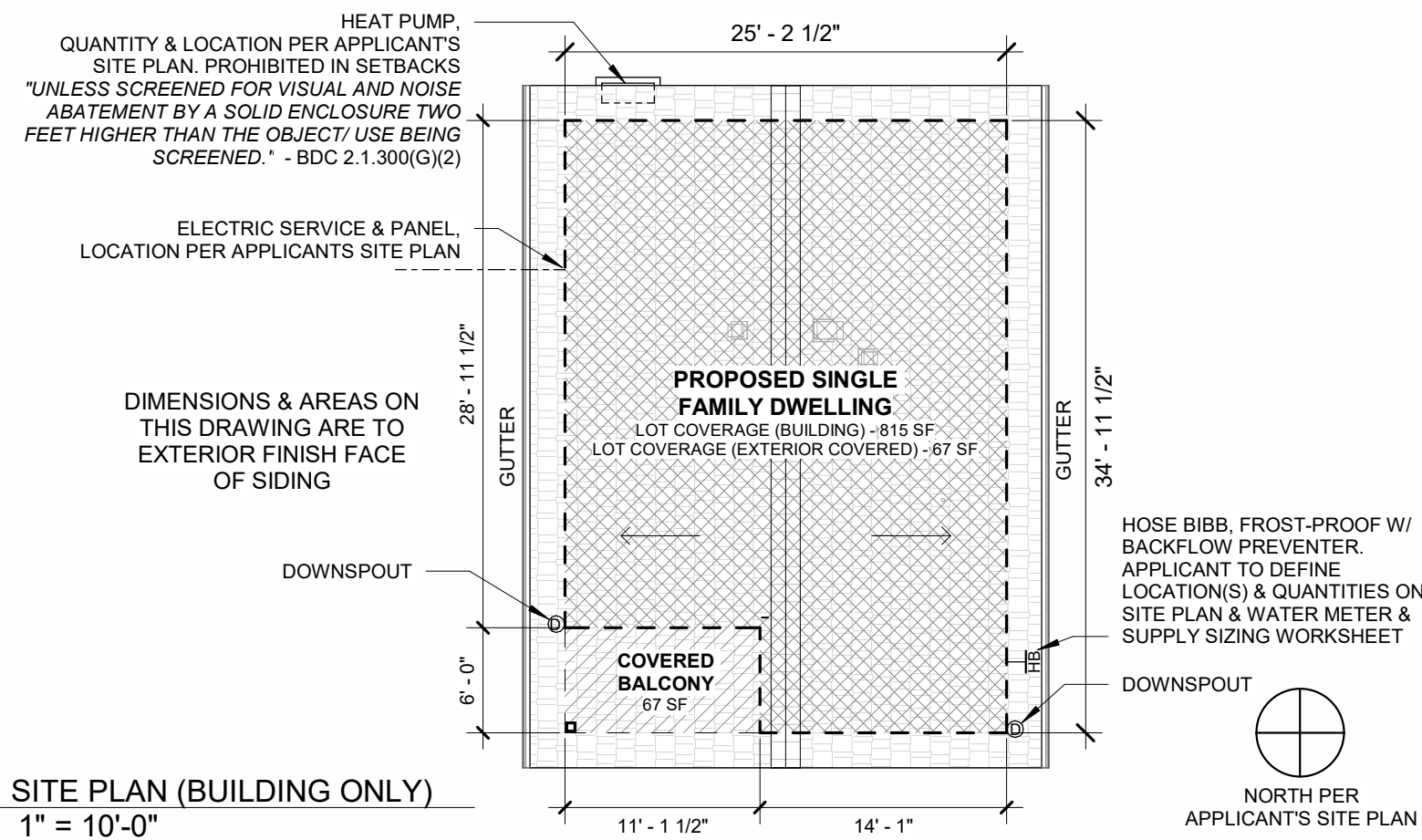


MT BACHELOR PAD

PROJECT ADDRESS



2) SITE PLAN (BUILDING ONLY)
1" = 10'-0"

SITE GENERAL NOTES

- 1) ALL STORMWATER DRAINAGE TO BE MAINTAINED ON SITE. APPLICANT'S SITE PLAN TO ILLUSTRATE SITE SPECIFIC METHODS.
- 2) LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM NEW FOUNDATION WALLS. THE GRADE SHALL FALL NOT FEWER THAN 6" WITHIN THE FIRST 10'. WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT 6" OF FALL WITHIN 10', DRAINS, SWALES, OR OTHER MEANS SHALL BE PROVIDED AND SHALL BE CONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE.
- 3) IMPERVIOUS SURFACES WITHIN 10' OF THE BUILDING FOUNDATION SHALL BE SLOPED NOT LESS THAN 2 PERCENT (1/4" PER FOOT) AWAY FROM THE BUILDING.
- 4) THESE MASTER REISSUE DRAWINGS ARE ONLY FOR USE ON SITES THAT DO NOT EXCEED 2' SLOPE ACROSS THE SITE AT THE FOOTING AND SITES WITH TYPICAL LOCAL GEOLOGICAL CONDITIONS.

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
ALUM.	ALUMINUM
B.O.	BOTTOM OF
CAB.	CABINET
C.J.	CONTROL JOINT
C.L.	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
CPT.	CARPET
C.T.	CERAMIC TILE
DBL.	DOUBLE
DF-L	DOUGLAS FIR - LARCH
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DW	DISHWASHER
EA.	EACH
E.J.	EXPANSION JOINT
EWf	ENGINEERED WOOD FLOORING
ELEC.	ELECTRICAL
E.O.S.	EDGE OF SLAB
EQ.	EQUAL
(E)	EXISTING
E.J.	EXPANSION JOINT
EXT.	EXTERIOR
FLR.	FLOOR
F.F.	FINISH FACE OR FINISH FLOOR
F.F.E.	FINISH FLOOR ELEVATION
F.O.S.	FACE OF STRUCTURE / STUD
GALV.	GALVANIZED
GLB	GLUE LAMINATED BEAM
G.W.B.	GYPSUM WALL BOARD
INSUL.	INSULATED OR INSULATION
INT.	INTERIOR
LVP	LUXURY VINYL PLANK
MAX.	MAXIMUM
MECH.	MECHANICAL
M.E.P.	MECHANICAL, ELECTRICAL & PLUMBING
MFR.	MANUFACTURER
MIN.	MINIMUM
NFVA	NET FREE VENTILATION AREA
N.I.C.	NOT IN CONTRACT
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
P.T.	PRESSURE TREATED
PTD.	PAINT OR PAINTED
RCP	REFLECTED CEILING PLAN
REC.	RECOMMENDED
REF.	REFRIGERATOR
REQ.	REQUIRED
R.O.	ROUGH OPENING
S.F.	SQUARE FEET
SHGC	SOLAR HEIGHT GAIN COEFFICIENT
IN ²	SQUARE INCHES
SIM.	SIMILAR
SPEC.	SPECIFIED OR SPECIFICATION
SSTL.	STAINLESS STEEL
S.T.C.	SOUND TRANSMISSION CLASS
S.W.	SHEAR WALL
T&G	TONGUE AND GROOVE
T.O.	TOP OF
T.P.D.	TOILET PAPER DISPENSER
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
W/D	CLOTHES WASHER & DRYER
WD.	WOOD
W.R.B.	WEATHER RESISTANT BARRIER

PROJECT SYMBOLS

	NORTH ARROW
	EXTERIOR ELEVATION
	INTERIOR ELEVATION
	BUILDING SECTION
	ENLARGED PLAN / DETAIL
	BUILDING ASSEMBLY TYPE
	DOOR TAG
	WINDOW TAG
	REVISION TAG
	CENTER LINE

PLANNING & CODE SUMMARY

APPLICABLE CODES

2023 OREGON RESIDENTIAL SPECIALTY CODE (ORSC)
2022 OREGON MECHANICAL SPECIALTY CODE (OMSC)
2023 OREGON ELECTRICAL SPECIALTY CODE (OESC)
2023 OREGON PLUMBING SPECIALTY CODE (OPSC)
BEND DEVELOPMENT CODE

CONSTRUCTION TYPE

TYPE V-B, NON SPRINKLED

SETBACKS*

RL (LOW DENSITY RESIDENTIAL)
FRONT 20', REAR 20', SIDE 10'
RS (STANDARD DENSITY RESIDENTIAL)
FRONT 10', REAR 5', SIDE 5'
RM-10, RM & RH
FRONT 10', REAR 5', SIDE 5'

*NORTH SOLAR SETBACK APPLIES TO SITES OVER 5,000 SF & NORTH - SOUTH LOT DIMENSION OVER 80'

SPECIAL SETBACKS & EASEMENTS
APPLICANT TO VERIFY AND SHOW ON SITE PLAN

MAXIMUM LOT COVERAGE

RL 35%
RS & RM-10 45%-60%
RM 45%-60%
RH NONE

FLOOR AREA RATIO

RL NONE
RS & RM-10 1.1 FOR 3-STORY RESIDENTIAL USES & ACCESSORY STRUCTURES, NONE FOR ALL OTHER USES
RM NONE
RH NONE

ENERGY - BUILDING ENVELOPE

CLIMATE ZONE - 5B (BEND) (ASHRAE STANDARD 169)

ADDITIONAL ENERGY MEASURE OPTIONS

TABLE N1101.1(2)
#5 DUCTLESS HEAT PUMP (DWELLING UNITS W/ ALL-ELECTRIC HEAT)
A) PROVIDE DUCTLESS HEAT PUMP OF MINIMUM HSPF 10.0
B) PROVIDE PROGRAMMABLE THERMOSTAT FOR ALL HEATERS IN BEDROOMS

WHOLE HOUSE VENTILATION

REQUIRED FOR NEWLY CONSTRUCTED DWELLING UNITS
DWELLING UNIT FLOOR AREA <1,500 SF
NUMBER OF BEDROOMS - 2
REQUIRED MINIMUM CONTINUOUS CFM - 45 CFM

PROJECT DESCRIPTION

CITY OF BEND PRE-APPROVED SINGLE FAMILY DWELLING
800 SF LIVING AREA (ADU ELIGIBLE)
WITH 629 SF DOUBLE CAR GARAGE

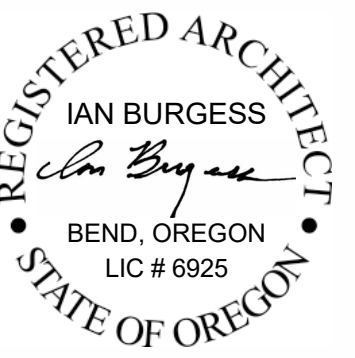
PROJECT GENERAL NOTES

- 1) DO NOT SCALE PRINTED DRAWINGS. DO NOT SCALE OFF DRAWINGS WITHOUT CONSULTING ARCHITECT FIRST.
- 2) DIMENSIONS ARE TO FACE OF STRUCTURE (FRAMING, CONCRETE, ETC.) U.N.O. "CLEAR" OR "CLR" DIMENSIONS ARE TO FINISH FACE.
- 3) PROJECTS UTILIZING THE MASTER/REISSUE PROGRAM ARE LIMITED TO THOSE THAT WILL BE CONSTRUCTED "EXACTLY" AS SHOWN ON THESE APPROVED "MASTER" APPLICATION PLANS AND LOCATED ON A SITE THAT DOES NOT EXCEED 2' SLOPE ACROSS THE SITE AT THE FOOTING OR REQUIRE MODIFICATIONS TO THE DESIGN CRITERIA OR BUILDING CONSTRUCTION.

SHEET LIST

#	NAME
ARCHITECTURAL	
A1.0	GENERAL INFORMATION
A1.1	PROPOSED SITE PLAN, N.I.C. (APPLICANT TO PROCURE)
A1.2	LEVEL 1 FLOOR PLAN
A1.3	LEVEL 2 FLOOR PLAN
A1.4	ROOF PLAN
A1.5	LEVEL 1 REFLECTED CEILING & ELECTRICAL PLAN (DEFERRED, AFTER PERMIT)
A1.6	LEVEL 2 REFLECTED CEILING & ELECTRICAL PLAN (DEFERRED, AFTER PERMIT)
A2.1	EXTERIOR ELEVATIONS
A3.1	BUILDING SECTIONS
A3.2	BUILDING SECTIONS
A5.1	DETAILS
A7.1	INTERIOR - KITCHEN & MUD ROOM
A7.2	INTERIOR - BATHROOM
A9.1	3D VIEWS - EXTERIOR
A9.2	3D VIEWS - INTERIOR
STRUCTURAL	
S1	FOUNDATION
S2	MAIN LEVEL FRAMING
S3	ROOF FRAMING
S4	MAIN LEVEL LATERAL
S5	UPPER LEVEL LATERAL
S6	DETAILS

JURISDICTION APPROVAL



GENERAL INFORMATION

MASTER REISSUE PERMIT
03/11/2026

(541) 306-3775
INFO@SIERRA-JAMES.COM

MT BACHELOR PAD

PROJECT ADDRESS

A1.0



LEVEL 1 WINDOW SCHEDULE					
#	TYPE	SILL	WIDTH	HEIGHT	COMMENTS
01	AWNING	66"	48"	30"	
02	FIXED	63"	36"	36"	
03	AWNING	66"	48"	30"	
Grand total: 3					

LEVEL 1 DOOR SCHEDULE				
#	OPERATION	WIDTH	HEIGHT	COMMENTS
Exterior				
01	OVERHEAD GARAGE DOOR	96"	96"	
02	OVERHEAD GARAGE DOOR	120"	96"	
03	SWING WITH SIDELIGHT	60"	84"	36" DOOR W/ 24" SIDELIGHT
Interior				
04	SWING	32"	80"	NOTE* BELOW
05	SWING	32"	80"	NOTE* BELOW

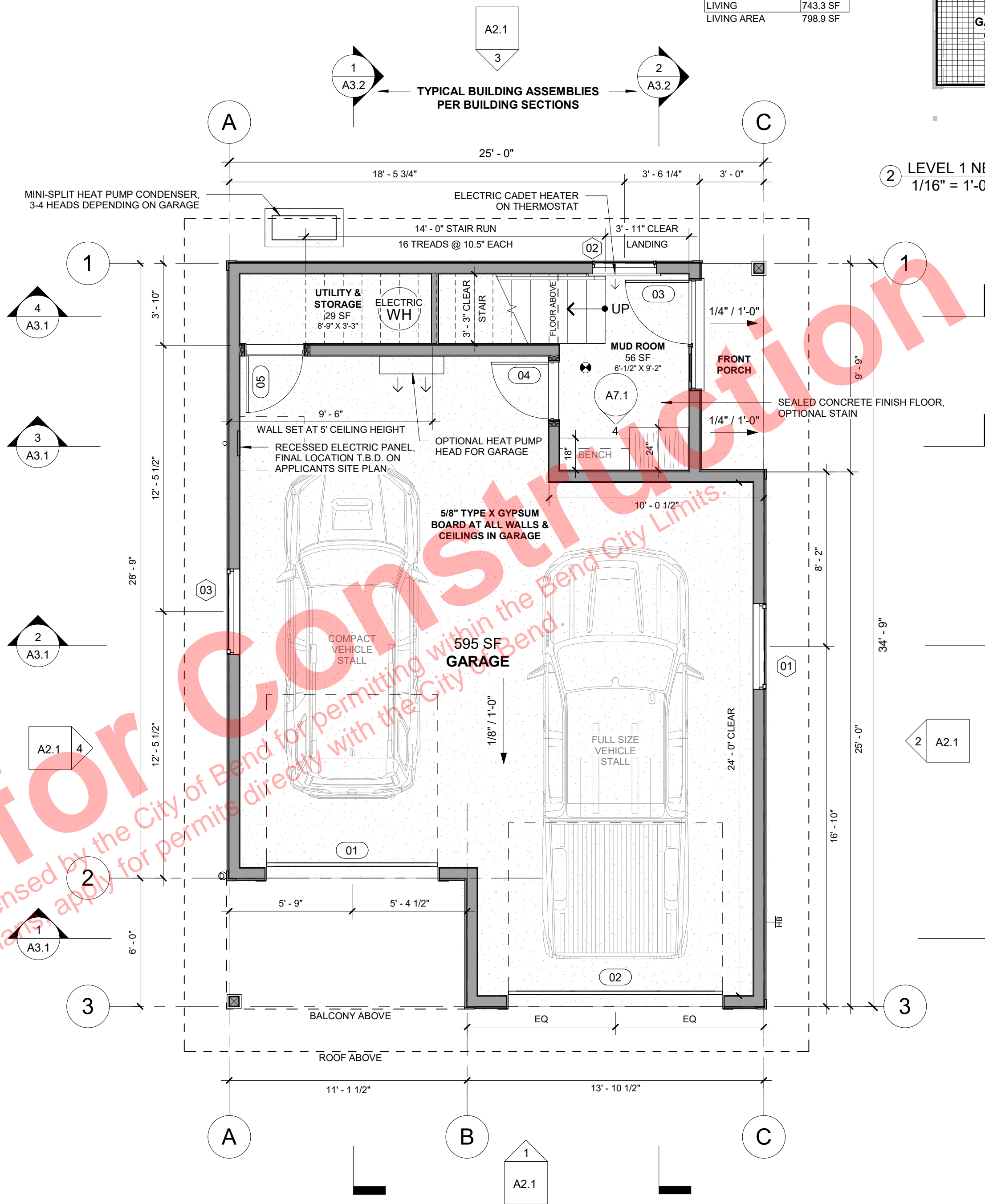
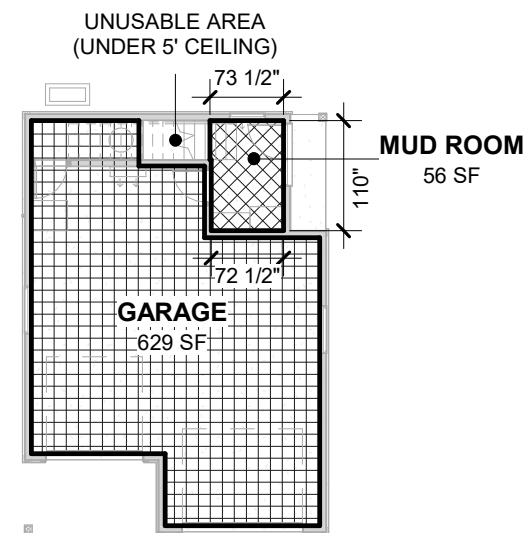
*DOORS BETWEEN THE GARAGE AND RESIDENCE SHALL BE:
 1) *EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8 INCHES IN THICKNESS, SOLID OR HONEYCOMB-CORE STEEL DOORS NOT LESS THAN 1 3/8 INCHES THICK, OR 20-MINUTE FIRE-RATED DOORS.*
 2) SEALED ON ALL EDGES AND INSULATED

- ### WINDOW & DOOR GENERAL NOTES
- FRAMING SUBCONTRACTOR TO VERIFY ALL ROUGH OPENING DIMENSIONS WITH WINDOW & DOOR MANUFACTURERS BEFORE FRAMING BEGINS. WINDOW SCHEDULE SIZES ARE ROUGH OPENINGS AND DOOR SCHEDULE SIZES ARE NOMINAL DOOR SIZE, UNLESS NOTED OTHERWISE.
 - EXTERIOR DOORS TO BE U-0.20 OR LESS, EXCEPT A MAXIMUM OF 28 SF OF EXTERIOR DOOR AREA PER DWELLING UNIT CAN HAVE A U-FACTOR OF 0.54 OR LESS
 - WINDOWS TO HAVE A U-FACTOR OF 0.27 OR LESS
 - SKYLIGHTS TO HAVE A U-FACTOR OF 0.50 OR LESS
 - UNSHADED SOUTH AND WEST FACING GLASS TO HAVE A LOW SOLAR HEIGHT GAIN COEFFICIENT (SHGC)
 - WINDOWS TO BE INSTALLED PER AAMA 2400-21 METHOD A OR METHOD B USING BUTYL FLEXIBLE FLASHING TAPE, TYPICAL.

- ### FLOOR PLAN LEGEND
- INTERCONNECTED SMOKE ALARM, HARD-WIRED W/ BATTERY BACKUP; CARBON MONOXIDE DETECTOR REQ'D WITHIN 15' OF ALL PROPOSED SLEEPING AREAS
 - BATH EXHAUST FAN ON TIMER SWITCH AND/OR AUTOMATIC HUMIDISTAT SWITCH
 - HOSE BIBB, FROST-PROOF W/ BACKFLOW PREVENTER. APPLICANT TO DEFINE LOCATION(S) & QUANTITIES ON SITE PLAN & WATER METER & SUPPLY SIZING WORKSHEET
 - WALL MOUNTED HEAT PUMP HEAD ABOVE
 - ELECTRIC CADET WALL HEATER ON THERMOSTAT
 - DOWNSPOUT

- ### FLOOR & ROOF PLAN GENERAL NOTES
- DIMENSIONS ON THIS SHEET ARE TO FACE OF STRUCTURE (STUD OR CONCRETE) AND CENTER OF OPENING / FIXTURE, U.N.O. ROOF EDGE DIMENSIONS ARE TO FINISH FACE OF FASCIA / BARGE.
 - DIMENSIONS NOTED "F.F." ARE TO FACE OF FINISH. DIMENSIONS NOTED "CLR" OR "CLR" ARE TO FACE OF FINISH.
 - OVERALL ROOM DIMENSIONS ARE TO FINISH FACE OF WALL AND ROUNDED TO NEAREST INCH. DO NOT FRAME FROM THESE DIMENSIONS.
 - DEVIATION FROM THESE DRAWINGS MUST BE APPROVED BY THE CITY OF BEND, ARCHITECT OF RECORD AND ENGINEER OF RECORD.
 - SUBCONTRACTORS TO SIZE, SELECT AND VERIFY LOCATION OF ALL PROPOSED M.E.P. EQUIPMENT IN COMPLIANCE WITH LOCAL BEND DEVELOPMENT CODE AND STATE BUILDING CODES.
 - DUCTLESS MINI-SPLIT SYSTEM BRAND, MODEL AND SIZE TO BE SELECTED BY MECHANICAL SUBCONTRACTOR. SYSTEM MUST MEET MINIMUM BTUS PER HEAT LOAD CALCS.

AREA SCHEDULE	
NAME	AREA
GARAGE	629.1 SF
GARAGE	629.1 SF
MUD ROOM	55.7 SF
LIVING	743.3 SF
LIVING AREA	798.9 SF



1 LEVEL 1 FLOOR PLAN
1/4" = 1'-0"

2 LEVEL 1 NET AREA PLAN
1/16" = 1'-0"

NORTH PER APPLICANT'S SITE PLAN

JURISDICTION APPROVAL

REGISTERED ARCHITECT
 IAN BURGESS
 Bend, Oregon
 LIC # 6925
 STATE OF OREGON
 EXPIRES 12/31/2027



LEVEL 1 FLOOR PLAN

MASTER REISSUE PERMIT
 03/11/2026

(541) 306-3775
 INFO@SIERRA-JAMES.COM

MT BACHELOR PAD

PROJECT ADDRESS

A1.2

LEVEL 2 WINDOW SCHEDULE					
#	TYPE	SILL	WIDTH	HEIGHT	COMMENTS
04	CASEMENT	36"	36"	72"	EGRESS
05	CASEMENT	36"	36"	72"	
06	AWNING	66"	48"	30"	
07	AWNING	66"	48"	30"	
08	TOP AWNING	24"	36"	72"	BOTTOM PANE SAFETY GLASS & FROSTED
09	CASEMENT	36"	36"	60"	EGRESS
10	CASEMENT	36"	36"	60"	
11	CASEMENT	36"	36"	60"	
12	FIXED	60"	84"	36"	
13	CASEMENT	36"	36"	60"	
14	FIXED	36"	36"	60"	
15	FIXED	36"	36"	60"	
16	CASEMENT	36"	36"	60"	
Grand total: 13					

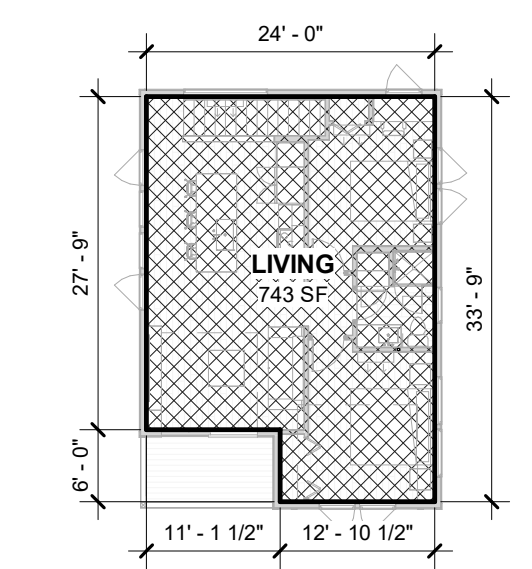
LEVEL 2 DOOR SCHEDULE				
	OPERATION	WIDTH	HEIGHT	COMMENTS
Exterior				
6	SLIDER	96"	96"	
Interior				
07	DOUBLE BIFOLD	60"	80"	
08	SWING	32"	80"	
09	SWING	30"	80"	
10	SWING	32"	80"	
11	BIFOLD	32"	80"	

- WINDOW & DOOR GENERAL NOTES**
- FRAMING SUBCONTRACTOR TO VERIFY ALL ROUGH OPENING DIMENSIONS WITH WINDOW & DOOR MANUFACTURERS BEFORE FRAMING BEGINS. WINDOW SCHEDULE SIZES ARE ROUGH OPENINGS AND DOOR SCHEDULE SIZES ARE NOMINAL DOOR SIZE, UNLESS NOTED OTHERWISE.
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 - WINDOWS TO HAVE A U-FACTOR OF 0.27 OR LESS
 - SKYLIGHTS TO HAVE A U-FACTOR OF 0.50 OR LESS
 - UNSHADED SOUTH AND WEST FACING GLASS TO HAVE A LOW SOLAR HEIGHT GAIN COEFFICIENT (SHGC)
 - WINDOWS TO BE INSTALLED PER AAMA 2400-21 METHOD A OR METHOD B USING BUTYL FLEXIBLE FLASHING TAPE, TYPICAL.

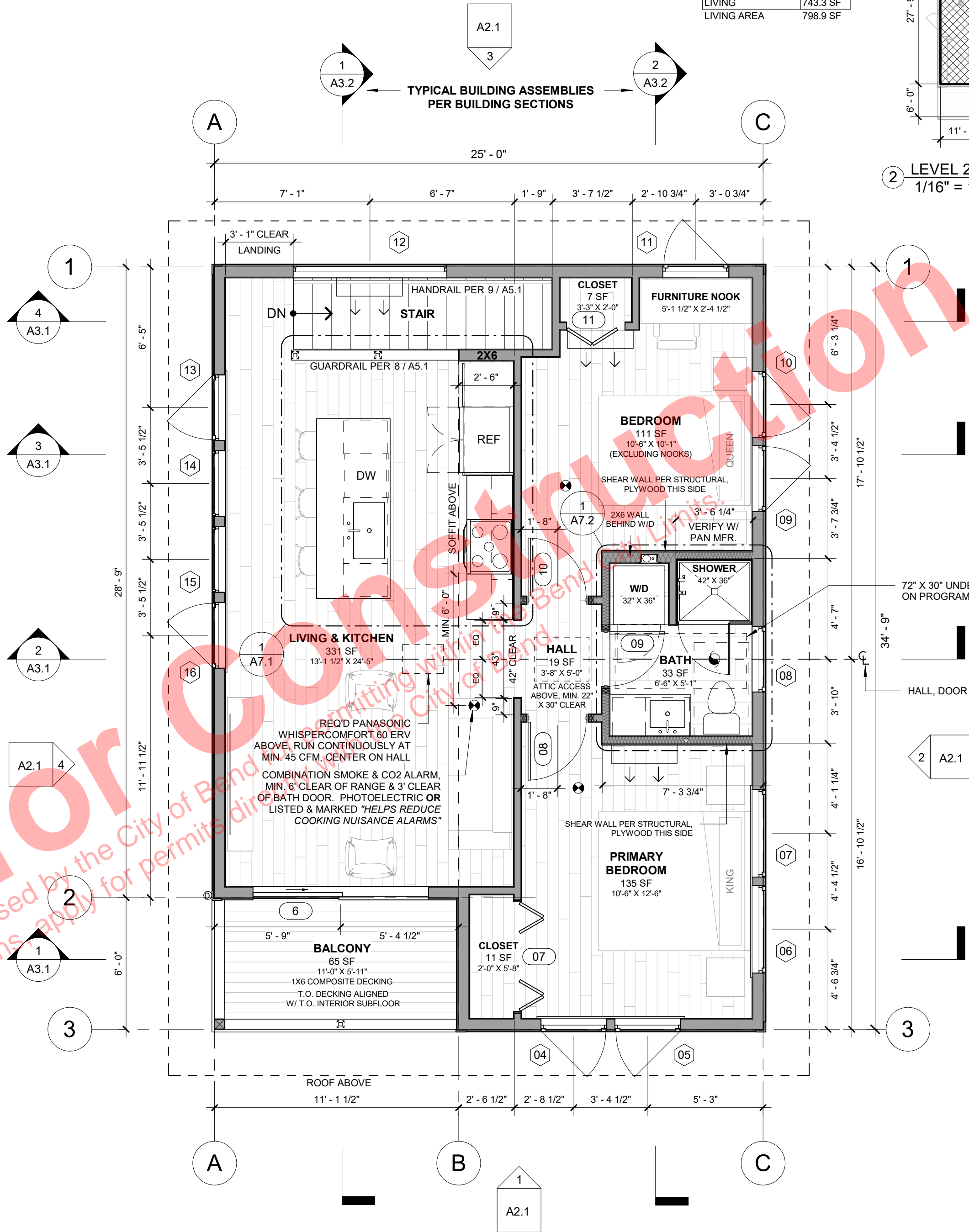
- FLOOR PLAN LEGEND**
- INTERCONNECTED SMOKE ALARM, HARD-WIRED W/ BATTERY BACKUP; CARBON MONOXIDE DETECTOR REQ'D WITHIN 15' OF ALL PROPOSED SLEEPING AREAS
 - BATH EXHAUST FAN ON TIMER SWITCH AND/OR AUTOMATIC HUMIDISTAT SWITCH
 - HOSE BIBB, FROST-PROOF W/ BACKFLOW PREVENTER. APPLICANT TO DEFINE LOCATION(S) & QUANTITIES ON SITE PLAN & WATER METER & SUPPLY SIZING WORKSHEET
 - WALL MOUNTED HEAT PUMP HEAD ABOVE
 - ELECTRIC CADET WALL HEATER ON THERMOSTAT
 - DOWNSPOUT

- FLOOR & ROOF PLAN GENERAL NOTES**
- DIMENSIONS ON THIS SHEET ARE TO FACE OF STRUCTURE (STUD OR CONCRETE) AND CENTER OF OPENING / FIXTURE, U.N.O. ROOF EDGE DIMENSIONS ARE TO FINISH FACE OF FASCIA / BARGE.
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 - DUCTLESS MINI-SPLIT SYSTEM BRAND, MODEL AND SIZE TO BE SELECTED BY MECHANICAL SUBCONTRACTOR. SYSTEM MUST MEET MINIMUM BTUS PER HEAT LOAD CALCS.

AREA SCHEDULE	
NAME	AREA
GARAGE	629.1 SF
GARAGE	629.1 SF
MUD ROOM	55.7 SF
LIVING	743.3 SF
LIVING AREA	798.9 SF



2 LEVEL 2 LIVING AREA PLAN
1/16" = 1'-0"



1 LEVEL 2 FLOOR PLAN
1/4" = 1'-0"

JURISDICTION APPROVAL

REGISTERED ARCHITECT
IAN BURGESS
BEND, OREGON
LIC # 6925
STATE OF OREGON
EXPIRES 12/31/2027



LEVEL 2 FLOOR PLAN

MASTER REISSUE PERMIT
03/11/2026

(541) 306-3775
INFO@SIERRA-JAMES.COM

MT BACHELOR PAD

PROJECT ADDRESS

A1.3

NORTH PER APPLICANT'S SITE PLAN

JURISDICTION APPROVAL

REGISTERED ARCHITECT
IAN BURGESS
BEND, OREGON
LIC # 6925
STATE OF OREGON
EXPIRES 12/31/2027

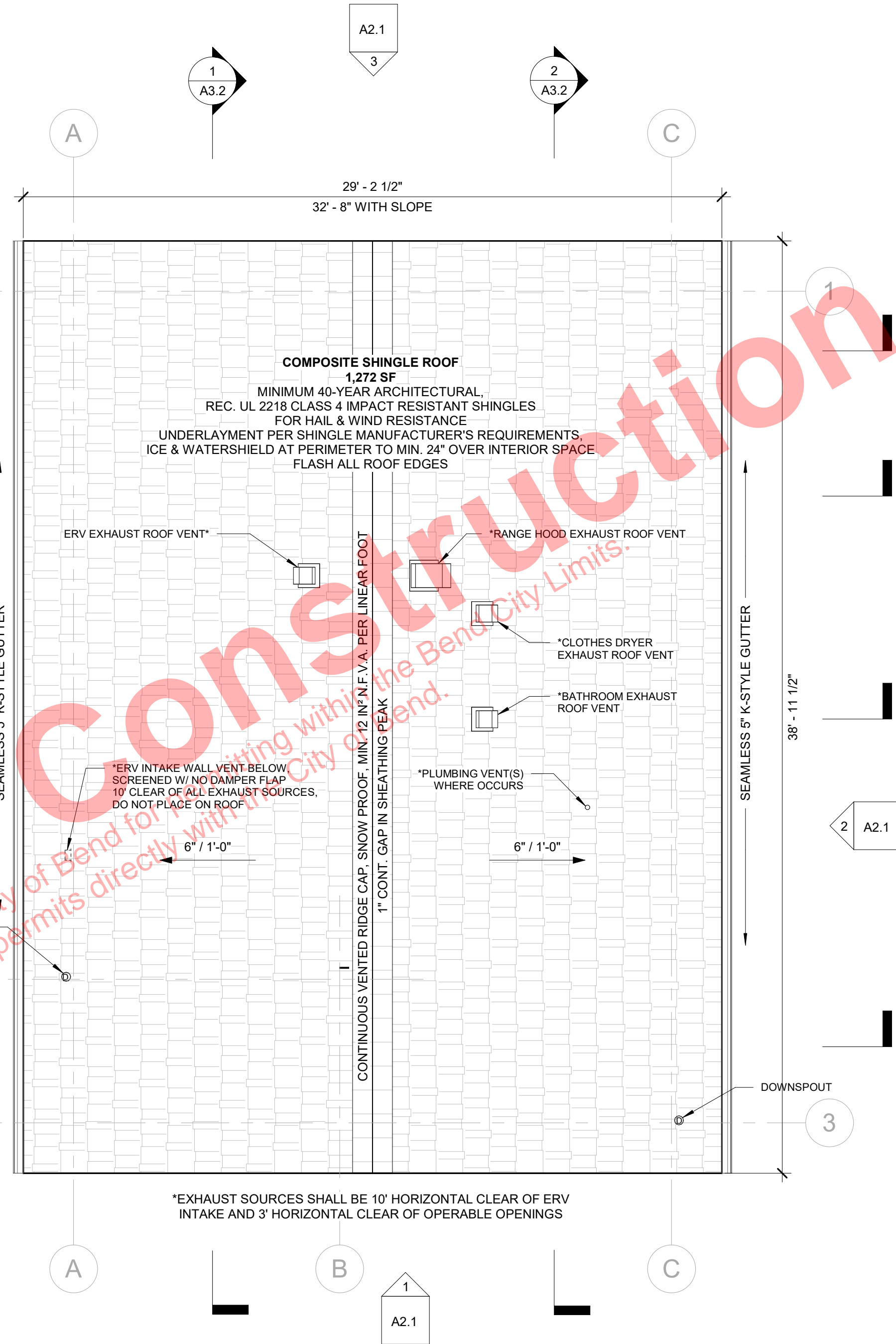


ROOF PLAN
MASTER REISSUE PERMIT
03/11/2026

(541) 306-3775
INFO@SIERRA-JAMES.COM
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A1.4

Not for Construction
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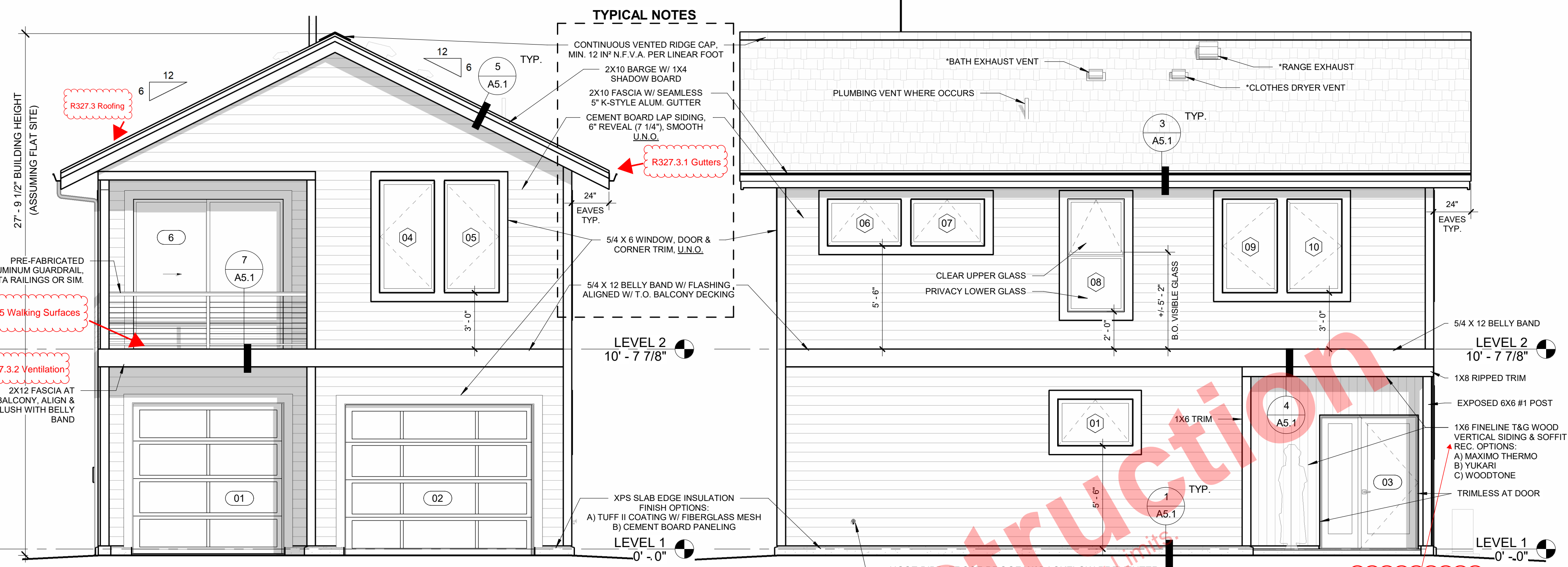


COMPOSITE SHINGLE ROOF
1,272 SF
MINIMUM 40-YEAR ARCHITECTURAL,
REC. UL 2218 CLASS 4 IMPACT RESISTANT SHINGLES
FOR HAIL & WIND RESISTANCE
UNDERLAYMENT PER SHINGLE MANUFACTURER'S REQUIREMENTS,
ICE & WATERSHIELD AT PERIMETER TO MIN. 24" OVER INTERIOR SPACE
FLASH ALL ROOF EDGES

- *ERV EXHAUST ROOF VENT*
- *RANGE HOOD EXHAUST ROOF VENT
- *CLOTHES DRYER EXHAUST ROOF VENT
- *BATHROOM EXHAUST ROOF VENT
- *ERV INTAKE WALL VENT BELOW SCREENED W/ NO DAMPER FLAP 10' CLEAR OF ALL EXHAUST SOURCES, DO NOT PLACE ON ROOF
- *PLUMBING VENT(S) WHERE OCCURS

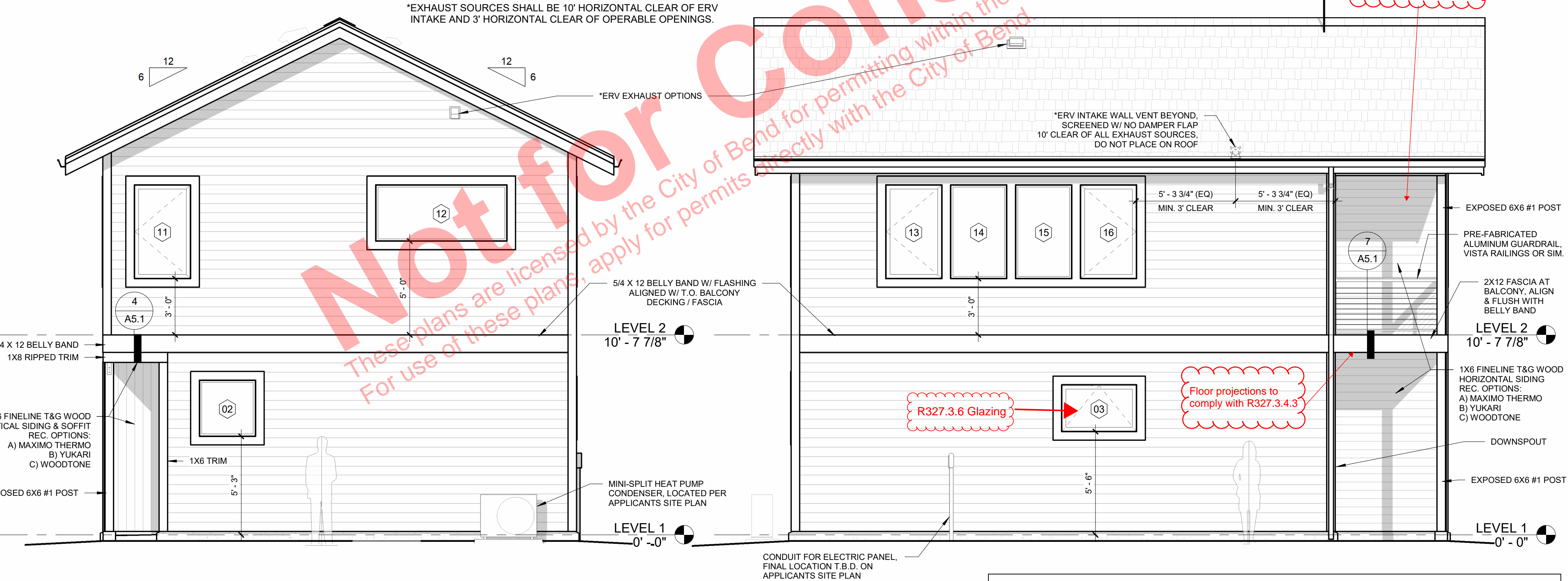
*EXHAUST SOURCES SHALL BE 10' HORIZONTAL CLEAR OF ERV INTAKE AND 3' HORIZONTAL CLEAR OF OPERABLE OPENINGS

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



1 FRONT ELEVATION
1/4" = 1'-0"

2 RIGHT ELEVATION
1/4" = 1'-0"



3 BACK ELEVATION
1/4" = 1'-0"

4 LEFT ELEVATION
1/4" = 1'-0"

TYPICAL NOTES

- CONTINUOUS VENTED RIDGE CAP, MIN. 12 IN² N.F.V.A. PER LINEAR FOOT
- 2X10 BARGE W/ 1X4 SHADOW BOARD
- 2X10 FASCIA W/ SEAMLESS 5" K-STYLE ALUM. GUTTER
- CEMENT BOARD LAP SIDING, 6" REVEAL (7 1/4"), SMOOTH U.N.O.
- 24" EAVES TYP.
- 5/4 X 6 WINDOW, DOOR & CORNER TRIM, U.N.O.
- 5/4 X 12 BELLY BAND W/ FLASHING, ALIGNED W/ T.O. BALCONY DECKING
- XPS SLAB EDGE INSULATION
FINISH OPTIONS:
A) TUFF II COATING W/ FIBERGLASS MESH
B) CEMENT BOARD PANELING

- *BATH EXHAUST VENT
- *RANGE EXHAUST
- *CLOTHES DRYER VENT
- PLUMBING VENT WHERE OCCURS
- CLEAR UPPER GLASS
- PRIVACY LOWER GLASS
- B.O. VISIBLE GLASS
- 5/4 X 12 BELLY BAND
- 1X8 RIPPED TRIM
- EXPOSED 6X6 #1 POST
- 1X6 FINELINE T&G WOOD VERTICAL SIDING & SOFFIT REC. OPTIONS:
A) MAXIMO THERMO
B) YUKARI
C) WOODTONE
- TRIMLESS AT DOOR
- HOSE BIBB, FROST-PROOF W/ BACKFLOW PREVENTER. APPLICANT TO DEFINE LOCATION(S) & QUANTITIES ON SITE PLAN & WATER METER & SUPPLY SIZING WORKSHEET

*EXHAUST SOURCES SHALL BE 10' HORIZONTAL CLEAR OF ERV INTAKE AND 3' HORIZONTAL CLEAR OF OPERABLE OPENINGS.

*ERV EXHAUST OPTIONS

*ERV INTAKE WALL VENT BEYOND, SCREENED W/ NO DAMPER FLAP 10' CLEAR OF ALL EXHAUST SOURCES, DO NOT PLACE ON ROOF

5/4 X 12 BELLY BAND W/ FLASHING ALIGNED W/ T.O. BALCONY DECKING / FASCIA

MINI-SPLIT HEAT PUMP CONDENSER, LOCATED PER APPLICANT'S SITE PLAN

CONDUIT FOR ELECTRIC PANEL, FINAL LOCATION T.B.D. ON APPLICANT'S SITE PLAN

Exterior wall coverings must comply with R327.3.3

Floor projections to comply with R327.3.4.3

R327.3.6 Glazing

EXTERIOR - GENERAL NOTES

- 1) SILL DIMENSIONS ARE FROM T.O. SUBFLOOR TO B.O. ROUGH OPENING. WINDOW SHALL BE HUNG CENTERED IN OPENING.
- 2) WINDOWS TO BE INSTALLED PER AAMA 2400-21 METHOD A OR METHOD B USING BUTYL FLEXIBLE FLASHING TAPE. ALL EXTERIOR OPENINGS TO RECEIVE HEAD FLASHING W/ W.R.B. OVER FLASHING.
- 3) LOW EXPANSION FOAM TO BE INSTALLED CONTINUOUSLY ON ALL SIDES OF WINDOW & EXTERIOR DOORS.
- 4) ALL EXTERIOR CAULKING SEALANT TO BE EXTERIOR GRADE POLYURETHANE WITH MINIMUM 25%+ ELASTOMERIC.

