials or on properly compacted structural fill materials placed over the natural sands and gravels.

3) Any topsoil and organic materials or clays encountered within the foundation excavations should be removed and the excavations extended to competent natural sands and gravels prior to structural fill or concrete placement. If groundwater is encountered in the excavations, dewatering of the

excavations may be required. We also recommend that a minimum of 6 inches of free draining gravels be placed over the natural sands and gravels to limit disturbance of the natural sands and gravels, where groundwater is encountered. The free draining gravels should be placed in uniform lifts not exceeding 6 inches in thickness and be compacted to at least 80% of the maximum relative density determined in accordance with ASTM D4253/4254. Any additional fill materials placed beneath the footings should be a non-expansive granular soil approved by this office. The on-site sands and gravels are suitable for structural fill after the cobbles and boulders are removed. Fill materials placed under the footings should be uniformly placed in 6 to 8 inch loose lifts and compacted to at least 100% of the maximum standard Proctor density and within 2% of the optimum moisture content determined in accordance with ASTM D-698. Structural fill materials should extend out from the edge of the footings on a 1(horizontal) to 1(vertical) or flatter slope.

4) Foundation walls should be designed and reinforced to span an unsupported distance of 10 feet or the length between pads, whichever is greater.

5) Footings or pads should be placed well enough below final backfill grades to protect them from frost heave. Forty-eight (48) inches is recognized by the local building authority.

6) Based on experience, NWCC estimates total settlement for footings and pads designed and constructed as discussed in this section will be approximately 1 inch. Additional bearing capacity values along with the associated settlements are presented in Figure #4.

7) NWCC recommends the client retain our firm to observe the foundation excavations when they are near completion to identify the bearing soils and confirm the recommendations in this report, as well as test the structural fill materials for compaction.

Floor Slabs: The natural soils, exclusive of the topsoil and organic materials, are capable of supporting lightly to moderately loaded slab-on-grade construction. The floor slabs should be provided with control joints placed a maximum of 10 to 12 feet on center in each direction, depending on slab configuration, to help control shrinkage cracking. The location of the joints should be carefully checked to assure that the natural, unavoidable cracking will be controlled. The depth of the control joints should be a minimum of ¼ the thickness of the slab.

Any fill materials placed beneath the floor slabs should be a non-expansive granular soil approved by NWCC prior to placement. The fill should be placed in 6 to 8 inch loose lifts and be compacted to at least 95% of the maximum standard Proctor density and within 2% of the optimum moisture content. The on-site sands and gravels should be suitable for use as fill materials beneath the floor slabs after any cobbles and boulders are removed and they are properly moisture conditioned. We recommend that all of the existing topsoil and organic materials encountered be removed from underneath the floor slabs prior to concrete or fill placement.

Underdrain System: Any floor levels or crawl space areas constructed below the existing or finished ground surfaces should be placed a minimum of 2 feet above the seasonal high groundwater table and be

protected by a drainage system to help reduce the problems associated with surface and subsurface drainage during high runoff periods. If any floor or crawl space levels are constructed less than 2 feet above the seasonal high groundwater table, a permanent dewatering system may be required. NWCC must be contacted to help design the underdrain system or permanent dewatering system for these levels.

To enhance site drainage and improve foundation and interior slab-on-grade performance, NWCC recommends a perimeter drainage system be installed around the building perimeter. Localized perched water or runoff can infiltrate the structure at the foundation level. This water can be one of the primary causes of differential foundation and slab movement.

The drainage system should be located around the entire building perimeter and be placed and at least 12 inches below interior slab or crawl space grades and a minimum of 24 inches below final grades to provide frost protection. Ideally, the drainage system should be centered along roof drip-line locations. In locations where roof drip-lines are not present, the drainage system may be located within 24 inches of foundation walls. Drains should be insulated using 2-inches of rigid polystyrene insulation board in locations higher than 48 inches below final grade to provide protection against freezing.