JURISDICTION APPROVAL

REGISTERED ARCHITECT
IAN BURGESS
BEND, OREGON
LIC # 6925
STATE OF OREGON
EXPIRES 12/31/2027



EXTERIOR ELEVATIONS

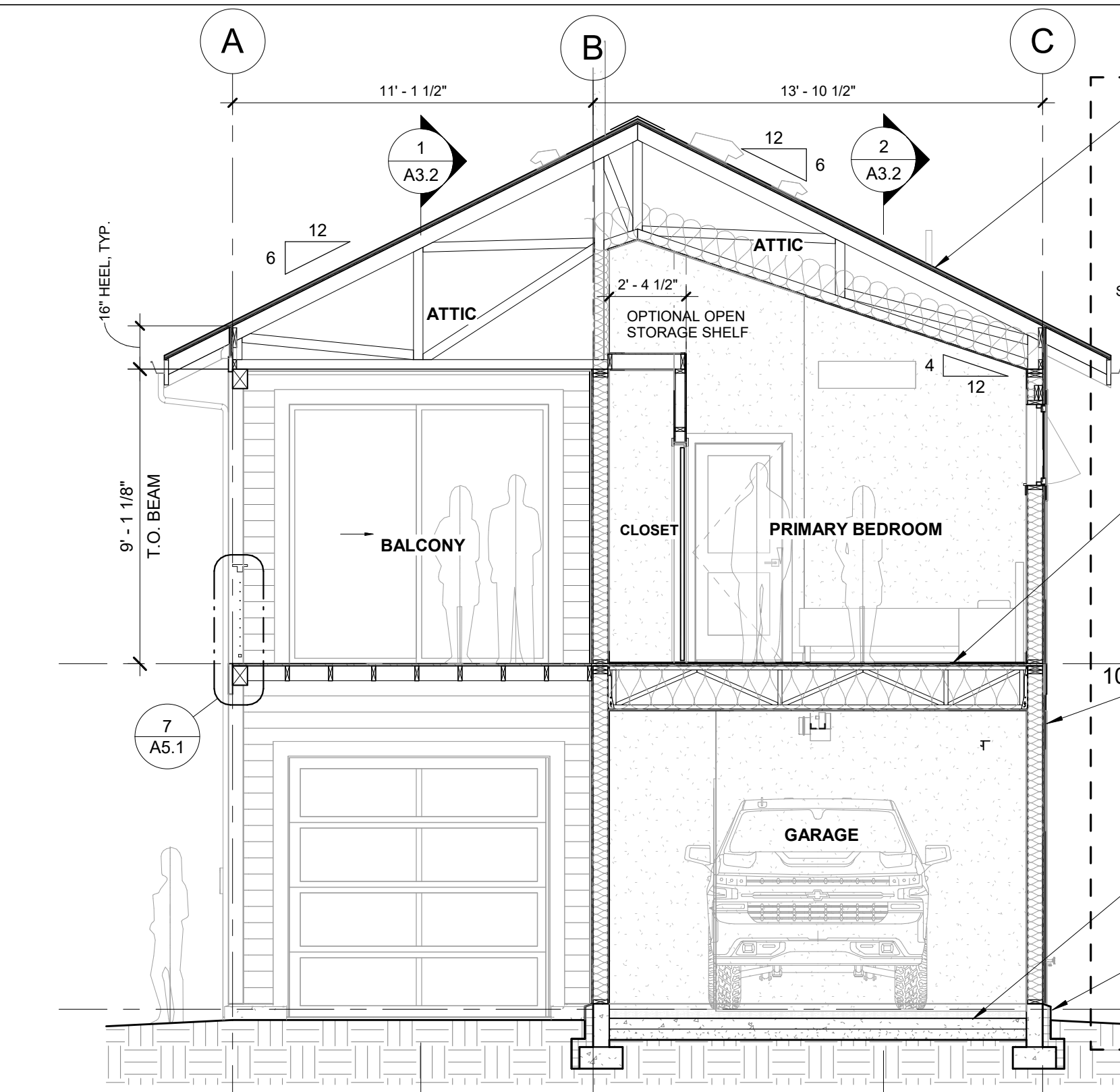
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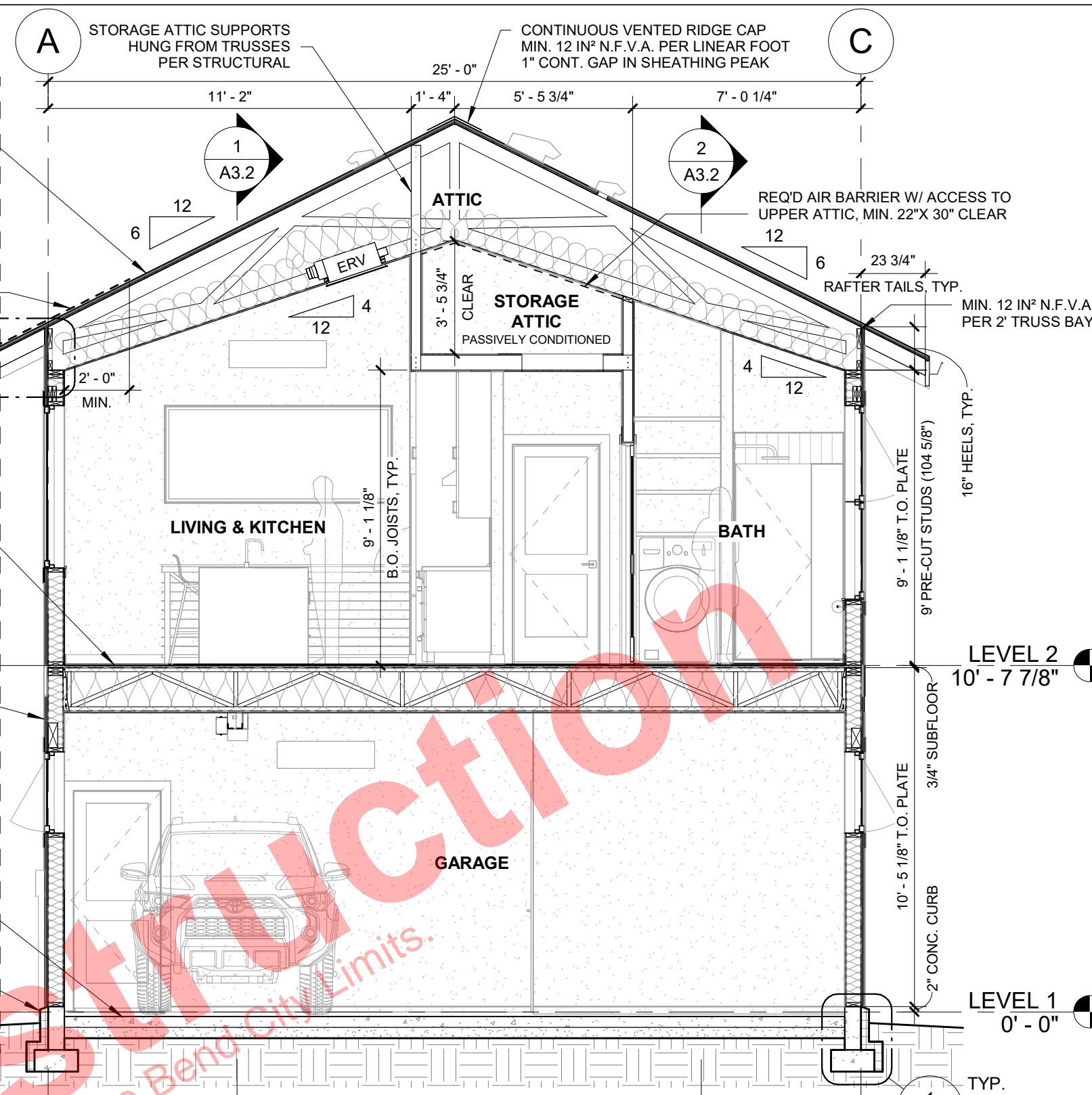
A2.1



1 SECTION 1
1/4" = 1'-0"

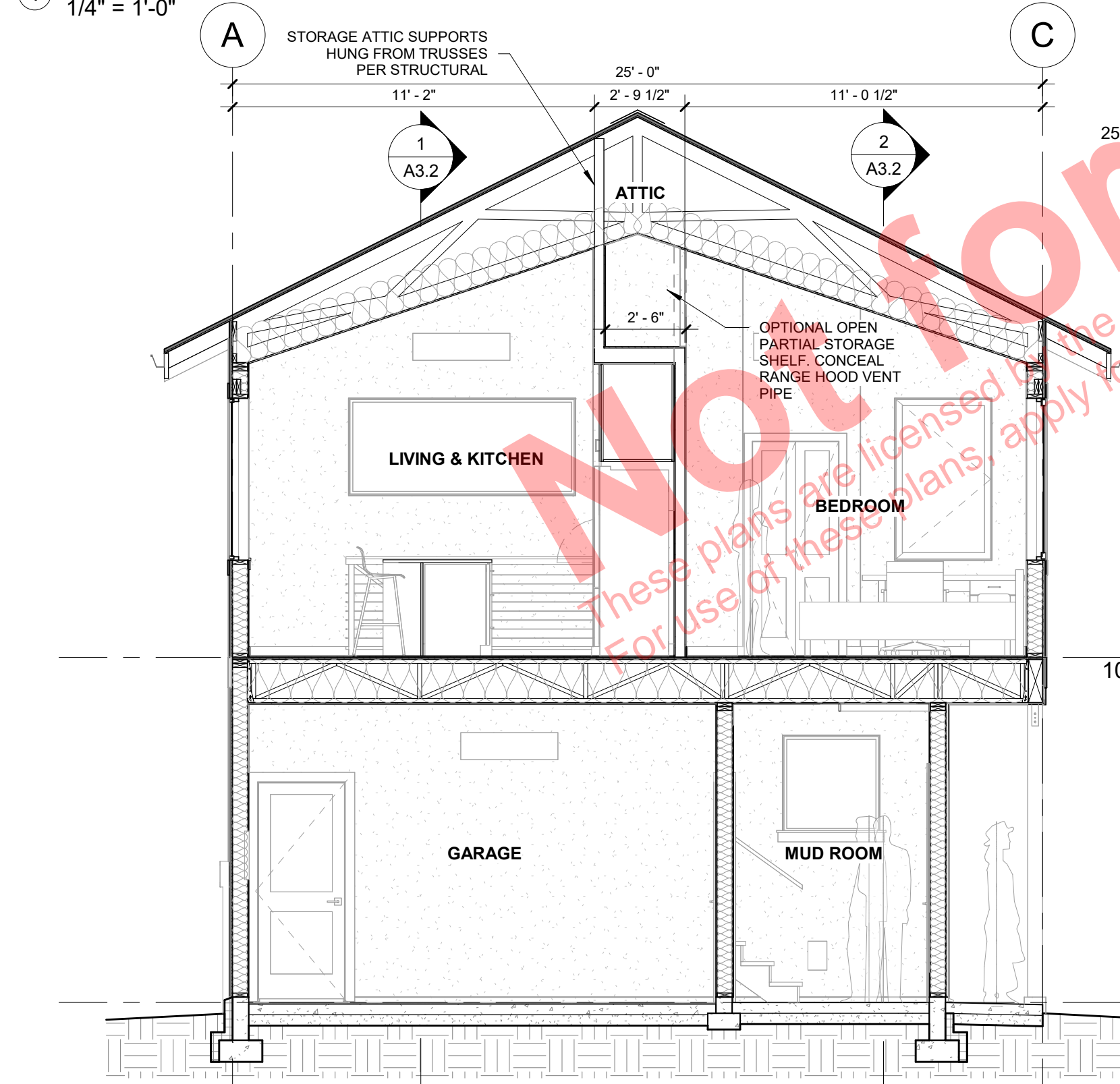
TYPICAL BUILDING ASSEMBLIES

- TYPICAL VENTED ROOF ASSEMBLY:**
COMPOSITE SHINGLE ROOFING PER ROOF PLAN
ROOFING MFR. APPROVED UNDERLAYMENT
ROOF SHEATHING PER STRUCTURAL
TRUSSES @ 24" O.C. PER MFR.
MIN. 1" VENT BAFFLES AS NEEDED
MIN. R-38 BLOWN-IN OR BATT FIBERGLASS INSULATION
CLASS I OR II VAPOR RETARDER AT CEILING
MIN. 1/2" GYPSUM BOARD CEILING
(PRIMARY AIR BARRIER, SEAL ALL PENETRATIONS)
SELF-ADHERING POLYMER-MODIFIED BITUMEN ICE BARRIERS
REQ'D FROM ALL ROOF EDGES TO MIN. 24" INSIDE THE
EXTERIOR WALL LINE OF THE BUILDING
- TYPICAL LEVEL 2 FLOOR ASSEMBLY:**
FINISH FLOORING PER APPLICANT
3/4" T&G FLOOR SHEATHING PER STRUCTURAL
16" DEEP TRUSSES, SPACED PER TRUSS MFR. LAYOUT
MIN. R-30 UNDERFLOOR INSULATION
5/8" TYPE X GYPSUM BOARD CEILING AT GARAGE
1/2" GYPSUM BOARD AT MUD ROOM
- TYPICAL EXTERIOR WALL ASSEMBLY:**
SIDING PER EXTERIOR ELEVATIONS
DRAINABLE W.R.B., TAPE ALL SEAMS
SHEATHING PER STRUCTURAL
2X6 STUDS PER STRUCTURAL
MIN. R-21 BLOWN-IN FIBERGLASS INSULATION
1/2" GYPSUM BOARD AT 2ND LEVEL, MUD ROOM & STAIR
5/8" TYPE X GYPSUM BOARD AT GARAGE
(PRIMARY AIR BARRIER, SEAL ALL PENETRATIONS)
- TYPICAL LEVEL 1 FLOOR ASSEMBLY:**
MIN. 4" CONCRETE SLAB PER STRUCTURAL
(SLOPED 1/8 PER FOOT AT GARAGE)
(FLAT AT MUD ROOM)
MIN. 6 MIL VAPOR BARRIER (REC. 10+ MIL)
MIN. 4" COMPACTED 3/4" MINUS GRAVEL
MIN. R-15 SLAB EDGE INSULATION PER 1/A5.1
ADJACENT CONDITIONED INTERIOR SPACES

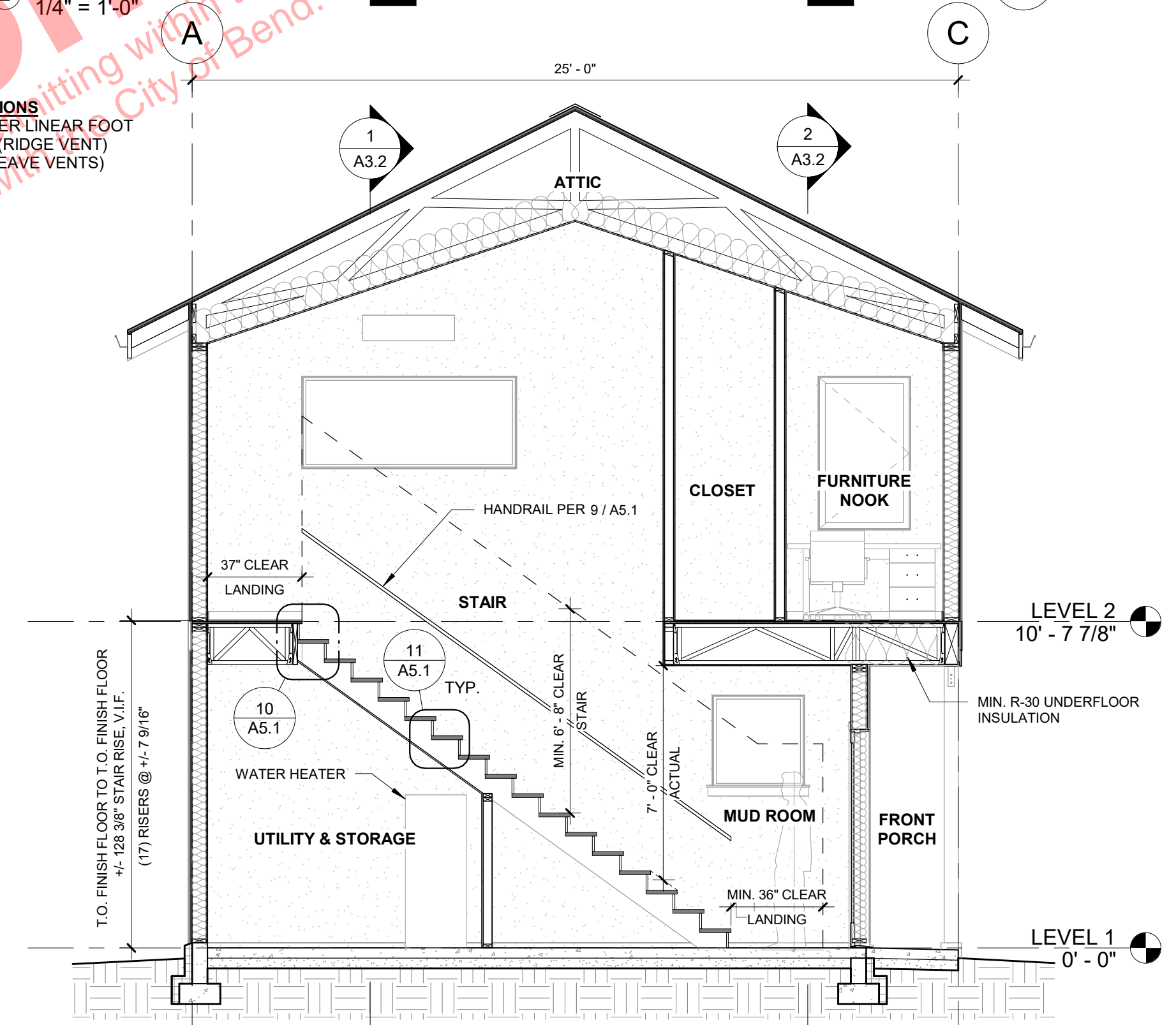


2 SECTION 2 (TYPICAL NOTES)
1/4" = 1'-0"

ROOF VENTING CALCULATIONS
25' SPAN / 150 = 24 IN² TOTAL N.F.V.A. PER LINEAR FOOT
24 IN² / 2 = 12 IN² PER LINEAR FOOT (RIDGE VENT)
12 IN² / 2 = 6 IN² PER LINEAR FOOT (EAVE VENTS)



3 SECTION 3
1/4" = 1'-0"



4 SECTION 4
1/4" = 1'-0"

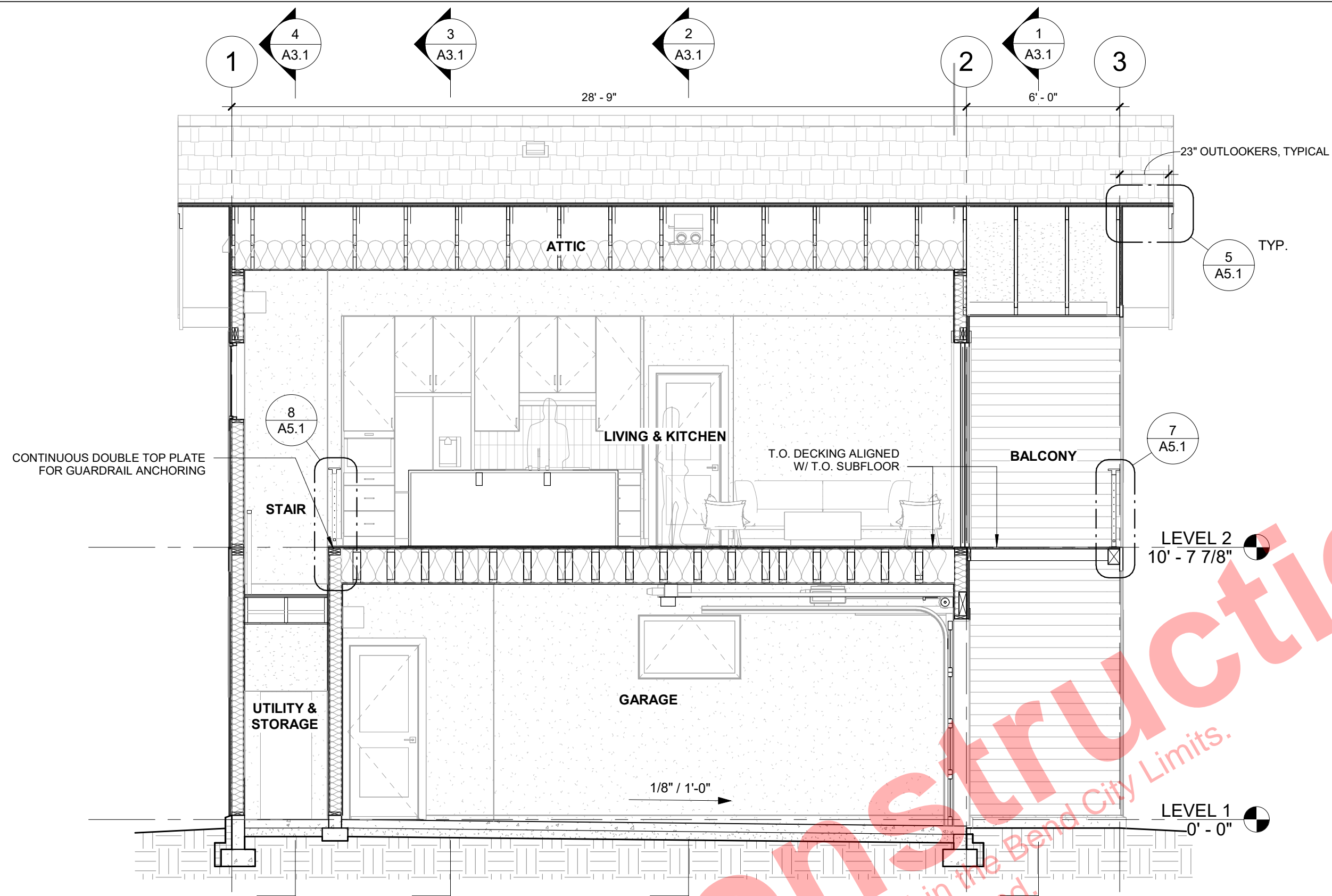
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REGISTERED ARCHITECT
IAN BURGESS
BEND, OREGON
LIC # 6925
EXPIRES 12/31/2027



BUILDING SECTIONS
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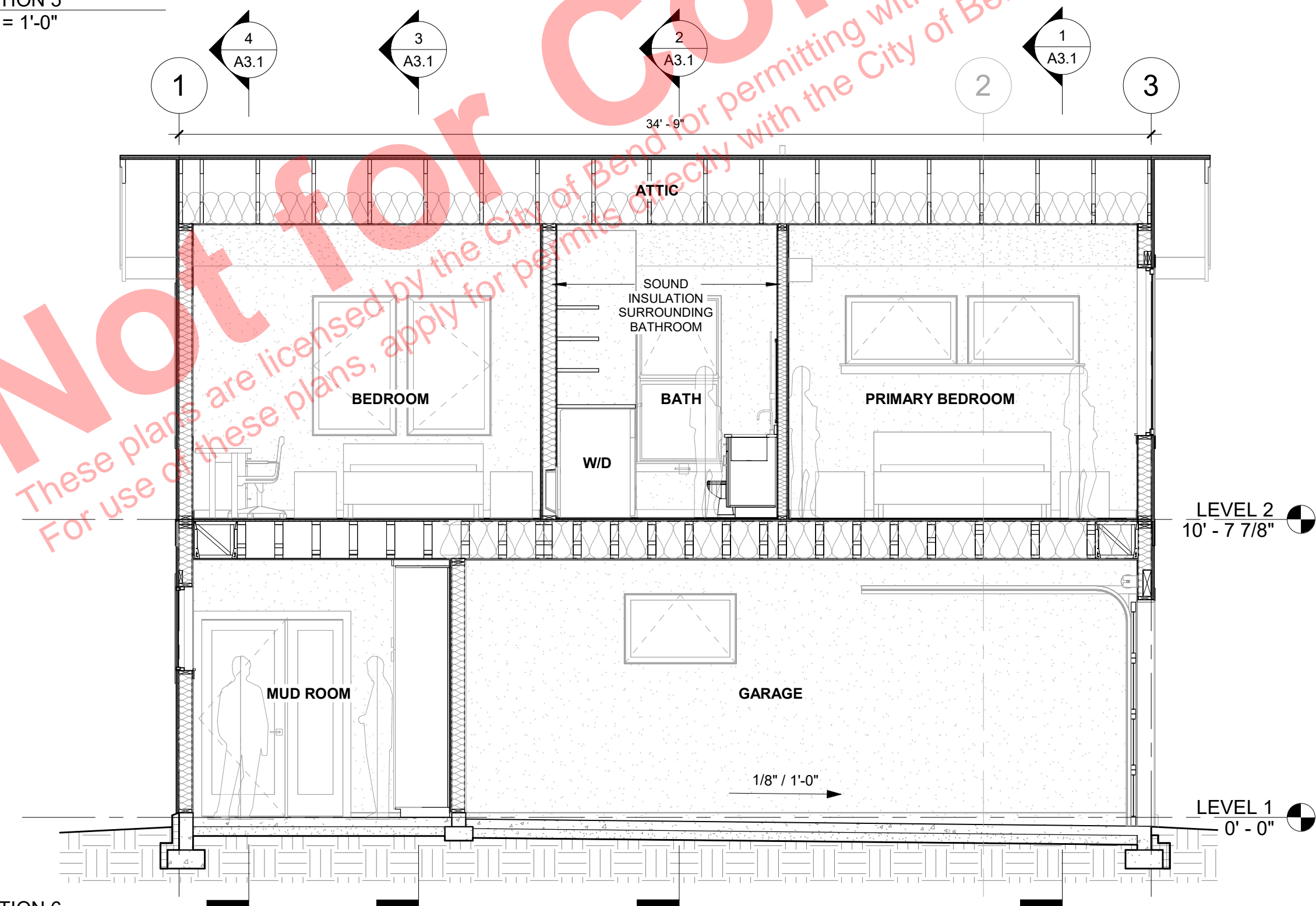
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A3.1



SECTION 5
1/4" = 1'-0"

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SECTION 6
1/4" = 1'-0"

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 STATE OF OREGON

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BUILDING SECTIONS

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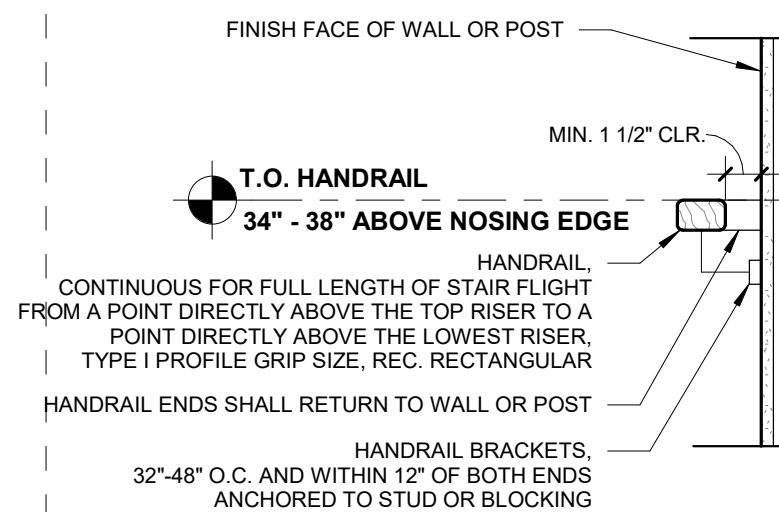
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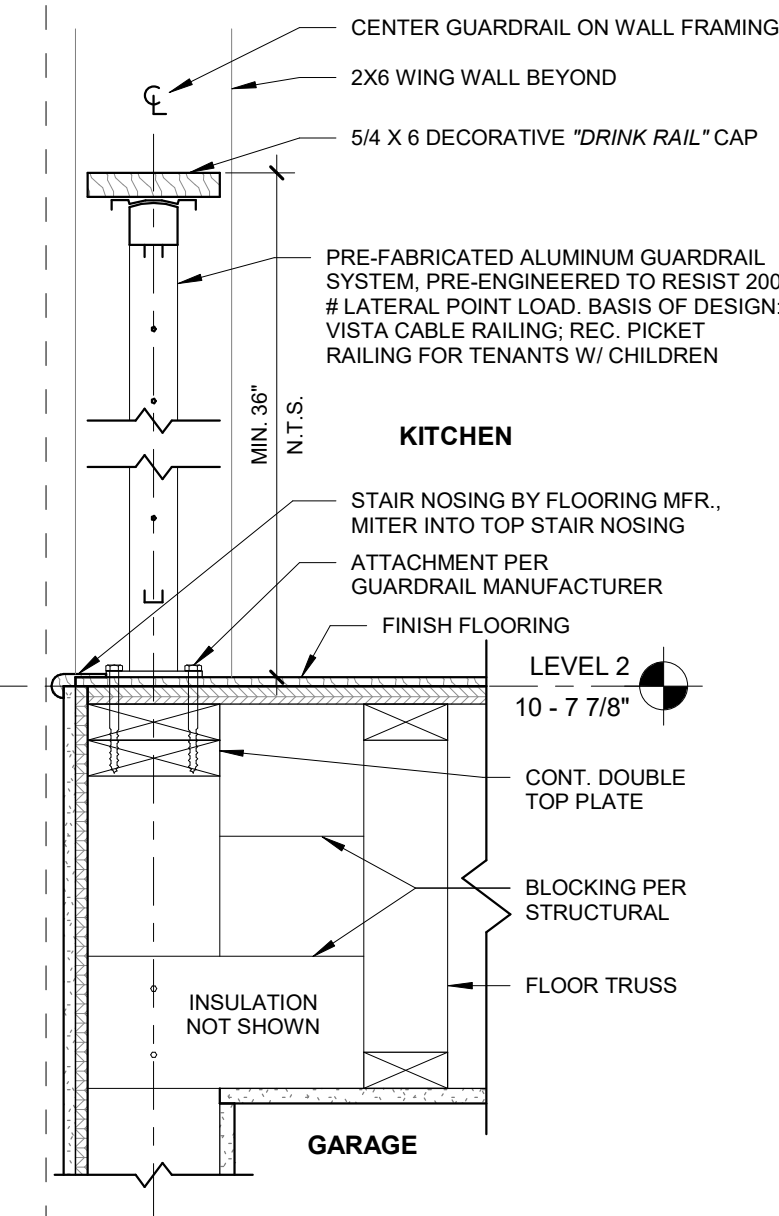
A3.2

HANDRAIL REQUIRED MIN. ONE SIDE OF STAIR

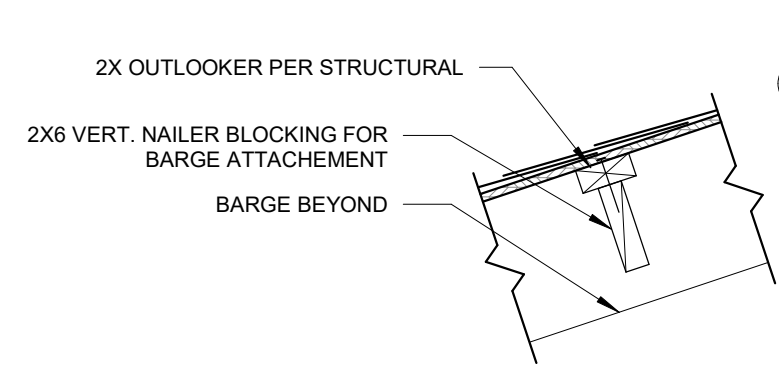


R311.7.8.5 GRIP SIZE.
REQUIRED HANDRAILS SHALL BE ONE OF THE FOLLOWING TYPES OR PROVIDE EQUIVALENT GRASPABILITY:
TYPE I. "HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF NOT LESS THAN 1 1/4 INCHES AND NOT GREATER THAN 2 INCHES. IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER OF NOT LESS THAN 4 INCHES AND NOT GREATER THAN 6 1/4 INCHES AND A CROSS SECTION OF NOT MORE THAN 2 1/4 INCHES. EDGES SHALL HAVE A RADIUS OF NOT LESS THAN 0.01 INCH."

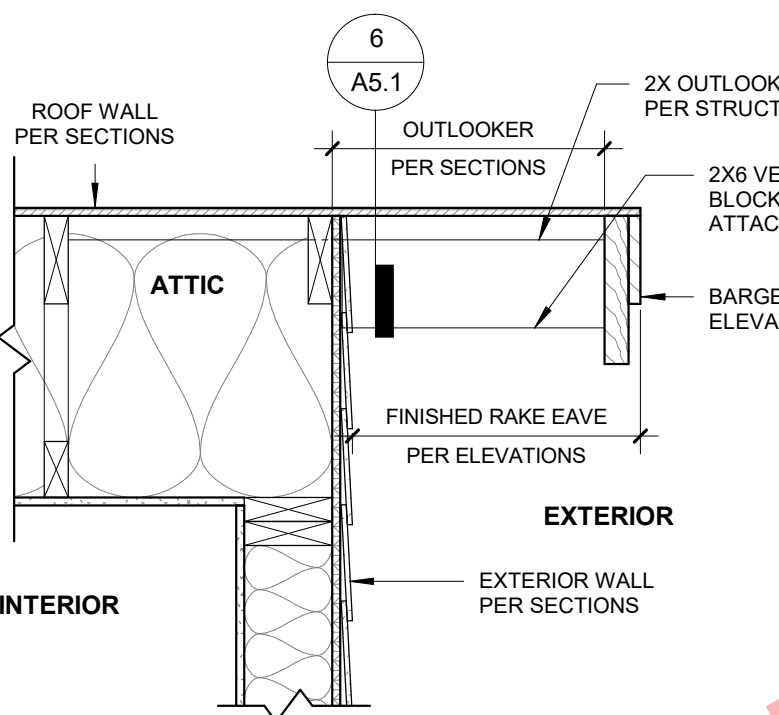
9 HANDRAIL SECTION, TYPICAL
1 1/2" = 1'-0"



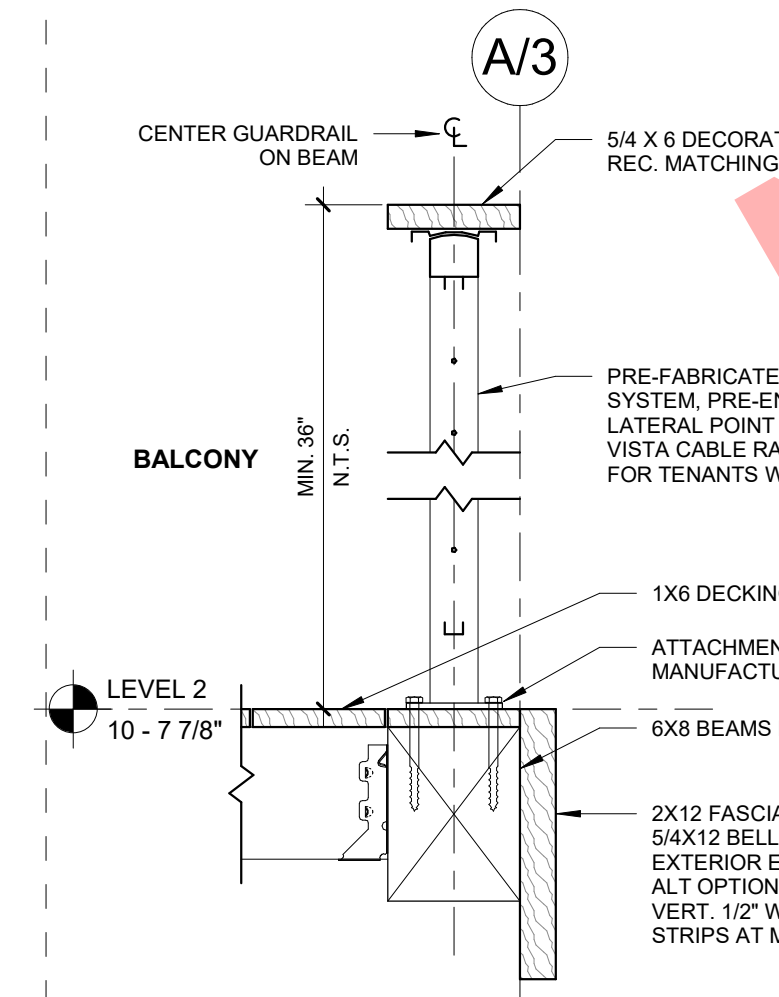
8 STAIR GUARDRAIL SECTION
1 1/2" = 1'-0"



6 OUTLOOKER CROSS SECTION DETAIL
1" = 1'-0"

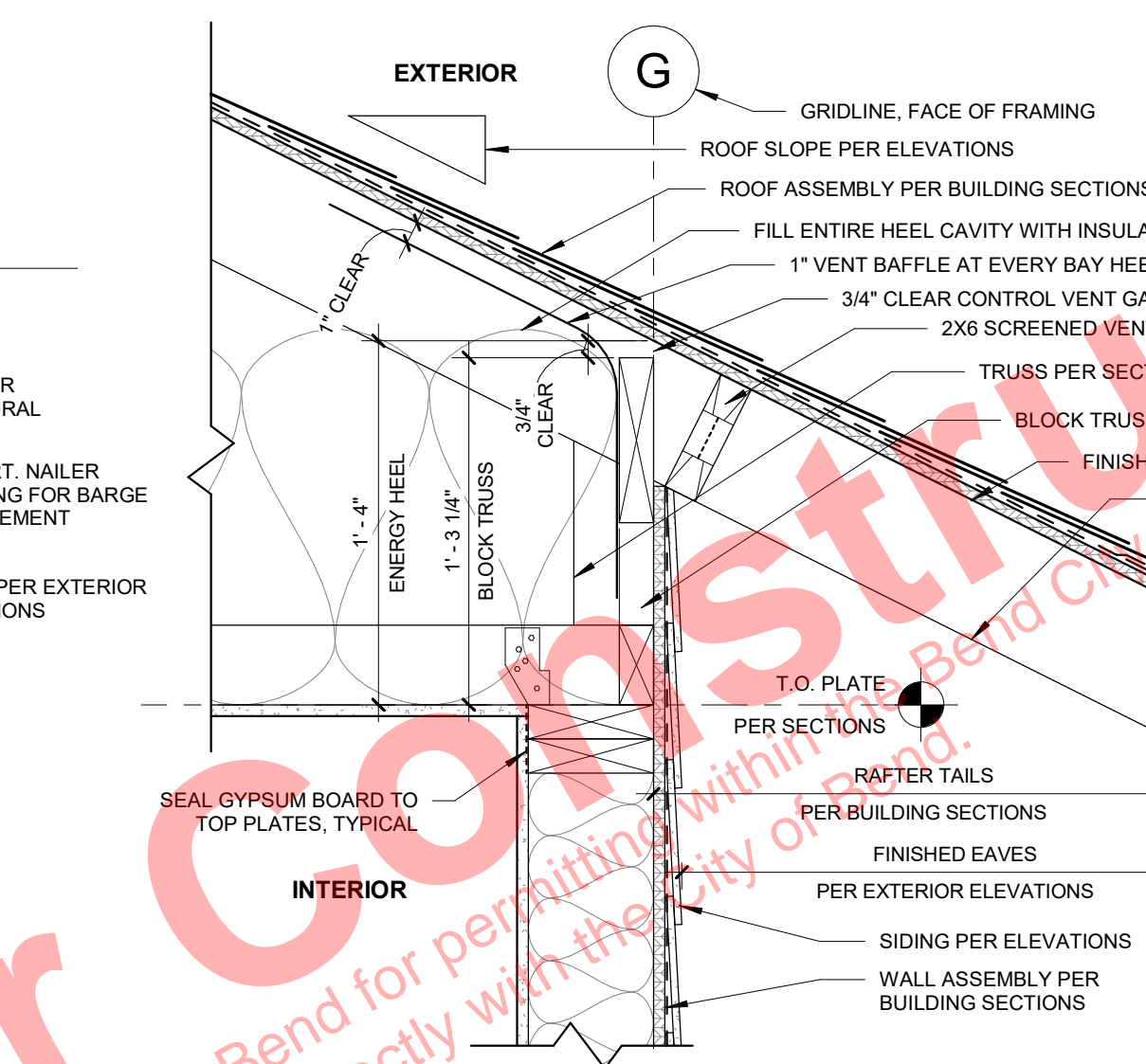


5 TYPICAL RAKE EAVE SECTION
1" = 1'-0"

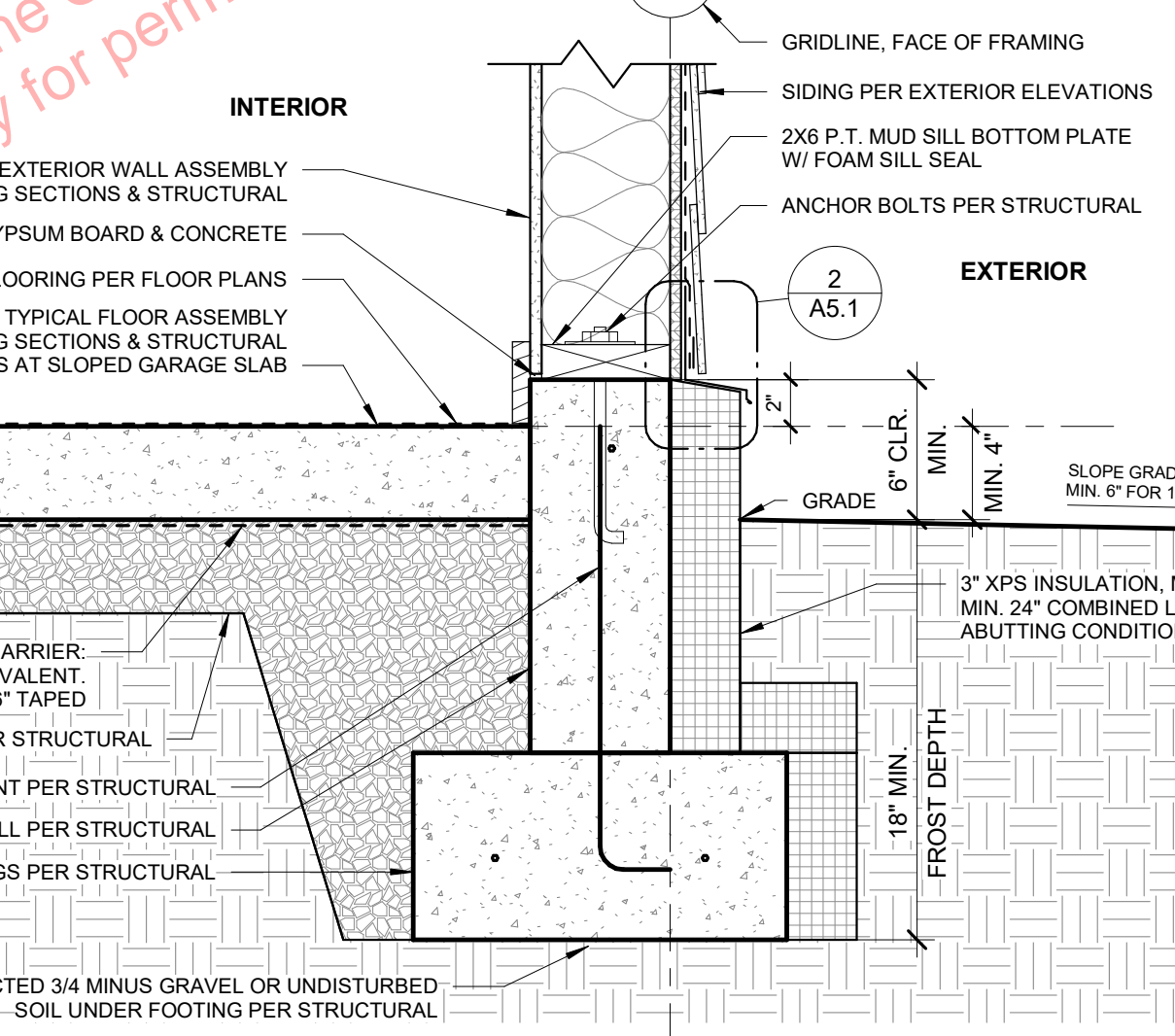


7 BALCONY GUARDRAIL SECTION
1 1/2" = 1'-0"

10 TOP OF STAIR SECTION
1 1/2" = 1'-0"



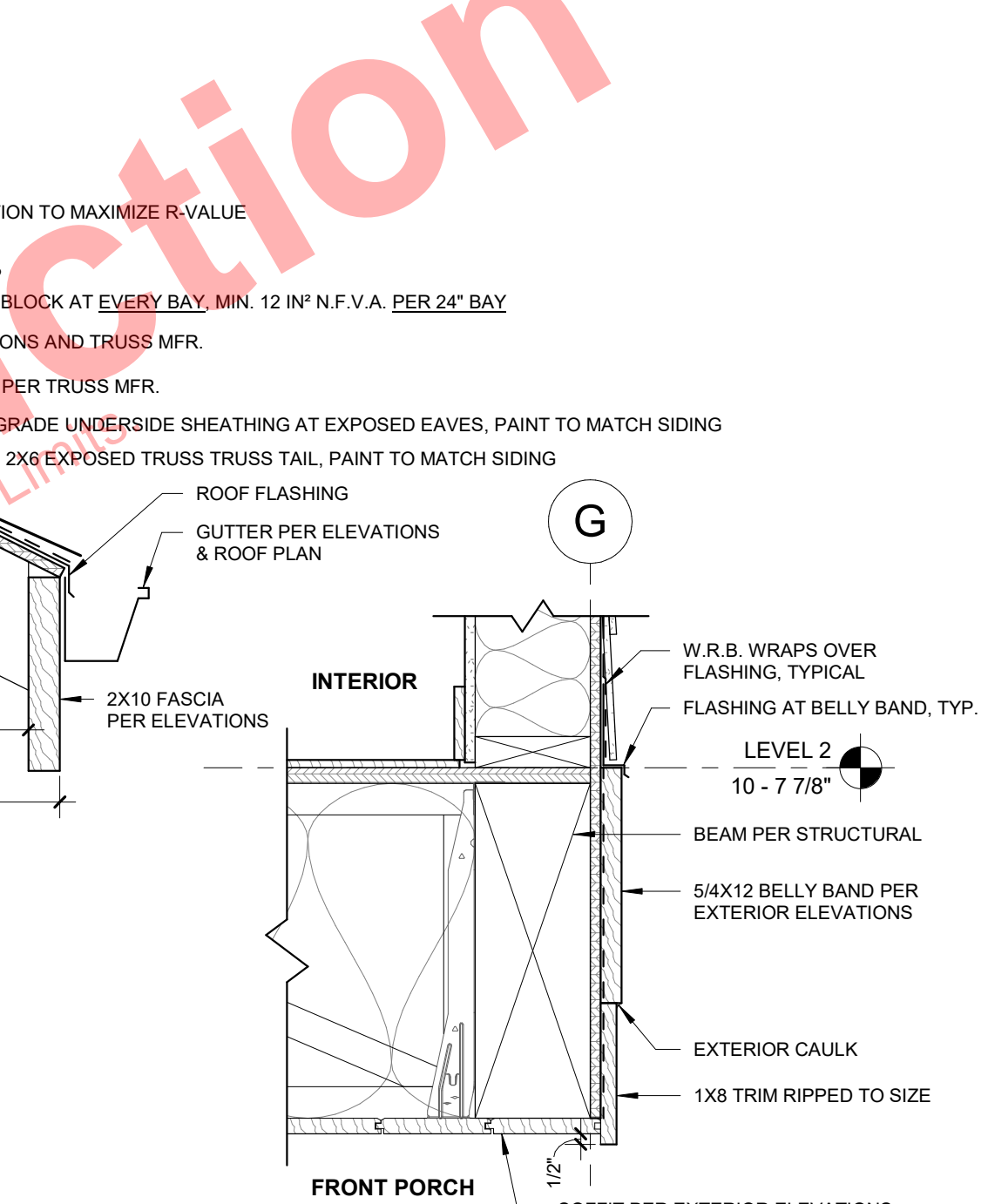
3 TYPICAL EAVE SECTION
1 1/2" = 1'-0"



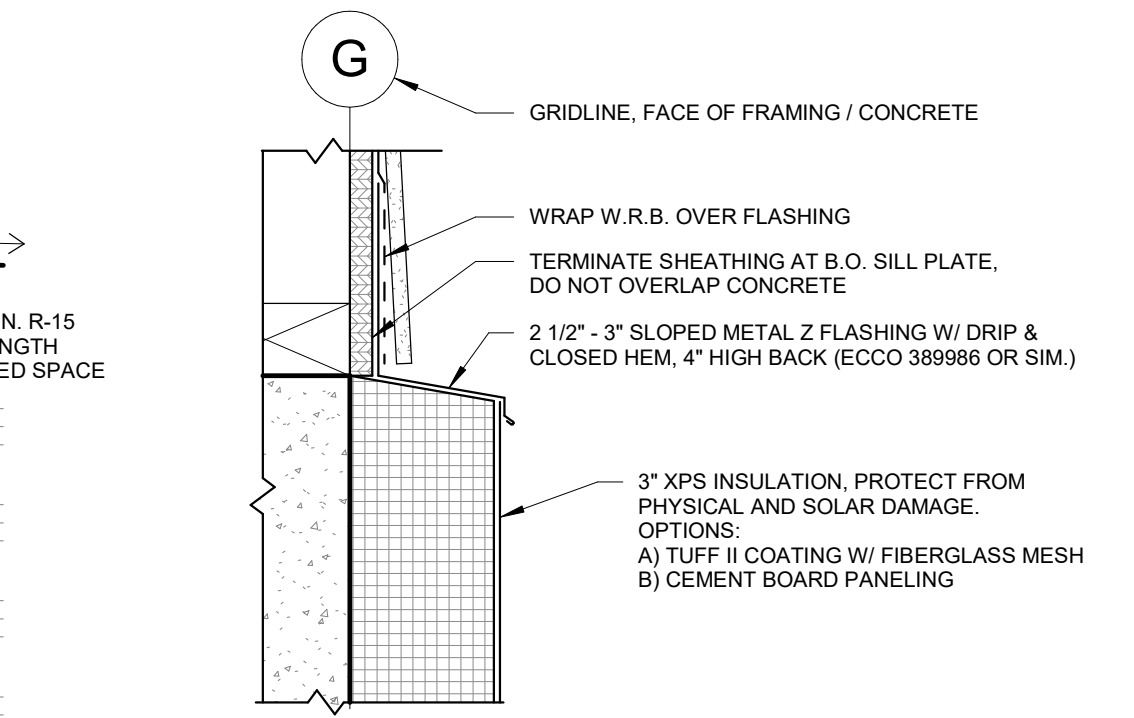
1 TYPICAL STEM WALL SECTION
1 1/2" = 1'-0"

11 STAIR RISER & TREAD, TYPICAL
1 1/2" = 1'-0"

11 STAIR RISER & TREAD, TYPICAL
1 1/2" = 1'-0"



4 BELLY BAND AT FRONT PORCH
1 1/2" = 1'-0"



2 TYPICAL SIDING BASE SECTION, U.N.O.
3" = 1'-0"

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INTERIOR GENERAL NOTES

- 1) DIMENSIONS ON THIS SHEET ARE TO FINISH FACE AND/OR CENTER OF FIXTURE, U.N.O.
- 2) OUTLETS AND SWITCHES TO BE DECORA WHITE, NYLON PLATE COVERS, TYPICAL
- 3) INTERIOR DESIGN NOT INCLUDED IN ARCHITECT'S SCOPE OF WORK. APPLICANT IS RESPONSIBLE FOR SELECTING ALL FINISH MATERIALS, HARDWARE, FIXTURES AND APPLIANCES IN COMPLIANCE WITH THESE DRAWINGS. IF NO INTERIOR DESIGNER WILL BE USED, RECOMMEND ARCHITECT DOCUMENT INTERIOR SELECTIONS AS AN ADDITIONAL SERVICE.

TYPICAL INTERIOR TRIM, U.N.O.

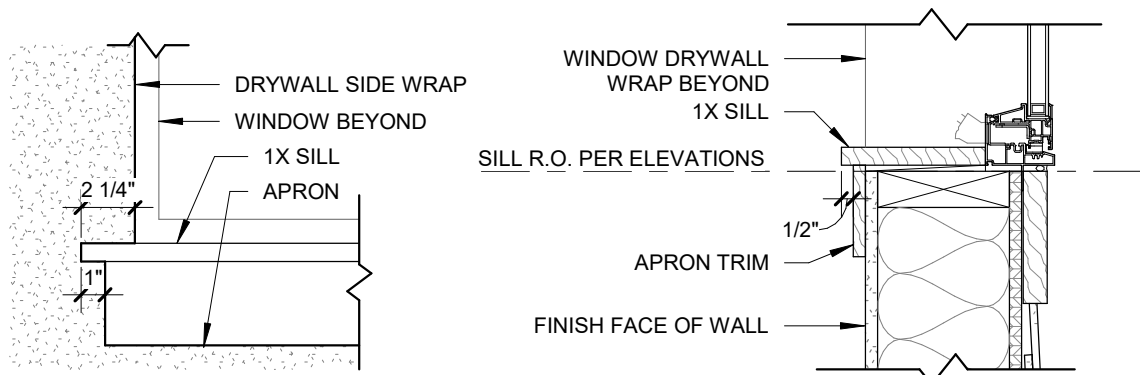
ALL INTERIOR TRIM TO BE PRIMED SOLID WOOD (FINGER JOINTED PINE OR SIM.) APPLICANT MAY CHOOSE SOLID STAIN GRADE TRIM INSTEAD.

TYPICAL TRIM DESIGN

WINDOWS: DRYWALL WRAP AT SIDES AND TOP OF WINDOWS
1X PROJECTING SILL W/ 1/2"X4 APRON U.N.O.

DOORS: 1X4 FACE WRAP (TOP & SIDES)

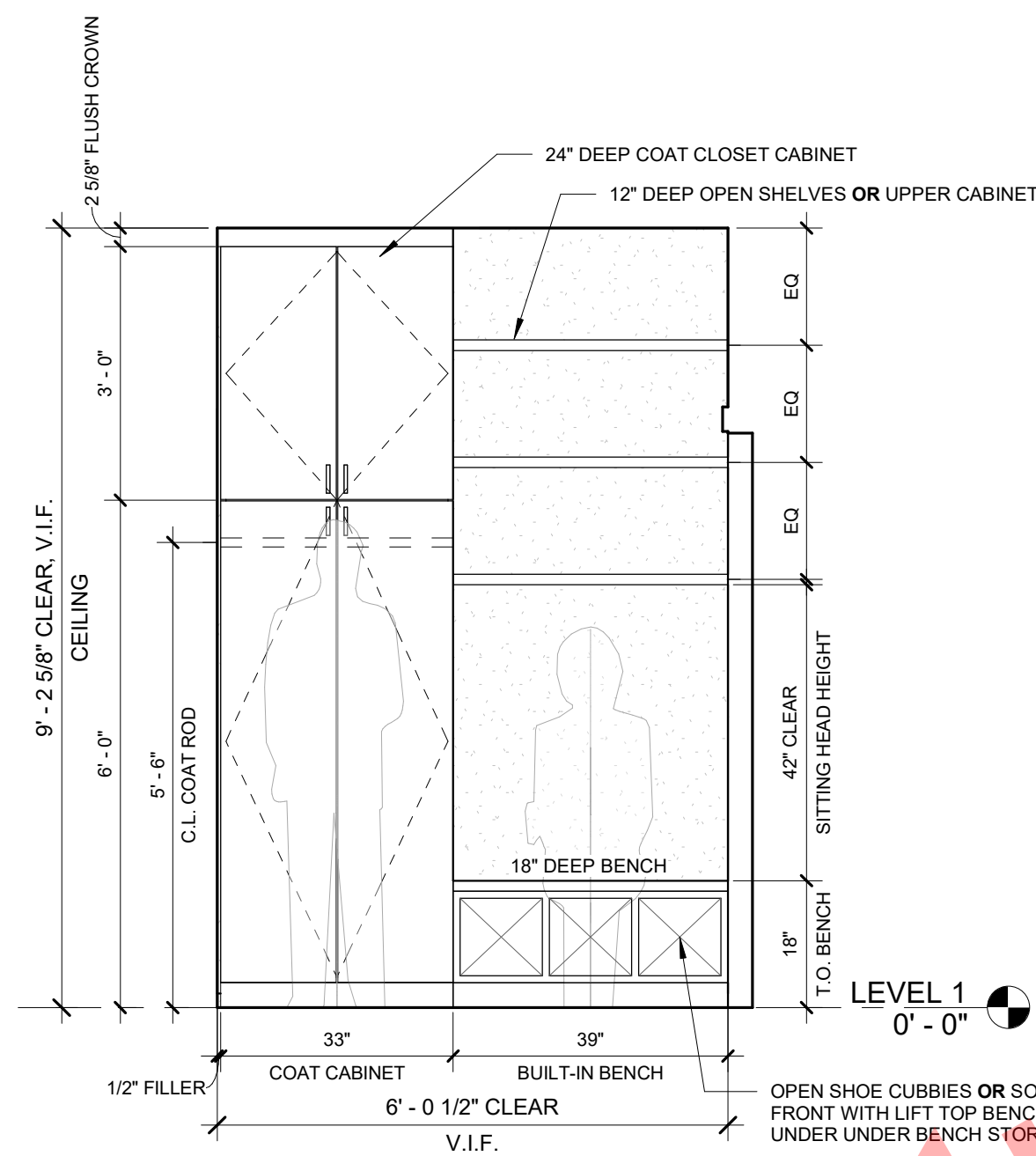
BASEBOARDS: 1/2" X 4



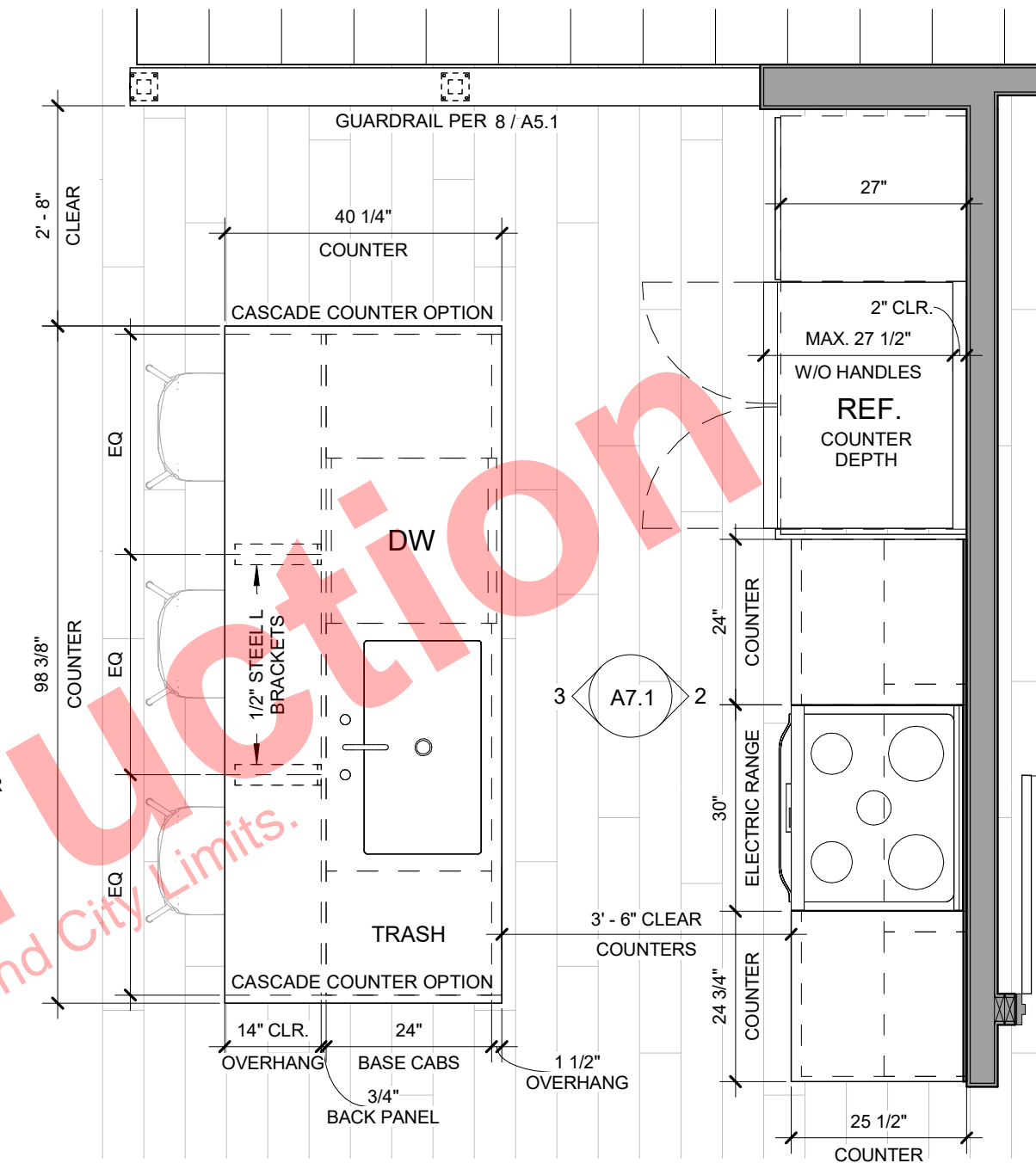
ELEVATION

SECTION

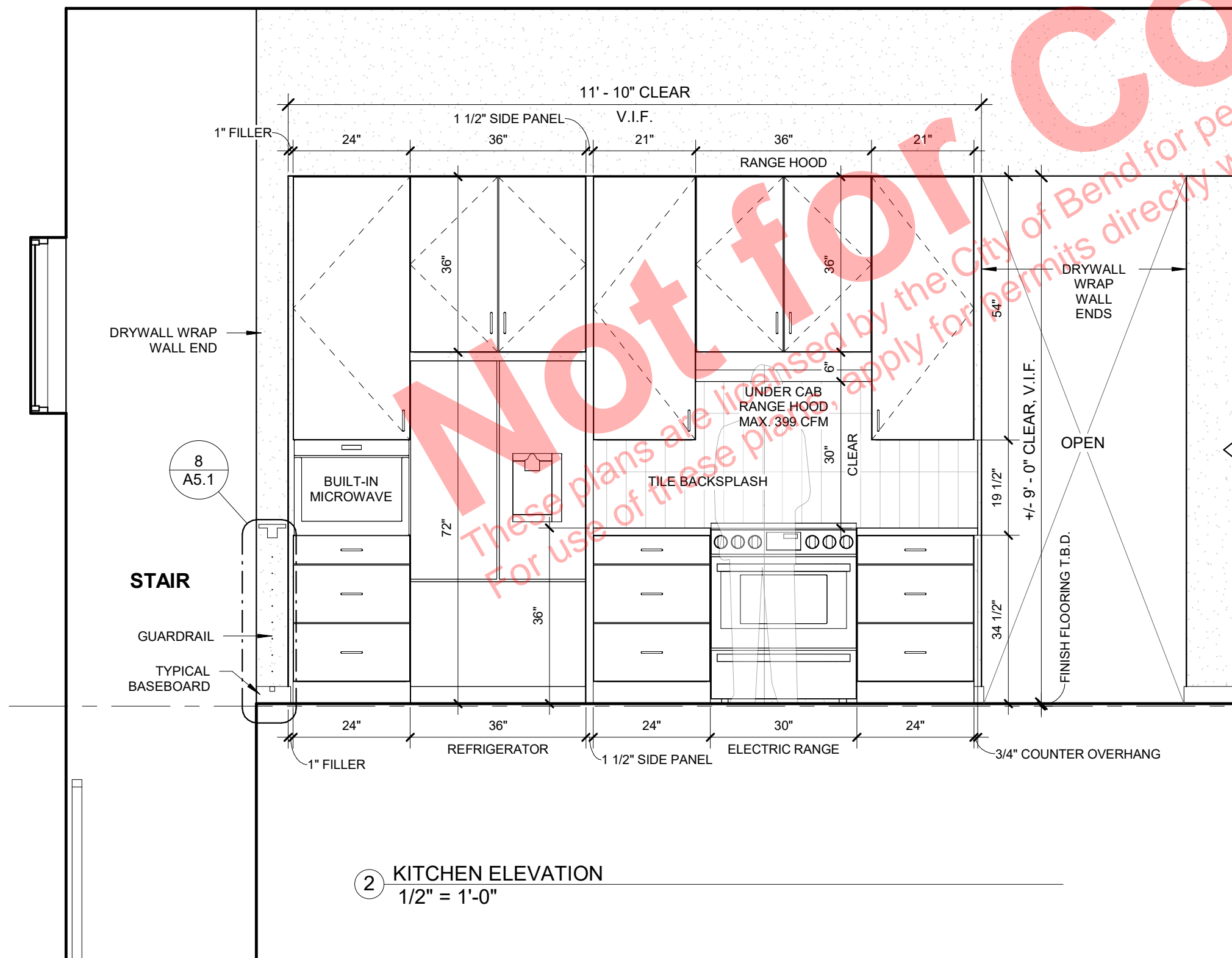
5 INTERIOR WINDOW TRIM DETAILS, TYPICAL
1 1/2" = 1'-0"



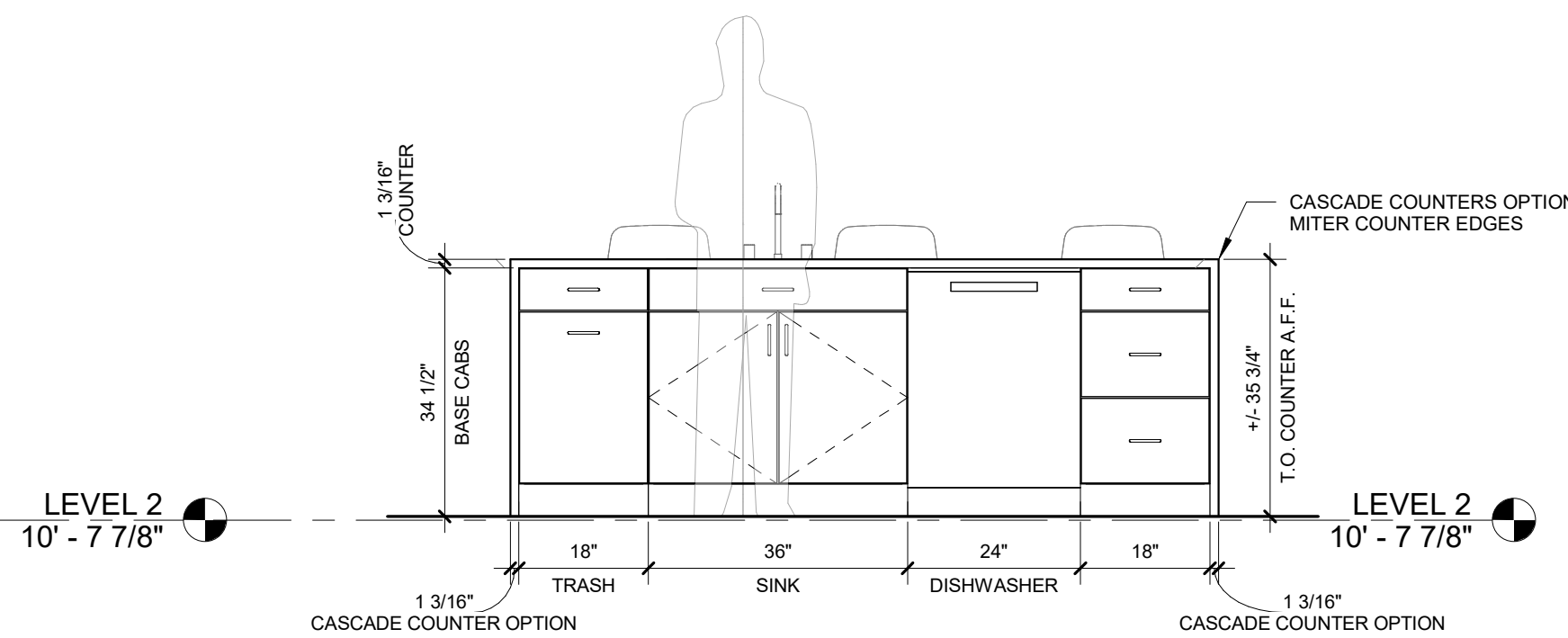
4 MUD ROOM ELEVATION
1/2" = 1'-0"



1 ENLARGED KITCHEN PLAN
1/2" = 1'-0"



2 KITCHEN ELEVATION
1/2" = 1'-0"



3 ISLAND FRONT
1/2" = 1'-0"

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INTERIOR - KITCHEN & MUD ROOM

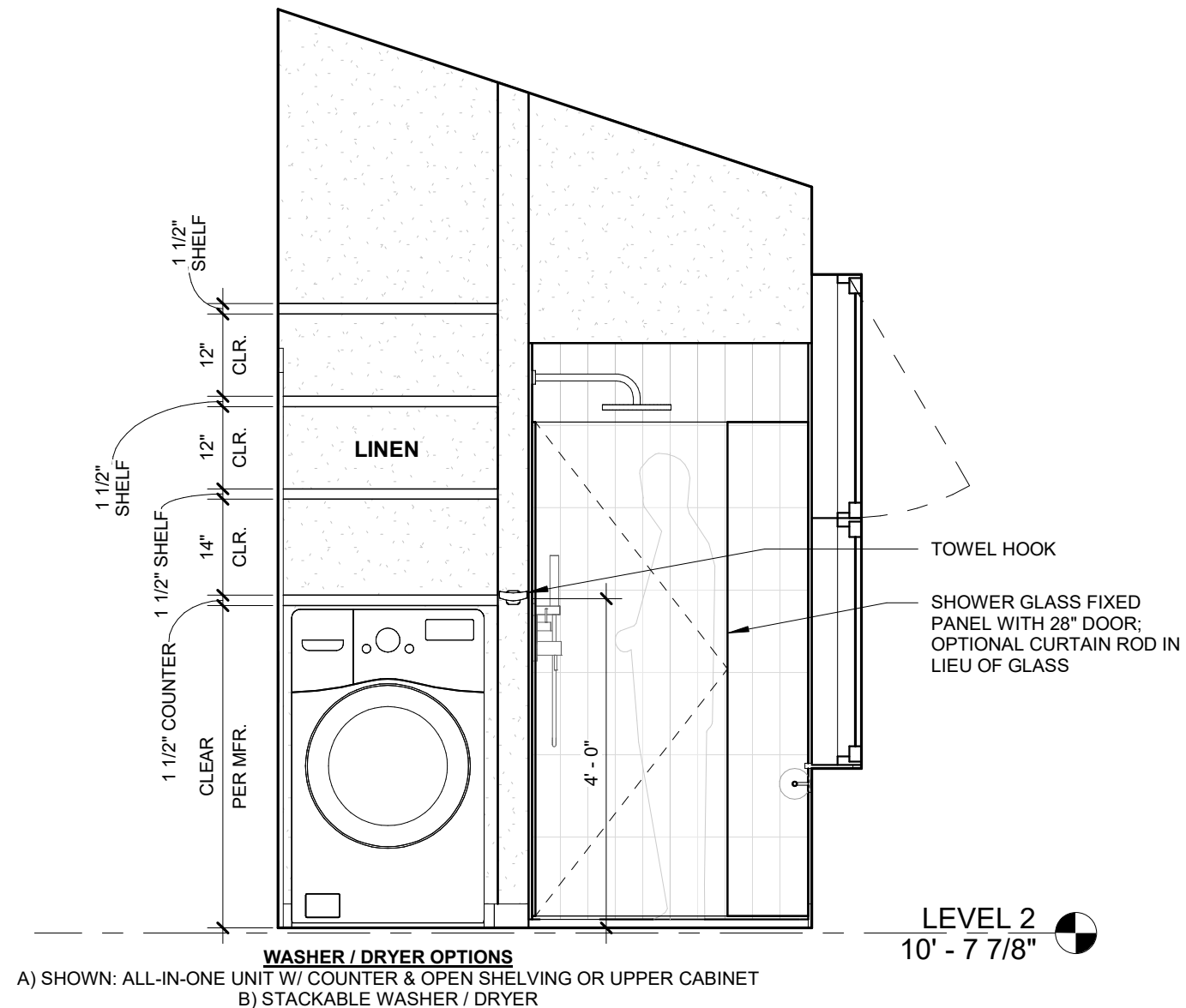
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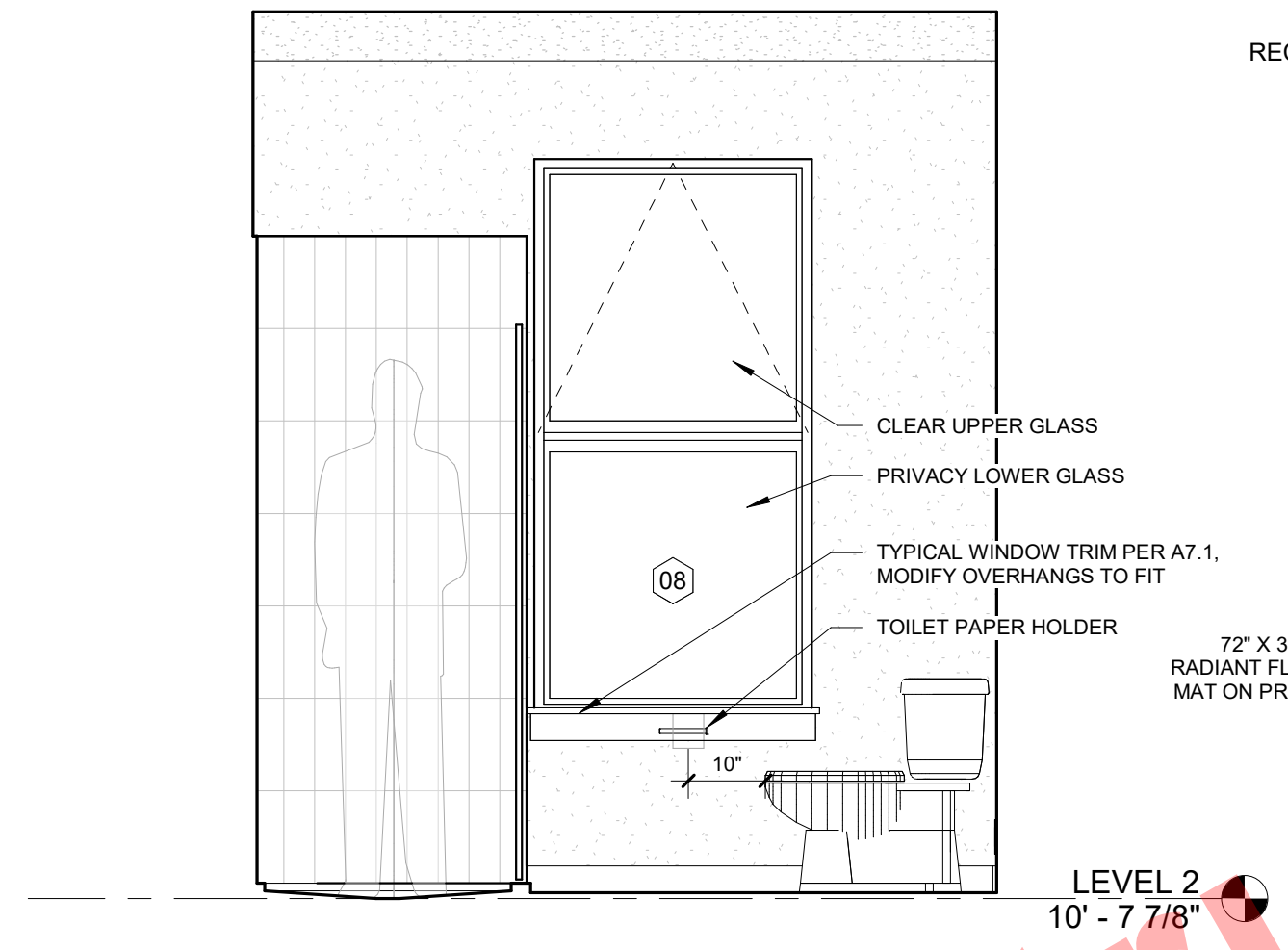
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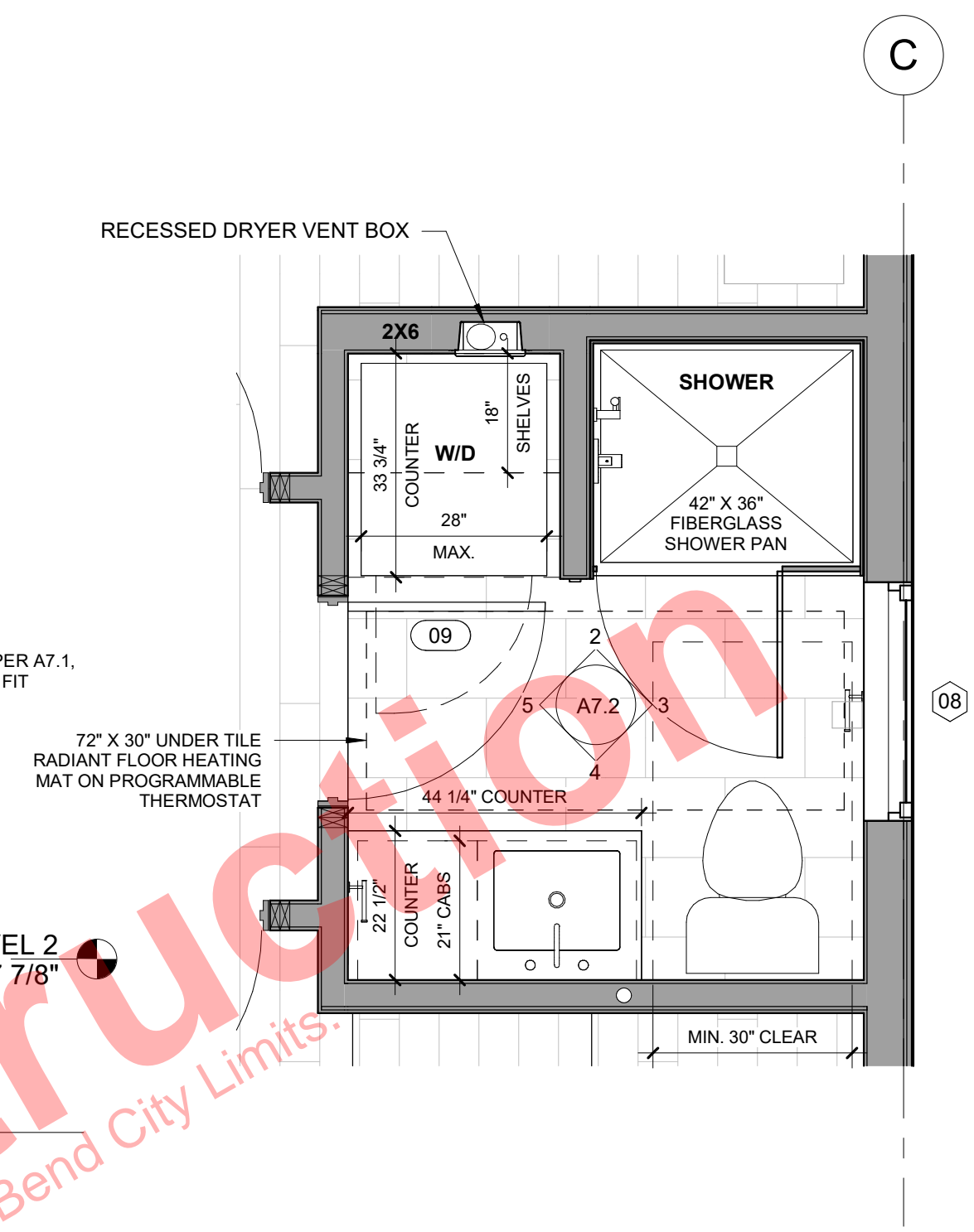
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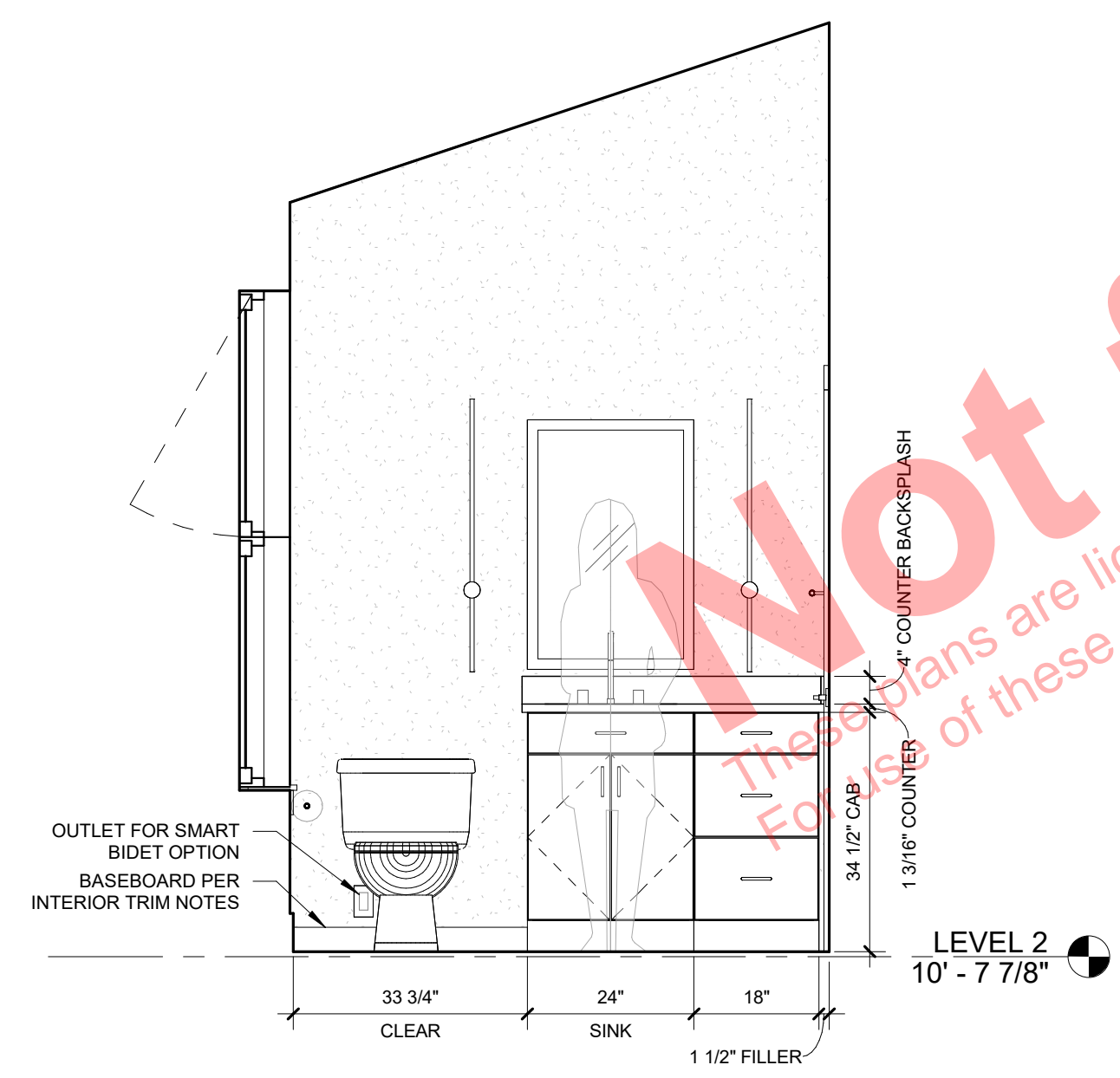
2 BATH FRONT ELEVATION
1/2" = 1'-0"



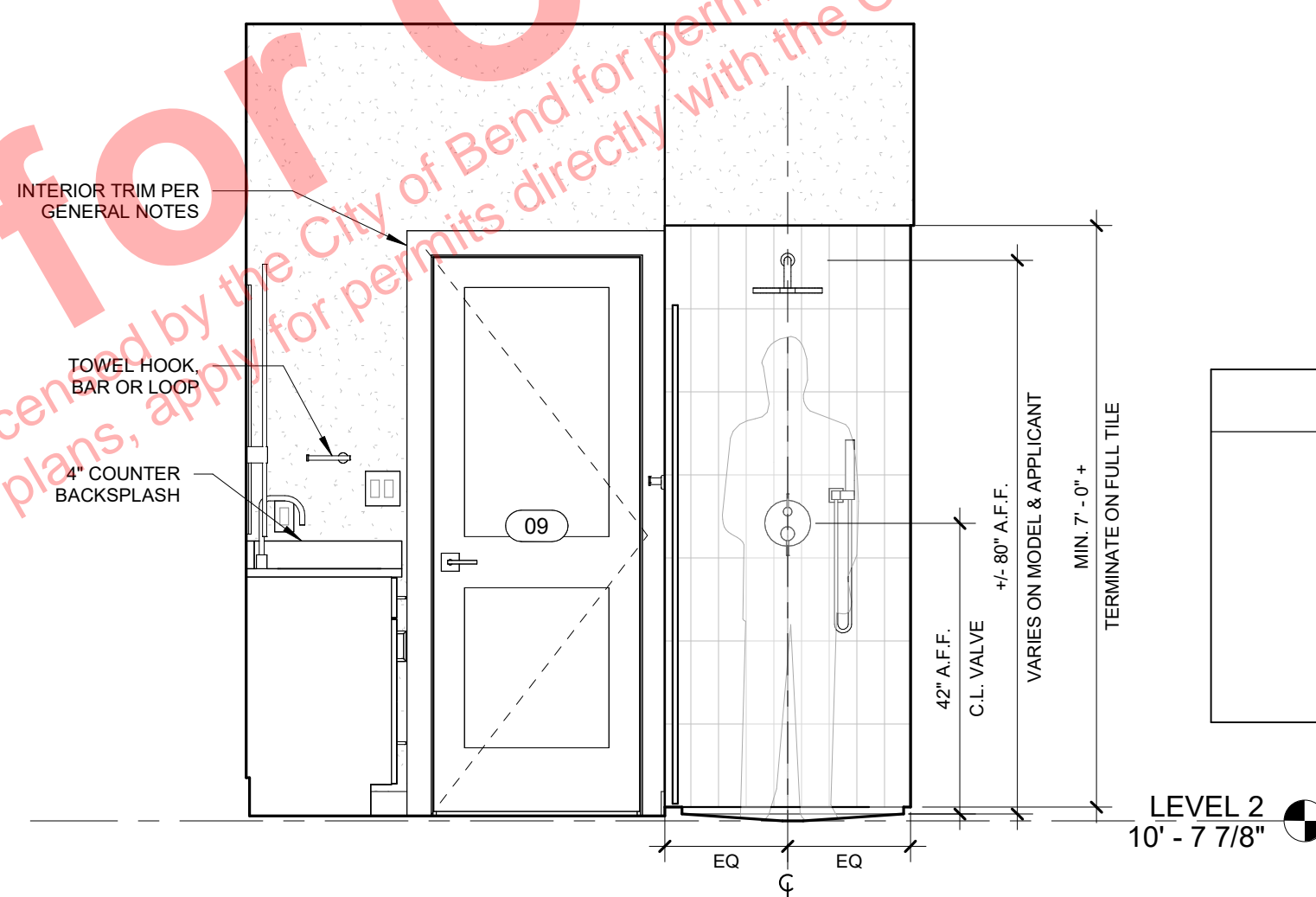
3 BATH RIGHT ELEVATION
1/2" = 1'-0"



1 ENLARGED BATH PLAN
1/2" = 1'-0"



4 BATH BACK ELEVATION
1/2" = 1'-0"



5 BATH LEFT ELEVATION
1/2" = 1'-0"

TYPICAL INTERIOR TRIM, U.N.O.

ALL INTERIOR TRIM TO BE PRIMED SOLID WOOD (FINGER JOINTED PINE OR SIM.) APPLICANT MAY CHOOSE SOLID STAIN GRADE TRIM INSTEAD.

TYPICAL TRIM DESIGN

WINDOWS: DRYWALL WRAP AT SIDES AND TOP OF WINDOWS 1X PROJECTING SILL W/ 1/2"X4 APRON U.N.O.

DOORS: 1X4 FACE WRAP (TOP & SIDES)

BASEBOARDS: 1/2" X 4

INTERIOR GENERAL NOTES

1) DIMENSIONS ON THIS SHEET ARE TO FINISH FACE AND/OR CENTER OF FIXTURE, U.N.O.

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INTERIOR - BATHROOM

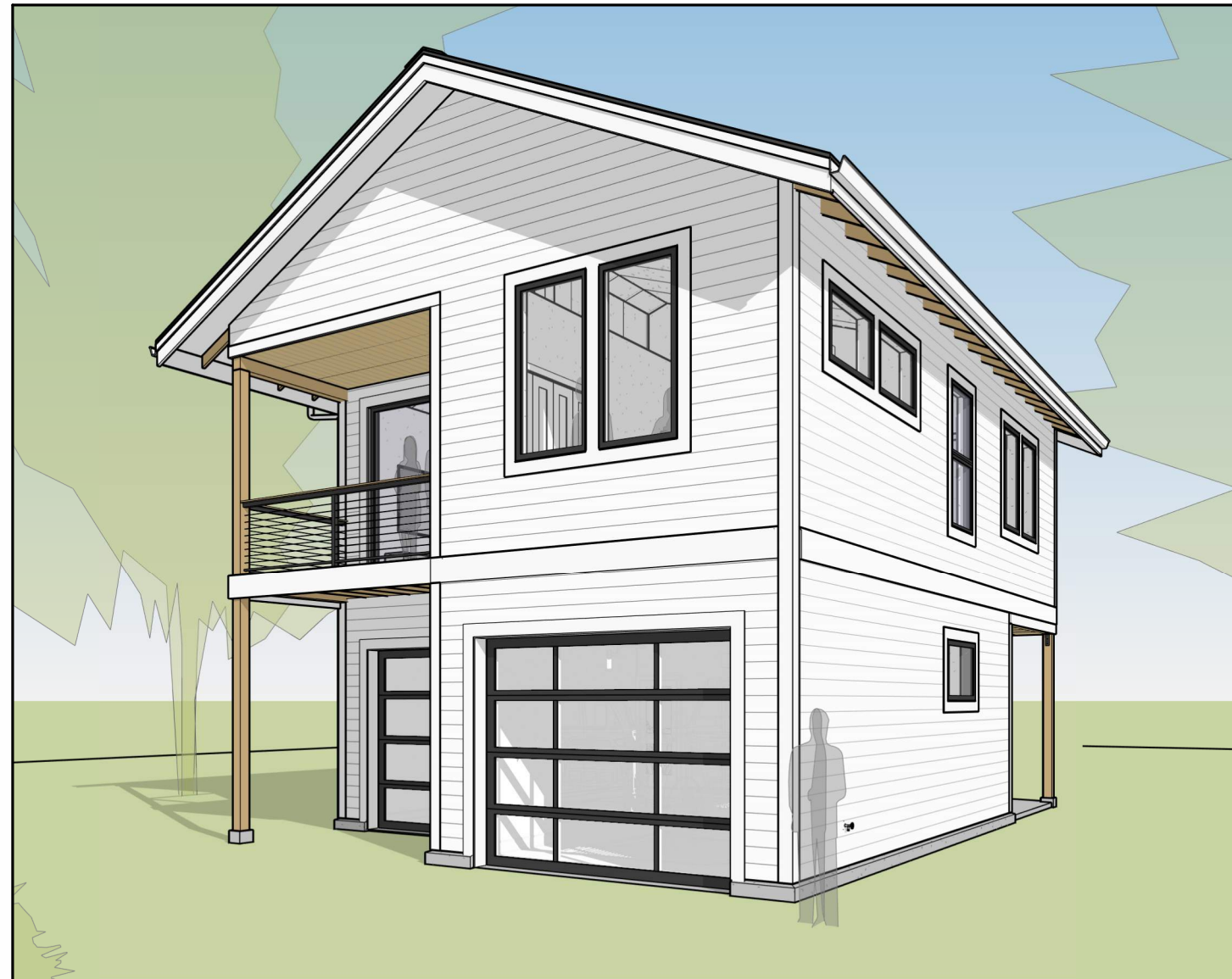
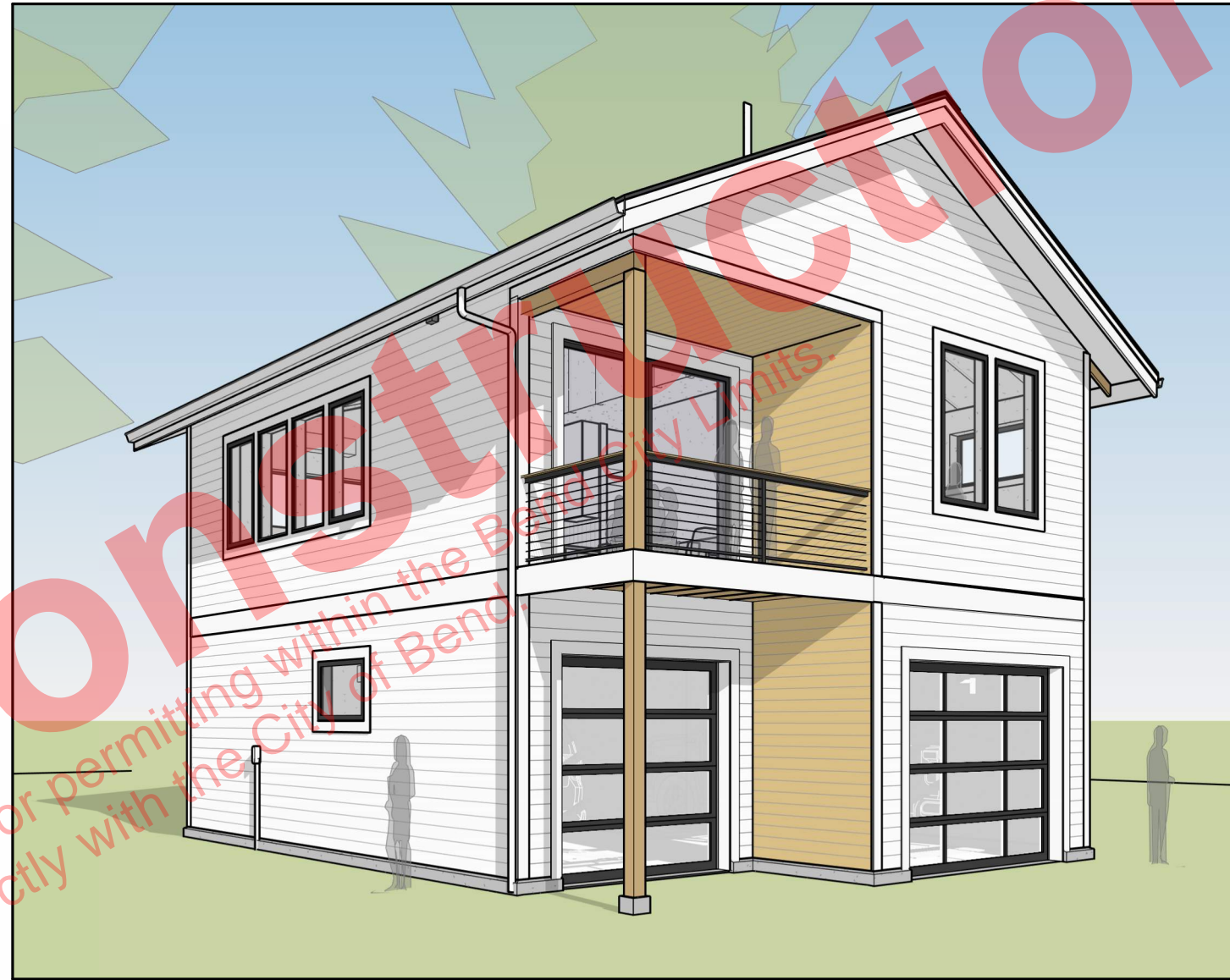
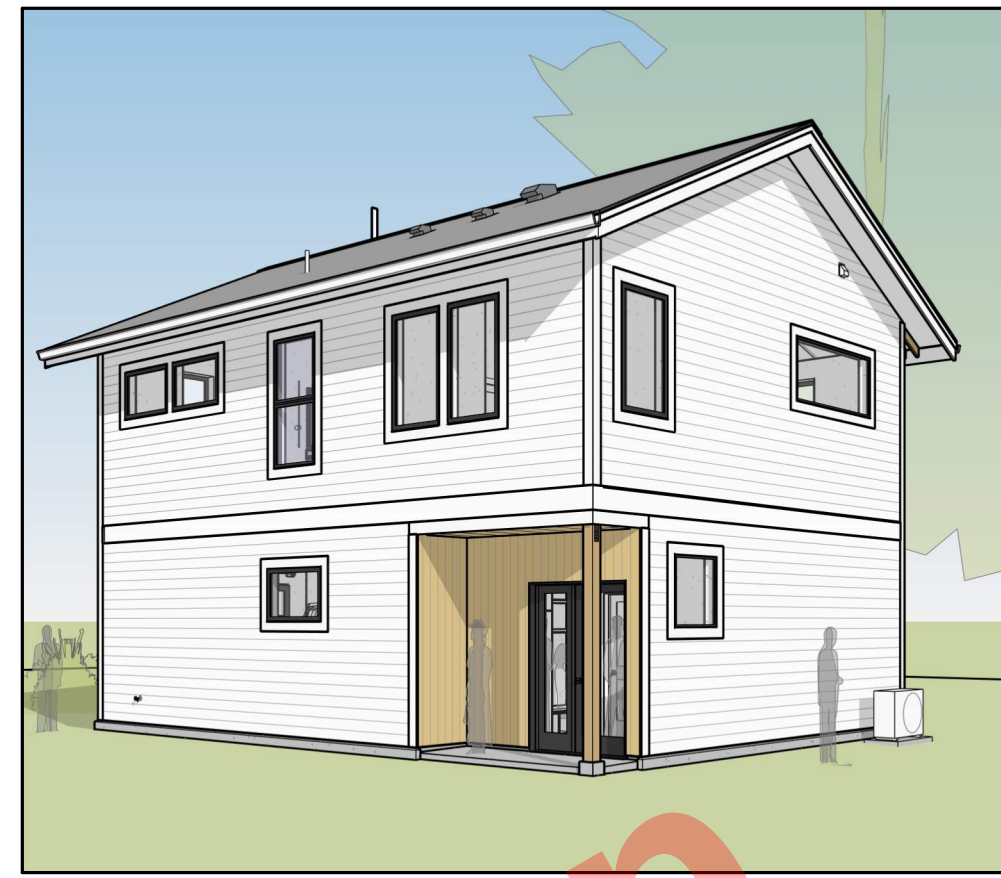
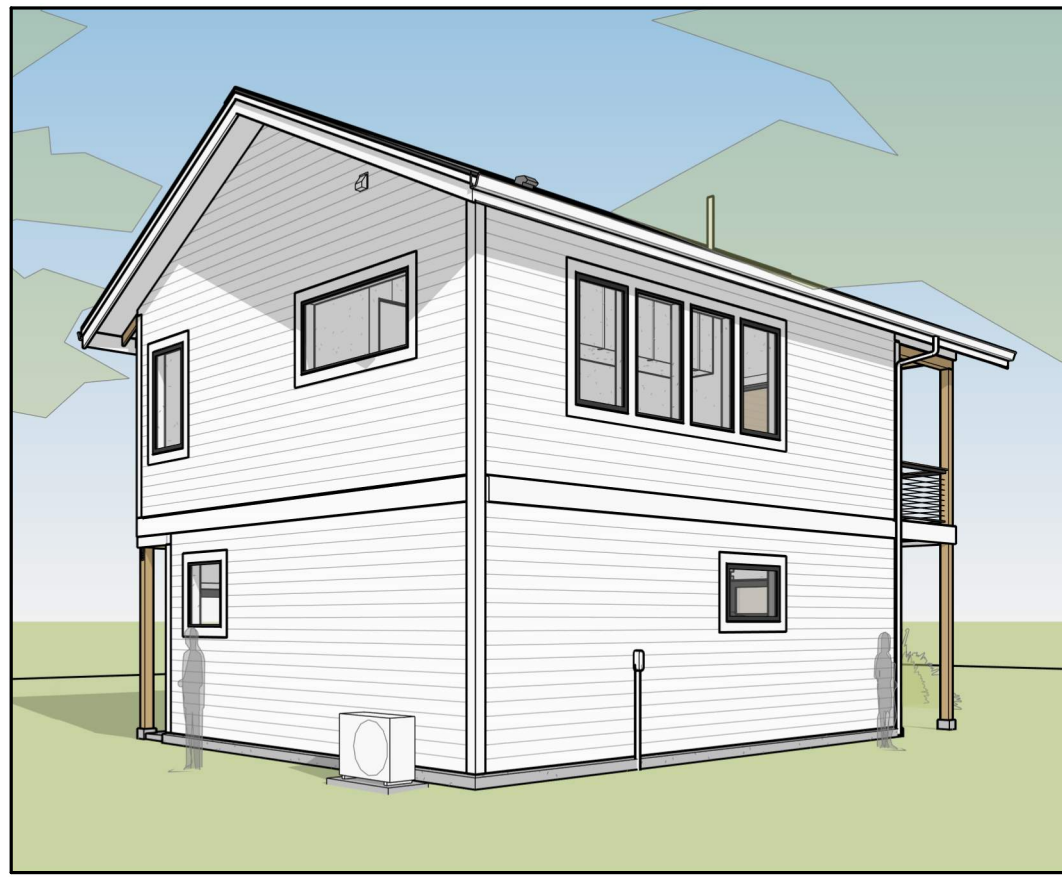
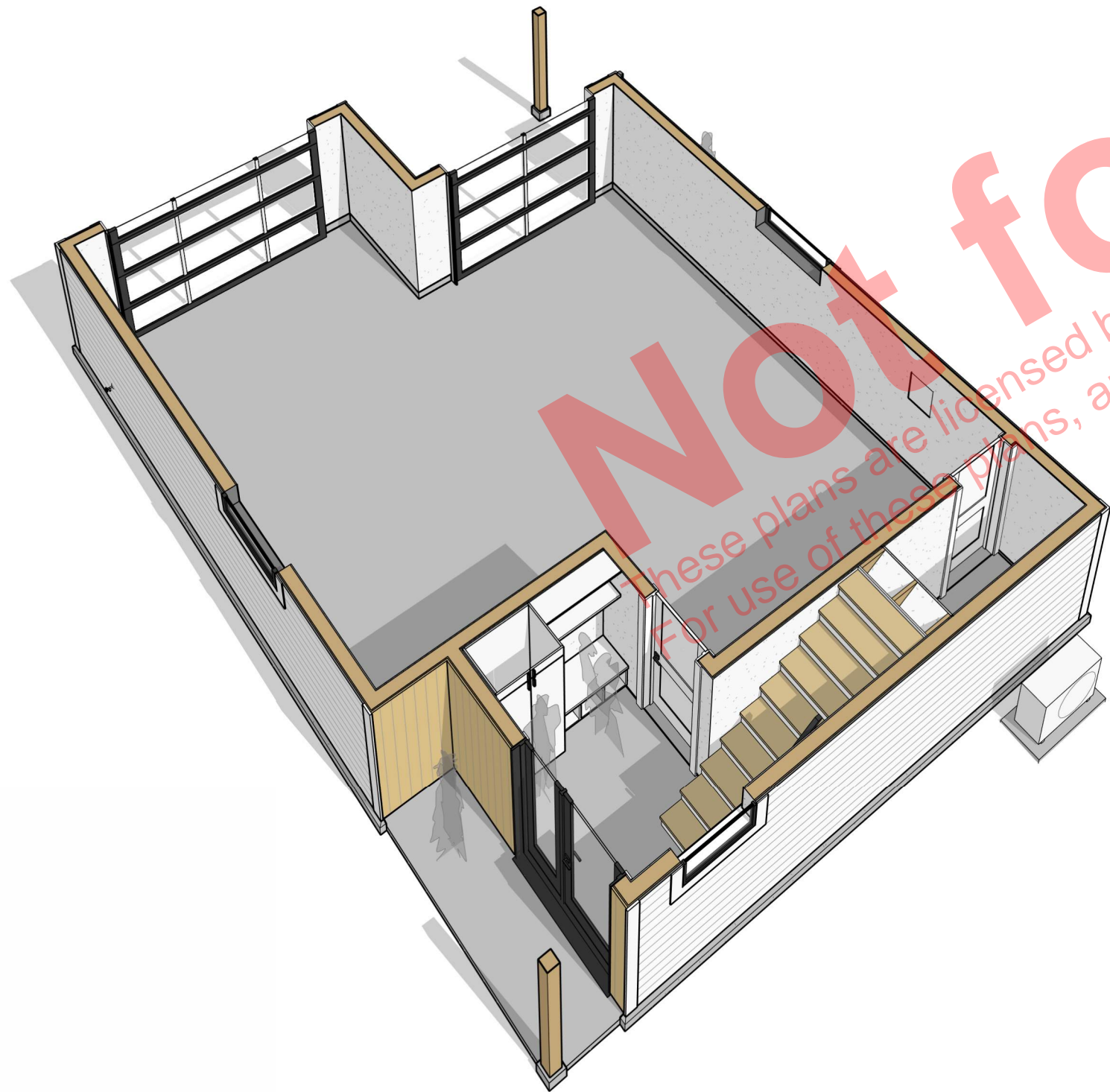
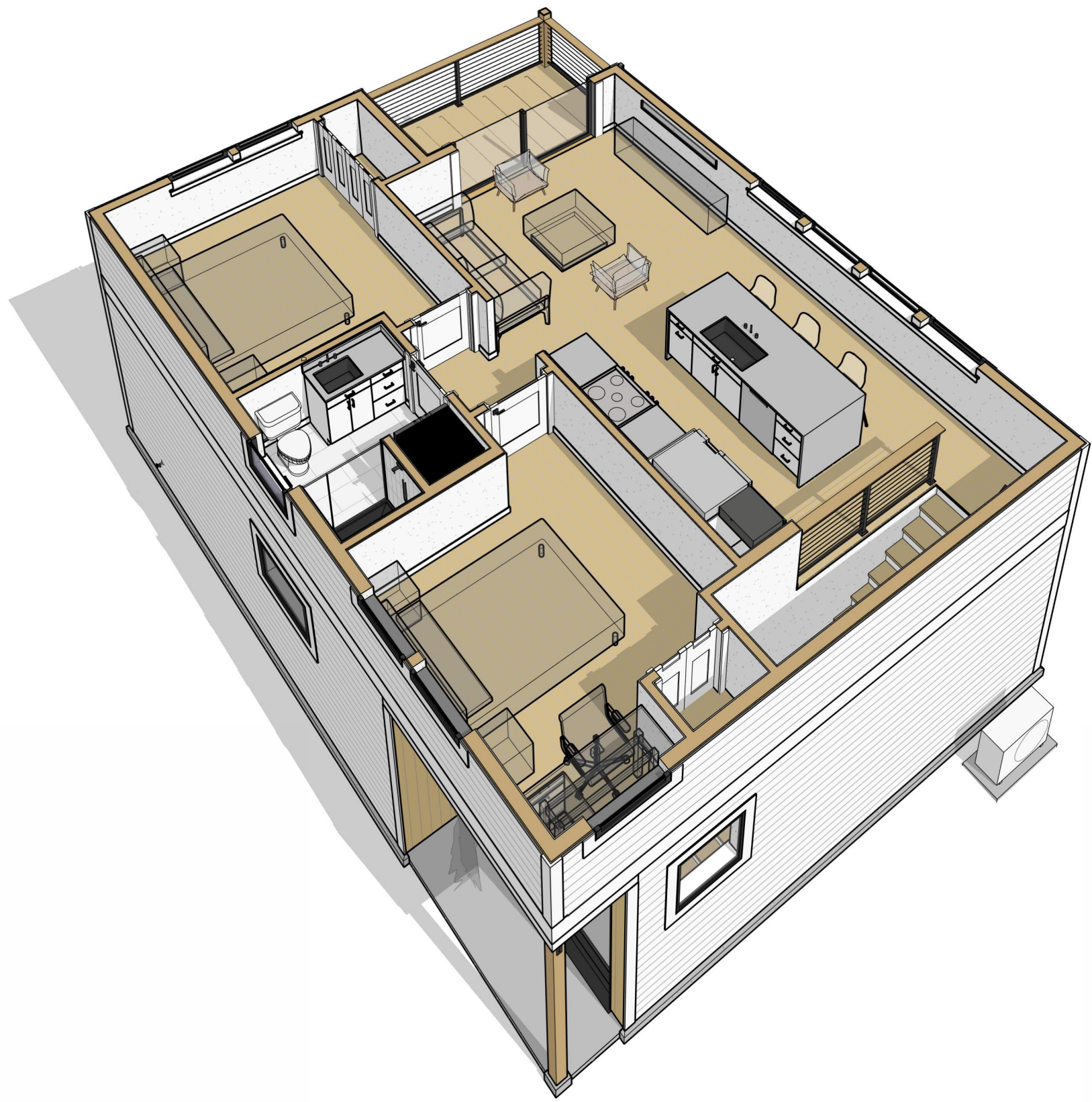
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Ian Burgess
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**SIERRA
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3D VIEWS - EXTERIOR