Perimeter drainage system piping should be constructed using perforated PVC pipe that meets or exceeds ASTM D-3034/SDR 35 requirements to provide satisfactory long-term function and rapid runoff of water. The holes in the drainpipes should be oriented down between 4 o'clock and 8 o'clock to promote rapid runoff of the water. The drainpipes should be covered with at least 12 inches of free draining gravel and be protected from contamination by a geotextile filter fabric covering of Mirafi 140N subsurface drainage fabric or an equivalent product. The drainpipes should have a minimum slope of 1 percent and be daylighted at positive outfalls that are protected from freezing. If the drainpipes cannot be daylighted, the drains should be led to sumps where the water can be pumped. Multiple daylights or sumps are recommended for the proposed structures. A typical perimeter/underdrain detail is shown in Figure #5.

Caution should be taken when backfilling so as not to damage or disturb the installed drains. NWCC recommends the drainage piping include cleanouts provided at minimum 100-foot intervals, be protected against intrusion by animals at the outfalls and be tested prior to backfilling. NWCC should be retained to provide periodic observations of underdrain construction to verify installation has been accomplished in general accordance with these recommendations. Flow testing of the system is recommended.

Foundation Walls and Retaining Structures: Foundation walls and retaining structures, which are laterally supported and can be expected to undergo only a moderate amount of deflection, may be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 45 pcf for imported, free draining granular backfill and the on-site sands and gravels.

Cantilevered retaining structures on the site can be expected to deflect sufficiently to mobilize the full active earth pressure condition. Therefore, cantilevered structures may be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of 35 pcf for imported, free draining granular backfill and the on-site sands and gravels.

Foundation walls and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent buildings, traffic and construction materials. An upward sloping backfill and/or natural slope will also significantly increase the earth pressures on foundation walls and retaining structures and the structural engineer should carefully evaluate these additional lateral loads when designing the foundation and retaining walls.

The lateral resistance of retaining wall foundations placed on undisturbed natural soils at the site will be a combination of the sliding resistance of the footings on the foundation materials and the passive pressure against the sides of the footings. Sliding friction can be taken as 0.4 times the vertical dead load. Passive pressure against the sides of the footing can be calculated using an equivalent fluid pressure of 250 pcf. The fill placed against the sides of the footings to resist lateral loads should be compacted to at least 100% of the maximum standard Proctor density and near the optimum moisture content.

NWCC recommends imported granular soils for backfilling foundation walls and retaining structures because their use results in lower lateral earth pressures. Imported granular materials should be placed to within 2 to 3 feet of the ground surface, be free draining and have less than 3 percent passing the No. 200 sieve. Granular soils behind foundation and retaining walls should be sloped from the base of the wall at an angle of at least 45 degrees from the vertical. Upper 2 to 3 feet of fill should be a relatively impervious soil or pavement structure to prevent surface water infiltration into the backfill.

Wall backfill should be carefully placed in uniform lifts and compacted to at least 95 percent of the maximum standard Proctor density and near the optimum moisture content. Care should be taken not to overcompact the backfill since this could cause excessive lateral pressure on the walls. Some settlement of deep foundation wall backfill materials will occur even if the material is placed correctly.

Surface Drainage: Proper surface drainage at this site is of paramount importance for minimizing the infiltration of surface drainage into the wall backfill and bearing soils, which could result in increased wall pressures, differential foundation and slab movement. The following drainage precautions should be observed during construction and at all times after the structures have been completed:

1) Ground surface surrounding the structure should be sloped (minimum of 1.0 inch per foot) to drain away from the structures in all directions to a minimum of 10 feet. Ponding must be avoided. If necessary, raising the top of foundation walls to achieve a better surface grade is advisable.

2) Non-structural backfill placed around the structures should be compacted to at least 95% of the maximum standard Proctor density at or near the optimum moisture content in order to minimize future settlement of the fill. The backfill should be placed immediately after the braced foundation walls are able to structurally support the fill. Puddling or sluicing must be avoided.

3) Top 2 to 3 feet of soil placed within 10 feet of the foundations should be impervious in nature to minimize infiltration of surface water into the wall backfill.

4) Roof downspouts and drains should discharge well beyond the limits of all backfill. Roof overhangs, which project two to three feet beyond the foundations, should be considered if gutters are not used.

5) Landscaping, which requires excessive watering and lawn sprinkler heads, should be located a minimum of 10 feet from the foundation walls of the structures.

6) Plastic membranes should not be used to cover the ground surface adjacent to foundation walls.

Limitations: The recommendations provided in this report are based on the subsurface conditions encountered at this site and NWCC's understanding of the proposed construction. We believe that this information gives a high degree of reliability for anticipating the behavior of the proposed structure; however, our recommendations are professional opinions and cannot control nature, nor can they assure the soils profiles beneath those or adjacent to those observed. No warranties expressed or implied are given on the content of this report.

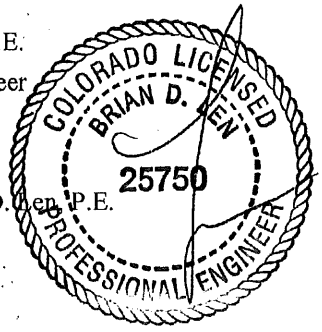
This report is based on the investigation at the described site and on the specific anticipated construction as stated herein. If either of these conditions is changed, the results would also most likely change. Therefore, NWCC strongly recommends that our firm be contacted prior to finalizing the construction plans so that we can verify that our recommendations are being properly incorporated into the construction plans. Man-made or natural changes in the conditions of a property can also occur over a period of time. In addition, changes in requirements due to state of the art knowledge and/or legislation do from time to time occur. As a result, the findings of this report may become invalid due to these changes. Therefore, this report is subject to review and not considered valid after a period of 3 years or if conditions as stated above are altered.

It is the responsibility of the owner or their representative to ensure the information in this report is incorporated into the plans and/or specifications and construction of the project. It is advisable that a contractor familiar with construction details typically used to dealing with the local subsoils and climatic conditions be retained to build the structure.

If you have any questions regarding this report or if we may be of further service, please do not hesitate to contact us.

Sincerely,
NWCC, INC.