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3D VIEWS - INTERIOR

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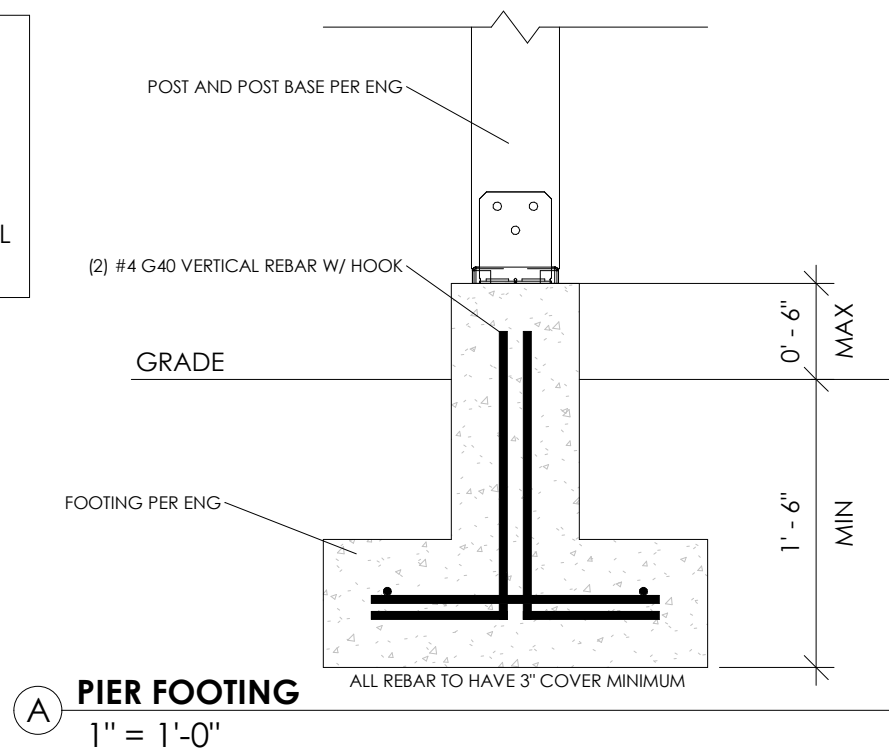
WALL FOOTING SCHEDULE

MARK	WIDTH	FOUNDATION THICKNESS	STEM WIDTH	FOOTING REBAR	STEM REBAR
WF1	16"	8"	6"	2-#4(G40) HORIZ REBAR	1-#4(G40)HORIZ REBAR <6" FROM TOP, 1-#4(G40) VERT REBAR AT 48" O.C.
WF2	12"	6"	6"	2-#4(G40) HORIZ REBAR	1-#4(G40)HORIZ REBAR <6" FROM TOP, 1-#4(G40) VERT REBAR AT 48" O.C.

SPREAD FOOTING SCHEDULE

MARK	WIDTH	LENGTH	FOOTING THICKNESS	REBAR SCHEDULE	POST BASE
TF24-18	24"	24"	SEE DETAIL A/S2 MIN THICKNESS 8"	2-#4(G40) REBAR E.W.	CPTZ66

SITE SLOPE AND FOUNDATION
STEM WALL MAXIMUM HEIGHT IS 4' MEASURED FROM GRADE. STEM WALL UNBALANCED LOAD MAXIMUM HEIGHT IS 4'. IF EITHER CONDITION IS EXCEEDED CONTACT LICENSED STRUCTURAL ENGINEER.
DEVIATION STATEMENT
ANY DEVIATION FROM ARCHITECTURAL OR STRUCTURAL PLAN REQUIRES REVIEW BY LICENSED ENGINEER.



WIND SPEED, EXPOSURE, SNOW LOAD, AND SDS MAY NOT BE EXCEEDED. CONTACT ENGINEER FOR REDESIGN IF LOCATION EXCEEDS THESE VALUES

VARIABLE TABLE

VARIABLE	VALUE	CODE REFERENCE
WIND SPEED	99 MPH, EXP C	[IBC-ASCE7-16]
GROUND SNOW LOAD	50 PSF	[SEAO-ASCE7-16]
SEISMIC	0.38 g	[ASCE7-16]
FROST DEPTH	18"	[ORSC R301.2]

PLAN EVALUATED: SJC "Mt Bachelor Pad"

WALL FOOTING POINT LOAD CAPACITIES (1500 PSI SOIL BEARING)

TYPE	MIN STEM WALL HEIGHT	MAXIMUM POINT LOAD
12" WALL FTG	1'-6"	6000#
16" WALL FTG	1'-6"	7800#
18" WALL FTG	1'-6"	9000#
21" WALL FTG	1'-6"	10500#
24" WALL FTG	1'-6"	12000#
12" STRIP FTG	N/A	4500#
16" STRIP FTG	N/A	5850#
18" STRIP FTG	N/A	6750#
21" STRIP FTG	N/A	7875#
24" STRIP FTG	N/A	9000#

FOUNDATION NOTES:

- BUILDING IS REQUIRED TO MEET MINIMUM SETBACK REQUIREMENTS (SITE PLAN)
- FINISH GRADE SHALL SLOPE AWAY FROM FOUNDATION WALLS (OR SIDEWALKS AND SLABS ADJACENT TO FOUNDATION WALLS).
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OR 2500 PSI (DEFAULT) OR AS SPECIFIED IN THE ENGINEERING.
- EXTERIOR FOOTINGS SHALL EXTEND BELOW THE FROST DEPTH FOR THE SITE. REF IRC TABLE R301.2(1)
- FOUNDATION WALLS SHALL EXTEND AT LEAST 6" ABOVE THE FINISHED GRADE.
- FOUNDATION DESIGN ASSUMES 1500 PSF SOIL BACK PRESSURE (CODE DEFAULT). USE OF SOIL PRESSURES GREATER THAN 1500 PSF REQUIRES SOIL TEST.
- FOUNDATION REINFORCEMENT AS SPECIFIED ON THIS PLAN.
- FOUNDATION REBAR SHALL HAVE A MINIMUM 24" LAP SPLICE OR AS SPECIFIED ON THIS PLAN.
- FOUNDATION FOOTING SIZES AS SPECIFIED ON THIS PLAN.
- SILL PLATE SHALL BE PRESSURE TREATED AND ANCHORED TO STEM WALL USING ANCHOR BOLTS AS SPECIFIED IN THE SHEAR PLAN.
- FOOTINGS TO BEAR ON UNDISTURBED LEVEL SOIL DEVOID OF ANY ORGANIC MATERIAL AND STEPPED AS REQUIRED TO MAINTAIN A MINIMUM FROST DEPTH BELOW FINISHED GRADE.
- PROVIDE GROUND COVER OF 6 MIL BLACK POLYETHYLENE OR EQUAL LAPPED 12" AT ALL JOINTS AND TURNED UP 12" UP THE FOUNDATION WALL IN THE CRAWL SPACE. PROVIDE 6 MIL BLACK POLYETHYLENE UNDER CONCRETE SLABS.
- PROVIDE SILL SEAL BETWEEN THE WALL AND FOUNDATION WHERE FOUNDATION WALL ENCLOSES HEATED SPACE.
- PROVIDE ON #4 REBAR TIED TO THE FOUNDATION REBAR AND EXTENDED 12" ABOVE THE STEM WALL FOR GROUND ROD.
- COLUMN BASES SHALL BE PROTECTED AGAINST DECAY OR CORROSION UNLESS PRESSURE TREATED WOOD IS USED. STEEL POST BASES SHALL BE GALVANIZED AND BE SIZED TO COVER THE ENTIRE BOTTOM OF THE COLUMN.
- CONCRETE SLABS MIN 2500 PSI W/OPTIONAL W6SX6 10/10WW MESH OR APPROVED FIBER MESH. USE EXPANSION JOINTS OR SAW CUT AT MIN 12" O.C. SLOPE GARAGE SLABS MIN 1/8"/12 TOWARD DOORS.
- ALL EXTERIOR WALLS, BEARING WALLS, COLUMNS AND PIERS SHALL BE SUPPORTED ON CONTINUOUS SOLID MASONRY OR CONCRETE FOOTINGS AND SHALL EXTEND BELOW THE FROST DEPTH. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR 4" GRANULAR MATERIAL COMPACTED TO 95%.
- BEAM POCKETS IN STEM WALLS TO HAVE 1/2" AIR SPACE AT SIDES AND END, AND A MINIMUM BEARING OF 4".
- REF SHEAR DIAGRAM FOR ANCHOR BOLT SPACING.

DEVIATION STATEMENT

ANY DEVIATION FROM ARCHITECTURAL OR STRUCTURAL PLAN REQUIRES REVIEW BY LICENSED ENGINEER.



Garrett J. Banton, PE
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Bend, OR 97701
Phone: (541) 306-7893
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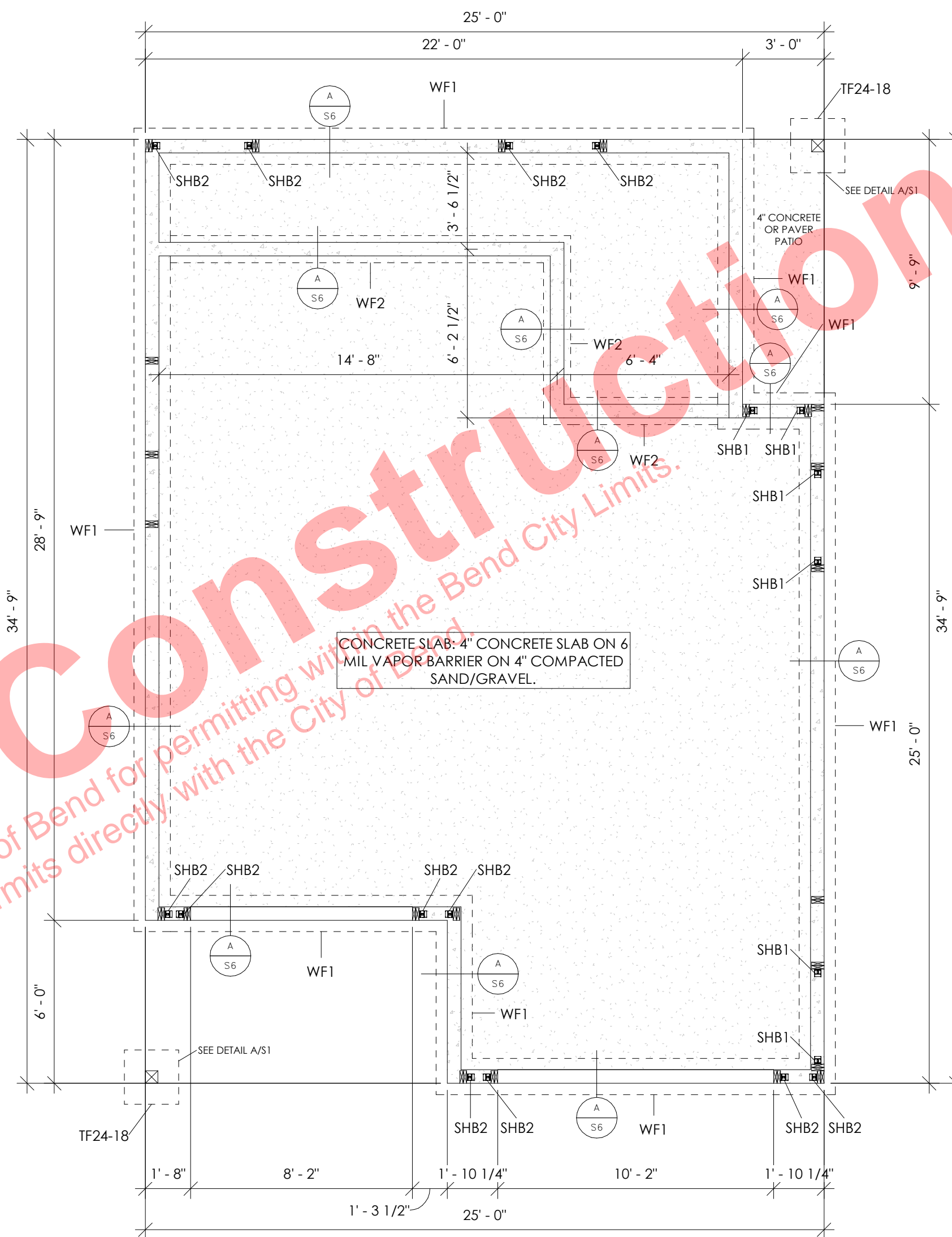


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CITY OF BEND LIMITS

FOUNDATION

FILE:
SCALE: As indicated
DATE: 4/6/26

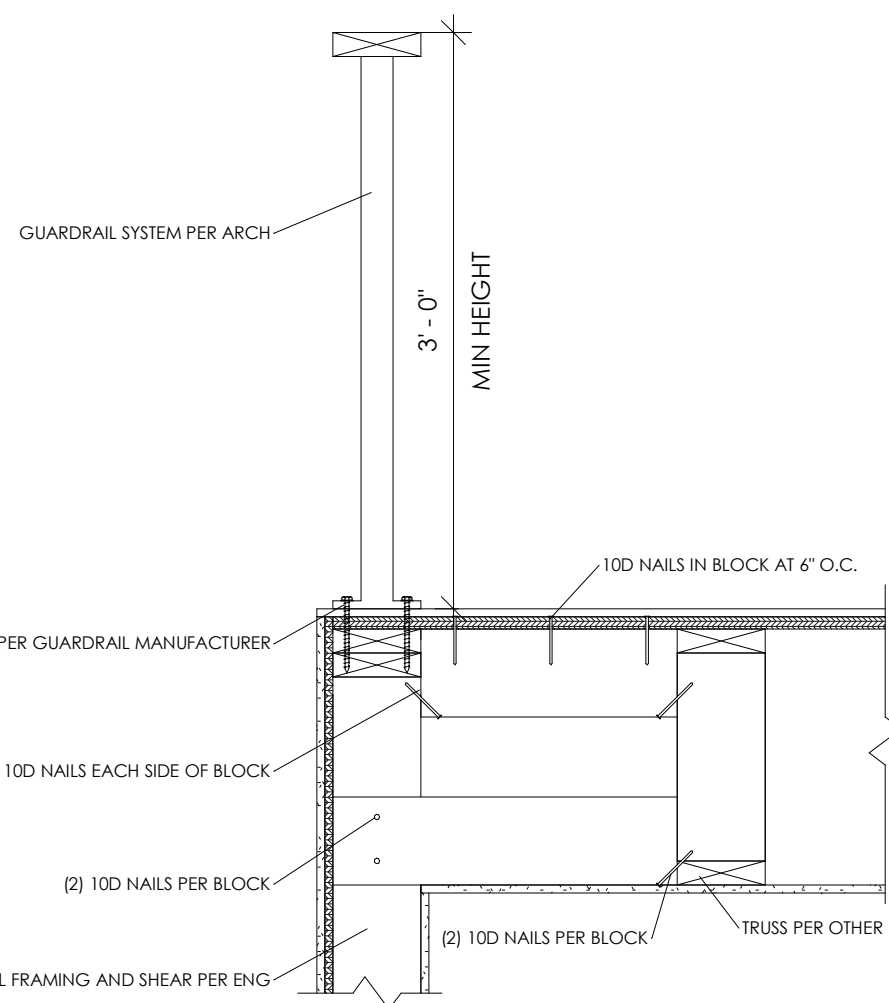
S1



FOUNDATION

1/4" = 1'-0"

DEVIATION STATEMENT
 ANY DEVIATION FROM ARCHITECTURAL OR STRUCTURAL
 PLAN REQUIRES REVIEW BY LICENSED ENGINEER.



STAIR GUARDRAIL
 1" = 1'-0"

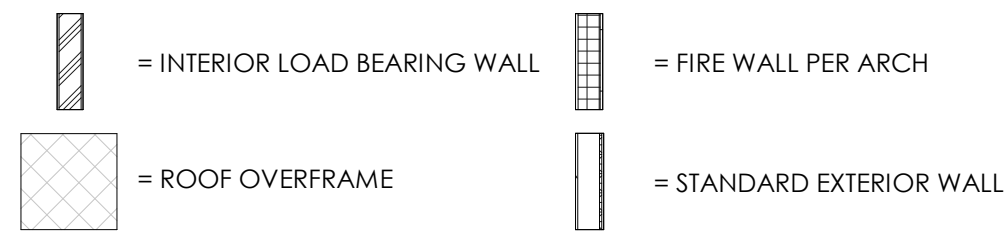
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FROST DEPTH	18"	[ORSC R301.2]

PLAN EVALUATED: SJC "Mt Bachelor Pad"

FRAMING LEGEND



1 LEVEL BEAMS

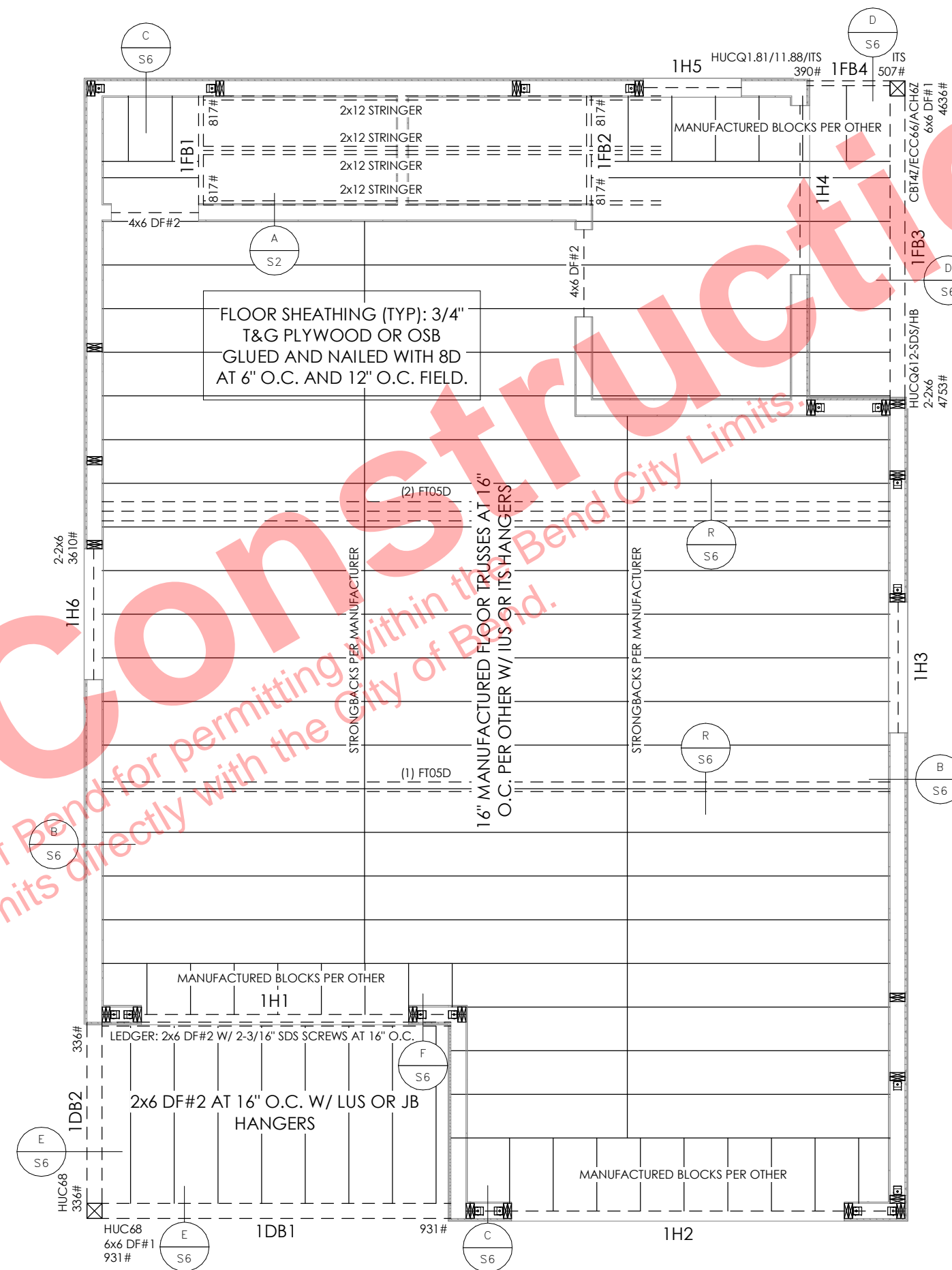
MARK	LENGTH	SIZE & MATERIAL
1DB1	11.5'	6x8 DF#2
1DB2	6.5'	6x8 DF#2
1FB1	4'	1-3/4"x16" 1.55E-2325Fb LSL
1FB2	4'	1-3/4"x16" 1.55E-2325Fb LSL
1FB3	10'	5-1/4"x16" 2.1E-3100Fb LVL
1FB4	3.5'	1-3/4"x16" 2.1E-2800Fb LVL
1H1	12'	4x12 DF#2
1H2	14'	4x12 DF#2
1H3	4.5'	4x8 DF#2
1H4	6'	4x6 DF#2
1H5	3.5'	2x6 DF#2
1H6	4.5'	4x10 DF#2

WALL FRAMING NOTES

- ONE STORY WALLS TO BE MINIMUM 2x6 DF#2 OR STUD AT 24" O.C.
- TWO STORY WALLS TO BE MINIMUM 2x6 DF#2 OR STUD AT 16" O.C.
- INTERIOR LOAD BEARING WALLS TO BE MINIMUM 2x4 DF#2 AT 16" O.C.
- WALLS OVER 10' - 0" TALL TO REQUIRE SOLID MID PLANE BLOCKING AND 2x6 DF#2 OR LSL AT 16" O.C.
- WALLS MAY BE UPGRADED FOR PLUMBING, ELECTRIC, OR HVAC PER CONTRACTOR.

ENGINEERING NOTES:

- COLUMN, CONNECTION AND BEAM SIZING ARE MINIMUMS. UPGRADED SIZE OR QUALITY IS ACCEPTABLE. ALTERNATIVE MATERIALS OR SIZES MAY BE FOUND IN THE ENGINEERING CALCULATIONS IF NOT NOTED ON THE DRAWING.
- UNLESS OTHERWISE NOTED MINIMUM BEAM SUPPORT OR TRIMMER IS A 2x6 DF#2 OR 2x4 DF#2.
- UNLESS OTHERWISE NOTED EXTERIOR FOOTING OR STRIP FOOTING MEETS MINIMUM LOAD REQUIREMENTS.
- IF CONNECTION IS UNSPECIFIED USE NAILED FRAMING CONNECTION.
- BOLTED CONNECTION OR SIMPSON PC POST CAP.



MAIN LEVEL FRAMING

1/4" = 1'-0"

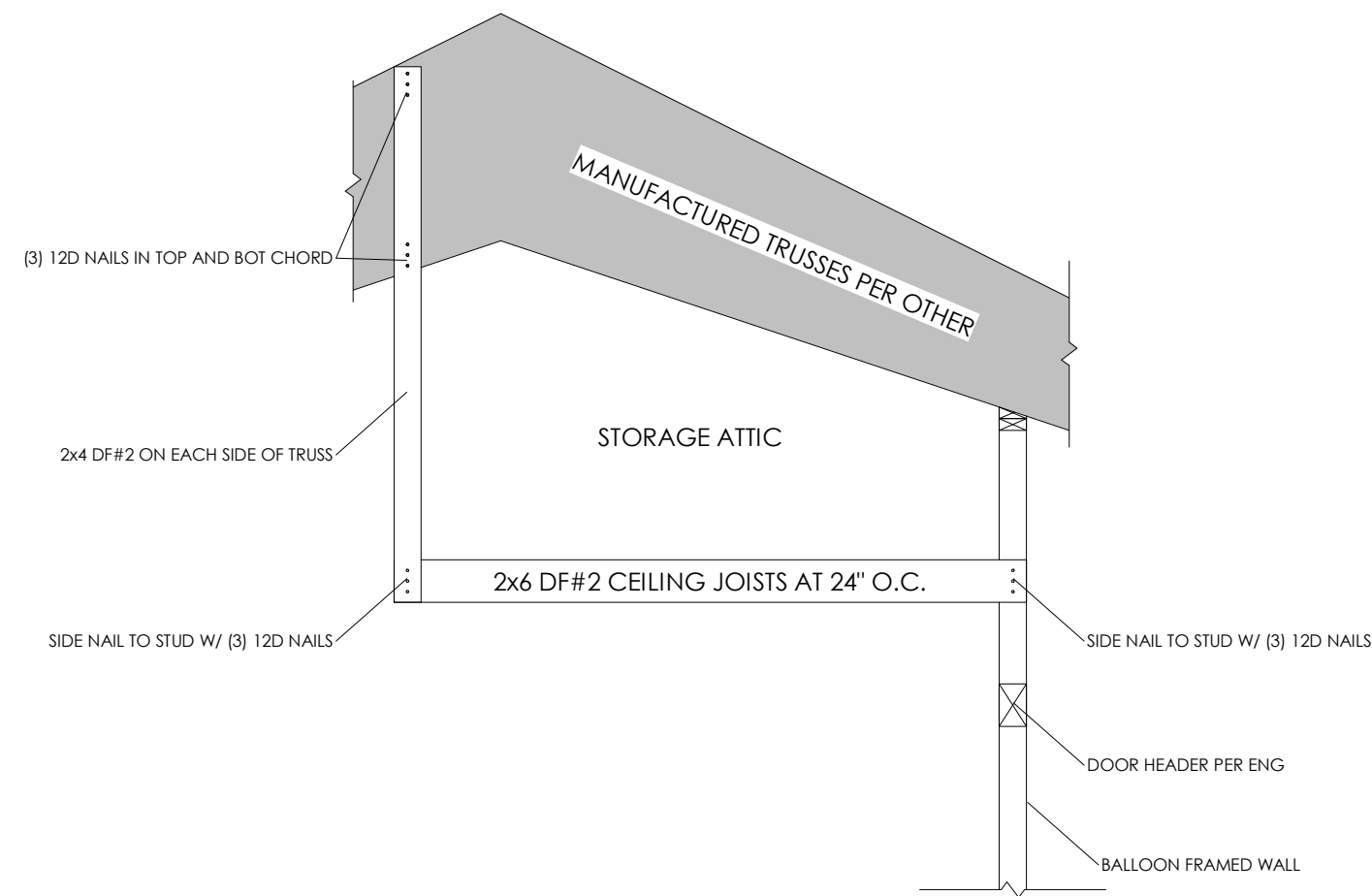
Garrett J. Banton, PE
 3008 NE Charleston Ct.
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 Phone: (541) 306-7893
 team@bantoneengineering.com



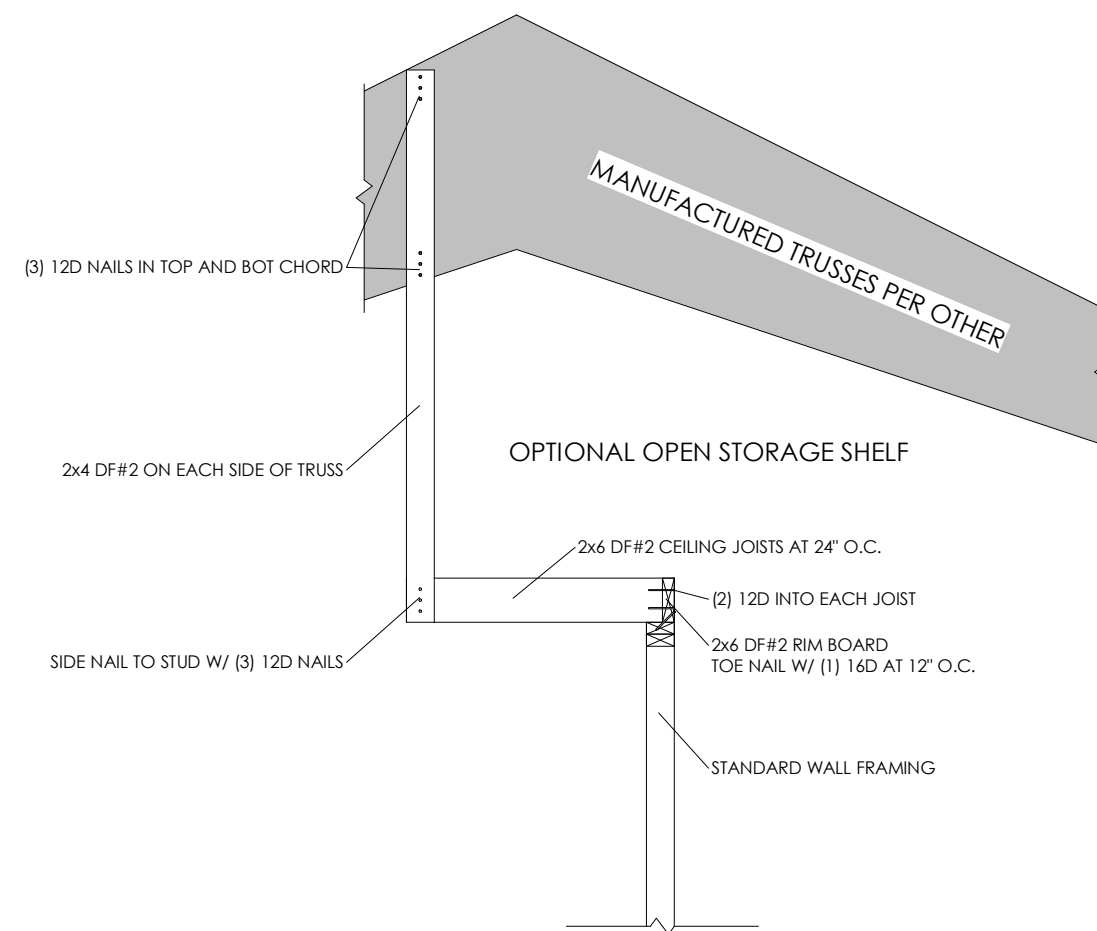
MT BACHELOR PAD
 CITY OF BEND LIMITS

MAIN LEVEL FRAMING

FILE:
 SCALE: As indicated
 DATE: 4/6/26



A STORAGE ATTIC
1/2" = 1'-0"



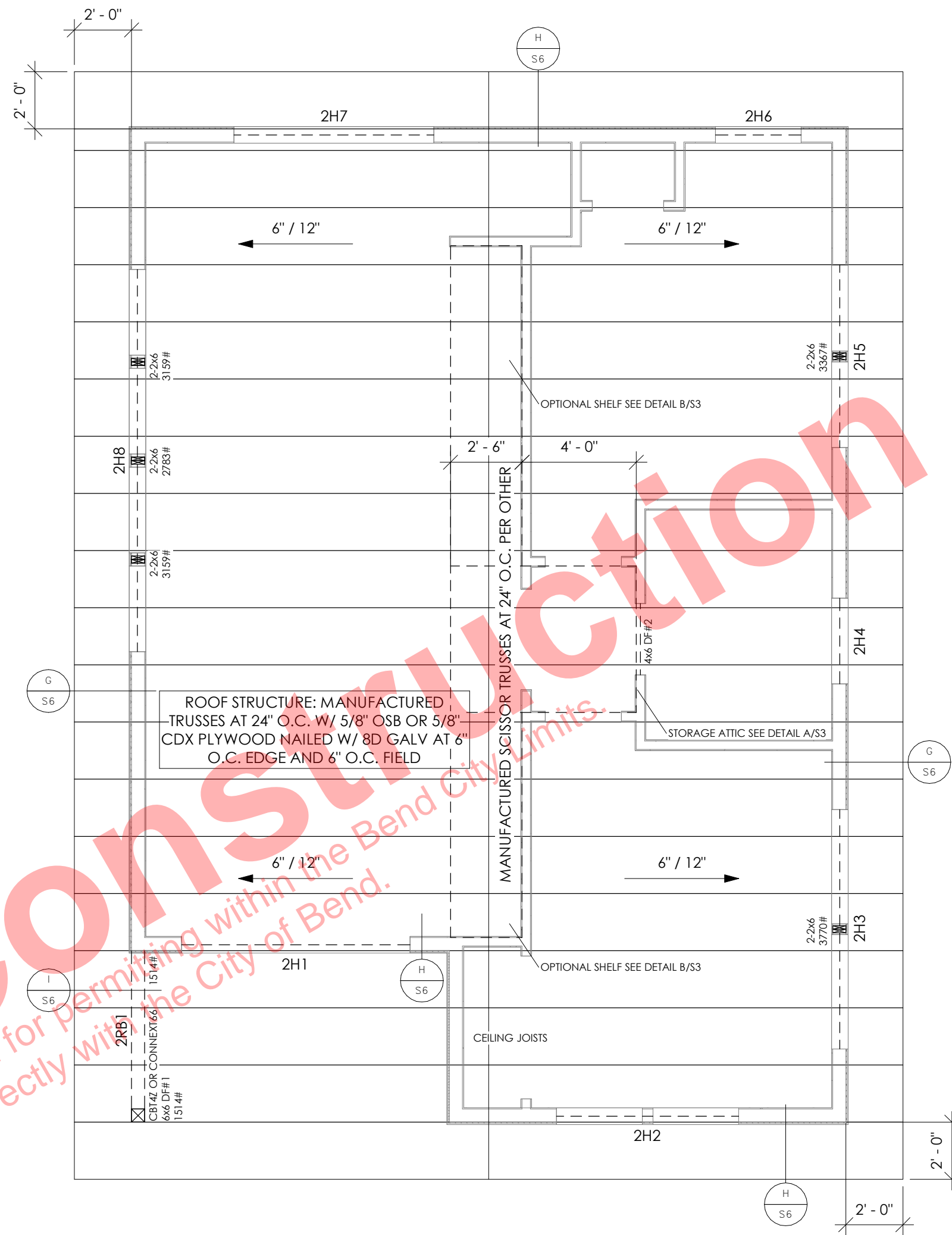
B STORAGE SHELF
1/2" = 1'-0"

- WALL FRAMING NOTES**
- ONE STORY WALLS TO BE MINIMUM 2x6 DF#2 OR STUD AT 24" O.C.
 - TWO STORY WALLS TO BE MINIMUM 2x6 DF#2 OR STUD AT 16" O.C.
 - INTERIOR LOAD BEARING WALLS TO BE MINIMUM 2x4 DF#2 AT 16" O.C.
 - WALLS OVER 10' - 0" TALL TO REQUIRE SOLID MID PLANE BLOCKING AND 2x6 DF#2 OR LSL AT 16" O.C.
 - WALLS MAY BE UPGRADED FOR PLUMBING, ELECTRIC, OR HVAC PER CONTRACTOR.

- ROOF FRAMING NOTES**
- REFERENCE MANUFACTURED TRUSS ENGINEERING.
 - REFERENCE ENGINEER'S GRAVITY LOADS ENGINEERING FOR BEAM ALTERNATIVES.
 - PLYWOOD ROOF SHEATHING SHALL NOT EXCEED THE ALLOWABLE SPANS INDICATED BY THE PANEL ID.
 - ATTIC SPACES HAVING 30" OR GREATER VERTICAL CLEAR HEIGHT ARE REQUIRED TO A MINIMUM OF 22" X30" ATTIC ACCESS.
 - USE SIMPSON H1 OR H2.5A PLATE TIES ON ALL RAFTER AND TRUSS PLATE CONNECTIONS.
 - RAFTER, CEILING JOISTS, AND TRUSSES SHALL BE SUPPORTED Laterally AT BEARING POINTS BY SOLID BLOCKING TO PREVENT ROTATION AND LATERAL DISPLACEMENT.
 - THE ROOFING MATERIAL MUST BE AN APPROVED MATERIAL INSTALLED AS SPECIFIED BY THE MANUFACTURER.
 - DIAPHRAGMS ROOF: 5/8" OSB OR 5/8" CDX PLYWOOD W/ 8D GALV AT 6" O.C. EDGE AND 6" O.C. FIELD
 - USE ICE SHIELD 48" ABOVE WALL LINES AND 36" UP VALLEYS.
 - 30# FELT UNDER STANDING SEAM METAL AND COMPOSITE ROOF.
 - ATTIC VENTILATION: 1SF VENT SPACE TO 150SF ATTIC SPACE.

- ENGINEERING NOTES:**
- COLUMN, CONNECTION AND BEAM SIZING ARE MINIMUMS. UPGRADED SIZE OR QUALITY IS ACCEPTABLE.
 - ALTERNATIVE MATERIALS OR SIZES MAY BE FOUND IN THE ENGINEERING CALCULATIONS IF NOT NOTED ON THE DRAWING.
 - UNLESS OTHERWISE NOTED MINIMUM BEAM SUPPORT OR TRIMMER IS A 2x6 DF#2 OR 2x4 DF#2.
 - UNLESS OTHERWISE NOTED EXTERIOR FOOTING OR STRIP FOOTING MEETS MINIMUM LOAD REQUIREMENTS.
 - IF CONNECTION IS UNSPECIFIED USE NAILED FRAMING CONNECTION.
 - BOLTED CONNECTION OR SIMPSON PC POST CAP.

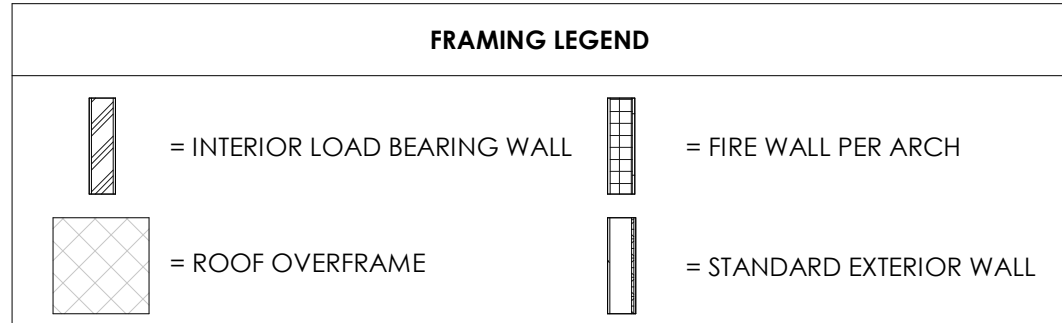
DEVIATION STATEMENT
ANY DEVIATION FROM ARCHITECTURAL OR STRUCTURAL PLAN REQUIRES REVIEW BY LICENSED ENGINEER.



UPPER LEVEL FRAMING

1/4" = 1'-0"

2 LEVEL BEAMS		
MARK	LENGTH	SIZE & MATERIAL
2H1	8.5'	2-2x6 DF#2
2H2	7'	2-2x6 DF#2
2H3	9'	2-2x6 DF#2
2H4	3.5'	2-2x6 DF#2
2H5	7'	2-2x6 DF#2
2H6	3.5'	2x6 DF#2
2H7	7.5'	2-2x6 DF#2
2H8	14'	2-2x6 DF#2
2R1	6.5'	6x6 DF#1



WIND SPEED, EXPOSURE, SNOW LOAD, AND SDS MAY NOT BE EXCEEDED. CONTACT ENGINEER FOR REDESIGN IF LOCATION EXCEEDS THESE VALUES

VARIABLE TABLE		
VARIABLE	VALUE	CODE REFERENCE
WIND SPEED	99 MPH, EXP C	[IBC-ASCE7-16]
GROUND SNOW LOAD	50 PSF	[SEAO-ASCE7-16]
SEISMIC	0.38 g	[ASCE7-16]
FROST DEPTH	18"	[ORSC R301.2]



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MT BACHELOR PAD
CITY OF BEND LIMITS

ROOF FRAMING

FILE:
SCALE: As indicated
DATE: 4/6/26

S3

DEVIATION STATEMENT
 ANY DEVIATION FROM ARCHITECTURAL OR STRUCTURAL
 PLAN REQUIRES REVIEW BY LICENSED ENGINEER.



EXPIRES: 12/31/2027

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MT BACHELOR PAD
 CITY OF BEND LIMITS

MAIN LEVEL
 LATERAL

FILE:
 SCALE: 1/4" = 1'-0"
 DATE: 4/6/26

S4

WIND SPEED, EXPOSURE, SNOW LOAD, AND SDS
 MAY NOT BE EXCEEDED. CONTACT ENGINEER FOR
 REDESIGN IF LOCATION EXCEEDS THESE VALUES

VARIABLE TABLE

VARIABLE	VALUE	CODE REFERENCE
WIND SPEED	99 MPH, EXP C	[IBC-ASCE7-16]
GROUND SNOW LOAD	50 PSF	[SEAO-ASCE7-16]
SEISMIC	0.38 g	[ASCE7-16]
FROST DEPTH	18"	[ORSC R301.2]

PLAN EVALUATED: SJC "Mt Bachelor Pad"

HOLD DOWN SCHEDULE

MARK	HOLD DOWN	ANCHOR	SCREW OPTION	EPOXY ANCHOR OPTION	COUNT
SHB1	HDUE3	SABR5/8X24	5/8" TITENHD W/ 4" EMBEDDMENT	5/8" ATR W/ 6" EMBEDDMENT	6
SHB2	HDUE5	SABR5/8X24	5/8" TITENHD W/ 6" EMBEDDMENT	5/8" ATR W/ 6" EMBEDDMENT	12

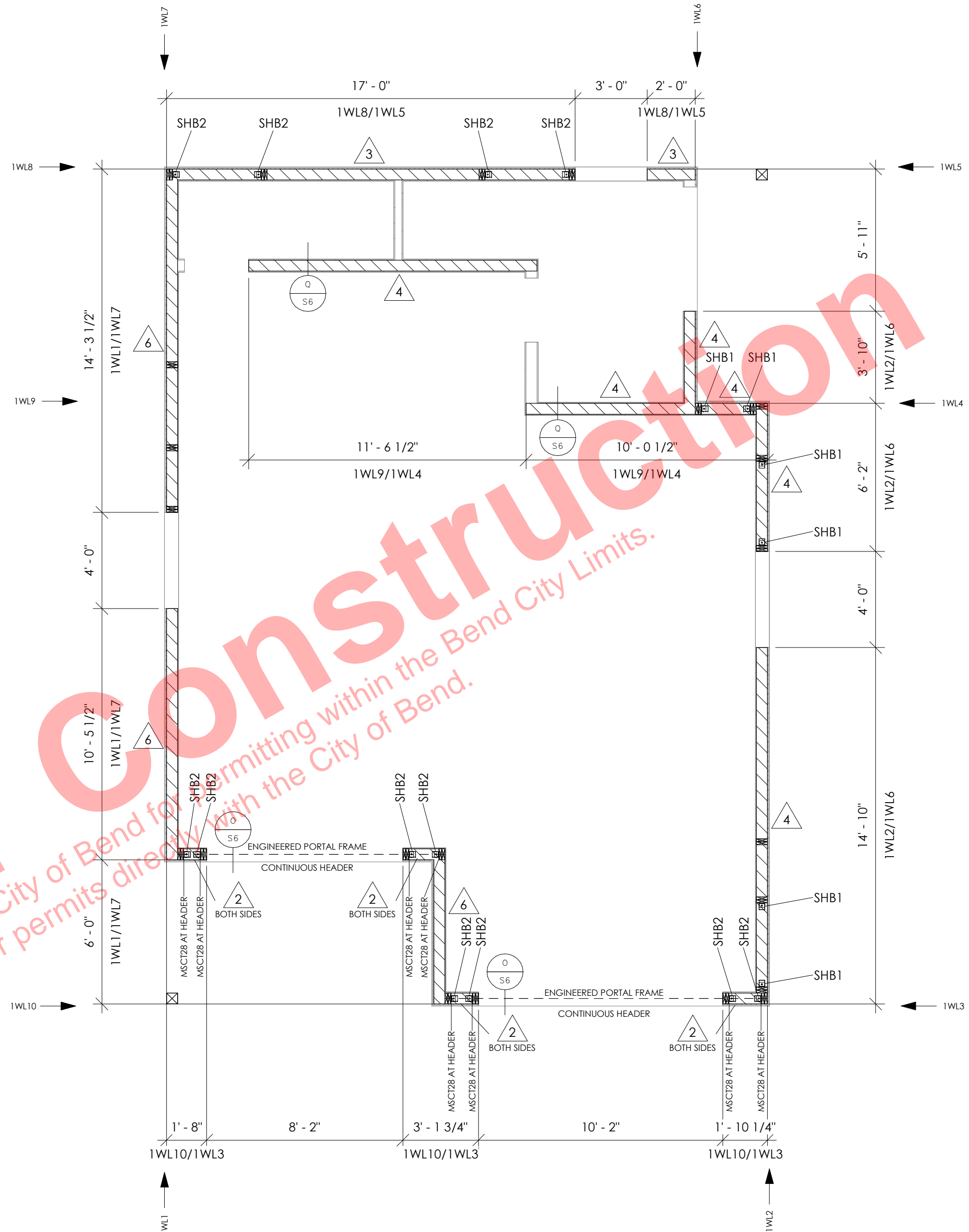
SHEAR ANALYSIS

- MIN. ROOF DIAPHRAGM 5/8" OSB OR 5/8" CDX PLYWOOD W/ 8D GALV AT 6" O.C. EDGE AND 6" O.C. FIELD
- MINIMUM FLOOR DIAPHRAGM: 3/4" T&G OSB OR PLYWOOD GLUED AND NAILED W/10D RING SHANK AT 6" O.C. EDGE AND 12" O.C. FIELD, 4" CONCRETE.
- UNLESS SPECIFICALLY NOTED, ALL EXTERIOR WALLS SHALL BE SHEETED ONE SIDE WITH 7/16" OSB OR 1/2" STRUCT. PLYWOOD W/ MIN. NAIL SCHEDULE OF 8D GALV NAILS AT 6" O.C. EDGE AND 12" O.C. FIELD.
- SIMPSON H1 OR H2.5A HOLD DOWNS AT ALL RAFTER/TRUSS-PLATE CONNECTIONS.
- ANCHORS, HOLD DOWNS, STRAPS AS SHOWN.
- BLOCKING REQUIRED ON ALL EXTERIOR SHEETING HORIZONTAL JOINTS.
- ALL CREDITED INTERIOR SHEAR WALLS REQUIRE BLOCKING AT FLOOR PLATE AND CEILING.
- ALL SIMPSON HARDWARE INSTALLED PER GUIDELINES.
- J BOLTS CAN BE REPLACED WITH WEDGE ANCHORS OR TITENHD SCREWS OF THE SAME DIAMETER. MINIMUM LENGTH OF ANCHOR/SCREW TO BE 8" LONG.