Timothy S. Travis, P.E.
Senior Project Engineer



Reviewed by Brian D. Ken, P.E.
Principal Engineer

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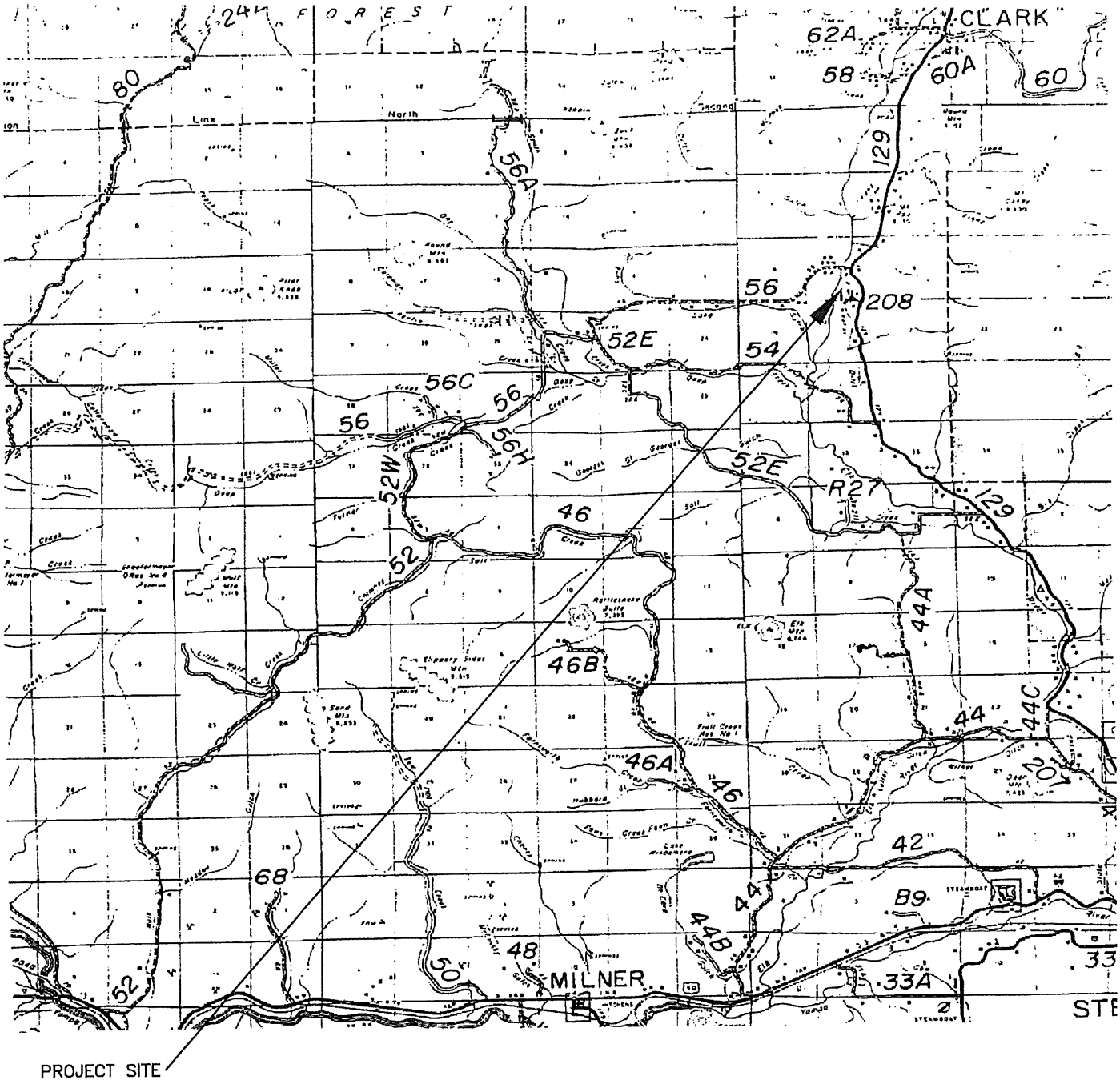
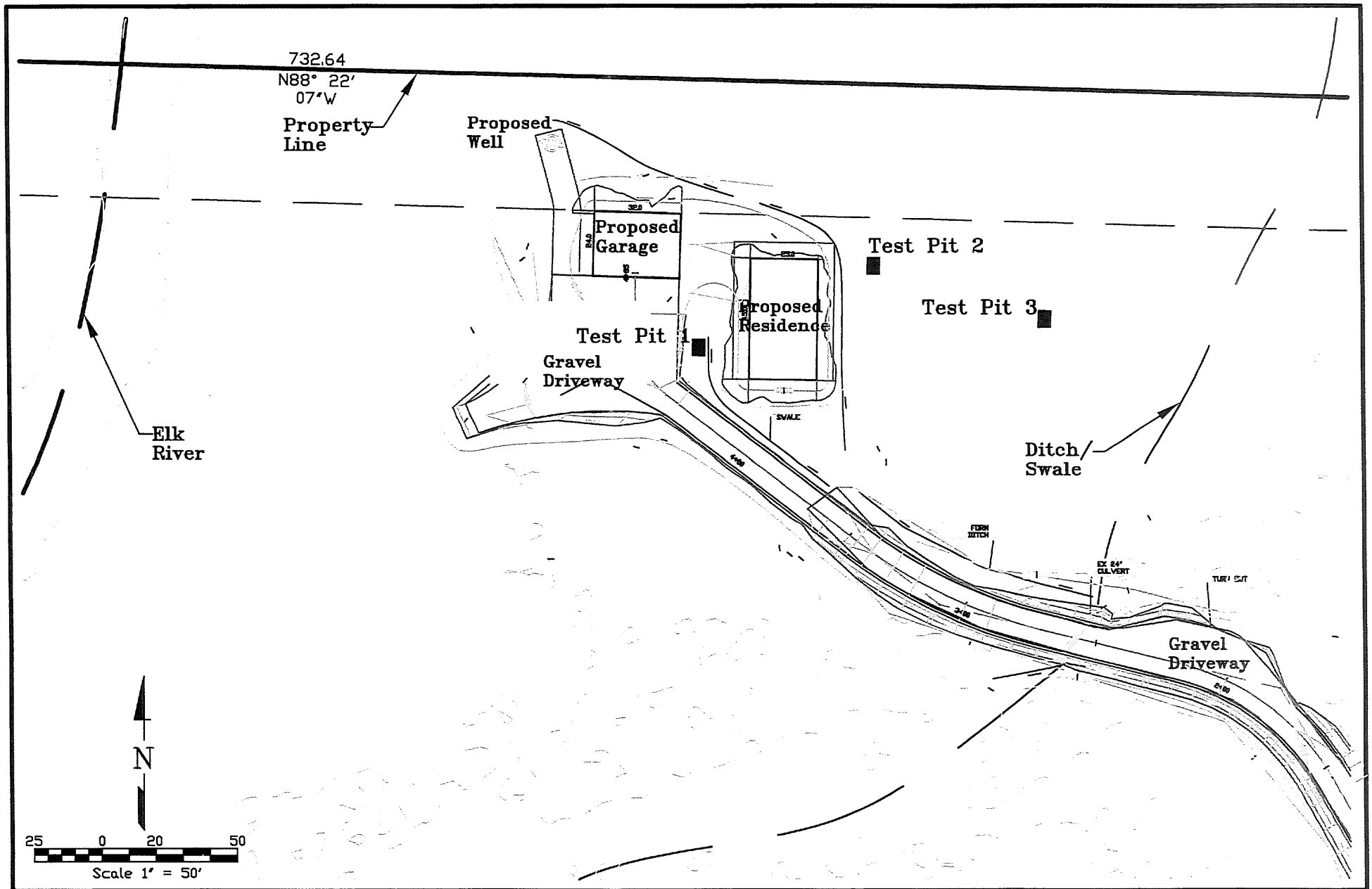
NOT TO SCALE



Title: VICINITY MAP		**Date:** 6/3/2021	NWCC North West Colorado Consultants, Inc. Geotechnical / Environmental Engineering · Materials Testing (970)879-7888 · Fax (970)879-7891 2580 Copper Ridge Drive Steamboat Springs, Colorado 80487
Job Name: Proposed Nicholas Residence		**Job No.** 20-11970	
Location: Tract 65, Section 17, T8N, R85W, Routt County, CO		**Figure** #1	



Title:	SITE PLAN–LOCATION OF TEST PITS	Date:	6/3/2021
Job Name:	Proposed Nicholas Residence	Job No.	20-11970
LOCATION:	Tract 65, Section 17, T8N, R85W, Routt County, Colorado	Figure	#2

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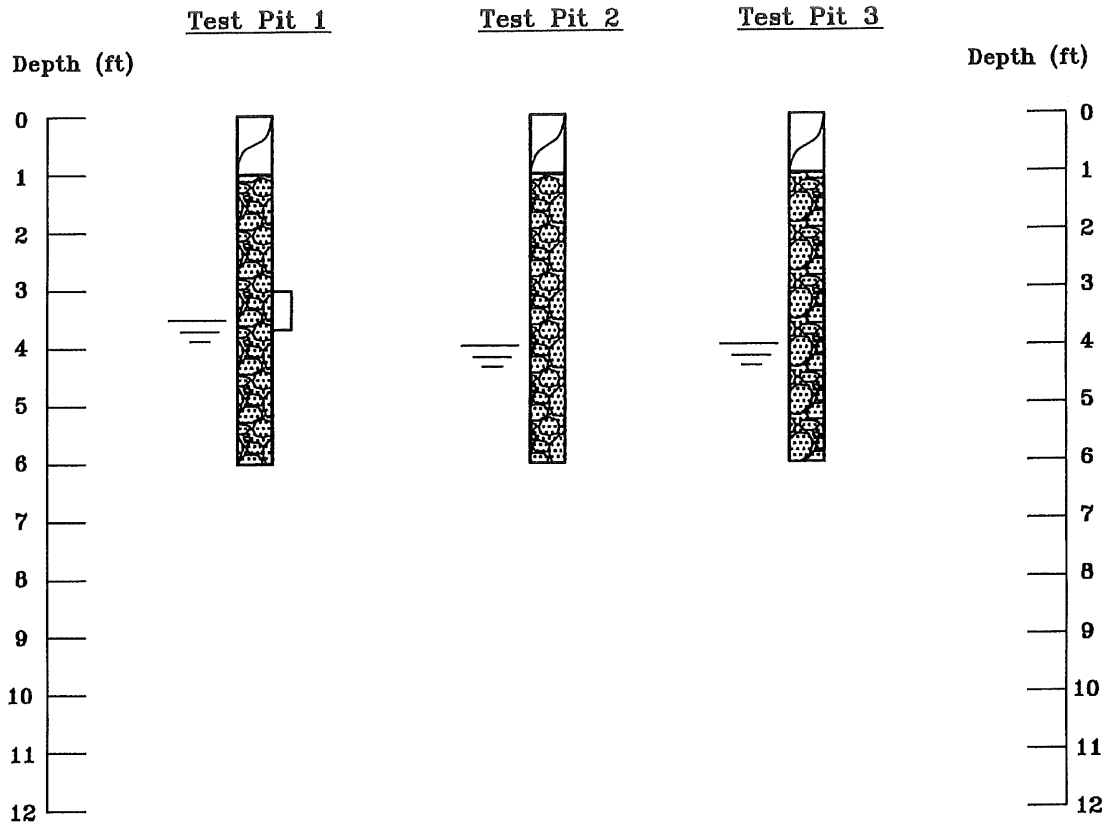