SHEAR WALL SCHEDULE

WARNING: IT IS THE RESPONSIBILITY OF THE USER OF THIS DOCUMENT TO ENSURE THAT ALL THE TECHNICAL INFORMATION IS PROPERLY IMPLEMENTED DURING CONSTRUCTION OF THE STRUCTURE. FAILURE TO INCORPORATE ALL OF THE REQUIREMENTS OF THIS DESIGN MAY INVALIDATE THE LATERAL INTEGRITY OF THE STRUCTURE AND RELEASE RESPONSIBILITY FROM THE ENGINEER OF RECORD.

No.	SHEAR WALL	SILL FASTENER	CONCRETE ANCHOR BOLTS
6	7/16" OSB OR 1/2" CDX W/8D AT 6" O.C. EDGE/12" O.C. FIELD SHEAR VALUES: [240 PLF24][260 PLF16][170 PLF Staple][223 PLF HF][242 PLF HF]	2x SOLE PLATE TO JOIST, DECK, BLOCKING W/16D AT 6" O.C. (TOP)/8D AT 6" O.C. (EDGE)	5/8" x 10" J BOLTS AT 48" O.C. 1/2" x 10" J BOLTS AT 48" O.C.
4	7/16" OSB OR 1/2" CDX W/8D AT 4" O.C. EDGE/12" O.C. FIELD SHEAR VALUES: [350 PLF24][380 PLF16][260 PLF Staple][326 PLF HF][354 PLF HF]	2x SOLE PLATE TO JOIST, DECK, BLOCKING W/16D AT 6" O.C. (TOP)/8D AT 4" O.C. (EDGE)	5/8" x 10" J BOLTS AT 40" O.C. 1/2" x 10" J BOLTS AT 24" O.C.
3	7/16" OSB OR 1/2" CDX W/8D AT 3" O.C. EDGE/12" O.C. FIELD SHEAR VALUES: [450 PLF24][490 PLF16][345 PLF Staple][418 PLF HF][456 PLF HF]	2x SOLE PLATE TO JOIST, DECK, BLOCKING W/16D AT 4" O.C. (TOP)/8D AT 3" O.C. (EDGE)	5/8" x 10" J BOLTS AT 30" O.C. 1/2" x 10" J BOLTS AT 20" O.C.
2	7/16" OSB OR 1/2" CDX W/8D AT 2" O.C. EDGE/12" O.C. FIELD SHEAR VALUES: [585 PLF24][640 PLF16][440 PLF Staple][544 PLF HF][595 PLF HF]	4x SOLE PLATE TO JOIST, DECK, BLOCKING W/16D AT 4" O.C. (TOP)/8D AT 2" O.C. (EDGE) USE 2"x2" COMMERCIAL WASHERS	5/8" x 12" J BOLTS AT 24" O.C. 1/2" x 12" J BOLTS AT 16" O.C.
*	1/2" GYP W/SD x 1-5/8" COOLER OR #6/1.25" SCREW AT 7" O.C. EDGE/12" O.C. FIELD SHEAR VALUES: [100 PLF]	2x SOLE PLATE TO JOIST, DECK, BLOCKING W/16D AT 6" O.C. (TOP)/CEILING BLOCKING	1/2" x 10" J BOLTS AT 72" O.C.
C	RAKE AND PONY WALLS ABOVE STEM WALL TO USE WALL LINE BRACING REQUIREMENT. SOLID CONCRETE WALL LATERAL RESISTANCE EQUAL OR GREATER TO DESIGNATED WALL LINE REQUIREMENT. ENGINEER TO USE UPGRADED LATERAL RESISTANCE VALUES AT THEIR OWN DISCRETION.		



MAIN LEVEL LATERAL

1/4" = 1'-0"

DEVIATION STATEMENT
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 PLAN REQUIRES REVIEW BY LICENSED ENGINEER.



EXPIRES: 12/31/2027

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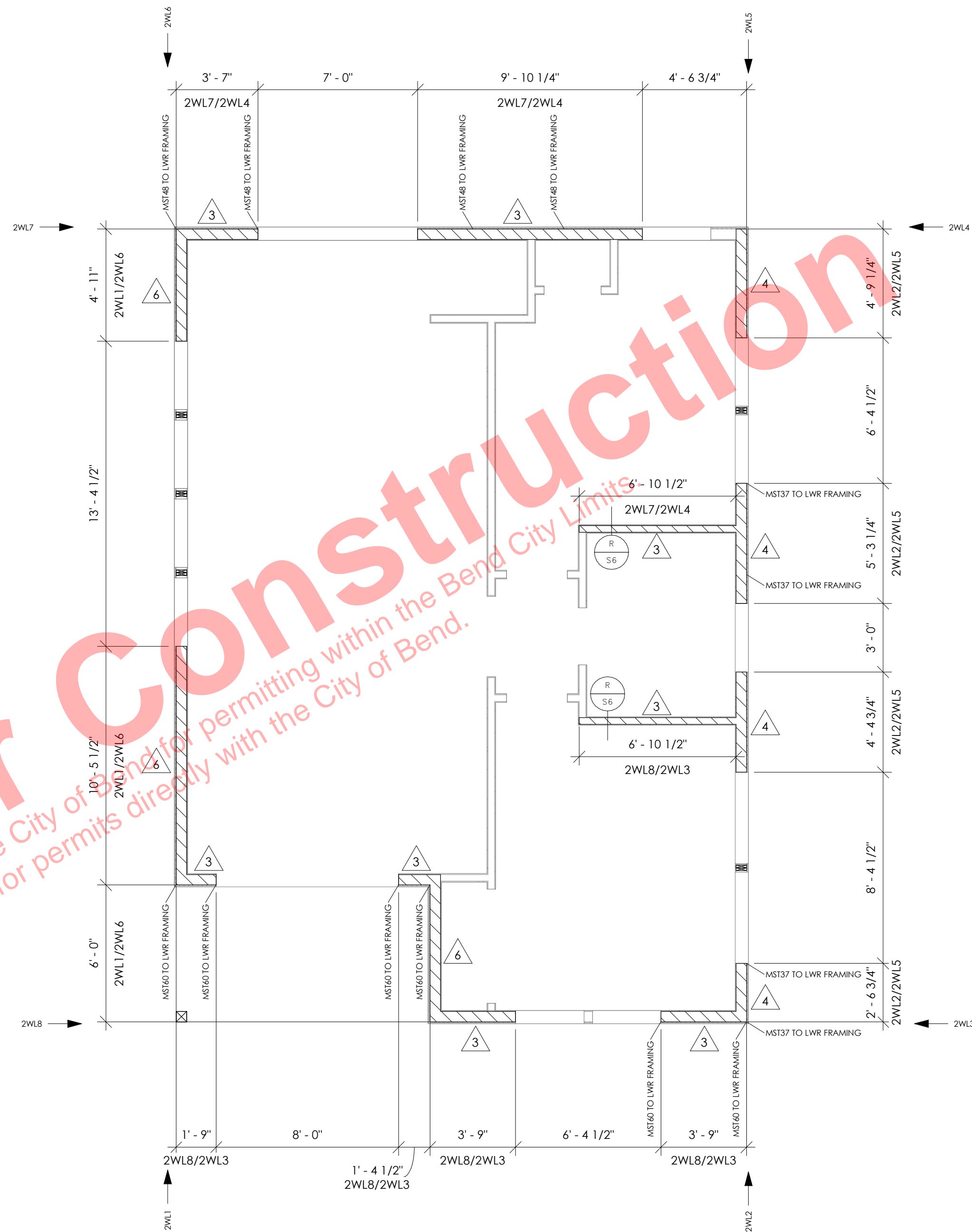


MT BACHELOR PAD
 CITY OF BEND LIMITS

UPPER LEVEL
 LATERAL

FILE:
 SCALE: 1/4" = 1'-0"
 DATE: 4/6/26

S5



UPPER LEVEL LATERAL

1/4" = 1'-0"

WIND SPEED, EXPOSURE, SNOW LOAD, AND SDS
 MAY NOT BE EXCEEDED. CONTACT ENGINEER FOR
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VARIABLE TABLE

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FROST DEPTH	18"	[ORSC R301.2]

PLAN EVALUATED: SJC "MT Bachelor Pad"

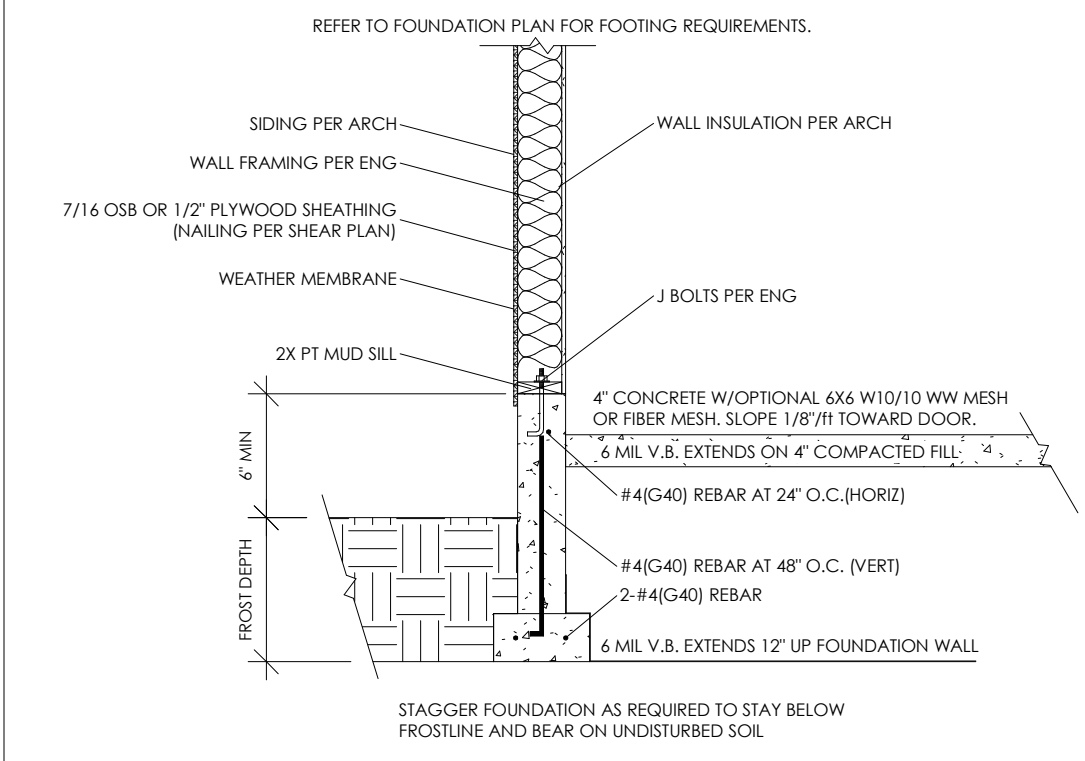
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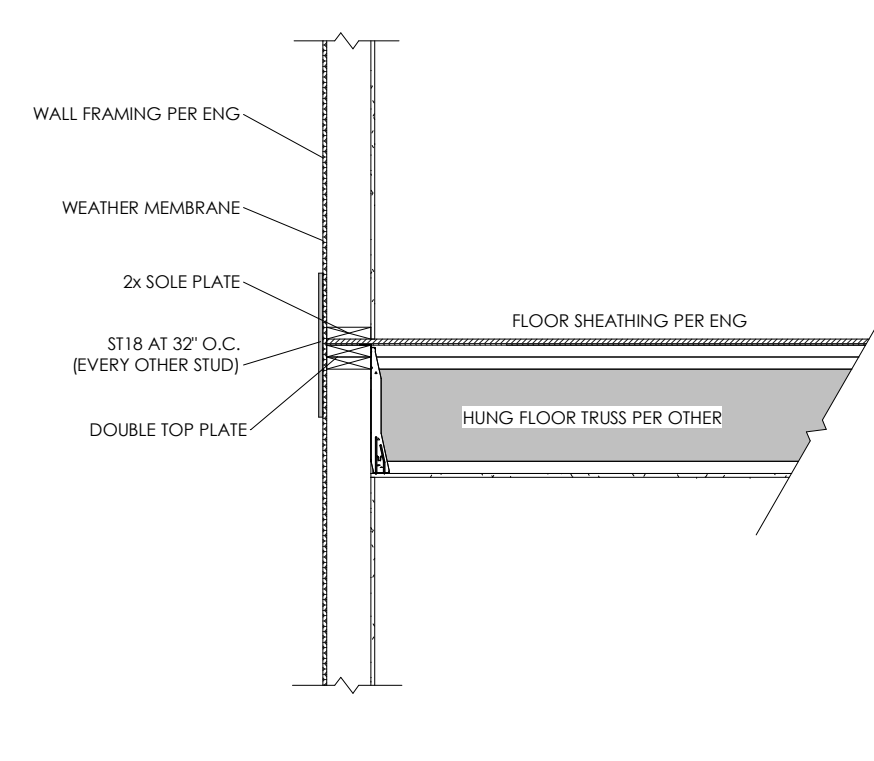
SHEAR WALL SCHEDULE

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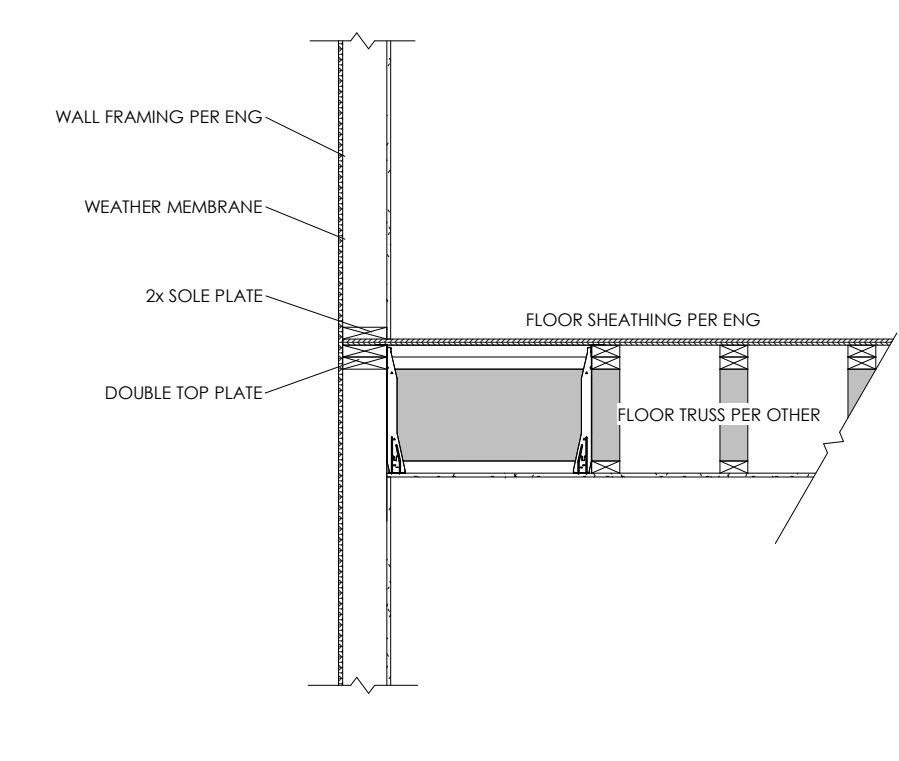
No.	SHEAR WALL	SILL FASTENER	CONCRETE ANCHOR BOLTS
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*	1/2" GYP W/5D x 1-5/8" COOLER OR #6/1.25" SCREW AT 7" O.C. EDGE/12" O.C. FIELD SHEAR VALUES: [100 PLF]	2x SOLE PLATE TO JOIST, DECK, BLOCKING W/16D AT 6" O.C. (TOP)/CEILING BLOCKING	1/2" x 10" J BOLTS AT 72" O.C.
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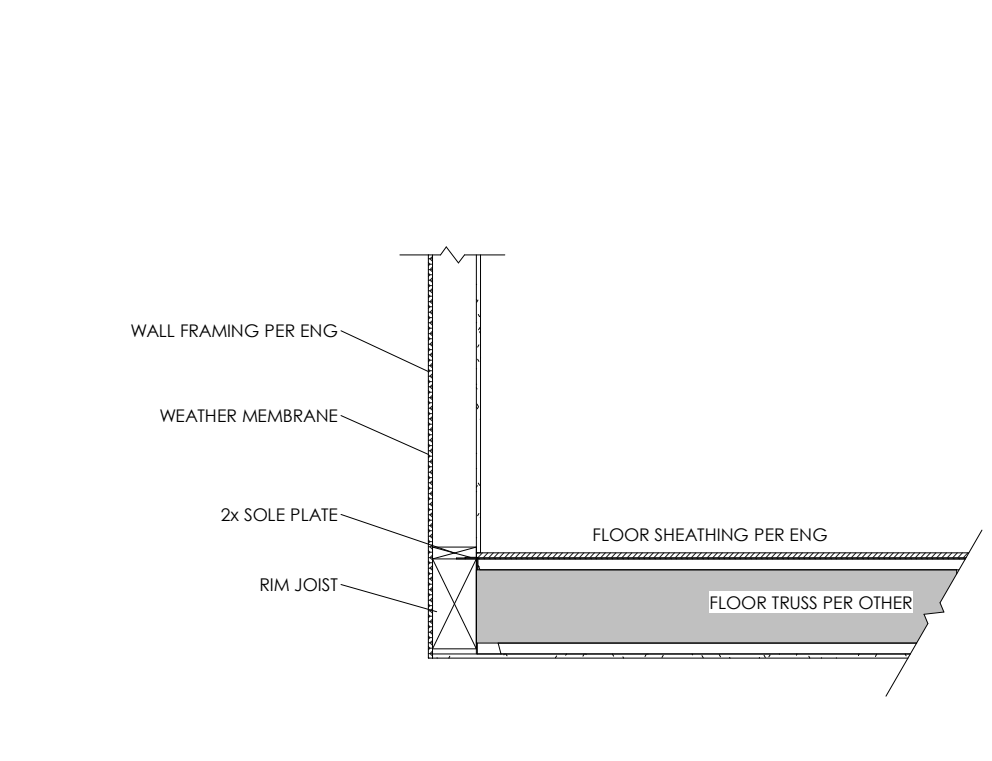
A EXTERIOR FOUNDATION DETAIL WITH CONCRETE SLAB
1/2" = 1'-0"



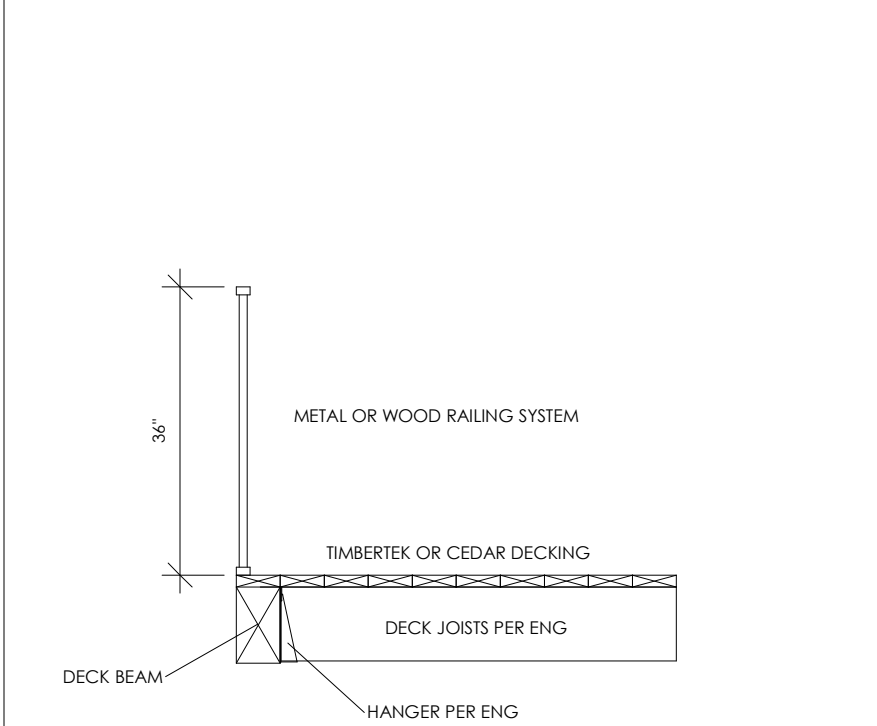
B FLOOR CONNECTION DETAIL (PARA TRUSS)
1/2" = 1'-0"



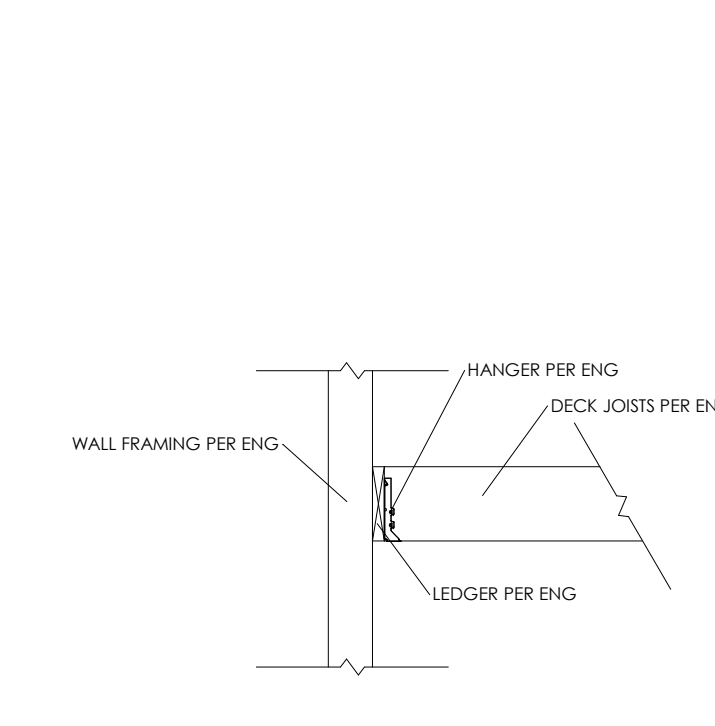
C FLOOR CONNECTION DETAIL (PERP TRUSS)
1/2" = 1'-0"



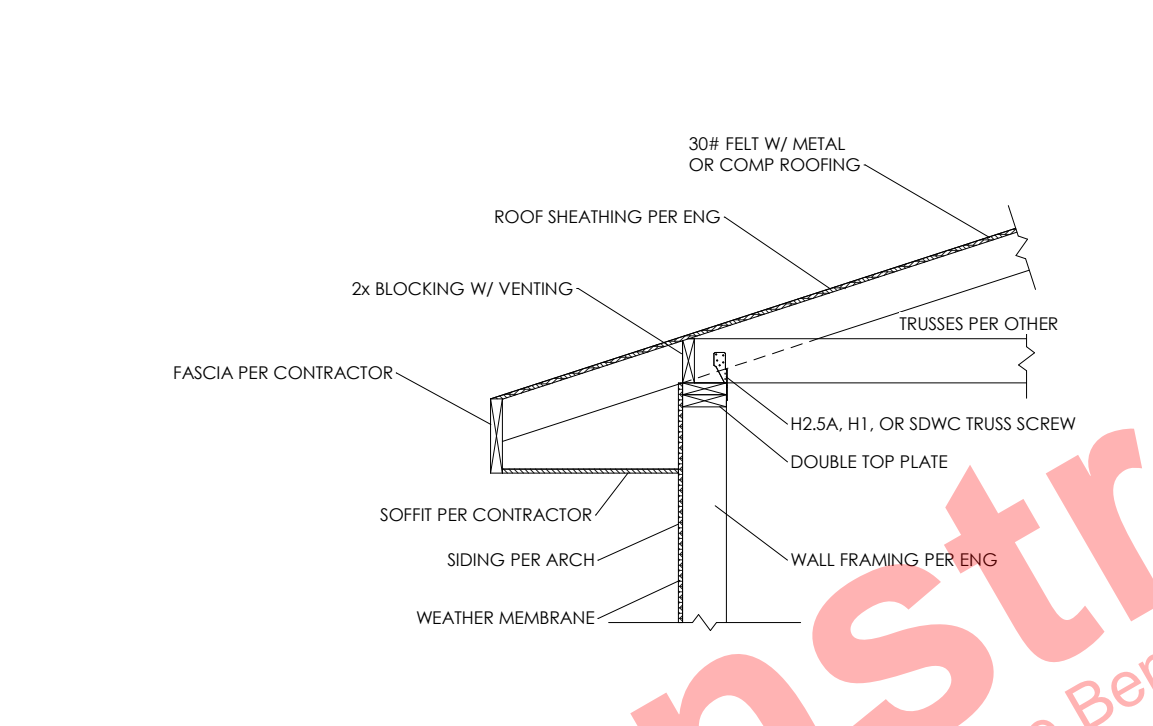
D FLOOR CONNECTION DETAIL (BEAM)
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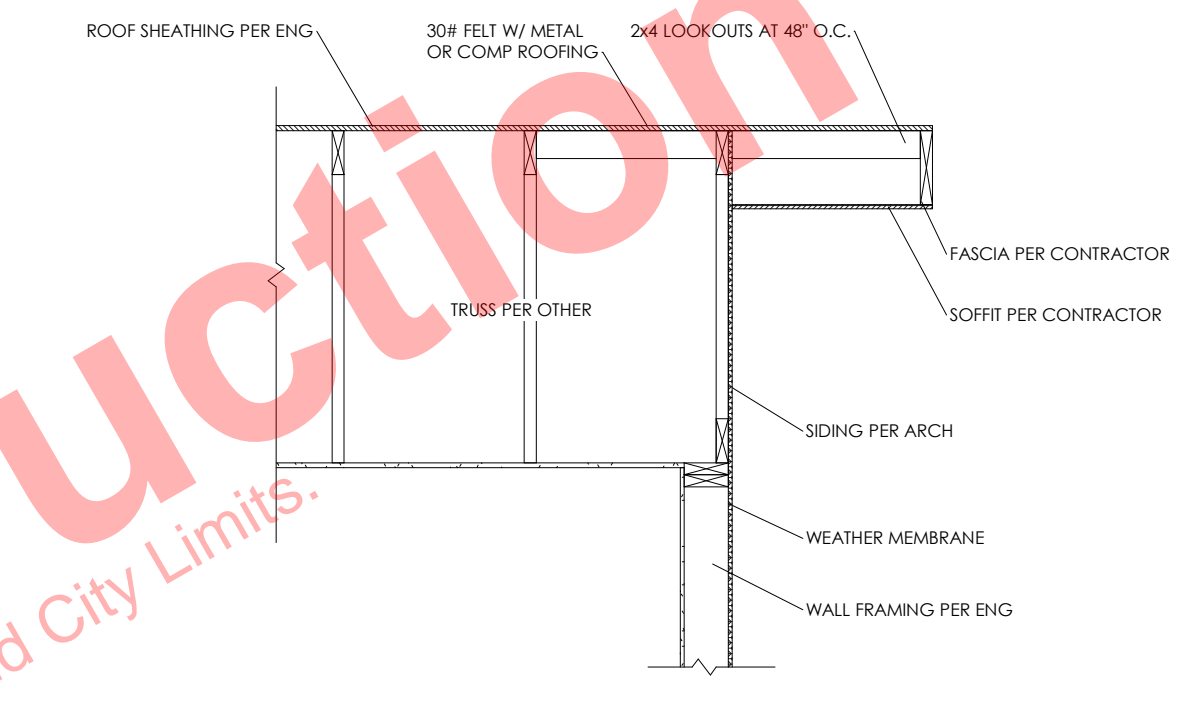
E DECK DETAIL
1/2" = 1'-0"



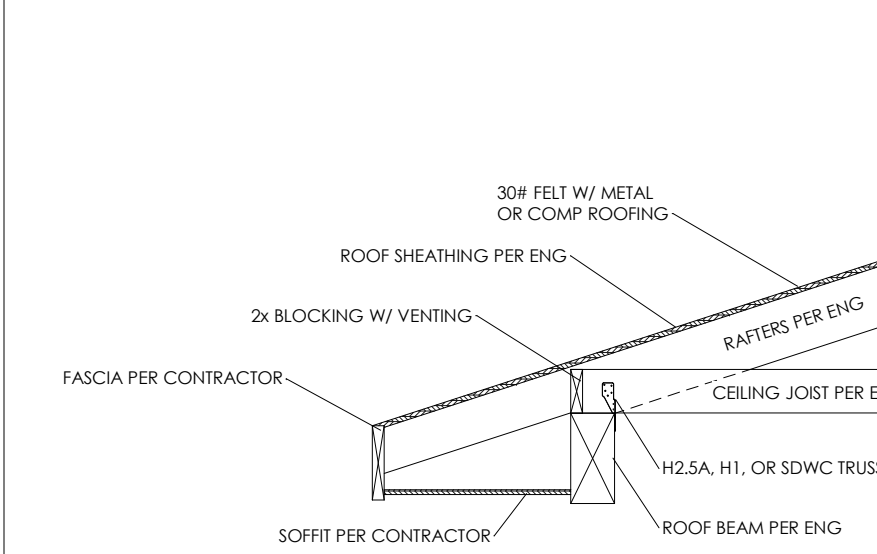
F WALL LEDGER
1/2" = 1'-0"



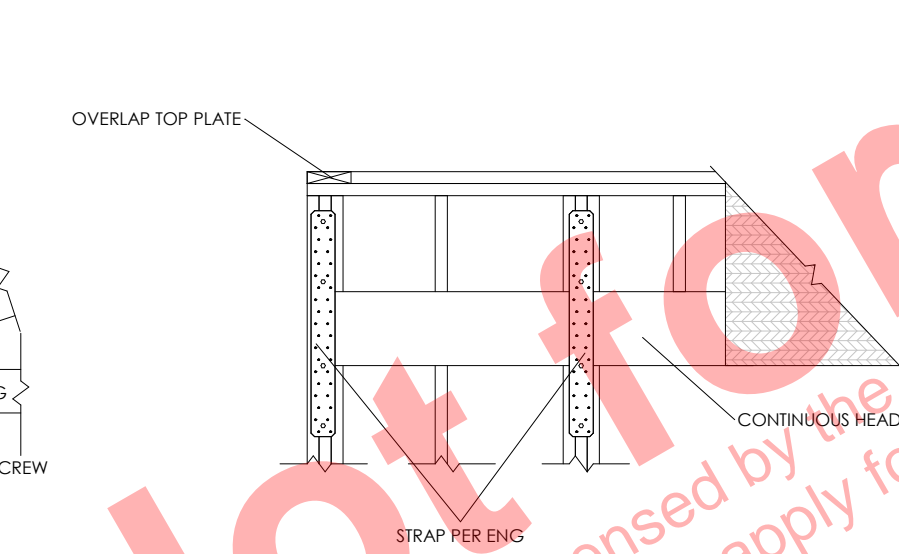
G ROOF CONNECTION DETAIL (EVE)
1/2" = 1'-0"



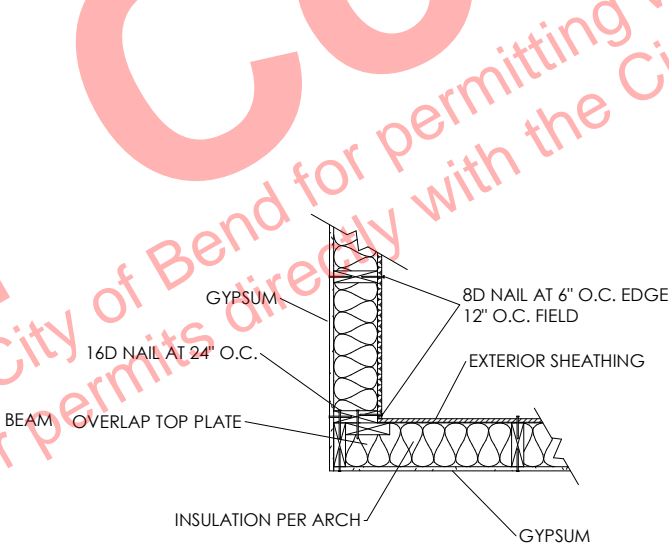
H ROOF CONNECTION DETAIL (GABLE)
1/2" = 1'-0"



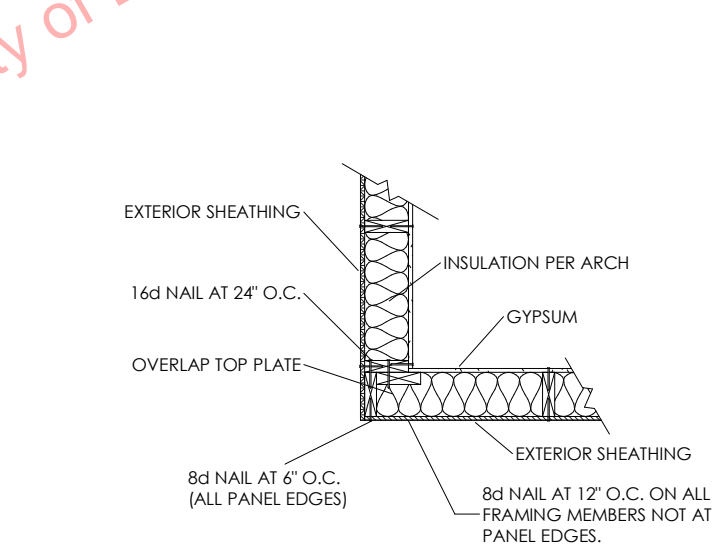
I ROOF CONNECTION DETAIL (VAULTED BEAM)
1/2" = 1'-0"



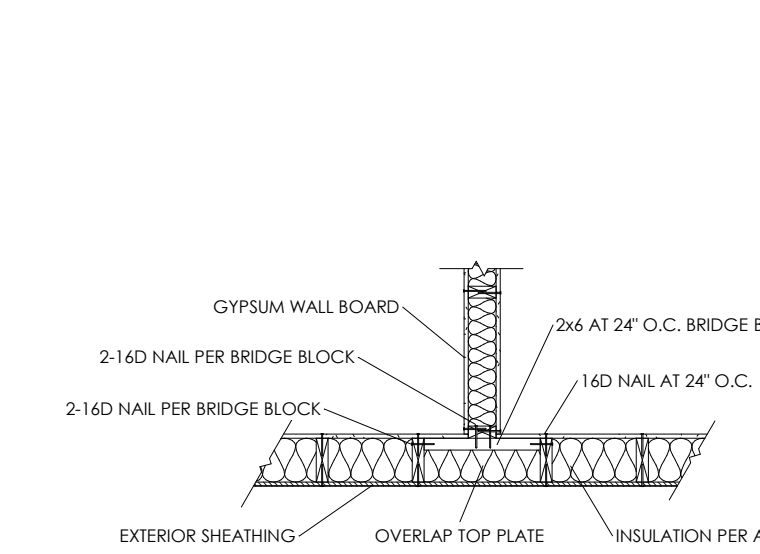
J BEAM ATTACHMENT (TYP CONTINUOUS HEADER)
1/2" = 1'-0"



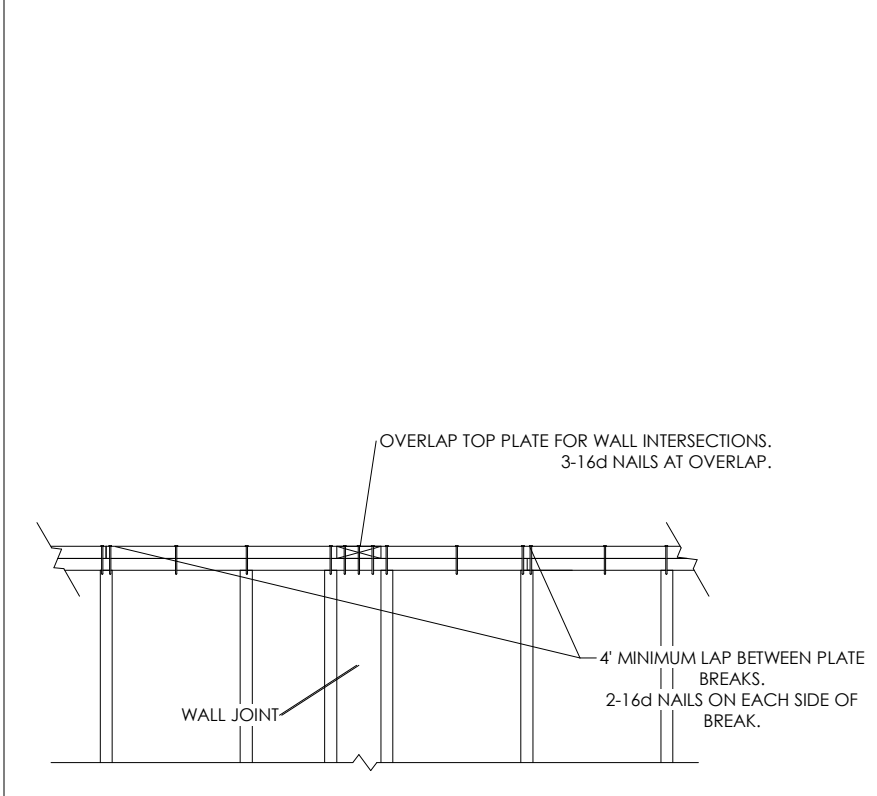
K EXTERIOR WALL FRAME (IN CORNER)
1/2" = 1'-0"



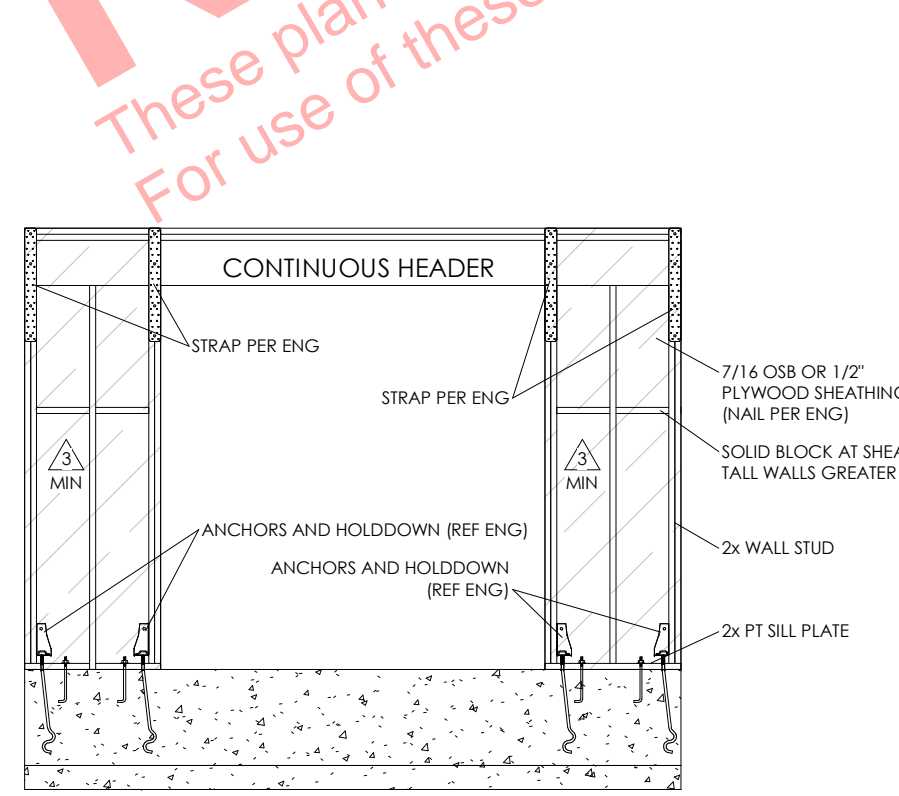
L EXTERIOR WALL FRAME (OUT CORNER)
1/2" = 1'-0"



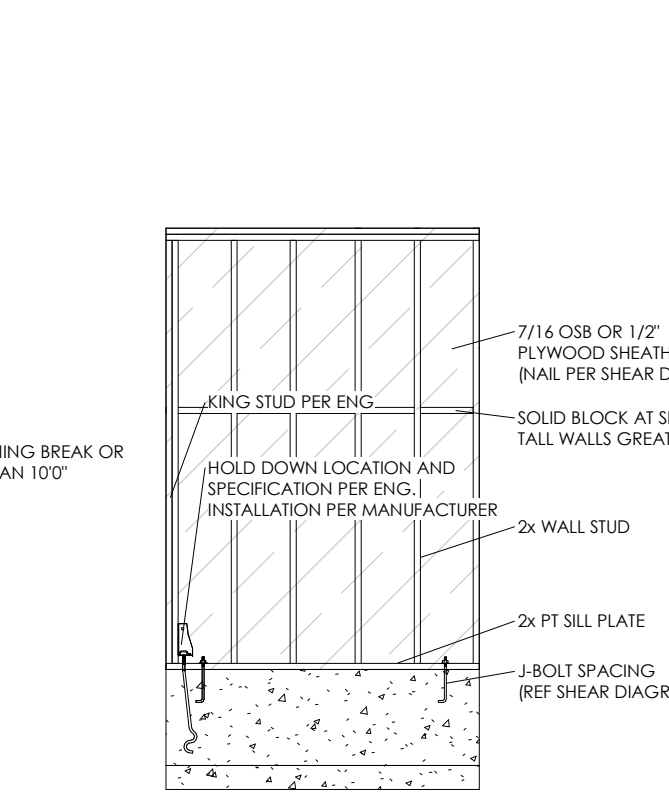
M EXTERIOR WALL FRAME (WALL JOINT)
1/2" = 1'-0"



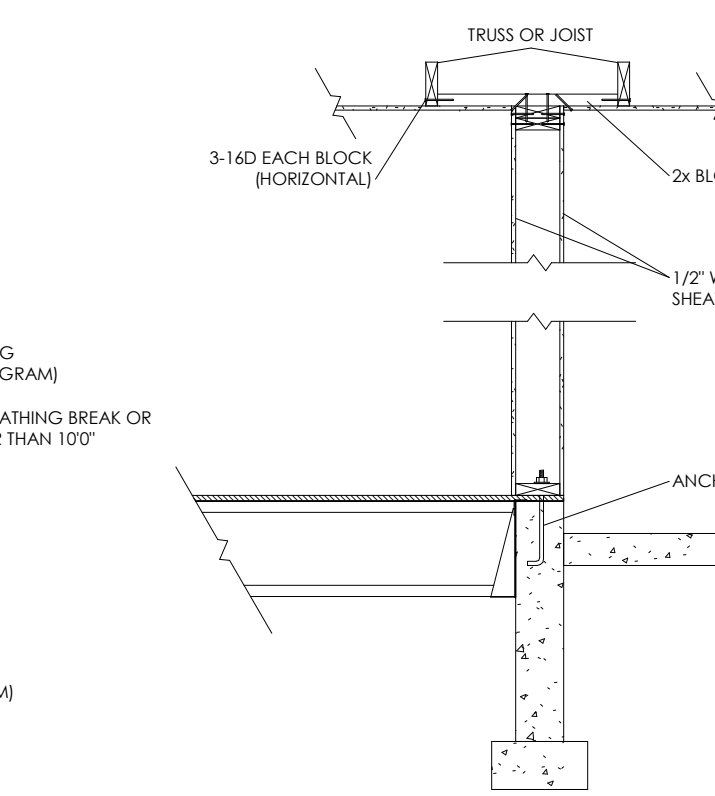
N TOP PLATE FRAMING
1/2" = 1'-0"



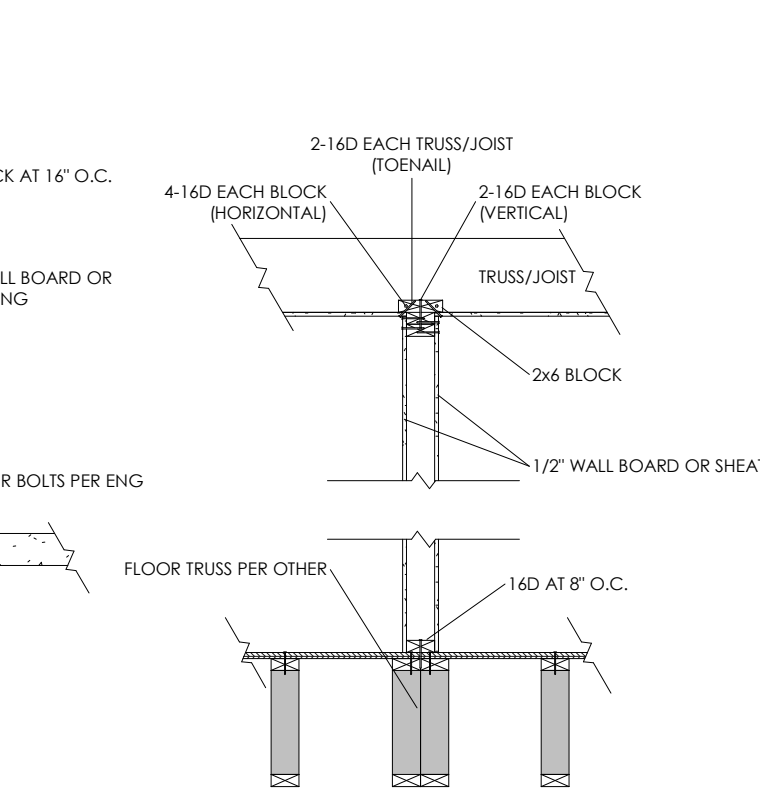
O PORTAL FRAME
1/4" = 1'-0"



P SHEAR WALL
1/4" = 1'-0"



Q INTERIOR SHEAR WALL (TYP) (STEM WALL)
1/2" = 1'-0"



R INTERIOR SHEAR WALL (TYP) (PARA TRUSS)
1/2" = 1'-0"

NOT FOR CONSTRUCTION
 These plans are licensed by the City of Bend for permitting within the Bend City Limits.
 For use of these plans apply for permits directly with the City of Bend.

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BANTON
ENGINEERING, INC.

MT BACHELOR PAD
CITY OF BEND LIMITS

DETAILS
FILE:
SCALE: As indicated
DATE: 4/6/26



Building Safety Division
City of Bend
(541) 388-5580 ext. 3
building@bendoregon.gov
710 NW Wall Street, Bend OR 97703

This submittal form is to be completed as part of your application with the City of Bend. *Download this form before completing fillable fields*, then upload with your application through the Online Permit Center at www.bendoregon.gov/permitcenter.

2023 RESIDENTIAL CODE ENERGY, LIGHTING EFFICIENCY, MOISTURE CONTENT, AND WHOLE-HOUSE VENTILATION CHECKLIST

Instructions: Select the type of construction. If the project is an addition, select the applicable addition type and enter the selected measures accordingly.

New Construction. All conditioned spaces within residential buildings shall comply with Table N1101.1(1) and one additional measure from Table N1101.1(2). New buildings using N1105.3 Exception #3, shall select two additional measures from Table N1101.1(2).

Additions. Additions to existing buildings or structures may be made without making the entire building or structure comply if the new additions comply with the requirements of this chapter [see ORSC Section N1101.3].

Large Additions. Additions that are equal to or more than 600 square feet in area are required to select one measure from Table N1101.1(2).

Enter the selected Table N1101.1(2) additional measure: _____

Small Additions. Additions that are less than 600 square feet in area are required to select one measure from Table N1101.1(2) or Table N1101.3

Selected Table N1101.1(2) additional measure _____

Selected Table N1101.3 additional measure _____

Exception: Additions that are less than 225 square feet in area are not required to comply with Table N1101.1(2) or Table N1101.3.

Note: Depending on the additional measure you have selected, there may be sub-options that you will have to specify. Check the appropriate box, if provided.

Table N1101.1(2), Section N1101.3, Table 1104.8, Section N1104.8, and Section N1105.3 are included on the following pages (**Please check all applicable boxes**)

TABLE N1101.1(2) – ADDITIONAL MEASURES	
1	<input type="checkbox"/> High efficiency HVAC system^a <input type="checkbox"/> Gas-fired furnace or boiler AFUE 94 percent, or <input type="checkbox"/> Air-source heat pump HSPF 10.0/14.0 SEER cooling, 8.5 HSPF2/ 15.0 SEER2, or <input type="checkbox"/> Ground-source heat pump COP 3.5 or Energy Star rated
2	<input type="checkbox"/> High-Efficiency Water Heating System <input type="checkbox"/> Natural gas/propane water heater with minimum 0.90 EUF, or <input type="checkbox"/> Electric heat pump water heater with minimum 3.45 UEF, or <input type="checkbox"/> Natural gas/propane tankless/instantaneous heater with minimum 0.80 UEF and Drain Water Heat Recovery Unit installed on minimum of one shower/tub-shower
3	<input type="checkbox"/> Wall Insulation Upgrade Exterior walls – U-0.045/R-21 conventional framing with R-5.0 continuous insulation
4	<input type="checkbox"/> Advanced Envelope <ul style="list-style-type: none"> • Windows – U-0.21 (Area weighted average), and • Flat ceiling^b – U-0.017/R-60, and • Framed floors – <input type="checkbox"/> U-0.026/R-38 or <input type="checkbox"/> slab edge insulation to F-0.48 or less (R-10 for 48”; R-15 for 36” or R-5 fully insulated slab)
5	<input checked="" type="checkbox"/> Ductless Heat Pump For dwelling units with all-electric heat, provide: <ul style="list-style-type: none"> • Ductless heat pump of minimum HSPF 10 or HSPF2 9.0 in primary zone replaces zonal electric heat sources, and • Programmable thermostat for all heaters in bedrooms
6	<input type="checkbox"/> High efficiency thermal envelope UA^c Purposed UA is 8 percent lower than the code UA
7	<input type="checkbox"/> 2.75 ACH Air Leakage Control and Efficient Ventilation Achieve a maximum of 2.75 ACH50 whole-house air leakage when third-party tested and provide a whole-house ventilation system including heat recovery with a minimum sensible heat recovery efficiency of not less than 66 percent and total fan efficacy of 1.6 CFM/Watt (combined input for supply and exhaust).