LEGEND:

TOPSOIL AND ORGANICS: Silty to sandy, fine-grained, soft, moist and dark brown to black in color.

SANDS AND GRAVELS: Clean to slightly silty, fine to coarse grained with cobbles and occasional small boulders, very low to non-plastic, medium dense to dense, moist to wet and brown to gray in color.

Small Disturbed Sample.

Indicates depth of groundwater seepage at the time of excavation.

NOTES:

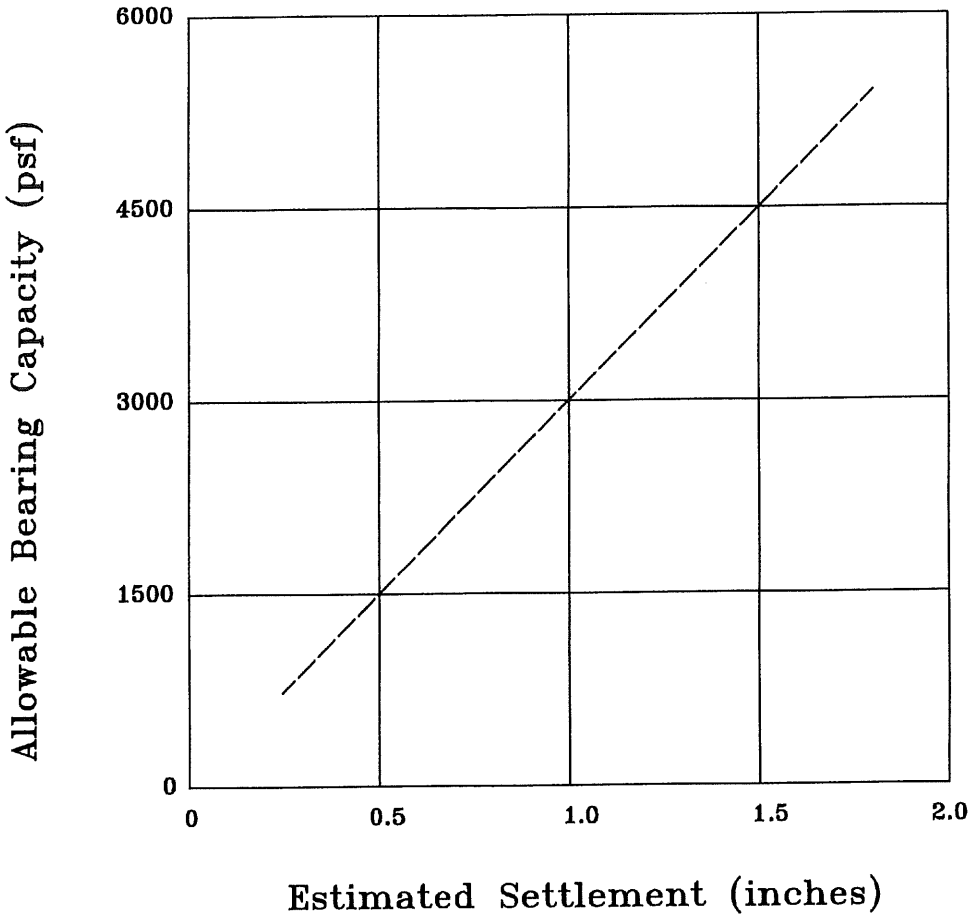
1) Test pits were excavated on September 22, 2020 with a mini-trackhoe.

2) Test pit locations were determined by pacing from topographic features at the site.

3) Elevations of the test pits were not measured and the logs are drawn to the depths investigated.

4) The lines between materials shown on the test pit logs represent the approximate boundaries between material types and transitions may be gradual.

Title: LOGS, LEGEND AND NOTES	Date: 6/3/2021	NWCC North West Colorado Consultants, Inc. Geotechnical / Environmental Engineering · Materials Testing
Job Name: Proposed Nicholas Residence	Job No. 20-11970	(970)879-7888 · Fax (970)879-7891 2580 Copper Ridge Drive Steamboat Springs, Colorado 80487
Location: Tract 65, Section 17, T8N, R85W, Routt County, CO	Figure #3	



Note: These values are based on footing widths of 1 to 4 feet. If the footing width is to be greater than 4 feet in width, then we should be notified to re-evaluate these recommendations.

Title: BEARING CAPACITY CHART		**Date:** 6/3/2021
Job Name: Proposed Nicholas Residence		**Job No.** 20-11970
Location: Tract 65, Section 17, T8N, R85W, Routt County, CO		**Figure** #4

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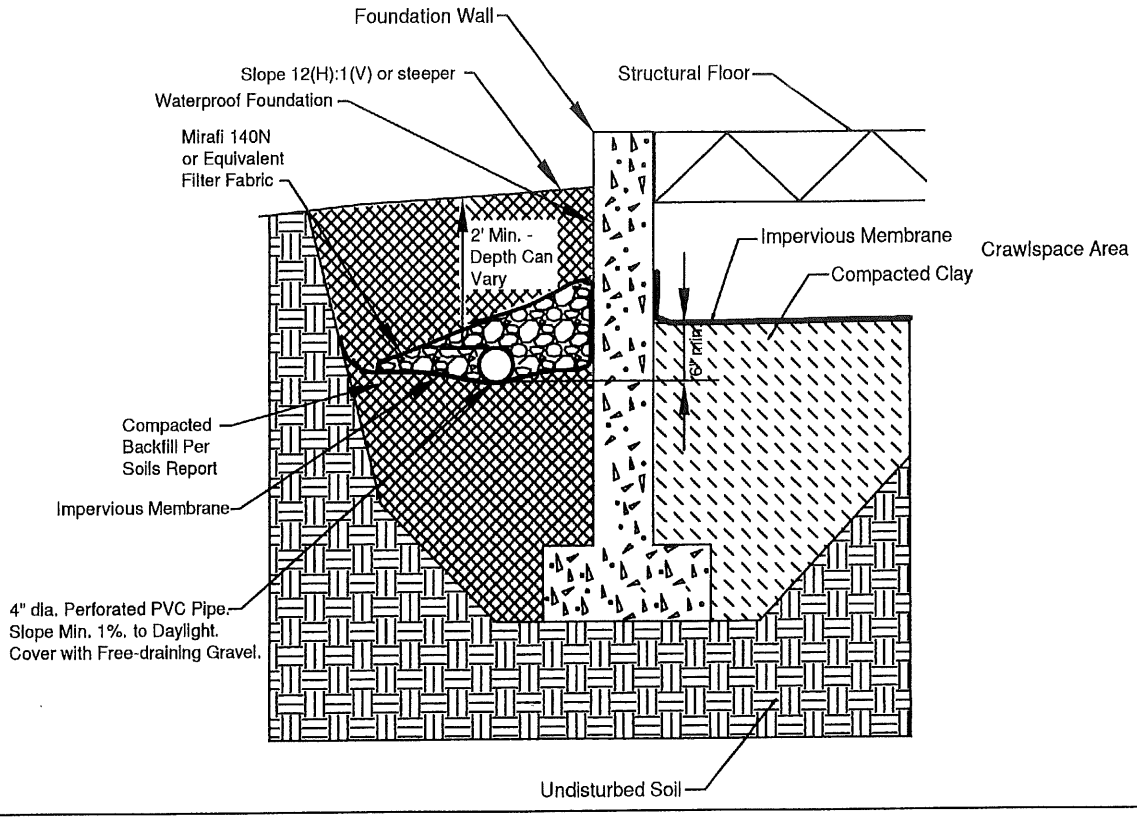
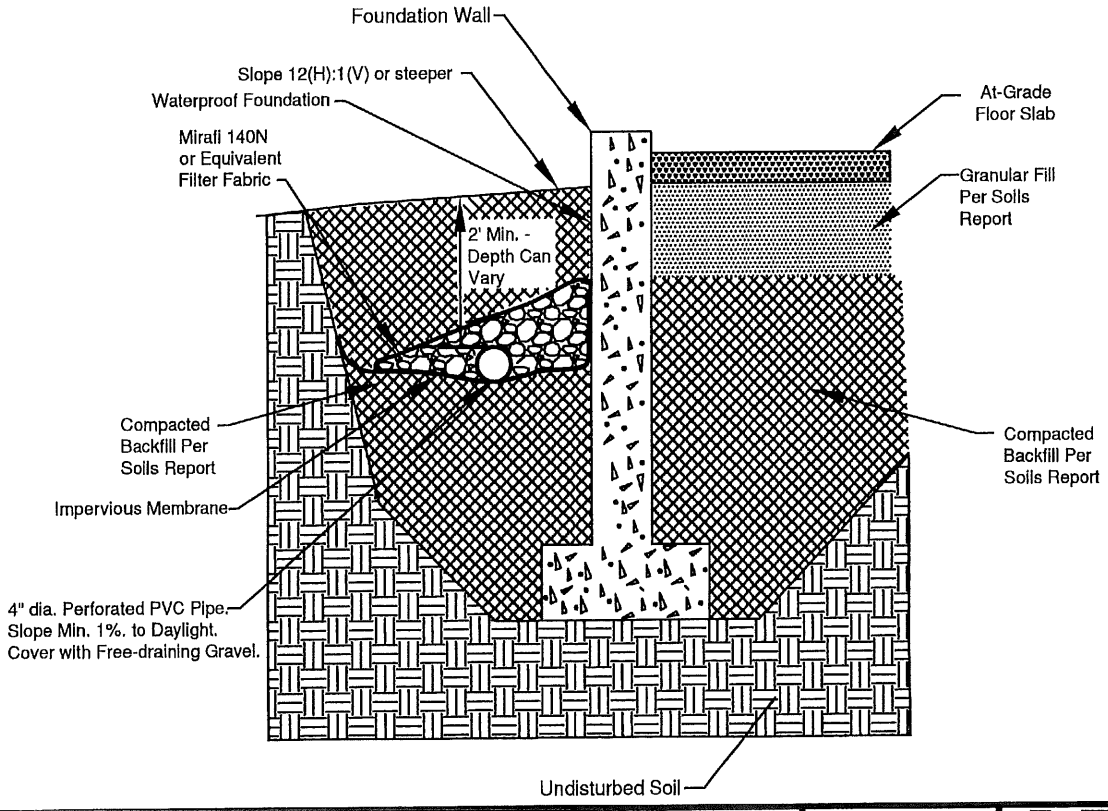
Crawlspace



Slab-on-Grade



Title: PERIMETER/UNDERDRAIN DETAIL		**Date:** 6/3/2021	NWCC North West Colorado Consultants Inc. Geotechnical / Environmental Engineering · Materials Testing (970)879-7888 · Fax (970)879-7891 2580 Copper Ridge Drive Steamboat Springs, Colorado 80487
Job Name: Proposed Nicholas Residence		**Job No.** 20-11970	
Location: Tract 65, Section 17, T8N, R85W, Routt County, CO		**Figure** #5	

NWCC, Inc.

TABLE 1

SUMMARY OF LABORATORY TEST RESULTS

SAMPLE LOCATION		NATURAL MOISTURE CONTENT (%)	NATURAL DRY DENSITY (pcf)	ATTERBERG LIMITS		GRADATION		PERCENT PASSING No. 200 SIEVE	UNCONFINED COMPRESSIVE STRENGTH (psf)	SOIL or BEDROCK DESCRIPTION	UNIFIED SOIL CLASS.
TEST PIT	DEPTH (feet)			LIQUID LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)				
1	3	6.2		nv	np	51	41	8		Slightly Silty Sands and Gravels	GP

JOB NUMBER: 20-11970