For SI: 1 square foot=0.093m², 1 watt per square foot=10.8 W/m².

Notes (superscripts)

- a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
- b. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
- c. In accordance with Table N1104.1(1), the Proposed UA total of the Proposed Alternative Design shall be a minimum of 8 percent less than the Code UA total of the Standard Base Case.

TABLE N1101.3 SMALL ADDITION ADDITIONAL MEASURES (Select One)		
1	<input type="checkbox"/>	Increase the ceiling insulation of the existing portion of the home as specified in Table N1101.2
2	<input type="checkbox"/>	Replace all existing single-pane wood or aluminum windows to the <i>U</i> -factor as specified in N1101.2
3	<input type="checkbox"/>	Insulate the existing floor, crawl space, or basement wall systems as specified in Table N1101.2 and install 100 percent of permanently installed lighting fixtures as CFL, LED or linear fluorescent, or a minimum efficacy of 40 lumens per watt as specified in section N1107.2
4	<input type="checkbox"/>	Test the entire dwelling with a blower door and exhibit no more than 4.5 air changes per hour at 50 Pascals
5	<input type="checkbox"/>	Seal and performance test the duct system
6	<input type="checkbox"/>	Replace existing 80-percent AFUE or less gas furnace with a 94-percent AFUE or greater system
7	<input type="checkbox"/>	Replace existing electric radiant space heaters with a ductless mini split system with a minimum HSPF of 10.0 or HSPF2 of 9.0
8	<input type="checkbox"/>	Replace existing electric forced air furnace with an air source heat pump with a minimum HSPF of 9.5 or HSPF2 of 8.1
9	<input type="checkbox"/>	Replace existing water heater with one of the following: A) Natural gas/propane water heater with minimum UEF 0.90, or B) Electrical heat pump water heater with minimum 3.45 UEF

N1104.8 Air Leakage. The building thermal envelope shall be constructed to limit air leakage in accordance with this section.

TABLE N1104.8 AIR BARRIER INSTALLATION AND AIR SEALING REQUIREMENTS	
General Requirements	A continuous air barrier shall be installed in alignment with the building thermal envelope.
	Breaks or joints in the air barrier shall be sealed.
Ceiling/Attic	The air barrier in any dropped ceiling or soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed.
	Access openings, drop-down stairs, or knee wall doors to unconditioned attic spaces shall be gasketed and sealed.
Walls	The junction of the foundation and sill plate shall be sealed.
	The junction of the top plate and the top of walls shall be sealed between wall cavities and windows or door frames
	All penetrations or utility services through the top and bottom plates shall be sealed.
	Knee walls shall be sealed.
Windows, skylights and doors	The space between framing and skylights, and the jambs of windows and doors shall be sealed.
Rim/band joists	Rim/band joists shall be a part of the thermal envelope and have a continuous air barrier.
Floors Including cantilevered floors and floors above garages	The air barrier shall be installed at any exposed edge of insulation
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.

Shafts, penetrations	Duct shafts, utility penetrations and flue shafts opening to exterior or unconditioned space shall be sealed.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.
Shower/tub on exterior walls	The air barrier installed at exterior walls adjacent to showers and tubs shall separate the wall from the shower or tub.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical and communication boxes. Alternatively, air-sealed boxes shall be installed.
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot.

INSTALLATION OF DUCTS

N1105.3 Installation of ducts and air handling equipment. For new construction and additions, all new duct systems and air handling equipment and appliances shall be located fully within the building thermal envelope. Exceptions:

1. Ventilation intake ductwork and exhaust ductwork.
2. Up to 10ft of HVAC system ductwork.
3. Where two measures are selected for compliance from Table N1011.1(2) and HVAC supply and return ductwork is installed in accordance with either Section N1105.3.1, N1105.3.2 or N1105.3.3.

N1105.3.1 Deeply buried duct in attic. Ducts deeply buried in attic insulation shall be in accordance with all of the following when using Section N1105.3, Exception 3:

1. Insulation shall be installed to fill gaps and voids between the duct and the ceiling, and a minimum of R19 insulation shall be installed above the duct between the duct and unconditioned attic.
2. All ductwork in the attic shall be insulated to R-8.
3. Insulation depth marker flags shall be installed on the ducts every 10 feet (3048 mm) or as approved by the building official.

Exception: HVAC ductwork shall be permitted to be located outside of the building thermal envelope where the duct is insulated to a minimum of R-27 with a Class II or III vapor retarder.

N1105.3.2 Ducts in unvented crawlspace. Ducts located in unvented crawlspace shall be in accordance with all of the following when using Section N1105.3, Exception 3:

1. In addition to meeting Section R408.3, all seams of the vapor barrier shall overlap a minimum of 12 inches (305 mm) and be sealed with tape or other approved method.
2. All ductwork in the crawlspace shall be insulated to R-8.
3. The floor between the crawlspace and the dwelling shall be insulated with minimum R-30.

N1105.3.3 Deeply buried duct in vented crawlspace. Ducts deeply buried in crawlspace insulation shall be in accordance all of the following when using Section N1105.3, Exception 3:

1. Insulation shall be installed to fill gaps and voids between the duct and the floor above, and a minimum of R-19 insulation shall be installed below the duct and between the duct and unconditioned crawlspace.
2. All ductwork in the crawlspace shall be insulated to R-8.

Exception: HVAC ductwork shall be permitted to be located outside of the building thermal envelope where the duct is insulated to a minimum of R-27 with a Class II or III vapor retarder.

To comply with this requirement (*Please select all applicable boxes*). If using either 3 or 5, select 2 additional measures from Table N101.1(2) on page 1 per N1105.3.

- 1. Ducts will be installed in the conditioned space
- 2. No heating or cooling ducts are being installed
- 3. Ducts in unconditioned attic will have R-19 above and comply with requirements for deeply buried ducts per N1105.3.1
- 4. Under-floor space will be conditioned per N1105.3.2 and meet requirements of R408.3 by (choose 1):
 - Continuously Operated Mechanical Exhaust (Required C.F.M. _____) or
 - Conditioned Air Supply (Required C.F.M. _____)
- 5. Under-floor space will not be conditioned and ducts will have R-19 insulation installed below duct per N1105.3.3
- 6. Other method will be used for heating and cooling ducts not in conditioned space. Please specify:

MECHANICAL WHOLE-HOUSE VENTILATION SYSTEM (WHV)(2 steps)

1. M1505.4.3 Mechanical ventilation rate. The whole-house mechanical ventilation system shall provide outdoor air at a continuous rate not less than that determined in accordance with: (*Choose one*)

Equation 15-1. Ventilation rate in cubic feet per minute = $(0.01 \times \text{total square foot area of house}) + [7.5 \times (\text{number of bedrooms} + 1)]$ (Equation 15-1)($0.01 \times \underline{\hspace{2cm}}$) + $[7.5 \times (\underline{\hspace{2cm}})] = \underline{\hspace{2cm}}$ CFM

OR

Table M1505.4.3(1)

Table M 1505.4.3(1)

CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (sq ft)	NUMBER OF BEDROOMS				
	0 to 1	2 to 3	4 to 5	6 to 7	>7
	AIRFLOW in CFM				
<1,500	30	45	60	75	90
1,501-3,000	45	60	75	90	105
3,001-4,500	60	75	90	105	120
4,501-6,000	75	90	105	120	135
6,001-7,500	90	105	120	135	150
>7,500	105	120	135	150	165

For SI: square foot = 0.0929 m², 1 cubic foot per minute = 0.0004719m³/s

Enter C.F.M. rate here: 45 CFM

2. Section 1505.4. Enter base C.F.M. rate from equation in M1505.4.3 -OR- Table M1505.4.3(1) here: 45 CFM

Enter intermittent run-time factor from Table M1505.4.3(2) (See next page) here: 1 and multiply it by the base C.F.M. rate to determine calculated C.F.M. rate. Enter calculated C.F.M. here: 45 CFM

TABLE M1505.4.3(2)
INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS ^{a, b}

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
Factor ^a	4	3	2	1.5	1.3	1.0

a. For ventilation system run time values between those given, the factors are permitted to be determined by interpolation.

b. Extrapolation beyond the table is prohibited.

- Using M1505.4.3 exception 1 for 30% reduction to required ventilation rate.
(Required ventilation rate from above) x (0.70) = (Total reduced ventilation required)
(_____ CFM) x (0.70) = (_____ CFM).

To use M1505.4.3 exception 1, both of the following must be met:

- a. A ducted system supplies ventilation air directly to each bedroom and to one or more of the following rooms: Living room, dining room, or kitchen
- b. The whole-house ventilation system is a balanced ventilation system.

HIGH EFFICIENCY LIGHTING

Section N1107.2. All permanently installed lighting fixtures shall be high efficiency light sources.

Exception: Two permanently installed lighting fixtures are not required to be high-efficiency light sources when controlled by a dimmer or automatic control.

To conform to the 2023 Oregon Residential Specialty Code (ORSC), Section N1107, I am notifying the Building Official that I am aware of the high-efficiency lighting requirement of ORSC Section N1107.2 and have taken steps to meet this code requirement.

Printed Name

Signature

Date

MOISTURE CONTENT

Section R318.2 Moisture Content. Prior to the installation of interior finishes, the building official shall be notified in writing by the general contractor that all moisture-sensitive wood framing members used in construction have a moisture content of not more than 19 percent of the weight of dry wood framing members.

To conform to the 2023 Oregon Residential Specialty Code (ORSC), Section R318.2, I am notifying the Building Official that I am aware of the moisture content requirement of ORSC Section R318.2 and have taken steps to meet this code requirement.

Printed Name

Signature

Date



Accommodation Information for People with Disabilities

To obtain this information in an alternate format such as Braille, large print, electronic formats, etc., please contact the Building Safety Division at building@bendoregon.gov or 541-388-5580 extension 2. Relay Users Dial 7-1-1.

**PAINTED END OF FLOOR TRUSS IS THE TOP LEFT END OF TRUSS INDICATED BY THE TRIANGLE ▲
SHOWN ON LAYOUT AND THE TOP LEFT END OF TRUSS DRAWING ON STAMPED ENGINEERING PAGE**

Jurisdiction Stamp

Garage FRONT

Use ITS3.56/16 Hangers Truss to Truss & Truss to Wall UNO

FLOOR NOTES

ALL BEAMS, RIM, OR ANYTHING ELSE NEEDED TO COMPLETE FLOOR SYSTEM TO BE SUPPLIED AND SIZED BY OTHERS. BUILDERS FIRSTSOURCE TRUSS TO SUPPLY OPEN WEB AND TRUSS TO TRUSS CONNECTION ONLY.

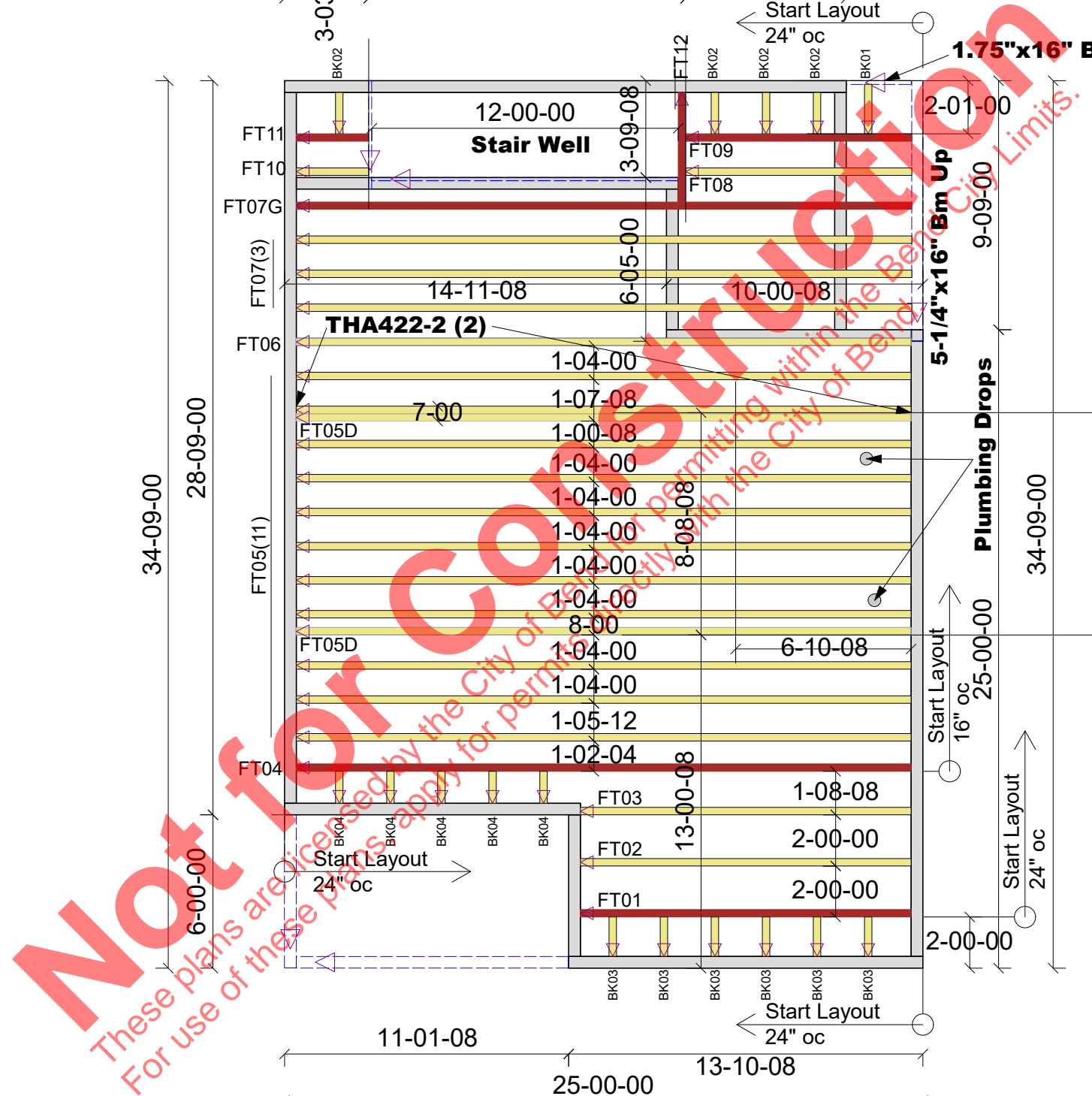
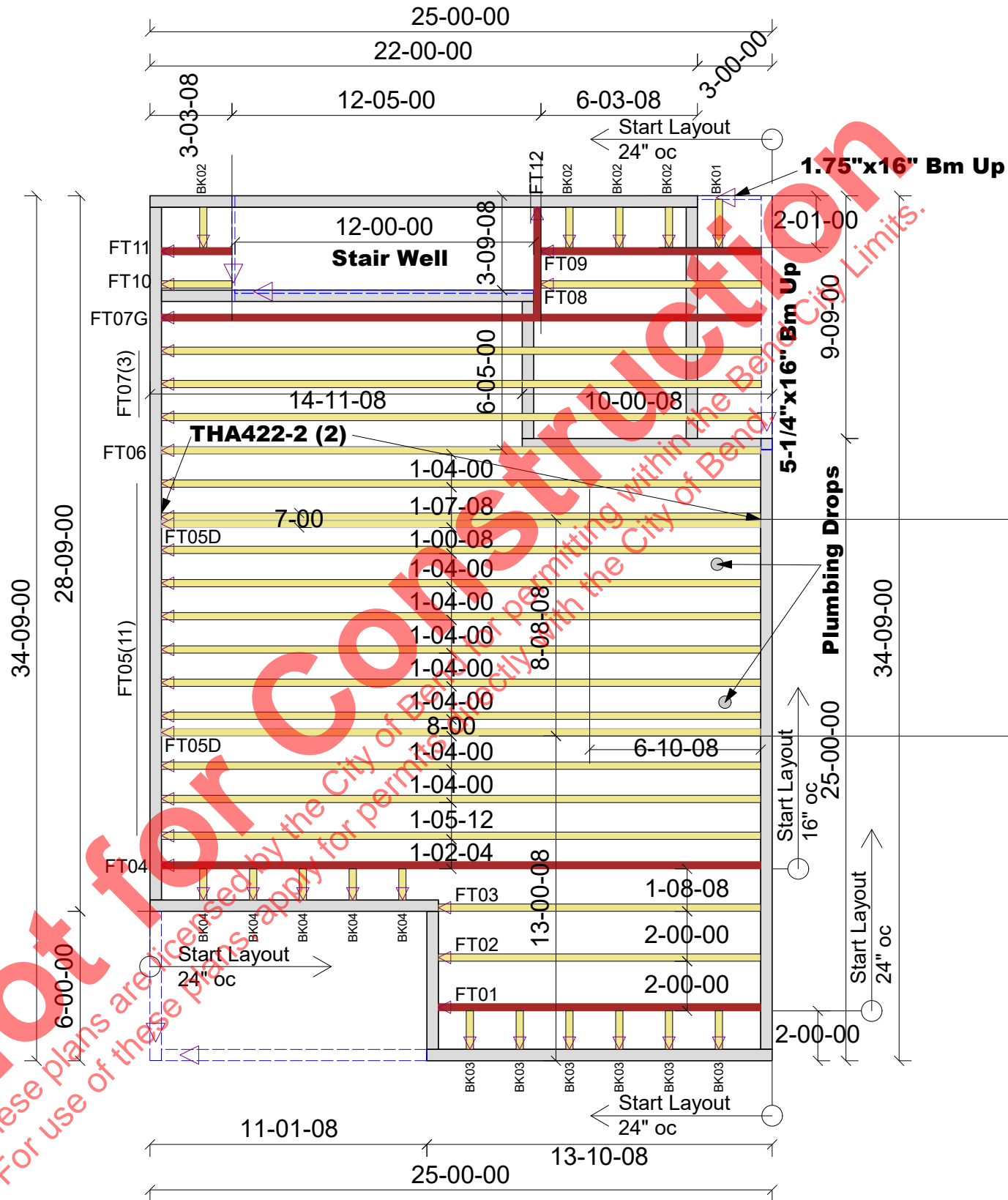
ALL CONCENTRATED LOADS BEING TRANSFERRED DOWN FROM ABOVE TO BE SQUASHED BLOCKED AS TO NOT IMPOSE ANY ADDITIONAL LOADS ON TOP OF FLOOR TRUSSES.

CAUTION:
NEVER CUT, SAW, DRILL, OR MODIFY FLOOR TRUSS WITHOUT THE APPROVAL OF BUILDERS FIRSTSOURCE TRUSS DEPT.

ALL 2X6 STRONGBACKING MUST BE INSTALLED ON EDGE AT 10' ON CENTER AND FASTENED WITH 3-10d NAILS. STRONGBACKS TO BE ATTACHED TO WALLS AT THEIR ENDS OR RESTRAINED BY OTHER MEANS.

WARNING:
DO NOT INSTALL TRUSSES BACKWARDS OR UPSIDE DOWN. FOLLOW LAYOUT

- TC LL = 40
- TC DL = 10
- BC LL = 0
- BC DL = 5
- Total Load = 55
- Truss depth = 16"
- LL l/d >= 480
- TL l/d >= 360



DO NOT CUT, DRILL, NOTCH OR MODIFY TRUSS MEMBERS WITHOUT PRIOR APPROVAL FROM BUILDERS FIRSTSOURCE TRUSS

DATE: 3/10/2026 SALESMAN: Tyler Campbell DESIGNER: BFS		SCALE: NTS PROJECT #: 5273722
SW Washington and Oregon Components Woodland Office: 360-841-5900 Beaverton Office: 971-371-5971		
Builder: Builders FirstSource Sierra James		
Project: Mt. Bachelor Pad - 2nd Lvl Floor		
Address: Bend, OR.		

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See the individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive, Madison, WI 53179

MXZ-2D20NLHZ

20,000 BTU/H HYPER HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



GENERAL FEATURES

- Built-in base pan heater
- Compressor overcurrent detection
- Compressor thermal protection
- Fan motor overheating/voltage protection
- High pressure protection
- Hyper-Heating INVERTER®: Hyper-heating performance offers 100% heating capacity at 5°F and 75% heating capacity at -13°F
- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Quiet operation: Outdoor units are as quiet as a typical conversation, and most indoor units are whisper quiet.
- Seacoast protection: Seacoast protection on heat exchanger and base panel (rated for 2,000 hrs. in accordance with ASTM B117 testing)
- Thermal Differential 1°F

Specifications			System
Unit Type			MXZ-2D20NLHZ
Cooling at 95F ¹ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	20,000 // 20,000 // 20,000
	Rated Capacity	Btu/h	18,000 // 19,000 // 20,000
	Minimum Capacity	Btu/h	11,600 // 13,800 // 16,000
	Maximum Power Input	W	2,680 // 2,340 // 2,000
	Rated Power Input	W	1,333 // 1,568 // 1,802
	Power Factor (208V)	%	0.99 // 0.99 // 0.99
	Power Factor (230V)	%	0.99 // 0.99 // 0.99
Heating at 47F ² (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	25,500 // 25,500 // 25,500
	Rated Capacity	Btu/h	22,000 // 22,000 // 22,000
	Minimum Capacity	Btu/h	11,400 // 13,850 // 16,300
	Maximum Power Input	W	2,400 // 2,520 // 2,640
	Rated Power Input	W	1,612 // 1,650 // 1,688
	Power Factor (208V)	%	0.99 // 0.99 // 0.99
Heating at 17F ³ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	22,000 // 22,000 // 22,000
	Rated Capacity	Btu/h	14,300 // 13,400 // 12,500
	Maximum Power Input	W	3,300 // 3,325 // 3,350
	Rated Power Input	W	1,518 // 1,501 // 1,510
	Maximum Capacity	Btu/h	22,000 // 22,000 // 22,000
Heating at 5F ⁴ (Non-Ducted // Mixed // Ducted)	Maximum Power Input	W	3,220 // 3,256 // 3,256
	Maximum Capacity	Btu/h	19,200 // 19,200 // 19,200
Heating at -13F ⁵ (Non-Ducted // Mixed // Ducted)	Maximum Power Input	W	2,622 // 2,622 // 2,622
	SEER ²		19.30 // 16.80 // 14.30
Efficiency (Non-Ducted // Mixed // Ducted)	EER ²		13.50 // 12.30 // 11.10
	HSPF ² (IV) ²		10 // 8.95 // 7.90
	COP at 47F ²		4.00 // 3.90 // 3.82
	COP at 17°F at Maximum Capacity ³		1.94 // 1.92 // 1.92
	COP at 5°F at Maximum Capacity ⁴		2 // 1.98 // 1.98
	ENERGY STAR® Certified		Yes // Yes // Yes
	Electrical	Electrical Power Requirements	V AC / V AC, φ, Hz
Guaranteed Voltage Range		V AC	198 - 253
Voltage: Indoor - Outdoor, S1-S2		V AC	208/230
Voltage: Indoor - Outdoor, S2-S3		V DC	24
Recommended Wire Size (Indoor - Outdoor)		AWG	14
Short-circuit Current Rating (SCCR)		kA	5
MCA		A	21.7
MOCP		A	38

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)

Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer to Multi-zone Outdoor Unit Operational Performance.

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity.

Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

¹ Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

** Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode and automatically restarts at these temperatures.

SPECIFICATIONS: MXZ-2D20NLHZ

Specifications			System
Unit Type			MXZ-2D20NLHZ
Outdoor Unit	Fan Motor Full Load Amperage	A	1.74
	Fan Motor Output	W	88
	Defrost Method		Reverse Cycle
	Blue Fin Heat Exchanger Coating		Yes
	Airflow Rate Cooling/Heating	CFM	2,119 / 2,228
	Sound Pressure Level, Cooling ¹	dB (A)	51
	Sound Pressure Level, Heating ²	dB (A)	53
	Compressor Type		Twin Rotary
	Compressor Model		SRB220FQYMC-L
	Compressor Oil Type // Charge	Type // oz	RM68EH // 20.3
	External Finish Color		Munsell 3.0Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	37-11/32 x 13 x 31-11/32 [950 x 330 x 796]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	41-11/32 x 17-5/16 x 38-31/32 [1,050 x 440 x 990]
Unit Weight	lbs [kg]	137 [62]	
Package Weight	lbs [kg]	163 [74]	
ODU Operating Temp. Range	Cooling Intake Air Temp (Maximum / Minimum ³)	°FDB	115 / 14
	Cooling Thermal Lock-out / Re-start Temperatures	°FDB	10 / 14
	Heating Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	75, 65 / -12, -13
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-22.5 / -14
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs, oz	5, 5
	Maximum Pre-Charged Piping Length	ft	164
IDU Connection	Minimum Number of Connected IDU		2
	Maximum Number of Connected IDU		2
	Minimum Connected Capacity	Btu/h	12,000
	Maximum connected capacity	Btu/h	24,000
Piping	Liquid Pipe Size O.D. (Flared)	inch	A: 1/4 B: 1/4
	Gas Pipe Size O.D. (Flared)	inch	A: 3/8 B: 3/8
	Total Piping Length	ft [m]	164 [50]
	Farthest Piping Length	ft [m]	82 [25]
	Maximum Height Difference ⁴ , ODU above IDU	ft [m]	49 [15]
	Maximum Height Difference ⁴ , ODU below IDU	ft [m]	49 [15]
	Maximum Number of Bends for IDU		50

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)

Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer to Multi-zone Outdoor Unit Operational Performance.

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity.

Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

⁶ Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

- Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

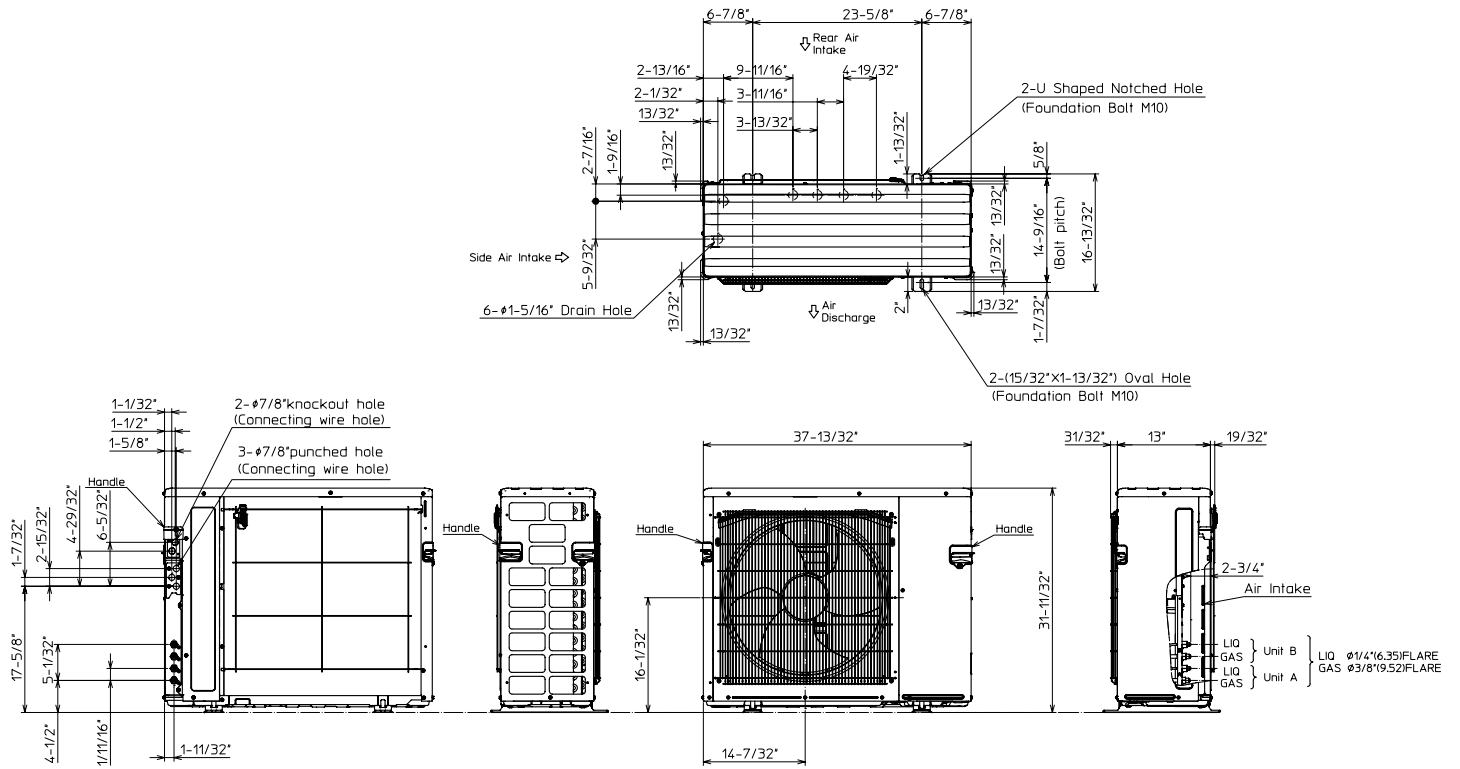
- System cuts out in heating mode and automatically restarts at these temperatures.

OUTDOOR UNIT ACCESSORIES: MXZ-2D20NLHZ

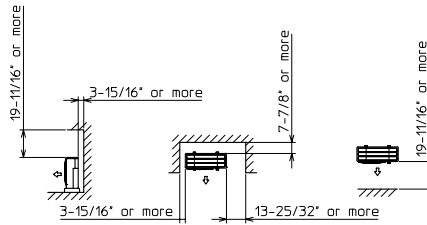
Stand	18 Single Fan Stand	QSMS1801M
	24 Single Fan Stand	QSMS2401M
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Condenser Wall Bracket	QSWB2000M-1
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	Outdoor Unit Stand 12 High	QSMS1201M
Port Adaptor	Adaptor 1/2 x 3/8	PAC-SK88RJ-E
	Adaptor 1/2 x 5/8	PAC-SK89RJ-E
	Adaptor 1/4 x 3/8	PAC-493PI
	Adaptor 3/8 x 1/2	ADP3812
	Adaptor 3/8 x 5/8	PAC-SK90RJ-E
Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW144-50
	14 Gauge 4 wire MiniSplit Cable250 ft roll	S144-250
	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
	16 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW164-250
	16 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW164-50
	16 Gauge 4 wire MiniSplit Cable250 ft roll	S164-250
	16 Gauge 4 wire MiniSplit Cable50 ft roll	S164-50
Air Outlet Guide	Air Outlet Guide 1 Piece	PAC-SH96SG-E (two pieces are required)
Drain Socket	Drain Socket	PAC-SG60DS-E
Ball Valve	Refrigeration Ball Valve - 1/2	BV12FFSI2
	Refrigeration Ball Valve - 1/4	BV14FFSI2
	Refrigeration Ball Valve - 3/8	BV38FFSI2
	Refrigeration Ball Valve - 5/8	BV58FFSI2
Mounting Pad	Condensing Unit Mounting Pad 16 x 36 x 3	ULTRILITE1
Control Interface	M-NET Interface for MXZ	PAC-IF01MNT-E
Hail Guards	Hail Guard	HG-A9
Snow/Rain Diverter	SnowRain Diverter	SRD-4
Control/Service Tool	Maintenance Tool Interface	PAC-USCMS-MN-1
NOTES		

OUTDOOR UNIT DIMENSIONS: MXZ-2D20NLHZ

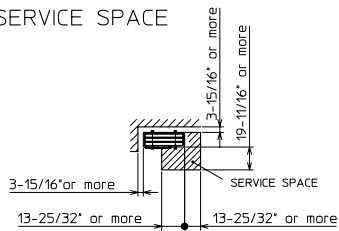
MXZ-2D20NLHZ-U1



1.FREE SPACE



2.SERVICE SPACE



1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 <https://mitsubishicomfort.com>



METUS_2025-05_PROPIN



Building Safety Division
City of Bend
(541) 388-5580
building@bendoregon.gov
710 NW Wall Street, Bend OR 97703

This submittal form is to be completed as part of your application with the City of Bend. *Download this form before completing fillable fields*, then upload with your application through the Online Permit Center at www.bendoregon.gov/permitcenter.

RESIDENTIAL MINI-SPLIT WORKSHEET

Oregon Building Codes Division requires that an additional heat source is available when installing mini-split or other heating/cooling absorption unit (heat pump) in Central Oregon; a mini-split system cannot be the sole source of heat for an entire home.

Please indicate the additional heat source for an entire home.

- Electric Wall Heater (i.e. Cadet heater)
- Furnace
- Radiant heat provided throughout residence
- Electric baseboard provided throughout residence
- Hydronic heat provided throughout residence
- * Other: Mini-split as primary heat source

* Mini-split as the sole heat source: A heat calculation showing the heat load at design conditions and the manufacturer's performance data must be provided for the unit showing heating output of 68°F in conditions of 5°F.

* Application to be reviewed by Plans Examiner

Every dwelling unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68°F at a point 3 feet above the floor and 2 feet from exterior walls in all habitable rooms at the design temperature of 5°F.

The following uses are prohibited within all yard setbacks per [Bend Development Code 2.1.300.F.7](#): satellite dishes greater than 18 inches in diameter, heat pumps and other similar objects, unless screened for visual and noise abatement by a solid enclosure 2 feet higher than the object/use being screened. In no instance shall these uses be allowed within the front yard setbacks.

°=degrees F=Fahrenheit



Accommodation Information for People with Disabilities

To obtain this information in an alternate format such as Braille, large print, electronic formats, etc. please contact the Building Safety Division at building@bendoregon.gov or (541) 388-5580; Relay Users Dial 7-1-1.

2023 Oregon Residential Specialty Code Amendments

Summary: In accordance with Senate Bill 83 (2025) this amendment makes Section R327, *Wildfire Hazard Mitigation*, available for local adoption and applicable to new construction of new ORSC governed buildings.

This code amendment was adopted by temporary rule effective Aug. 5, 2025 through Jan. 2, 2026 and subsequently adopted by permanent rule effective Jan. 1, 2026.

The following amendments are adopted as part of the 2023 Oregon Residential Specialty Code (ORSC).

The changes are denoted as follows:

Blue/underline = Added code language
Red/del/through = Deleted code language

SECTION R302—FIRE-RESISTANT CONSTRUCTION

R302.2.12 Townhouse roof coverings. In addition to the requirements of Chapter 9, structurally independent townhouses shall be provided with a minimum Class C roof covering, and structurally dependent townhouses shall be provided with a minimum Class B roof covering.

Exceptions:

- Structurally dependent townhouses may use Class C roof coverings where all of the following conditions are met:
 - The townhouses are not more than two stories in height.
 - The townhouses do not have more than 6,000 square feet (557 m²) of projected roof area.
 - There is not less than 3 feet (914 mm) from the extremity of the roof to the exterior lot line or an assumed lot line on all sides except for street fronts.
- ~~Where adopted by the local municipality,~~ roof coverings for townhouses located in areas determined by the *municipality* to be "Wildfire Hazard Zones" shall be in accordance with Section R327.

SECTION R327—WILDFIRE HAZARD MITIGATION

R327.1 General. ~~Where adopted by the local municipality,~~ the provisions of this section shall apply to *new dwellings* and their *accessory structures* ~~required by a local municipality via local ordinance~~ to be protected against wildfire.

~~Nothing in this code prevents a local municipality from modifying the requirements of this section for any lot, property or dwelling, or the removal, replacement or reconstruction of a dwelling within the jurisdiction, as provided in Section R404.40.~~

R327.1.1 Local adoption. The provisions of this section may be adopted in whole by a *municipality via local ordinance* without following ORS 455.040 or OAR 918-020-0370. ~~Where a municipality chooses to adopt these provisions locally, the following shall be included in the adopting ordinance:~~

- ~~Identification of areas subject to the additional construction standards of Section R327.~~
- ~~A transition plan or other measures to address subdivisions already under development at the time of local adoption.~~
- ~~A local appeal process for customers to follow. Where a municipality has previously adopted the provisions of Section R327 locally, the requirements of Section R327.1.1 do not apply and the existing local ordinance may continue without change to include those based on prior iterations of this section.~~

R327.1.2 Notification. Where a *municipality* adopts Section R327 locally, ~~or where a municipality has previously adopted Section R327 locally,~~ the *municipality* shall notify the State of Oregon, Building Codes Division, and ~~provide a copy of the locally adopted map identifying identify~~ areas of the jurisdiction where the additional construction standards of Section R327 are required.

R327.1.3 Application. Where ~~required adopted~~ by a *local municipality via local ordinance*, newly constructed *dwellings* ~~and their accessory structures, and new additions to existing dwellings and their accessory structures~~ located in areas designated by the *municipality* shall be protected against *wildfire* in accordance with this section. ~~Where existing exterior elements that are within the scope of this section are replaced in their entirety, the replacement shall be made in accordance with the provisions of this section.~~

Exceptions:

- Nonhabitable detached *accessory structures* with a floor area of not greater than 400 square feet (37.2 m²) located not less than 50 feet (15 240 mm) from all ~~other~~ structures on the lot ~~that contain habitable space.~~
- ~~Partial repairs made in accordance with Section R406.2.2.~~
- ~~Structures exempted by ORS 455.315.~~
- ~~Detached accessory membrane-covered frame structures~~

R327.2 Definitions. The following words and terms shall, for purposes of Section R327, have the meanings shown herein. See Chapter 2 for general definitions.

HEAVY TIMBER. For the use in this section, *heavy timber* shall be sawn lumber or glued-laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). *Heavy timber* walls or floors shall be sawn or glued-laminated planks spliced, tongue-and-groove or set close together and well spiked.

IGNITION-RESISTANT MATERIAL. A type of building material that resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildland urban interface conflagrations under worst-case weather and fuel conditions with *wildfire* exposure of burning embers and small flames. Such materials include any product designed for exterior exposure that, when tested in accordance with ASTM E84 or UL 723 for surface burning characteristics of building materials, extended to a 30-minute duration, exhibits a flame spread index of not more than 25, shows no evidence of significant progressive combustion, and whose flame front does not progress more than 10¹/₂ feet (3200 mm) beyond the centerline of the burner at any time during the test.

NONCOMBUSTIBLE MATERIAL. Any material that in the form in which it is used and under the conditions anticipated will not ignite, burn, support combustion or release flammable vapors when subjected to fire or heat in accordance with ASTM E 136.

WILDFIRE. Any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property or resources.

WILDFIRE EXPOSURE. One or a combination of circumstances exposing a structure to ignition, including radiant heat, convective heat, direct flame contact and burning embers being projected by a vegetation fire to a structure and its immediate environment.

R327.3 Roofing. Roofing shall be asphalt shingles in accordance with Section R905.2, slate shingles in accordance with Section R905.6, metal roofing in accordance with Section R905.4, tile, clay or concrete shingles in accordance with Section R905.3 or other approved roofing that is deemed to be equivalent to a minimum Class B-rated roof assembly. Wood shingle and shake roofs are not permitted on structures ~~in areas designated by the municipality that fall within the scope of this section.~~

Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be fireblocked with *approved* materials, or have one layer of minimum 72-pound (32.6 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909 installed over the combustible decking.

Where valley flashing is installed, the flashing shall be not less than 0.019-inch (0.48 mm) No. 26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72-pound (32.6 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909 not less than 36-inch-wide (914 mm) running the full length of the valley.

R327.3.1 Gutters and downspouts. Where ~~provided, required,~~ *roof gutters and downspouts* shall be constructed of *noncombustible materials* and be provided with ~~an approved~~ means to prevent accumulation of leaves and debris in the gutter.

R327.3.2 Ventilation. Where provided, the minimum net area of ventilation openings for enclosed attics, enclosed soffit spaces, enclosed rafter spaces and underfloor spaces shall be in accordance with Sections R408 and R806.

All ventilation openings shall be covered with noncombustible corrosion-resistant metal wire mesh, vents designed to resist the intrusion of burning embers and flame, or other approved materials or devices.

Ventilation mesh and screening shall be a minimum of ¹/₁₆-inch (1.6 mm) and a maximum of ¹/₈-inch (3.2 mm) in any dimension.

R327.3.2.1 Eaves, soffits and cornices. Ventilation openings shall not be installed on the underside of eaves, soffits or cornices.

Exceptions:

- The *building official* may approve eave, soffit or cornice vents that are manufactured to resist the intrusion of flame and burning embers.
- Ventilation openings complying with the requirements of Section R327.3.2 may be installed on the underside of eaves, soffits or cornices where the opening is located 12 feet (3658 mm) or greater above *grade* or the surface below.

R327.3.3 Exterior walls. The *exterior wall covering* or wall assembly shall comply with one of the following requirements:

- Noncombustible material.*
- Ignition-resistant material.*
- Heavy timber* assembly.
- Log wall construction assembly.
- Wall assemblies that have been tested in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2707, complying with the conditions of acceptance listed in Section R327.3.3.2.

Exception: Any of the following shall be deemed to meet the assembly performance criteria and intent of this section:

- One layer of ¹/₂-inch (15.9 mm) Type X exterior gypsum sheathing applied behind the *exterior wall covering* or cladding on the exterior side of the framing.
- The exterior portion of a 1-hour fire-resistance-rated *exterior wall* assembly designed for exterior fire exposure, including assemblies using exterior gypsum panel and sheathing products listed in the Gypsum Association *Fire Resistance and Sound Control Design Manual*.

R327.3.3.1 Extent of exterior wall covering. *Exterior wall coverings* shall extend from the top of the foundation to the roof and terminate at 2-inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves or soffits, shall terminate at the underside of the enclosure.

R327.3.3.2 Conditions of acceptance. ASTM E2707 tests shall be conducted in triplicate and the following conditions of acceptance shall be met. If any one of the three replicates do not meet the conditions of acceptance, three additional tests shall be conducted. All additional tests shall meet the following conditions of acceptance:

- Absence of flame penetration through the wall assembly at any time during the test.
- Absence of evidence of glowing combustion on the interior surface of the assembly at the end of the 70-minute test.

R327.3.4 Overhanging projections. All exterior projections (exterior balconies, carports, decks, patio covers, porch ceilings, unenclosed roofs and floors, overhanging buildings and similar architectural appendages and projections) shall be protected as specified in this section.

R327.3.4.1 Enclosed roof eaves, soffits and cornices. The exposed underside of rafter or truss eaves and enclosed soffits, where any portion of the framing is less than 12 feet (3658 mm) above *grade* or similar surface below, shall be protected by one of the following:

- Noncombustible material.*
- Ignition-resistant material.*
- One layer of ¹/₂-inch (15.9 mm) Type X exterior gypsum sheathing applied behind an exterior covering on the underside of the rafter tails, truss tails or soffit.
- The exterior portion of a 1-hour fire-resistance-rated *exterior wall* assembly applied to the underside of the rafter tails or soffit, including assemblies using exterior gypsum panel and sheathing products listed in the Gypsum Association *Fire Resistance and Sound Control Design Manual*.
- Soffit assemblies with an underside surface that meets the performance criteria in Section R327.3.4.5 when tested in accordance ASTM E2957.

Exceptions: The following materials do not require protection required by this section:

- Eaves and soffits where all portions of the framing members are 12 feet (3658 mm) or greater above *grade*, and 2-inch (610 mm) nominal eave fireblocking is provided between roof framing members from the wall top late to the underside of the roof sheathing.
- Gable end overhangs and roof assembly projections beyond an *exterior wall* other than at the lower end of the rafter tails.
- Fascia and other architectural trim boards.

R327.3.4.2 Exterior patio and porch ceilings. The exposed underside of exterior patio and porch ceilings greater than 200 square feet (18.58 m²) in area and less than 12 feet (3658 mm) above *grade* shall be protected by one of the following:

- Noncombustible material.*
- Ignition-resistant material.*
- One layer of ¹/₂-inch (15.9 mm) Type X exterior gypsum sheathing applied behind the exterior covering on the underside of the ceiling.
- The exterior portion of a 1-hour fire-resistance-rated *exterior wall* assembly applied to the underside of the ceiling assembly, including assemblies using exterior gypsum panel and sheathing products listed in the Gypsum Association *Fire Resistance and Sound Control Design Manual*.
- Porch ceiling assemblies with a horizontal underside that meet the performance criteria in Section R327.3.4.5 when tested in accordance with the test procedures set forth in ASTM E2957.

Exception: Architectural trim boards.

R327.3.4.3 Floor projections. The exposed underside of cantilevered floor projections less than 12 feet (3658 mm) above *grade* or the surface below shall be protected by one of the following:

- Noncombustible material.*
- Ignition-resistant material.*
- One layer of ¹/₂-inch (15.9 mm) Type X exterior gypsum sheathing applied behind an exterior covering on the underside of the floor projection.
- The exterior portion of a 1-hour fire-resistance-rated *exterior wall* assembly applied to the underside of the floor projection, including assemblies using exterior gypsum panel and sheathing products listed in the Gypsum Association *Fire Resistance and Sound Control Design Manual*.
- An assembly that meets the performance criteria in Section R327.3.4.5 when tested in accordance with ASTM E2957.

Exception: Architectural trim boards.

R327.3.4.4 Underfloor protection. The underfloor area of elevated structures shall be enclosed to *grade* in accordance with the requirements of this section, or the underside of the exposed underfloor shall be protected by one of the following:

- Noncombustible material.*
- Ignition-resistant material.*
- One layer of ¹/₂-inch (15.9 mm) Type X exterior gypsum sheathing applied behind an exterior covering on the underside of the floor assembly.
- The exterior portion of a 1-hour fire-resistance-rated *exterior wall* assembly applied to the underside of the floor, including assemblies using exterior gypsum panel and sheathing products listed in the Gypsum Association *Fire Resistance and Sound Control Design Manual*.
- An assembly that meets the performance criteria in Section R327.3.4.5 when tested in accordance with ASTM E2957.

Exception: *Heavy timber* structural columns and beams do not require protection.

R327.3.4.5 Conditions of acceptance. ASTM E2957 tests shall be conducted in triplicate, and the following conditions of acceptance shall be met. If any one of the three replicates do not meet the conditions of acceptance, three additional tests shall be conducted. All additional tests shall meet the following conditions of acceptance:

- Absence of flame penetration of the eaves or horizontal projection assembly at any time during the test.
- Absence of structural failure of the eaves or horizontal projection subassembly at any time during the test.
- Absence of sustained combustion of any kind at the conclusion of the 40-minute test.

R327.3.5 Walking surfaces. Deck, porch and balcony walking surfaces located greater than 30 inches (762 mm) and less than 12 feet (3658 mm) above *grade* or the surface below shall be constructed with one of the following materials:

- Materials that comply with the performance requirements of Section R327.3.5.1 when tested in accordance with both ASTM E2632 and ASTM E2726.
- Ignition-resistant* materials that comply with the performance requirements of Section R327.2 when tested in accordance with ASTM E84 or UL 723.
- Exterior fire-retardant-treated wood.
- Noncombustible material.*
- Any material that complies with the performance requirements of Section R327.3.5.2 when tested in accordance with ASTM E2632, where the *exterior wall covering* of the structure is noncombustible or *ignition-resistant* material.
- Any material that complies with the performance requirements of ASTM E2632, where the *exterior wall covering* of the structure is noncombustible or *ignition-resistant* material.

Exception: *Wall covering* material may be of any material that otherwise complies with this chapter where the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread rating.

Exception: Walking surfaces of decks, porches and balconies not greater than 200 square feet (18.58 m²) in area, where the surface is constructed of nominal 2-inch (51 mm) lumber.

R327.3.5.1 Requirements for Section R327.3.6, Item 1. The material shall be tested in accordance with ASTM E2632 and ASTM E2726, and shall comply with the conditions of acceptance in Sections R327.3.5.1.1 and R327.3.5.1.2. The material shall also comply with the performance requirements of Section R327.2 for ignition-resistant material when tested in accordance with ASTM E84 or UL 723.

R327.3.5.1.1 Conditions of acceptance. ASTM E2632 tests shall be conducted in triplicate and the following conditions of acceptance shall be met. If any one of the three replicates do not meet the conditions of acceptance, three additional tests shall be conducted. All additional tests shall meet the following conditions of acceptance:

- Peak heat release rate of less than or equal to 25 kW/ft² (269 kW/m²).

2023 OREGON RESIDENTIAL SPECIALTY CODE

Wildfire Hazard Mitigation-1

2023 OREGON RESIDENTIAL SPECIALTY CODE

Wildfire Hazard Mitigation-2

2023 OREGON RESIDENTIAL SPECIALTY CODE

Wildfire Hazard Mitigation-3

2023 OREGON RESIDENTIAL SPECIALTY CODE

Wildfire Hazard Mitigation-4

- Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-minute observation period.
- Absence of falling particles that are still burning when reaching the burner or floor.

R327.3.5.1.2 Conditions of acceptance. ASTM E2762 tests shall be conducted in triplicate and the following conditions of acceptance shall be met. If any one of the three replicates do not meet the conditions of acceptance, three additional tests shall be conducted. All of the additional tests shall meet the following conditions of acceptance:

- Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-minute observation period.
- Absence of falling particles that are still burning when reaching the burner or floor.

R327.3.5.2 Requirements for Section R327.3.6, Item 6. The material shall be tested in accordance with ASTM E2632 and shall comply with the following conditions of acceptance. The test shall be conducted in triplicate and the peak heat release rate shall be less than or equal to 25 kW/ft² (269 kW/m²). If any one of the three replicates do not meet the conditions of acceptance, three additional tests shall be conducted. All of the additional tests shall meet the conditions of acceptance.

R327.3.6 Glazing. Exterior windows, windows within exterior doors, and skylights shall be tempered glass, multilayered glazing panels, glass block or have a fire-resistance rating of not less than 20 minutes.

For questions about the 2023 ORSC, visit the division website to [contact a building code specialist](#).

2023 OREGON RESIDENTIAL SPECIALTY CODE

Wildfire Hazard Mitigation-5

MiTek, Inc.

400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571

Re: 5246565

Sierra James - Mt. Bachelor Pad RF

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Beaverton, OR).

Pages or sheets covered by this seal: R92914210 thru R92914217

My license renewal date for the state of Oregon is June 30, 2027.



Andrew Johnson
EXPIRES: JUNE 30, 2027

February 27, 2026

Johnson, Andrew

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

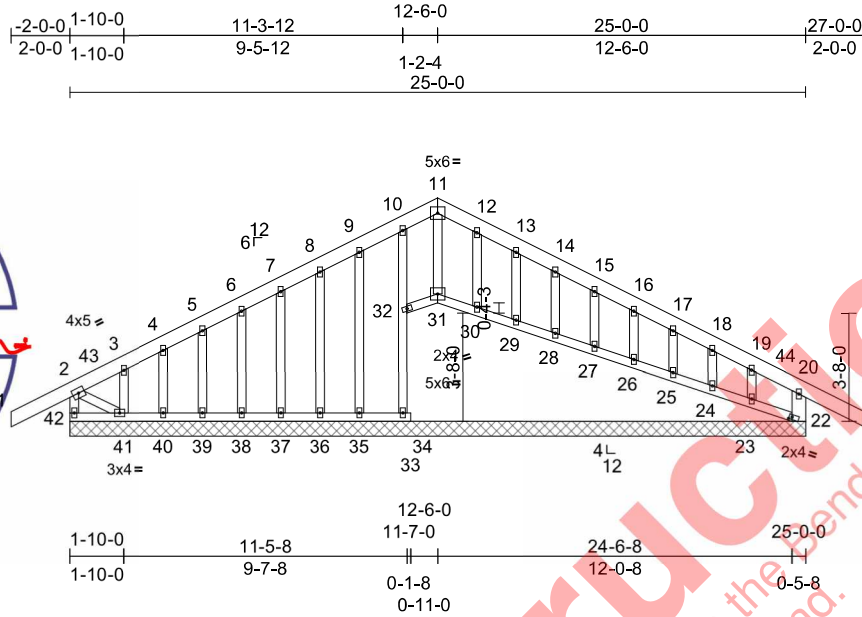
Job 5246565	Truss A01	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914210
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Fri Feb 27 12:09:29

Page: 1

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EXPIRES: JUN 30, 2027

Scale = 1:78.3

Plate Offsets (X, Y): [22:0-1-4,0-1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	7.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	22	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 176 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2
BOT CHORD 2x4 DF No.2 *Except* 34-10:2x4 DF Stud/Std
WEBS 2x4 DF Stud/Std *Except* 42-2:2x4 DF No.2, 22-20:2x6 DF No.2
OTHERS 2x4 DF Stud/Std

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 33-34.
10-0-0 oc bracing: 32-34

REACTIONS (size)
22=25-0-0, 23=25-0-0, 24=25-0-0, 25=25-0-0, 26=25-0-0, 27=25-0-0, 28=25-0-0, 29=25-0-0, 30=25-0-0, 31=25-0-0, 32=25-0-0, 33=25-0-0, 34=25-0-0, 35=25-0-0, 36=25-0-0, 37=25-0-0, 38=25-0-0, 39=25-0-0, 40=25-0-0, 41=25-0-0, 42=25-0-0
Max Horiz 42=102 (LC 15)
Max Uplift 22=-94 (LC 17), 23=-124 (LC 22), 24=-32 (LC 17), 25=-24 (LC 17), 26=-24 (LC 17), 27=-24 (LC 17), 28=-25 (LC 17), 29=-32 (LC 17), 32=-17 (LC 16), 33=-24 (LC 22), 35=-25 (LC 16), 36=-26 (LC 16), 37=-24 (LC 16), 38=-24 (LC 16), 39=-24 (LC 16), 40=-29 (LC 16), 41=-88 (LC 22), 42=-133 (LC 12)

Max Grav 22=403 (LC 24), 23=60 (LC 7), 24=166 (LC 1), 25=137 (LC 1), 26=172 (LC 24), 27=206 (LC 24), 28=206 (LC 24), 29=208 (LC 24), 30=212 (LC 24), 31=165 (LC 29), 32=214 (LC 23), 33=11 (LC 17), 34=60 (LC 7), 35=201 (LC 23), 36=211 (LC 23), 37=206 (LC 23), 38=172 (LC 23), 39=140 (LC 1), 40=150 (LC 1), 41=96 (LC 14), 42=381 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-42=-367/277, 1-2=0/80, 2-3=-113/129, 3-4=-78/131, 4-5=-70/150, 5-6=-62/176, 6-7=-70/201, 7-8=-79/226, 8-9=-89/253, 9-10=-98/279, 10-11=-99/279, 11-12=-99/281, 12-13=-96/272, 13-14=-85/243, 14-15=-76/217, 15-16=-68/192, 16-17=-59/166, 17-18=-50/141, 18-19=-40/111, 19-20=-78/111, 20-21=0/83, 20-22=-374/245
BOT CHORD 41-42=-88/83, 40-41=-4/6, 39-40=-4/6, 38-39=-4/6, 37-38=-4/6, 36-37=-4/6, 35-36=-4/6, 34-35=-4/6, 33-34=0/0, 32-34=0/0, 10-32=-203/23, 31-32=-11/17, 30-31=-14/17, 29-30=-13/17, 28-29=-13/17, 27-28=-13/17, 26-27=-13/17, 25-26=-13/17, 24-25=-14/18, 23-24=-11/16, 22-23=-18/20
WEBS 11-31=-167/40, 9-35=-172/48, 8-36=-185/48, 7-37=-179/46, 6-38=-145/45, 5-39=-113/47, 4-40=-126/57, 12-30=-184/12, 13-29=-182/56, 14-28=-179/47, 15-27=-180/45, 16-26=-145/45, 17-25=-111/46, 18-24=-135/62, 19-23=-48/137, 3-41=-64/104, 2-41=-94/100

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 12-6-0, Corner(3R) 12-6-0 to 15-6-0, Exterior(2N) 15-6-0 to 27-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

NOTES

February 27, 2026

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Roseville, CA 95661
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Job	Truss	Truss Type	Qty	Ply	Sierra James - Mt. Bachelor Pad RF	R92914210
5246565	A01	Roof Special Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Fri Feb 27 12:09:29

Page: 2

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- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 10) Gable studs spaced at 1-4-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Bearing at joint(s) 22, 32 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 42, 94 lb uplift at joint 22, 24 lb uplift at joint 33, 17 lb uplift at joint 32, 25 lb uplift at joint 35, 26 lb uplift at joint 36, 24 lb uplift at joint 37, 24 lb uplift at joint 38, 24 lb uplift at joint 39, 29 lb uplift at joint 40, 32 lb uplift at joint 29, 25 lb uplift at joint 28, 24 lb uplift at joint 27, 24 lb uplift at joint 26, 24 lb uplift at joint 25, 32 lb uplift at joint 24, 124 lb uplift at joint 23 and 88 lb uplift at joint 41.
- 15) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 31, 30, 29, 28, 27, 26, 25, 24, 23.

LOAD CASE(S) Standard

Not for Construction
 These plans are licensed by the City of Bend for permitting within the Bend City Limits.
 For use of these plans, apply for permits directly with the City of Bend.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)

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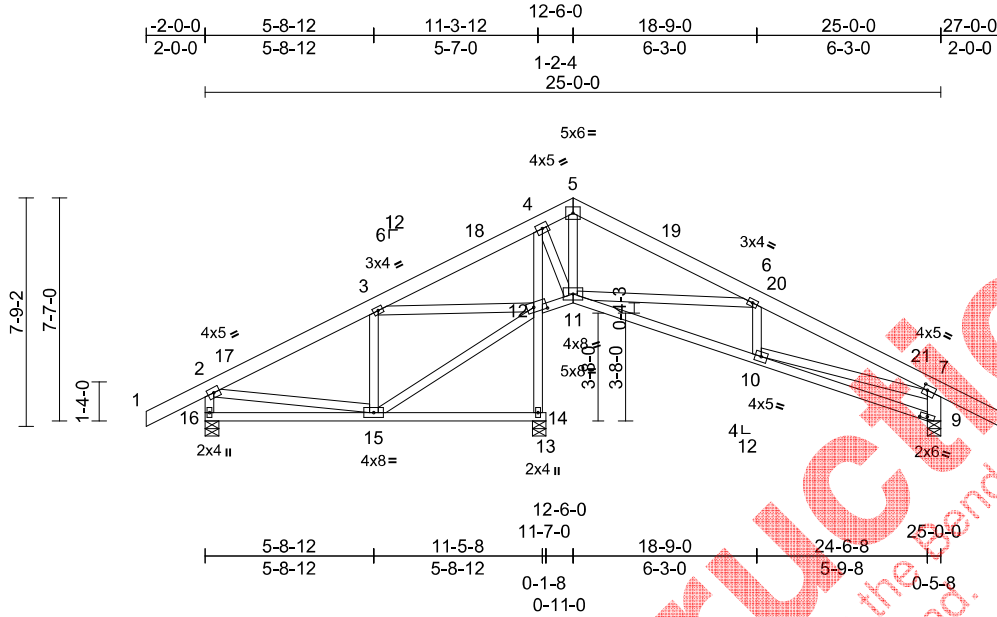
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Job 5246565	Truss A02	Truss Type Roof Special	Qty 2	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914211
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Scale = 1:78.3

Plate Offsets (X, Y): [7:0-1-12,0-2-0], [9:0-3-0,0-0-15], [12:0-5-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.06	10-11	>999	240	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.09	10-11	>999	180		
TCDL	7.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 170 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2 *Except* 14-4:2x4 DF Stud/Std
WEBS 2x4 DF Stud/Std *Except* 16-2:2x4 DF No.2, 9-7:2x6 DF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
4-9-0 oc bracing: 12-14

REACTIONS

(size) 9=0-5-8, 14=0-5-8, 16=0-5-8
Max Horiz 16=102 (LC 15)
Max Uplift 9=-122 (LC 17), 14=-31 (LC 16), 16=-96 (LC 16)
Max Grav 9=890 (LC 24), 14=1466 (LC 1), 16=760 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/80, 2-3=-618/105, 3-4=0/581, 4-5=-29/111, 5-6=-130/245, 6-7=-1440/139, 7-8=0/83, 2-16=-708/196, 7-9=-866/177
BOT CHORD 15-16=-67/121, 14-15=0/14, 13-14=0/0, 12-14=-1411/83, 4-12=-1145/27, 11-12=-497/159, 10-11=-68/1273, 9-10=-75/139
WEBS 3-15=-251/134, 12-15=-81/546, 4-11=0/986, 5-11=-569/61, 6-11=-1246/207, 6-10=-74/201, 2-15=-38/419, 7-10=-42/1095, 3-12=-669/114

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 12-6-0, Exterior(2R) 12-6-0 to 15-6-0, Interior (1) 15-6-0 to 27-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ci=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 16, 31 lb uplift at joint 14 and 122 lb uplift at joint 9.

LOAD CASE(S) Standard



EXPIRES: JUN 30, 2027
February 27, 2026

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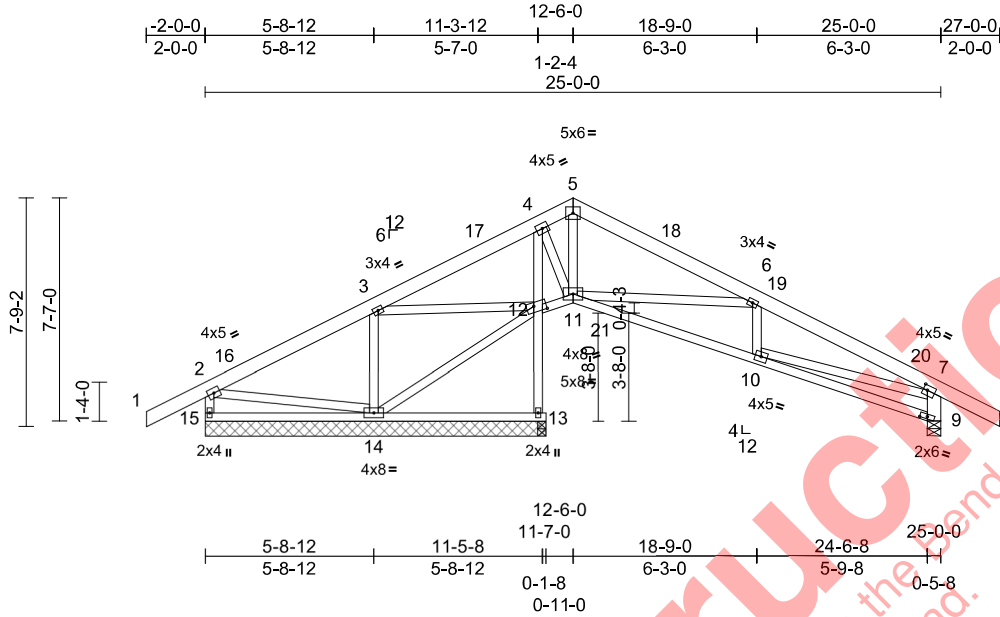
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Job 5246565	Truss A03	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914212
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Scale = 1:78.3

Plate Offsets (X, Y): [7:0-1-12,0-2-0], [9:0-3-0,0-0-15], [12:0-5-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.06	10-11	>999	240	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10	10-11	>999	180		
TCDL	7.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 170 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF No.2
 BOT CHORD 2x4 DF No.2 *Except* 13-4:2x4 DF Stud/Std
 WEBS 2x4 DF Stud/Std *Except* 15-2:2x4 DF No.2, 9-7:2x6 DF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
 10-0-0 oc bracing: 10-11.
 5-3-0 oc bracing: 12-13

REACTIONS

(size) 9=0-5-8, 13=0-3-8, 14=11-7-0, 15=11-7-0
 Max Horiz 15=102 (LC 15)
 Max Uplift 9=-121 (LC 17), 14=-69 (LC 16), 15=-63 (LC 16)
 Max Grav 9=901 (LC 24), 13=1214 (LC 24), 14=794 (LC 23), 15=379 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/80, 2-3=-19/277, 3-4=-1/547, 4-5=-84/72, 5-6=-173/201, 6-7=-1473/134, 7-8=0/83, 2-15=-332/171, 7-9=-877/176
 BOT CHORD 14-15=-66/110, 13-14=-1/9, 12-13=-1169/30, 4-12=-1155/11, 11-12=-465/158, 10-11=-64/1306, 9-10=-74/143
 WEBS 3-14=-590/151, 5-11=-543/65, 6-10=-78/198, 6-11=-1236/207, 2-14=-224/48, 7-10=-38/1122, 12-14=-246/78, 4-11=0/1011, 3-12=-243/73

NOTES

1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 12-6-0, Exterior(2R) 12-6-0 to 15-6-0, Interior (1) 15-6-0 to 27-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL); Lum DOL=1.15 Plate DOL=1.15; Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 15, 69 lb uplift at joint 14 and 121 lb uplift at joint 9.

- Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-83, 2-5=-83, 5-7=-83, 7-8=-83, 13-15=-20, 11-12=-30 (F=-10), 11-21=-30 (F=-10), 9-21=-20
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-64, 2-5=-64, 5-7=-64, 7-8=-64, 13-15=-20, 11-12=-50 (F=-30), 11-21=-50 (F=-30), 9-21=-20



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February 27, 2026

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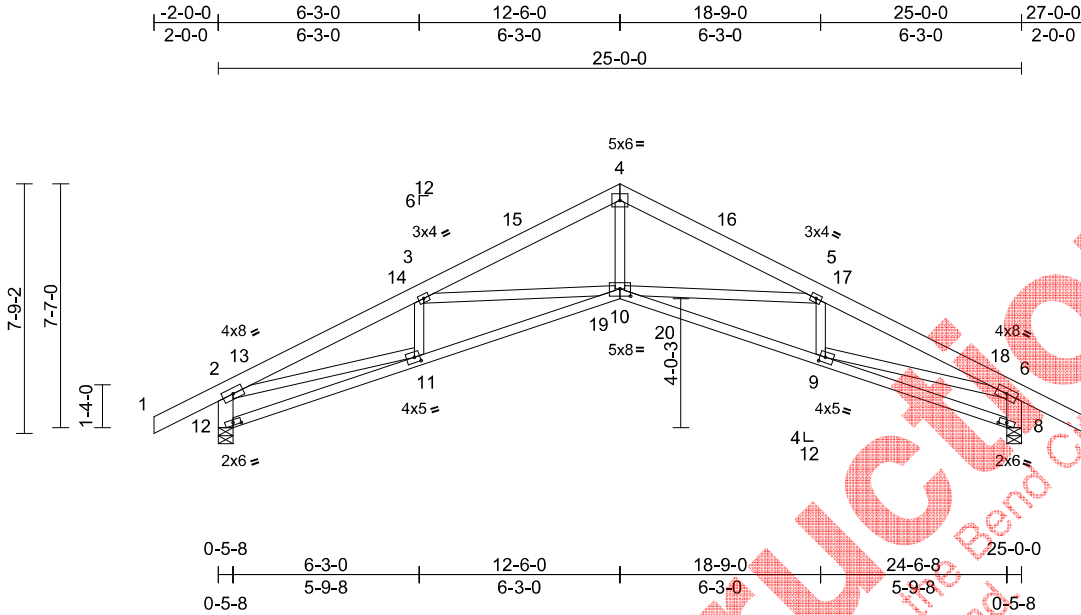
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Job 5246565	Truss A04	Truss Type Scissor	Qty 10	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914213
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Scale = 1:71.7

Plate Offsets (X, Y): [8:0-3-0,0-0-15], [9:0-2-0,0-2-0], [10:0-4-0,0-2-12], [11:0-2-0,0-2-0], [12:0-3-0,0-0-15]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.20	10-11	>999	240	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.33	9-10	>887	180		
TCDL	7.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.26	8	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 150 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF No.2
 BOT CHORD 2x4 DF No.2
 WEBS 2x4 DF Stud/Std *Except* 12-2,8-6:2x6 DF No.2, 11-2,9-6:2x4 DF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 8=0-5-8, 12=0-5-8
 Max Horiz 12=103 (LC 15)
 Max Uplift 8=-102 (LC 17), 12=-103 (LC 16)
 Max Grav 8=1534 (LC 24), 12=1534 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/83, 2-3=-3431/151, 3-4=-2919/80, 4-5=-2919/88, 5-6=-3435/118, 6-7=0/83, 7-8=-1540/177, 8-9=-1541/189
 BOT CHORD 11-12=-87/309, 10-11=-151/3139, 9-10=-36/3145, 8-9=-31/275
 WEBS 4-10=0/1962, 5-10=-528/246, 5-9=-391/98, 3-10=-525/249, 3-11=-392/95, 2-11=-57/2763, 6-9=-60/2766

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 12-6-0, Exterior(2R) 12-6-0 to 15-6-0, Interior (1) 15-6-0 to 27-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1-0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 12 and 102 lb uplift at joint 8.
- Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-83, 2-4=-83, 4-6=-83, 6-7=-83, 12-19=-20, 10-19=-30 (F=-10), 10-20=-30 (F=-10), 8-20=-20
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-64, 2-4=-64, 4-6=-64, 6-7=-64, 12-19=-20, 10-19=-50 (F=-30), 10-20=-50 (F=-30), 8-20=-20



EXPIRES: JUN 30, 2027
 February 27, 2026

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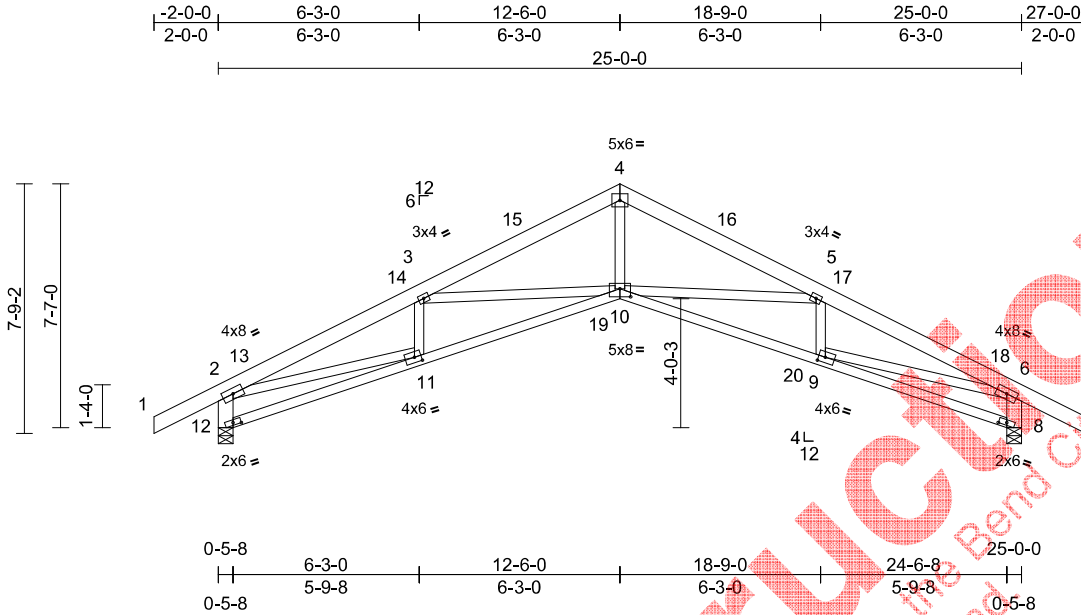
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Job 5246565	Truss A05	Truss Type Scissor	Qty 2	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914214
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Scale = 1:71.7

Plate Offsets (X, Y): [8:0-3-0,0-0-15], [9:0-2-8,0-2-0], [10:0-4-0,0-3-0], [11:0-2-8,0-2-0], [12:0-3-0,0-0-15]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.21	9-10	>999	240	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.37	9-10	>786	180		
TCDL	7.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.27	8	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 150 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF No.2
 BOT CHORD 2x4 DF No.2
 WEBS 2x4 DF Stud/Std *Except* 12-2,8-6:2x6 DF No.2, 11-2,9-6:2x4 DF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-6 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 8=0-5-8, 12=0-5-8
 Max Horiz 12=103 (LC 15)
 Max Uplift 8=-76 (LC 17), 12=-89 (LC 16)
 Max Grav 8=1560 (LC 24), 12=1548 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/83, 2-3=-3474/108, 3-4=-2983/15, 4-5=-2983/24, 5-6=-3525/29, 6-7=0/83, 7-8=-1555/163, 8-9=-1572/159
 BOT CHORD 11-12=-84/312, 10-11=-111/3180, 9-10=0/3233, 8-9=-29/278
 WEBS 4-10=0/2018, 5-10=-550/224, 5-9=-376/112, 3-10=-505/269, 3-11=-401/86, 2-11=-23/2797, 6-9=0/2845

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 12-6-0, Exterior(2R) 12-6-0 to 15-6-0, Interior (1) 15-6-0 to 27-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 12 and 76 lb uplift at joint 8.
- Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-83, 2-4=-83, 4-6=-83, 6-7=-83, 12-19=-20, 10-19=-30 (F=-10), 10-20=-30 (F=-10), 8-20=-20
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-64, 2-4=-64, 4-6=-64, 6-7=-64, 12-19=-20, 10-19=-50 (F=-30), 10-20=-50 (F=-30), 8-20=-20



EXPIRES: JUN 30, 2027
 February 27, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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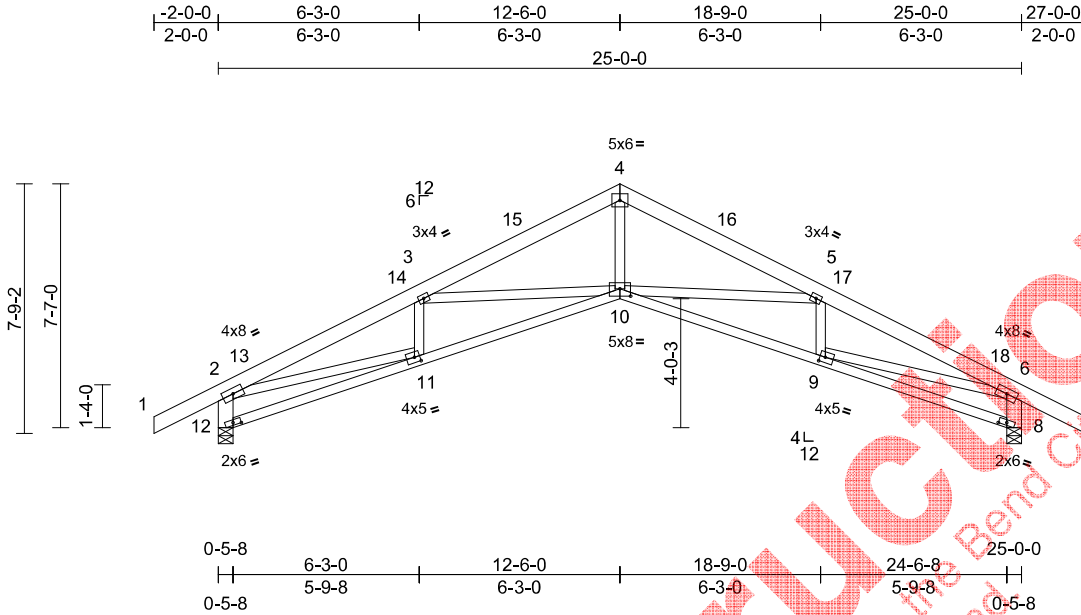
400 Sunrise Ave., Suite 270
 Roseville, CA 95661
 916.755.3571 / MiTek-US.com

Job 5246565	Truss A06	Truss Type Scissor	Qty 2	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914215
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Fri Feb 27 12:09:32
ID:BpkxBASWRImoco7gfhDA2Hzjs60-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:7.17

Plate Offsets (X, Y): [8:0-3-0,0-0-15], [9:0-2-0,0-2-0], [10:0-4-0,0-2-12], [11:0-2-0,0-2-0], [12:0-3-0,0-0-15]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.20	10-11	>999	240	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.32	10-11	>910	180		
TCDL	7.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.26	8	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-SH								
BCDL	10.0											
											Weight: 150 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF No.2
 BOT CHORD 2x4 DF No.2
 WEBS 2x4 DF Stud/Std *Except* 12-2,8-6:2x6 DF No.2, 11-2,9-6:2x4 DF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 8=0-5-8, 12=0-5-8
 Max Horiz 12=103 (LC 15)
 Max Uplift 8=-115 (LC 17), 12=-115 (LC 16)
 Max Grav 8=1521 (LC 24), 12=1521 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/83, 2-3=-3394/188, 3-4=-2867/132, 4-5=-2867/140, 5-6=-3394/159, 6-7=0/83, 2-12=-1527/190, 6-8=-1527/203
 BOT CHORD 11-12=-90/306, 10-11=-186/3102, 9-10=-74/3102, 8-9=-34/273
 WEBS 4-10=0/1916, 5-10=-539/235, 5-9=-387/102, 3-10=-539/235, 3-11=-387/101, 2-11=-88/2732, 6-9=-95/2732

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 12-6-0, Exterior(2R) 12-6-0 to 15-6-0, Interior (1) 15-6-0 to 27-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 12 and 115 lb uplift at joint 8.

LOAD CASE(S) Standard



EXPIRES: JUN 30, 2027
February 27, 2026

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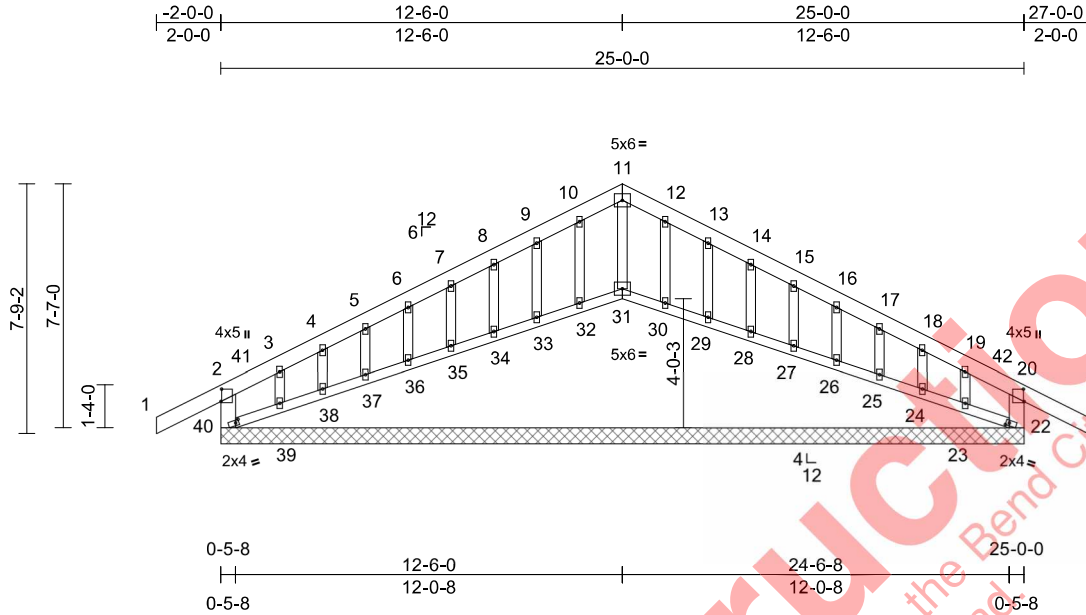
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5246565	Truss A07	Truss Type Scissor Supported Gable	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914216
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Fri Feb 27 12:09:33
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Page: 1



Scale = 1:71.7

Plate Offsets (X, Y): [2:0-4-10,0-0-4], [20:0-4-10,0-0-4], [22:0-1-4-0,1-0], [40:0-1-4-0,1-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	7.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	20	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-R								
BCDL	10.0											
											Weight: 153 lb	FT = 10%

LUMBER
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x6 DF No.2
OTHERS 2x4 DF Stud/Std

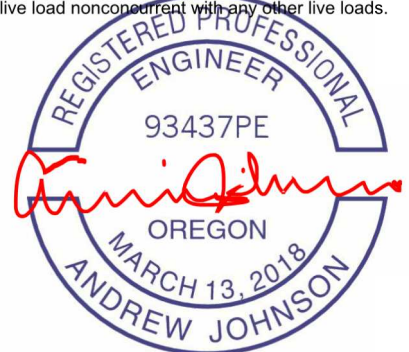
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size)
20=25-0-0, 22=25-0-0, 23=25-0-0,
24=25-0-0, 25=25-0-0, 26=25-0-0,
27=25-0-0, 28=25-0-0, 29=25-0-0,
30=25-0-0, 31=25-0-0, 32=25-0-0,
33=25-0-0, 34=25-0-0, 35=25-0-0,
36=25-0-0, 37=25-0-0, 38=25-0-0,
39=25-0-0, 40=25-0-0
Max Horiz 40=103 (LC 15)
Max Uplift 20=68 (LC 13), 22=-1 (LC 12),
23=80 (LC 22), 24=-21 (LC 17),
25=-25 (LC 17), 26=-24 (LC 17),
27=-24 (LC 17), 28=-25 (LC 17),
29=-31 (LC 17), 30=-2 (LC 17),
32=-4 (LC 16), 33=30 (LC 16),
34=-25 (LC 16), 35=-24 (LC 16),
36=24 (LC 16), 37=-25 (LC 16),
38=-17 (LC 16), 39=-76 (LC 22),
40=-106 (LC 12)
Max Grav 20=350 (LC 24), 22=36 (LC 22),
23=66 (LC 15), 24=163 (LC 24),
25=138 (LC 1), 26=172 (LC 24),
27=206 (LC 24), 28=206 (LC 24),
29=207 (LC 24), 30=216 (LC 24),
31=172 (LC 29), 32=216 (LC 23),
33=207 (LC 23), 34=206 (LC 23),
35=206 (LC 23), 36=172 (LC 23),
37=138 (LC 1), 38=160 (LC 23),
39=89 (LC 14), 40=378 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-40=-346/209, 1-2=0/83, 2-3=-59/76,
3-4=-34/104, 4-5=-29/104, 5-6=-35/109,
6-7=-47/123, 7-8=-59/148, 8-9=-71/174,
9-10=-85/203, 10-11=-91/215, 11-12=-91/215,
12-13=-85/203, 13-14=-71/174,
14-15=-59/148, 15-16=-47/123,
16-17=-35/98, 17-18=-23/92, 18-19=-18/93,
19-20=-46/60, 20-21=0/83, 20-22=0/0
BOT CHORD 39-40=-71/83, 38-39=-65/82, 37-38=-67/82,
36-37=-67/82, 35-36=-67/82, 34-35=-67/82,
33-34=-67/82, 32-33=-67/82, 31-32=-67/82,
30-31=-67/82, 29-30=-67/82, 28-29=-67/82,
27-28=-67/82, 26-27=-67/82, 25-26=-67/82,
24-25=-67/82, 23-24=-68/83, 22-23=-66/80
WEBS 11-31=-146/34, 10-32=-188/21,
9-33=-180/54, 8-34=-179/46, 7-35=-180/45,
6-36=-145/46, 5-37=-111/46, 4-38=-131/58,
3-39=-73/103, 12-30=-187/19,
13-29=-181/54, 14-28=-179/46,
15-27=-180/45, 16-26=-145/46,
17-25=-111/46, 18-24=-135/59,
19-23=-49/108

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 12-6-0, Corner(3R) 12-6-0 to 15-6-0, Exterior(2N) 15-6-0 to 27-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 34.6 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



EXPIRES: JUN 30, 2027
February 27, 2026

Continued on page 2

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400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5246565	Truss A07	Truss Type Scissor Supported Gable	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914216
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Fri Feb 27 12:09:33
ID:EziaZztS6KwwdR5QbNOKZrjZu-RfC?PsB70Hq3NSgPqnl8w3ulTXbGKWrCDoi7J4zJC?f

Page: 2

- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Bearing at joint(s) 40, 22, 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 40, 1 lb uplift at joint 22, 68 lb uplift at joint 20, 4 lb uplift at joint 32, 30 lb uplift at joint 33, 25 lb uplift at joint 34, 24 lb uplift at joint 35, 24 lb uplift at joint 36, 25 lb uplift at joint 37, 17 lb uplift at joint 38, 76 lb uplift at joint 39, 2 lb uplift at joint 30, 31 lb uplift at joint 29, 25 lb uplift at joint 28, 24 lb uplift at joint 27, 24 lb uplift at joint 26, 25 lb uplift at joint 25, 21 lb uplift at joint 24 and 80 lb uplift at joint 23.
- 15) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 31, 32, 33, 34, 35, 36, 37, 38, 39, 30, 29, 28, 27, 26, 25, 24, 23.

LOAD CASE(S) Standard

Not for Construction
 These plans are licensed by the City of Bend for permitting within the Bend City Limits.
 For use of these plans, apply for permits directly with the City of Bend.

⚠ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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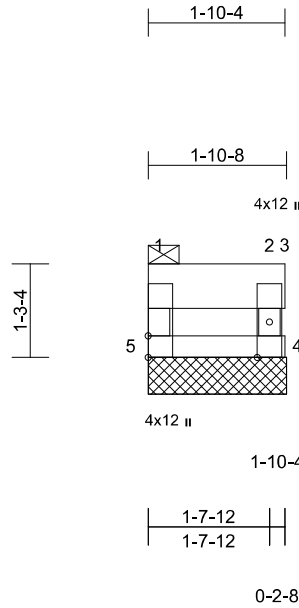
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5246565	Truss BP	Truss Type Blocking Supported Gable	Qty 34	Ply 1	Sierra James - Mt. Bachelor Pad RF Job Reference (optional)	R92914217
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Fri Feb 27 12:09:33
ID:k51iniV1D7h3ViC0ZDMjqXzjsB6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	n/a	-	n/a	999	MT20	220/195
Snow (Pf/Pg)	34.7/50.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	7.0	Rep Stress Incr	NO	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IBC2021/TPI2014	Matrix-R								
BCDL	10.0										Weight: 9 lb	FT = 10%

LUMBER

TOP CHORD 2x8 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF Stud/Std

BRACING

TOP CHORD 2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 3=1-10-8, 4=1-10-8, 5=1-10-8
Max Horiz 5=81 (LC 41)
Max Uplift 3=-187 (LC 41), 4=-64 (LC 41),
5=-248 (LC 38)
Max Grav 3=183 (LC 58), 4=91 (LC 32),
5=260 (LC 59)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-5=-154/182, 1-2=-238/236, 2-3=-57/57,
2-4=-69/86
BOT CHORD 4-5=-262/253

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=100mph (3-second gust) Vasd=79mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=50.0 psf; Pf=34.6 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- Provide adequate drainage to prevent water ponding.

- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 248 lb uplift at joint 5, 187 lb uplift at joint 3 and 64 lb uplift at joint 4.
- This truss has been designed for a total drag load of 275 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-10-4 for 275.0 plf.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



EXPIRES: JUN 30, 2027
February 27, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

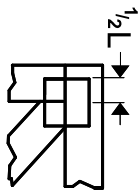
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpin.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

MiTek®

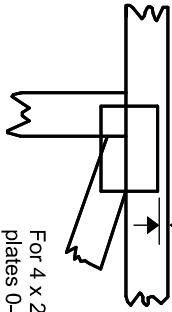
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MITtek software or upon request.

PLATE SIZE

4 X 4

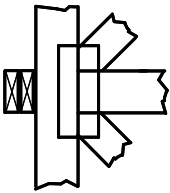
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

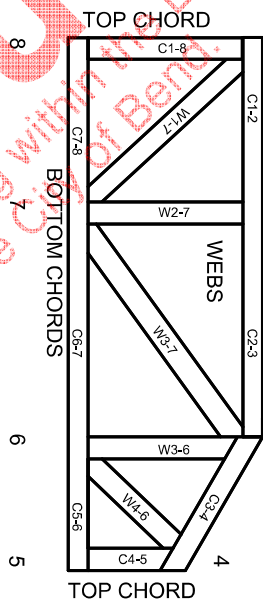


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-22: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.
- BCSI:

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

- ESR-1988, ESR-2362, ESR-2685, ESR-3282
- ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

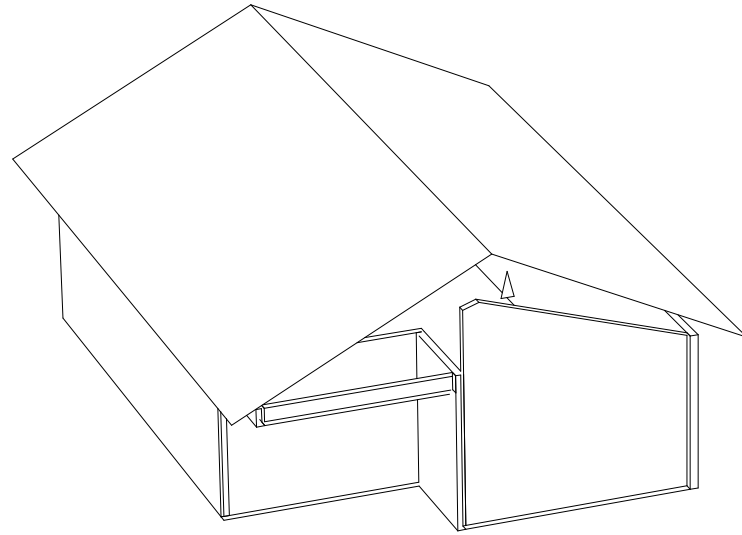
Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and weave at joint locations are regulated by ANSI/TP1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.



MITtek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

TRIANGLE SHAPE ▲ INDICATES LEFT END ON LAYOUT AND TRUSS DRAWING ON STAMPED ENGINEERING PAGE



-Blocking Panels Loaded 275 PLF
-2x8 Tops on Panels
-2x6 Top Chords
-16" OA Heels

25-00-00

Added Loading for Storage

Roof App# 5246565
 Floor App# 5273722

Use LUS24 Hangers UNO

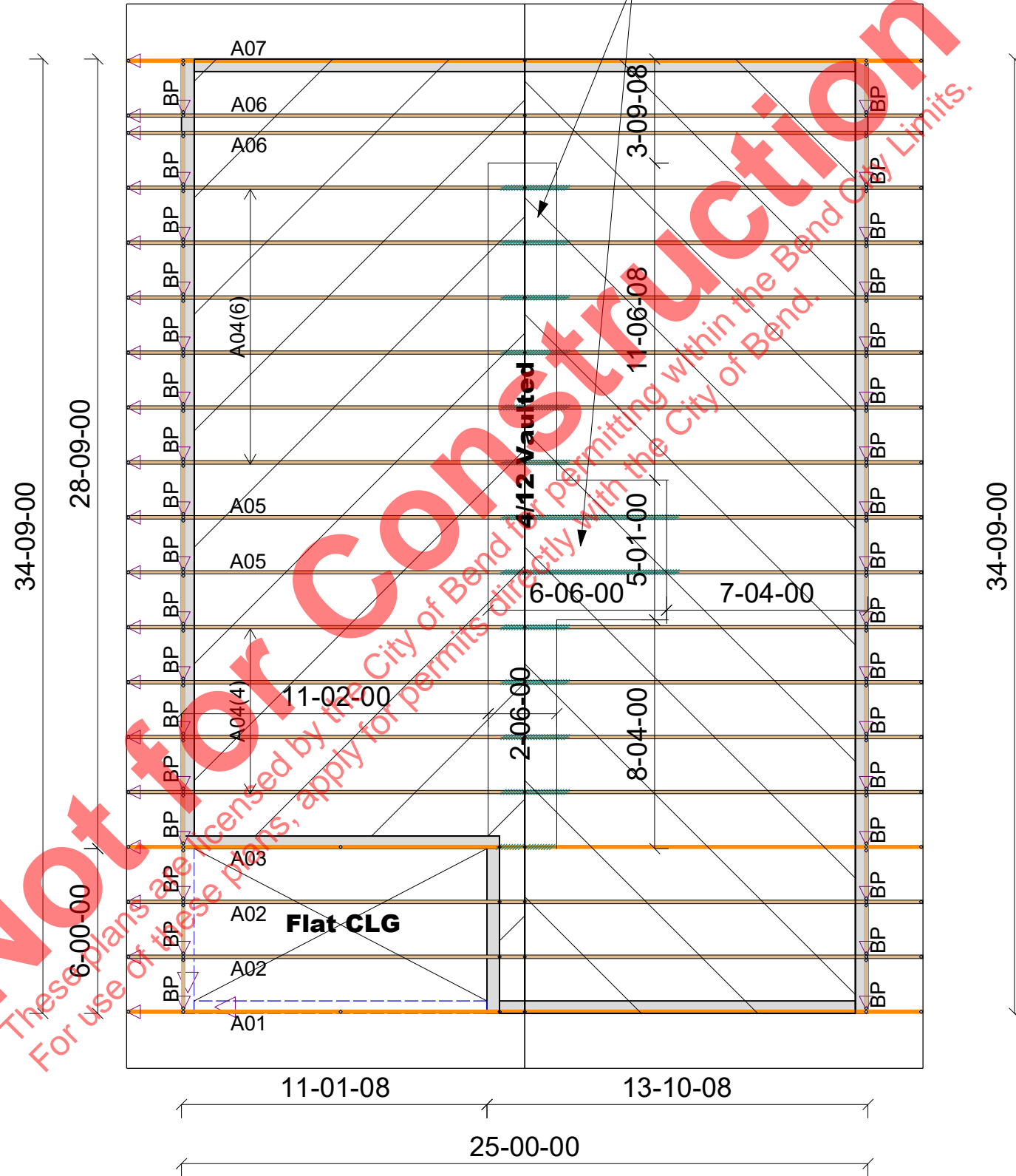
16" O.C. Gable Studs

100% 2x6 4-Hole Vents Provided for every bay.

20 PSF LL + 7.5 PSF DL
 added to Bottom
 Chords of trusses, for storage
 and shelf storage to hang
 from Bottom Chords.
PER S3 Detail A&B

BP's Total Height 1'-3 1/4"
(3/4" Air Gap)

TC LL = 50 Ground Snow
 TC DL = 7
 BC LL = 0
 BC DL = 10
 Total Load = 51.7 - W/ Reduction
 Wind Speed = 100 mph
 Exposure = C
 Roof pitch = 6/12
 Overhang = 24"



Jurisdiction Stamp

DO NOT CUT, DRILL, NOTCH OR MODIFY TRUSS MEMBERS WITHOUT PRIOR APPROVAL FROM BUILDERS FIRSTSOURCE TRUSS

DATE: 3/4/2026	SCALE: NTS
SALESMAN: Tyler Campbell	PROJECT #: 5246565
DESIGNER: BFS	

SW Washington and Oregon Components
 Woodland Office: 360-841-5900
 Beaverton Office: 971-371-5971



BUILDER: Sierra James

PROJECT: Mt. Bachelor Pad - Roof

ADDRESS: Bend, OR.

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See the individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive, Madison, WI 53179

Lateral and Gravity Loads Analysis (Engineering Design)

3/6/2026

Mt Bachelor Pad ADU (Pre Approved Plan)

City Limits

Bend, OR

Project Specifications

Plan Evaluated

SJC "Mt Bachelor Pad"

Design Summary

Occupancy Group R, Construction Type VB

Structural Drawings

S1 Foundation	(3/6/2026)
S2 Main Level Framing	(3/6/2026)
S3 Upper Level Framing	(3/6/2026)
S4 Main Level Lateral	(3/6/2026)
S5 Upper Level Lateral	(3/6/2026)
S6 Details	(3/6/2026)

Orientation

See drawings for orientation.

Design Parameters

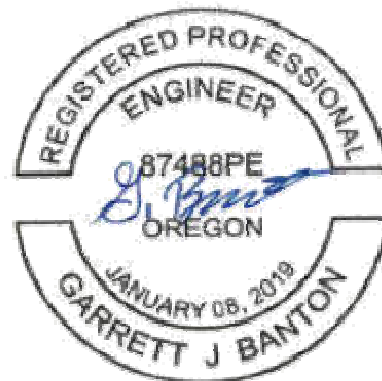
Basic Wind Speed	99 MPH, Exp C	[IBC]
Seismic Design	0.38g	[ASCE7-16 Zip Code]
Soil Bearing	1500 PSF	[Table R401.4.1]
Ground Snow Load	50 PSF	[SEAO-ASCE7-16]
Roof Dead Load	20 PSF	
Floor Live Load	40 PSF	
Floor Dead Load	20 PSF	

NOTE: All Specifications are minimums. Upgraded size and quality is acceptable.

WARNING: It is the responsibility of the user of this document to ensure that all the technical information is properly transferred to the applicable construction documents and that it is properly implemented during the construction of the structure. Failure to incorporate all the requirements of this design may invalidate the integrity of the structure and release responsibility from the engineer of record.

BANTON
ENGINEERING, INC.

Garrett J. Banton, PE
Engineering License #87488PE (Oregon)
3008 NE Charleston Ct.
Bend, Oregon 97701
Business Phone: (541) 306-7893



EXPIRES: 12/31/2027

Wind and Seismic Force Calculation

Based on IBC and ASCE 7-16 Directional Procedure, Chapter 27.2

Wind Pressure Boundary Conditions

Risk Category	II	
Ultimate Wind Speed	99 Mph	[IBC]
Wind directionality Factor (Kd)	0.85	[ASCE 7-16, Table 26.6-1]
Wind exposure Category	C	[ASCE 7-16, 26.7]
Topographic Factor (Kzt)	$1 \frac{H}{L} < 0.2$	[ASCE 7-16, Figure 26.8-1]
Gust Effect Factor (G)	0.85	[ASCE 7-16, 26.9]
Enclosure Classification	Enclosed	[ASCE 7-16, 26.11]
Internal Pressure Coefficient (Gcpi)	0.18	[ASCE 7-16, 26.11]
Velocity Pressure Exposure Coefficient (Kh)	0.944	[ASCE 7-16, Table 27.3-1]
Velocity Pressure (qh)	20.1 Psf	
External Pressure Coefficients (Cp) [Walls, Roof]	0.8, 0.4	[ASCE 7-16, Table 27.3-1]
Wind Pressure (p)	23.8 Psf	
Flat Walls Use	23.8 Psf	

Direction F/B Wind Pressure

Flat Wall Height	$h = 24'$	
Wall Horizontal	$w = 25'$	
Wall Wind Force	$23.8 \text{ Psf} \times 24' \times 25' = 14280 \text{ lb}$	[ASCE 7-16, 27.1.5]
Slope Roof Height	$h = 0'$ (Pitch: 6:12)	
Roof Horizontal	$w = 25'$	
Roof Wind Force	$23.8 \text{ Psf} \times 0' \times 25' = 0 \text{ lb}$	
Average Wind Pressure	23.8 Psf (Weighted Average)	
Total Wind Pressure	$14280 \text{ lb} + 0 \text{ lb} = 14280 \text{ lb}$	

Direction L/R Wind Pressure

Flat Wall Height	$h = 20'$	
Wall Horizontal	$w = 35'$	
Wall Wind Force	$23.8 \text{ Psf} \times 20' \times 35' = 16660 \text{ lb}$	[ASCE 7-16, 27.1.5]
Slope Roof Height	$h = 8'$ (Pitch: 6:12)	
Roof Horizontal	$w = 35'$	
Roof Wind Force	$23.8 \text{ Psf} \times 8' \times 35' = 6664 \text{ lb}$	
Average Wind Pressure	23.8 Psf (Weighted Average)	
Total Wind Pressure	$16660 \text{ lb} + 6664 \text{ lb} = 23324 \text{ lb}$	

Seismic Force Calculation

Design Short-Period Spectral Acceleration (S_{ds})	0.38g	[ASCE 7-16, Ch 11.4.5]
Seismic Response Coefficient (C_s)	0.0585	[ASCE 7-16, CI 12.8.1.1]
Base Shear: $V = C_s \times W = 0.0585 \times 86917 = 5085 \text{ lb}$		

Governing Forces

14280 lb (F/B) - Wind Governs

23324 lb (L/R) - Wind Governs

Roof Snow Load Calculation

Based on 2019 OSSC 1603.1.3, ASCE7-16, Chapter 7, SEAO

Ground Snow Load Adjustment	0.007 psf/ft (East of the Cascades)	[OSSC 1608, Table 7-2]
Exposure Factor (Ce)	1 (Exposure C Part Sheltered)	[ASCE7-16, Table 7-2]
Thermal Factor (Ct)	1 (Heated Structure)	[ASCE7-16, Table 7-3]
Importance Factor (I)	1 (Category II Structure)	[Section 7.3, Table 1.5.2]
Cold Roof Slope Factor (Cs)	1 (Fig 7-2a w/ 6:12 pitch)	[ASCE7-16 Section 7.4]

Structure Elevation	4000' ASL	
Ground Snow Load (pg)	50 psf (model at 4000' ASL)	[ASCE7-16, SEAO]
Adjusted Ground Snow Load (pga)	$50 \text{ psf} + 0.007(4000' - 4000') = 50 \text{ psf}$	[OSSC 1608, Table 7-2]
Flat Roof Snow Load (pf)	$0.7 \times 1 \times 1 \times 1 \times 50 = 35 \text{ psf}$	[ASCE7-16 Section 7.3]
Sloped Roof Snow Load (ps)	$1 \times 35 \text{ psf} = 35 \text{ psf}$	[ASCE7-16 Section 7.4]
Snow Load Used	35 psf	
Unheated Roof Option	45 psf	

Not for Construction

These plans are licensed by the City of Bend for permitting within the Bend City Limits.
For use of these plans, apply for permits directly with the City of Bend.

Foundation Wall Footings

Note: The following footing and stem wall sizes are minimums and were used in the gravity loadings analysis. All rebar to be specified on drawing schedules.

WF1 - 2 Story Exterior Wall Footings (Max) 16"W X 8"D FTG W/ 6"W x 24"D STEM WALL

Stem Wall (6")	150 plf	(0SL/0LL/150DL)
Roof (15X)	825 plf	(525SL/0LL/300DL)
Floor (12X)	720 plf	(0SL/480LL/240DL)
Wall (18')	180 plf	(0SL/0LL/180DL)
Total:	1875 plf	(525SL/480LL/870DL)

WF2 - Garage Interior Footings 12"W X 6"D FTG W/ 6"W x 24"D STEM WALL

Stem Wall (6")	150 plf	(0SL/0LL/150DL)
Floor (2X)	120 plf	(0SL/80LL/40DL)
Wall (9')	90 plf	(0SL/0LL/90DL)
Total:	360 plf	(0SL/80LL/280DL)

Not for Construction
These plans are licensed by the City of Bend for permitting within the Bend City limits.
For use of these plans, apply for permits directly with the City of Bend.

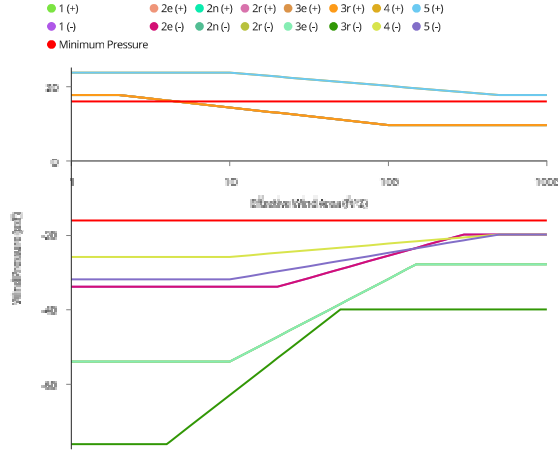


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: WIND (LATERAL)
References: ASCE 7-16		

Summary

Zones

Note: Some wind pressures are below 16 psf which is the code-required minimum. The horizontal red lines on the diagram below indicate the minimum positive/negative wind pressures.



Corner Zone Width

$a = 3 \text{ ft}, 0 \text{ in}$

Wind Pressures

$p =$

Zone	Positive Wind Pressure p^+ (psf)	Negative Wind Pressure p^- (psf)
1	17.7	-33.8
2e	17.7	-33.8
2n	17.7	-54
2r	17.7	-54
3e	17.7	-54
3r	17.7	-76.1
4	23.8	-25.8
5	23.8	-31.8

Project Defaults

Building Code $code =$ International Residential Code (IRC) 2021

Basic Wind Speed

$V = 99 \text{ mi/hr}$

Exposure Category

C: Open terrain with scattered obstructions

Key Properties

Basic Wind Speed

$V = 99 \text{ mi/hr}$

Exposure Category

C

Individual Effective Area per Wind Zone

No

Effective Roof Member Wind Area

$A_{\text{roof}} = 1 \text{ ft}^2$

Effective Wall Member Wind Area

$A_{\text{wall}} = 1 \text{ ft}^2$

Include Roof Overhangs?

No

Building Properties

Roof Pitch

$\alpha = 6 : 12$

Roof Eave Height

$h_e = 21 \text{ ft}, 9 \text{ in}$

Roof Mean Height

$h = 24 \text{ ft}, 10.5 \text{ in}$

Width (Perpendicular to Ridge)

$w = 25 \text{ ft}$

Length (Parallel to Ridge)

$l = 35 \text{ ft}$

Enclosure Type

Enclosed

Terrain Properties (ASCE 7-16, Cl. 26.7-9)

No address is specified in Project Details. No elevation will be determined and the elevation factor K_e will conservatively be taken as 1.0. This can be changed by setting an address in Project Details or manually entering a ground elevation.

Warning:

Wind Load Parameters (ASCE 7-16, Cl. 26.6-10)

Wind Directionality Factor

$K_d = 0.85$

Topographic Factor

$K_{zt} = 1$

Ground Elevation Factor

$K_e = 1$

Velocity Pressure Exposure Coefficient

$K_h = 0.944$

Velocity Pressure

$q_h = 20.1 \text{ psf}$

Comments

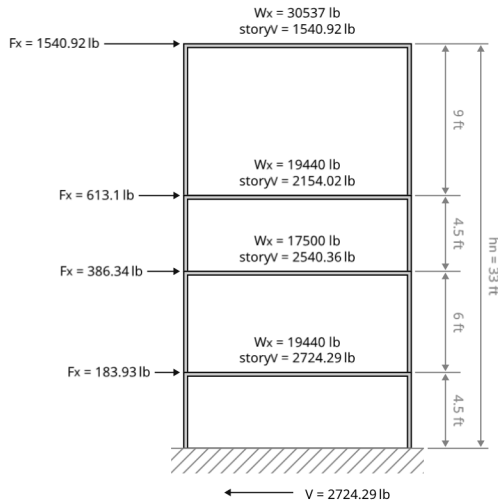




Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: SEISMIC (LATERAL) PASS
References: ASCE 7-16		

Summary

Design Short-Period Spectral Acceleration	$S_{DS} = 0.204$
Design Long-Period Spectral Acceleration	$S_{D1} = 0.107$
Seismic Design Category	$SDC = B$
Seismic Base Shear	$V = 2724 \text{ lb}$



Project Defaults Override

Override Project Defaults?	Yes
Building Risk Category	II - Regular Building
Site Class	A - Hard Rock

Short-Period Spectral Acceleration	$S_{s,input} = 0.382$
Long-Period Spectral Acceleration	$S_{1,input} = 0.2$
Long-Period Transition Period	$T_{L,input} = 16 \text{ s}$

Site Parameters (ASCE 7-16)

Building Risk Category	$RC = \text{II}$
Site Class	$SC = \text{A}$
Short-Period Spectral Acceleration	$S_s = 0.382$
Long-Period Spectral Acceleration	$S_1 = 0.2$
Long-Period Transition Period	$T_L = 16 \text{ s}$

Key Building Properties (ASCE 7-16)

Seismic Force-Resisting System

15. Light-frame (wood) walls sheathed with wood structural panels rated for shear resistance

SFRS Properties (ASCE 7-16, Cl 12)

Building System Height Limit (ft)	Height Limit = NL
-----------------------------------	-------------------

Equivalent Lateral Force (ELF) Procedure (ASCE 7-16, Cl 12.8)

Approximate Fundamental Period	$T_a = 0.217 \text{ s}$
Building Fundamental Period	$T = 0.217 \text{ s}$
Total Structural SFRS Height	$h_n = 24 \text{ ft}, 0 \text{ in}$
Total Effective Seismic Weight	$W_{total} = 86917 \text{ lb}$
Seismic Importance Factor	$I_e = 1$
Seismic Response Coefficient	$C_s = 0.0313$
Number of Stories	$n_{story} = 4$





Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 2WL2/2WL5 #4 SHEAR WALL MAX (LATERAL) PASS	
References: AWC SDPWS 2021, AWC NDS 2018		

Summary

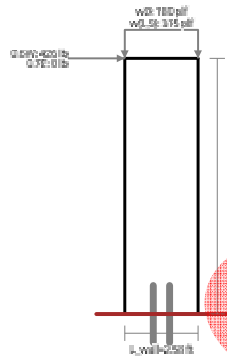
Governing Wind Shear Load	$V_{0,W} = 426$ lb
41% Governing Allowable Wind Shear	$V_{a,W} = 1029$ lb
Governing Seismic Shear Load	$V_{0,E} = 0$ lb
0% Governing Allowable Seismic Shear	$V_{a,E} = 735$ lb

Chord Summary

Required Number of Plies in Chord	$n_{plies,chords} = 1$
Maximum Chord Tension Load	$T_{chord} = 1584$ lb
18% Allowable Chord Tension	$T_a = 8970$ lb
Maximum Chord Compression Load	$C_{chord} = 2023$ lb
39% Allowable Chord Compression	$C_a = 5156$ lb

Shear Wall Diagram

== Holdowns Required



Shear Wall Type (SDPWS 2021, CI 4.3.2)

Shear Wall Type	Segmented
Sheathing	
Sheathing & Nail Pattern	7/16" OSB/Plywood, 8d@4"
Sheathed Sides	One Side
Blocking at Panel Edges	Blocked
Nail Spacing in Field of Panels	$s_{field} = 12$ in

Studs

Stud Size & Grade	2x6 D.Fir-L No. 2
Stud Spacing	$s_{stud} = 16$ in

Design Criteria

Service Condition	Service? = Dry
Studs are Incised?	Incised? = No

Stud Properties

Depth	$d_{stud} = 5.5$ in
Gross Cross-Sectional Area of One Stud	$A_{g,stud} = 8.25$ in ²
Net Cross-Sectional Area of One Stud	$A_{n,stud} = 7.5$ in ²
Base Compression Parallel to Grain Allowable Stress	$F_{c,stud} = 1350$ psi
Base Compression Perpendicular to Grain Allowable Stress	$F_{c\perp,stud} = 625$ psi
Base Tension Parallel to Grain Allowable Stress	$F_{t,stud} = 575$ psi
Base Minimum Elastic Modulus	$E_{min,stud} = 580\,000$ psi
Base Modulus of Elasticity	$E_{stud} = 1.60 \times 10^6$ psi

Stud Elastic Modulus (NDS 2018 2.3)

Adjusted Minimum Elastic Modulus (X-axis)	$E'_{min} = 580\,000$ psi
Adjusted Modulus of Elasticity	$E'_{stud} = 1.60 \times 10^6$ psi

Chord Tension Design (NDS 2018 3.8)

Duration Factor	$C_{D,t} = 1.6$
Size Factor	$C_{F,t} = 1.3$
Adjusted Tension Strength	$F'_t = 1196$ psi

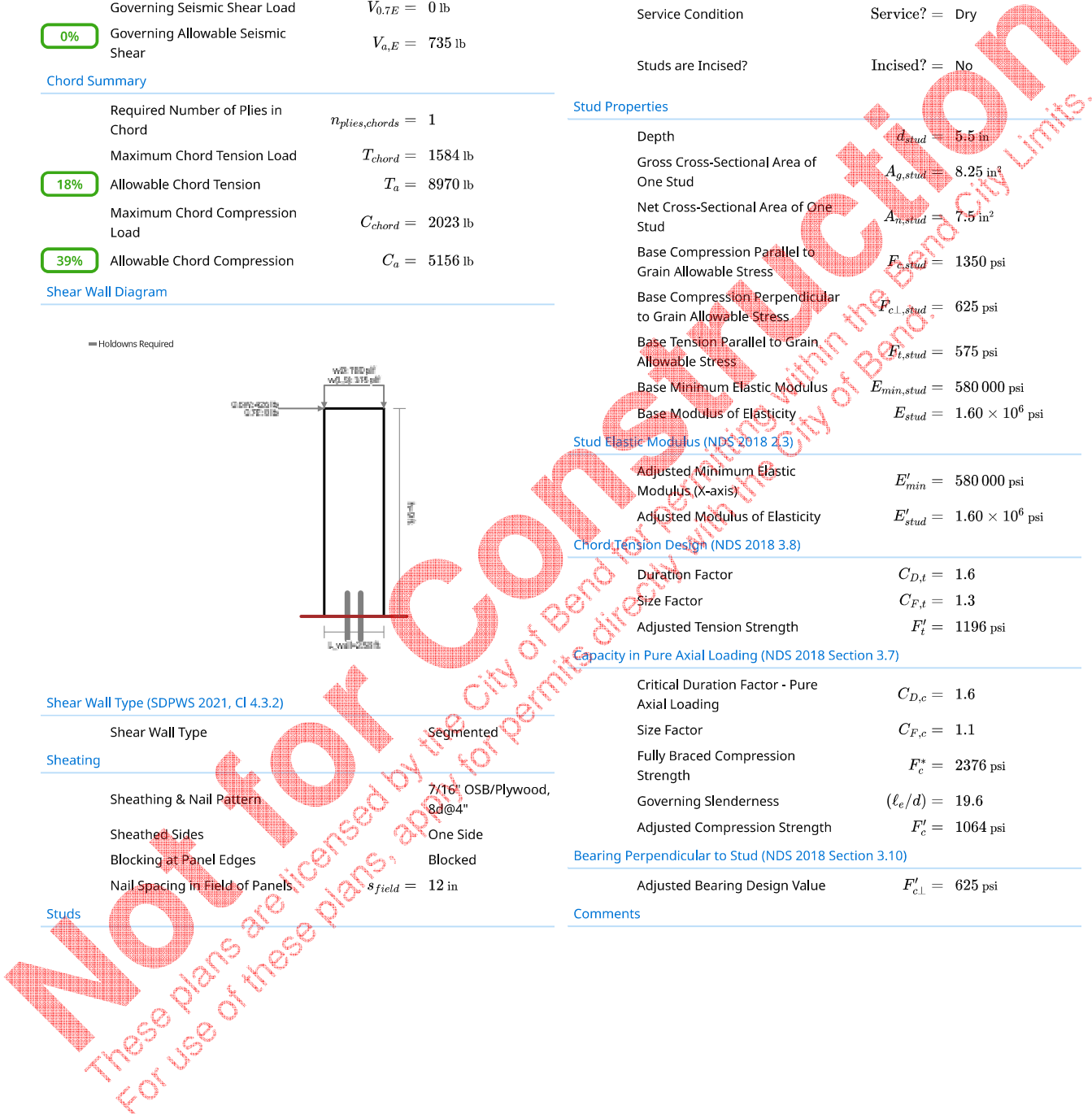
Capacity in Pure Axial Loading (NDS 2018 Section 3.7)

Critical Duration Factor - Pure Axial Loading	$C_{D,c} = 1.6$
Size Factor	$C_{F,c} = 1.1$
Fully Braced Compression Strength	$F_c^* = 2376$ psi
Governing Slenderness	$(\ell_e/d) = 19.6$
Adjusted Compression Strength	$F'_c = 1064$ psi

Bearing Perpendicular to Stud (NDS 2018 Section 3.10)

Adjusted Bearing Design Value	$F'_{c\perp} = 625$ psi
-------------------------------	-------------------------

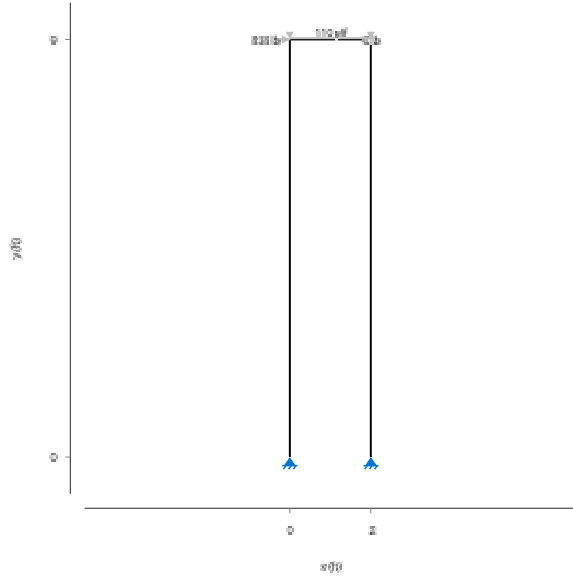
Comments





Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 2WL8/2WL3 #3 SHEAR WALL MAX (LATERAL)	

Summary



Portal Frame Geometry

Portal Frame Type Flat / Monoslope
 Number of Bays $n_{bays} = 1$
 Bay Width $W_{bay} = 1.75 \text{ ft}$
 Outer Leg Properties $leg_{out} =$

Leg	Support Type	Leg Height H (ft)	Base Elevation B (ft)
Left Leg	Pinned	9	0
Right Leg	Pinned	9	0

Distributed Loads

Total Distributed Load on Chords
 - Vertical $w_{top,vert} = 0 \text{ plf}$
 Total Distributed Load on Chords
 - Perpendicular to Member $w_{top} = 110 \text{ plf}$
 Total Inward Distributed Load on
 Left Leg $w_{left,in} = 0 \text{ plf}$
 Total Inward Distributed Load on
 Right Leg $w_{right,in} = 0 \text{ plf}$

Not for Construction
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Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 2WL7/2WL4 #3 SHEAR WALL MAX (LATERAL) PASS	
References: AWC SDPWS 2021, AWC NDS 2018		

Summary

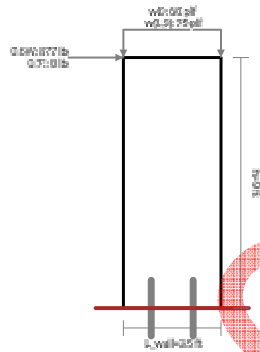
Governing Wind Shear Load	$V_{0,W} = 877$ lb
43% Governing Allowable Wind Shear	$V_{a,W} = 2047$ lb
Governing Seismic Shear Load	$V_{0,E} = 0$ lb
0% Governing Allowable Seismic Shear	$V_{a,E} = 1462$ lb

Chord Summary

Required Number of Plies in Chord	$n_{plies,chords} = 1$
Maximum Chord Tension Load	$T_{chord} = 2446$ lb
27% Allowable Chord Tension	$T_a = 8970$ lb
Maximum Chord Compression Load	$C_{chord} = 2730$ lb
53% Allowable Chord Compression	$C_a = 5156$ lb

Shear Wall Diagram

— Holdowns Required



Shear Wall Type (SDPWS 2021, CI 4.3.2)

Shear Wall Type	Segmented
Sheathing	
Sheathing & Nail Pattern	7/16" OSB/Plywood, 8d@3"
Sheathed Sides	One Side
Blocking at Panel Edges	Blocked
Nail Spacing in Field of Panels	$s_{field} = 12$ in

Studs

Stud Size & Grade	2x6 D.Fir-L No. 2
Stud Spacing	$s_{stud} = 16$ in

Design Criteria

Service Condition	Service? = Dry
Studs are Incised?	Incised? = No

Stud Properties

Depth	$d_{stud} = 5.5$ in
Gross Cross-Sectional Area of One Stud	$A_{g,stud} = 8.25$ in ²
Net Cross-Sectional Area of One Stud	$A_{n,stud} = 7.5$ in ²
Base Compression Parallel to Grain Allowable Stress	$F_{c,stud} = 1350$ psi
Base Compression Perpendicular to Grain Allowable Stress	$F_{c\perp,stud} = 625$ psi
Base Tension Parallel to Grain Allowable Stress	$F_{t,stud} = 575$ psi
Base Minimum Elastic Modulus	$E_{min,stud} = 580000$ psi
Base Modulus of Elasticity	$E_{stud} = 1.60 \times 10^6$ psi

Stud Elastic Modulus (NDS 2018 2.3)

Adjusted Minimum Elastic Modulus (X-axis)	$E'_{min} = 580000$ psi
Adjusted Modulus of Elasticity	$E'_{stud} = 1.60 \times 10^6$ psi

Chord Tension Design (NDS 2018 3.8)

Duration Factor	$C_{D,t} = 1.6$
Size Factor	$C_{F,t} = 1.3$
Adjusted Tension Strength	$F'_t = 1196$ psi

Capacity in Pure Axial Loading (NDS 2018 Section 3.7)

Critical Duration Factor - Pure Axial Loading	$C_{D,c} = 1.6$
Size Factor	$C_{F,c} = 1.1$
Fully Braced Compression Strength	$F_c^* = 2376$ psi
Governing Slenderness	$(\ell_e/d) = 19.6$
Adjusted Compression Strength	$F'_c = 1064$ psi

Bearing Perpendicular to Stud (NDS 2018 Section 3.10)

Adjusted Bearing Design Value	$F'_{c\perp} = 625$ psi
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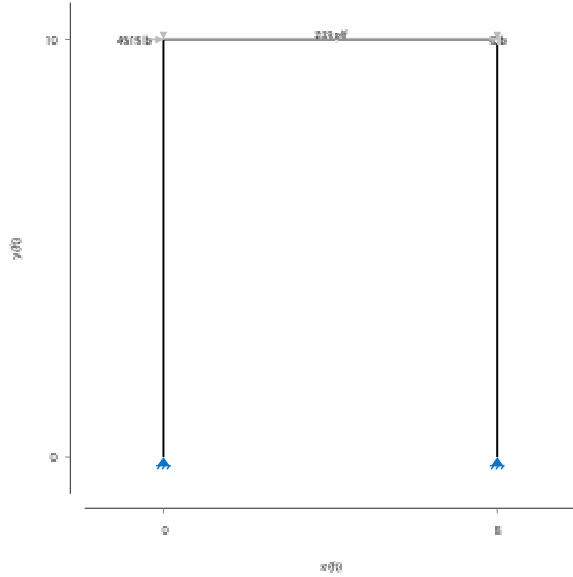
Comments

NOT FOR CONSTRUCTION
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 For use of these plans, apply for permits directly with the City of Bend.



Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1WL10/1WL3 DOUBLE #2 PORTAL FRAME (LATERAL)

Summary



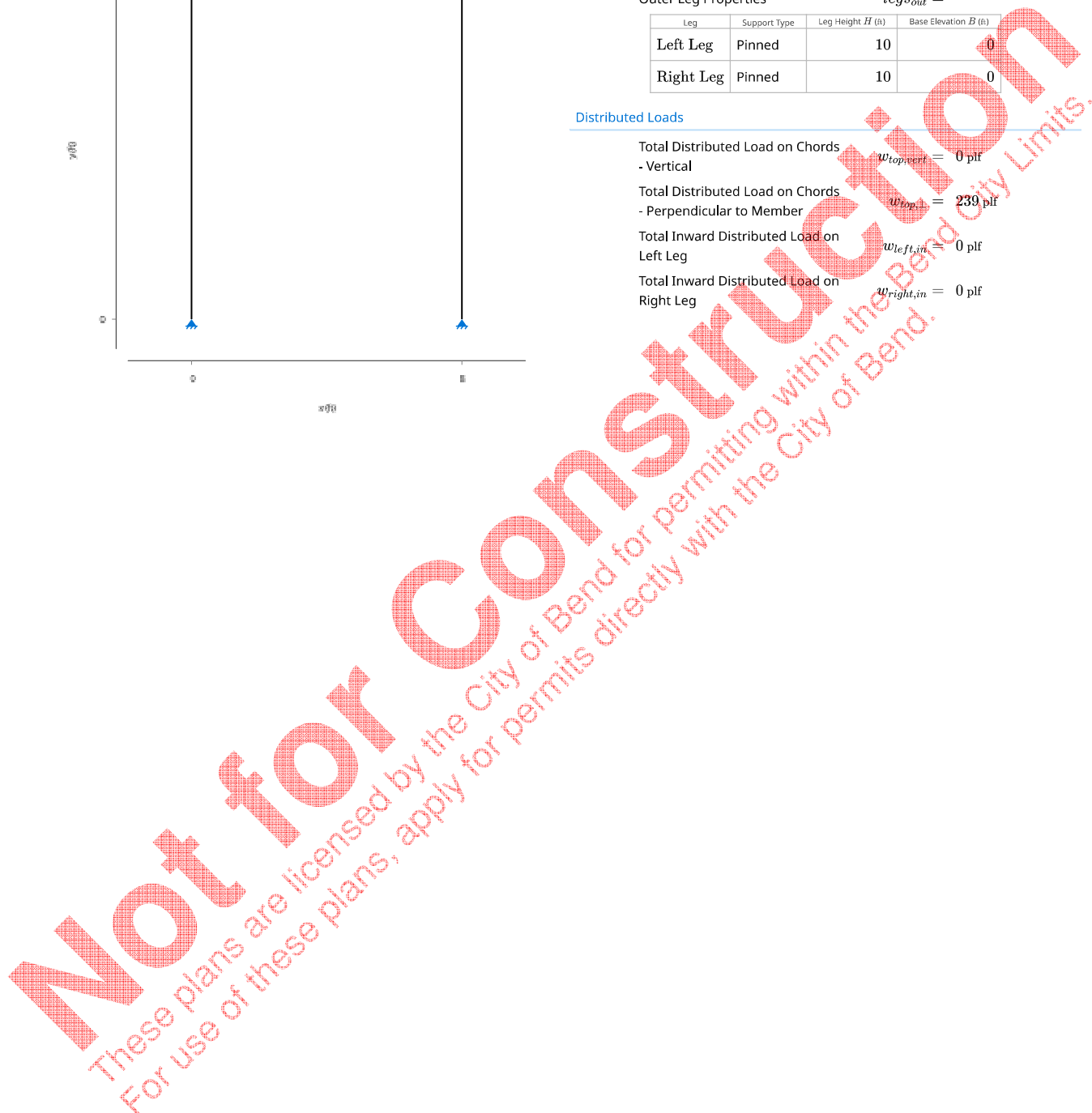
Portal Frame Geometry

Portal Frame Type Flat / Monoslope
 Number of Bays $n_{bays} = 1$
 Bay Width $W_{bay} = 8 \text{ ft}$
 Outer Leg Properties $leg_{out} =$

Leg	Support Type	Leg Height H (ft)	Base Elevation B (ft)
Left Leg	Pinned	10	0
Right Leg	Pinned	10	0

Distributed Loads

Total Distributed Load on Chords - Vertical $w_{top,vert} = 0 \text{ plf}$
 Total Distributed Load on Chords - Perpendicular to Member $w_{top,\perp} = 239 \text{ plf}$
 Total Inward Distributed Load on Left Leg $w_{left,in} = 0 \text{ plf}$
 Total Inward Distributed Load on Right Leg $w_{right,in} = 0 \text{ plf}$





Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 1WL9/1WL4 #4 SHEAR WALL MAX (LATERAL) PASS	
References: AWC SDPWS 2021, AWC NDS 2018		

Summary

Governing Wind Shear Load	$V_{0,W} = 669$ lb
52% Governing Allowable Wind Shear	$V_{a,W} = 1286$ lb
Governing Seismic Shear Load	$V_{0,E} = 0$ lb
0% Governing Allowable Seismic Shear	$V_{a,E} = 919$ lb

Chord Summary

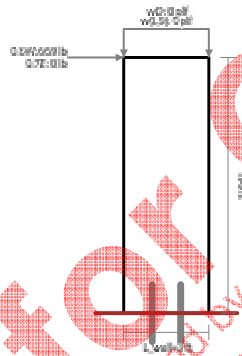
Required Number of Plies in Chord	$n_{plies,chords} = 2$
Maximum Chord Tension Load	$T_{chord} = 2313$ lb
13% Allowable Chord Tension	$T_a = 17940$ lb
Maximum Chord Compression Load	$C_{chord} = 2470$ lb
24% Allowable Chord Compression	$C_a = 10312$ lb

Holdown Design

Holdown Designation	HDUE3-SDS3
61% Holdown Capacity Check	$HD/HD' = 2313$ lb / 3790 lb
Required Wood Fasteners	$WF = (7) 0.25 \times 3$ SDS

Shear Wall Diagram

== Holdowns Required



Shear Wall Type (SDPWS-2021, CI 4.3.2)

Shear Wall Type	Segmented
Sheathing & Nail Pattern	7/16" OSB/Plywood, 8d@4"
Sheathed Sides	One Side
Blocking at Panel Edges	Blocked
Nail Spacing in Field of Panels	$s_{field} = 12$ in

Studs

Stud Size & Grade	2x6 D.Fir-L No. 2
Stud Spacing	$s_{stud} = 16$ in
Default Number of Plies in Chord	$n_{plies,default} = 2$

Design Criteria

Service Condition	Service? = Dry
Studs are Incised?	Incised? No

Stud Properties

Depth	$d_{stud} = 5.5$ in
Gross Cross-Sectional Area of One Stud	$A_{g,stud} = 8.25$ in ²
Net Cross-Sectional Area of One Stud	$A_{n,stud} = 7.5$ in ²
Base Compression Parallel to Grain Allowable Stress	$F_{c,stud} = 1350$ psi
Base Compression Perpendicular to Grain Allowable Stress	$F_{c\perp,stud} = 625$ psi
Base Tension Parallel to Grain Allowable Stress	$F_{t,stud} = 575$ psi
Base Minimum Elastic Modulus	$E_{min,stud} = 580000$ psi
Base Modulus of Elasticity	$E_{stud} = 1.60 \times 10^6$ psi

Stud Elastic Modulus (NDS 2018 2.3)

Adjusted Minimum Elastic Modulus (X-axis)	$E'_{min} = 580000$ psi
Adjusted Modulus of Elasticity	$E'_{stud} = 1.60 \times 10^6$ psi

Chord Tension Design (NDS 2018 3.8)

Duration Factor	$C_{D,t} = 1.6$
Size Factor	$C_{F,t} = 1.3$
Adjusted Tension Strength	$F'_t = 1196$ psi

Capacity in Pure Axial Loading (NDS 2018 Section 3.7)

Critical Duration Factor - Pure Axial Loading	$C_{D,c} = 1.6$
Size Factor	$C_{F,c} = 1.1$
Fully Braced Compression Strength	$F_c^* = 2376$ psi
Governing Slenderness	$(\ell_c/d) = 19.6$
Adjusted Compression Strength	$F'_c = 1064$ psi

Bearing Perpendicular to Stud (NDS 2018 Section 3.10)

Adjusted Bearing Design Value	$F'_{c\perp} = 625$ psi
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Holdown Capacity

Holdown Capacity	$Holdown_{capacity} = 3790$ lb
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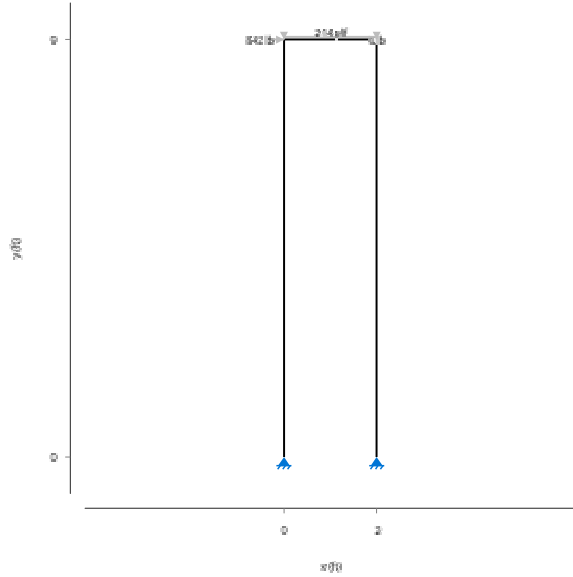
Comments





Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 1WL8/1WL5 #3 SHEAR WALL MAX (LATERAL)	

Summary



Portal Frame Geometry

Portal Frame Type Flat / Monoslope
 Number of Bays $n_{bays} = 1$
 Bay Width $W_{bay} = 2 \text{ ft}$
 Outer Leg Properties $leg_{s_{out}} =$

Leg	Support Type	Leg Height H (ft)	Base Elevation B (ft)
Left Leg	Pinned	9	0
Right Leg	Pinned	9	0

Distributed Loads

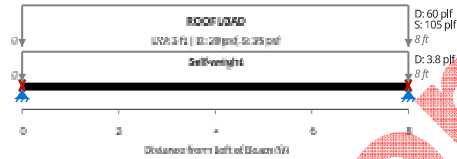
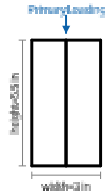
Total Distributed Load on Chords - Vertical $w_{top,vert} = 0 \text{ plf}$
 Total Distributed Load on Chords - Perpendicular to Member $w_{top,\perp} = 214 \text{ plf}$
 Total Inward Distributed Load on Left Leg $w_{left,in} = 0 \text{ plf}$
 Total Inward Distributed Load on Right Leg $w_{right,in} = 0 \text{ plf}$

Not for Construction
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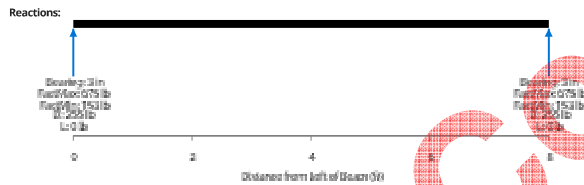


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 2H1 (2 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2
81% Moment Utilization	$M/M' = 1350 \text{ lbft} / 1674 \text{ lbft}$
30% Shear Utilization	$V/V' = 675 \text{ lb} / 2277 \text{ lb}$
12% Bearing Utilization	$R/R' = 675 \text{ lb} / 5625 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.36 \text{ in}$
36% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.145 \text{ in} (L/660)$



Key Properties

Beam Plan Length	$L_X = 8 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 16.5 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 41.6 \text{ in}^4$
Section Modulus	$S = 15.1 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1328 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1043 \text{ psi}$
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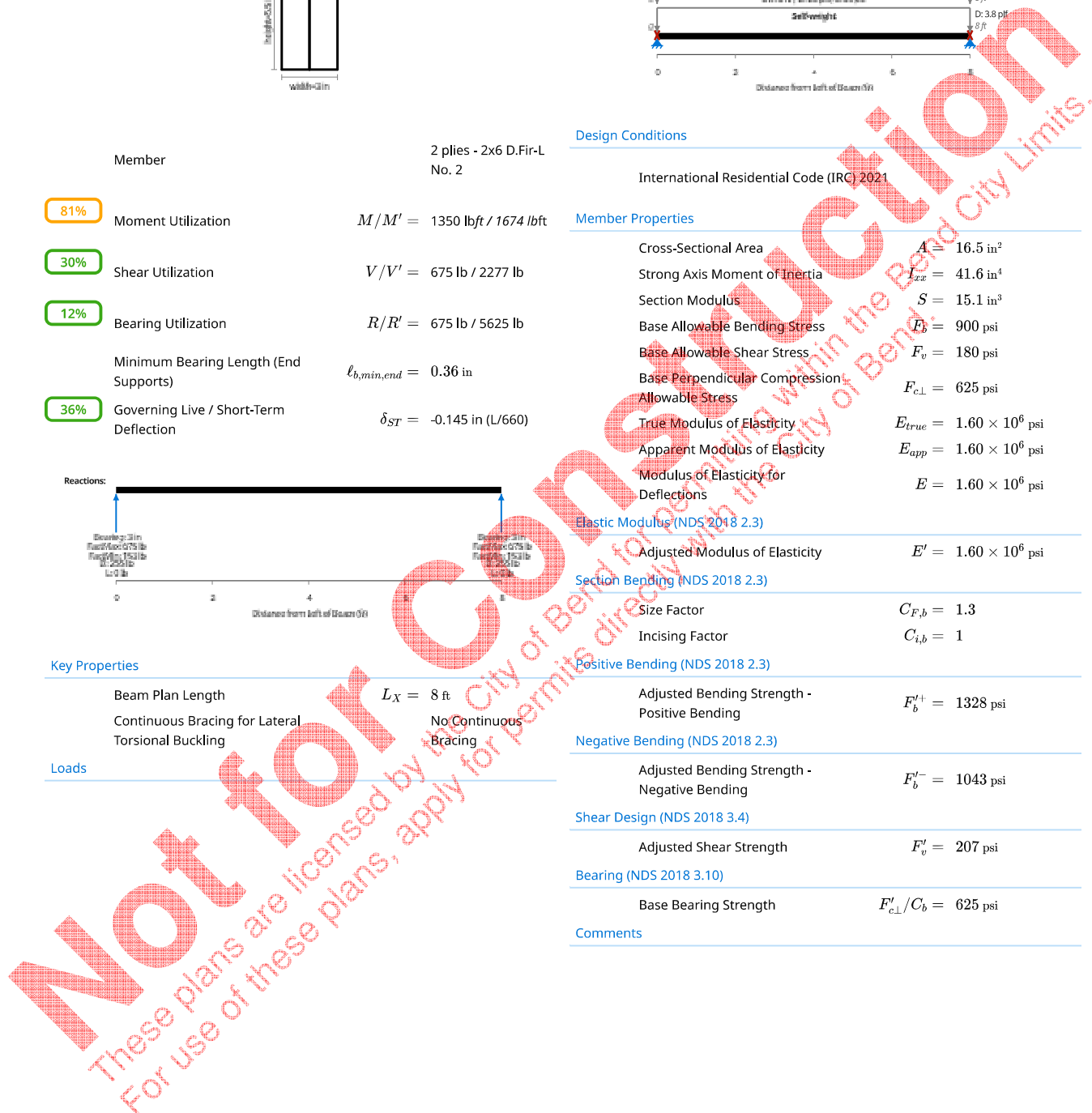
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c\perp}'/C_b = 625 \text{ psi}$
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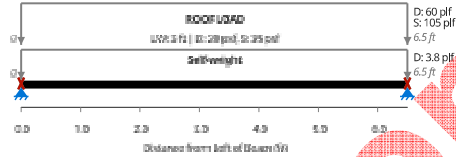
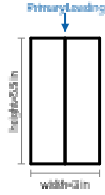
Comments



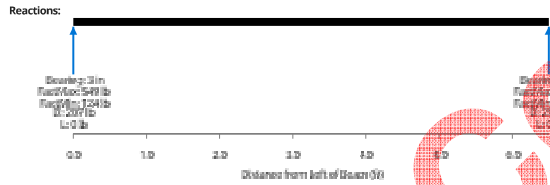


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 2H2 (2 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2	
53% Moment Utilization	$M/M' =$	891 lbft / 1678 lbft
24% Shear Utilization	$V/V' =$	549 lb / 2277 lb
10% Bearing Utilization	$R/R' =$	549 lb / 5625 lb
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} =$	0.293 in
19% Governing Live / Short-Term Deflection	$\delta_{ST} =$	-0.0634 in (L/1231)



Key Properties

Beam Plan Length	$L_X =$	6.5 ft
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing	

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A =$	16.5 in ²
Strong Axis Moment of Inertia	$I_{xx} =$	41.6 in ⁴
Section Modulus	$S =$	15.1 in ³
Base Allowable Bending Stress	$F_b =$	900 psi
Base Allowable Shear Stress	$F_v =$	180 psi
Base Perpendicular Compression Allowable Stress	$F_{c\perp} =$	625 psi
True Modulus of Elasticity	$E_{true} =$	1.60×10^6 psi
Apparent Modulus of Elasticity	$E_{app} =$	1.60×10^6 psi
Modulus of Elasticity for Deflections	$E =$	1.60×10^6 psi

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' =$	1.60×10^6 psi
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} =$	1.3
Incising Factor	$C_{i,b} =$	1

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} =$	1332 psi
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} =$	1045 psi
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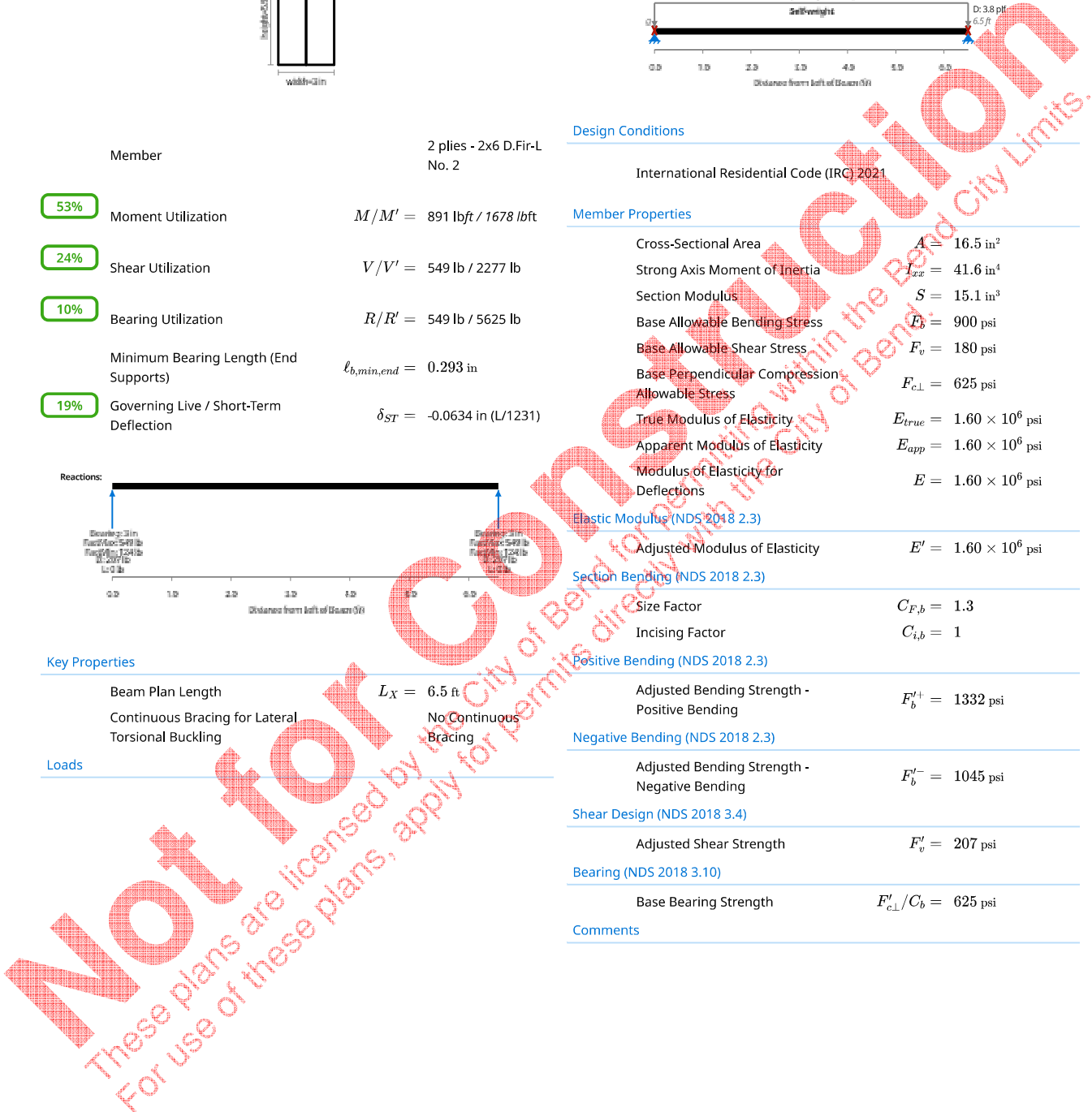
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' =$	207 psi
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c\perp}/C_b =$	625 psi
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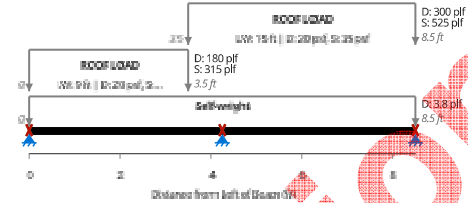
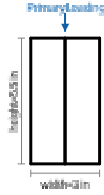
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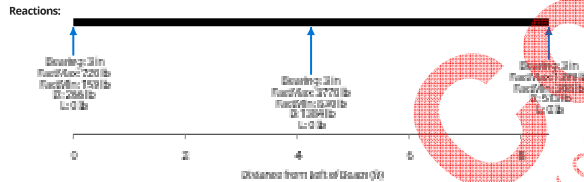


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 2H3 (2 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2	
91% Moment Utilization	$M/M' =$	-1537 lbft / 1688 lbft
93% Shear Utilization	$V/V' =$	2123 lb / 2277 lb
60% Bearing Utilization	$R/R' =$	3770 lb / 6328 lb
Minimum Bearing Length (End Supports)	$l_{b,min,end} =$	0.746 in
Minimum Bearing Length (Int Supports)	$l_{b,min,int} =$	1.79 in
14% Governing Live / Short-Term Deflection	$\delta_{ST} =$	-0.0299 in (L/1704)



Key Properties

Beam Plan Length	$L_x =$	8.5 ft
Continuous Bracing for Lateral Torsional Buckling		No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A =$	16.5 in ²
Strong Axis Moment of Inertia	$I_{xg} =$	41.6 in ⁴
Section Modulus	$S =$	15.1 in ³
Base Allowable Bending Stress	$F_b =$	900 psi
Base Allowable Shear Stress	$F_v =$	180 psi
Base Perpendicular Compression Allowable Stress	$F_{c \perp} =$	625 psi
True Modulus of Elasticity	$E_{true} =$	1.60×10^6 psi
Apparent Modulus of Elasticity	$E_{app} =$	1.60×10^6 psi
Modulus of Elasticity for Deflections	$E =$	1.60×10^6 psi

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' =$	1.60×10^6 psi
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} =$	1.3
Incising Factor	$C_{i,b} =$	1

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} =$	1339 psi
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} =$	1339 psi
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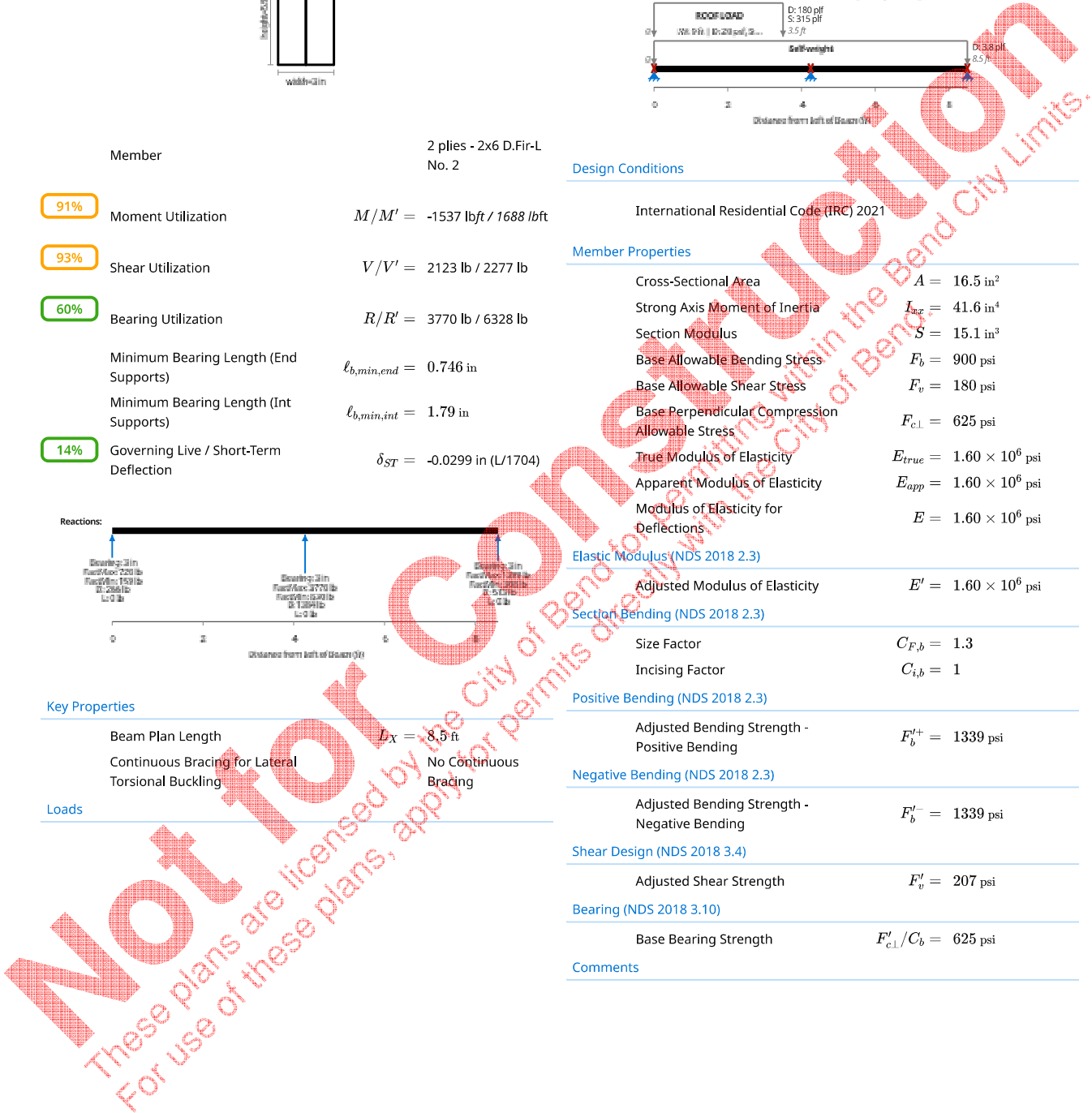
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' =$	207 psi
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c \perp} / C_b =$	625 psi
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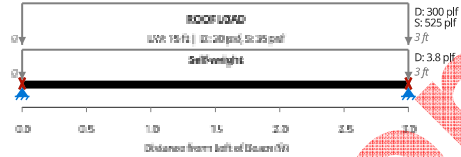
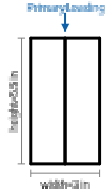
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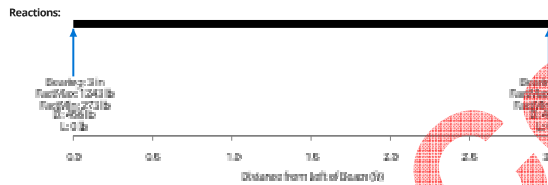


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 2H4 (2 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2
55% Moment Utilization	$M/M' = 932 \text{ lbft} / 1687 \text{ lbft}$
55% Shear Utilization	$V/V' = 1243 \text{ lb} / 2277 \text{ lb}$
22% Bearing Utilization	$R/R' = 1243 \text{ lb} / 5625 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.663 \text{ in}$
10% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0144 \text{ in} (L/2504)$



Key Properties

Beam Plan Length	$L_X = 3 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 16.5 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 41.6 \text{ in}^4$
Section Modulus	$S = 15.1 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1338 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1049 \text{ psi}$
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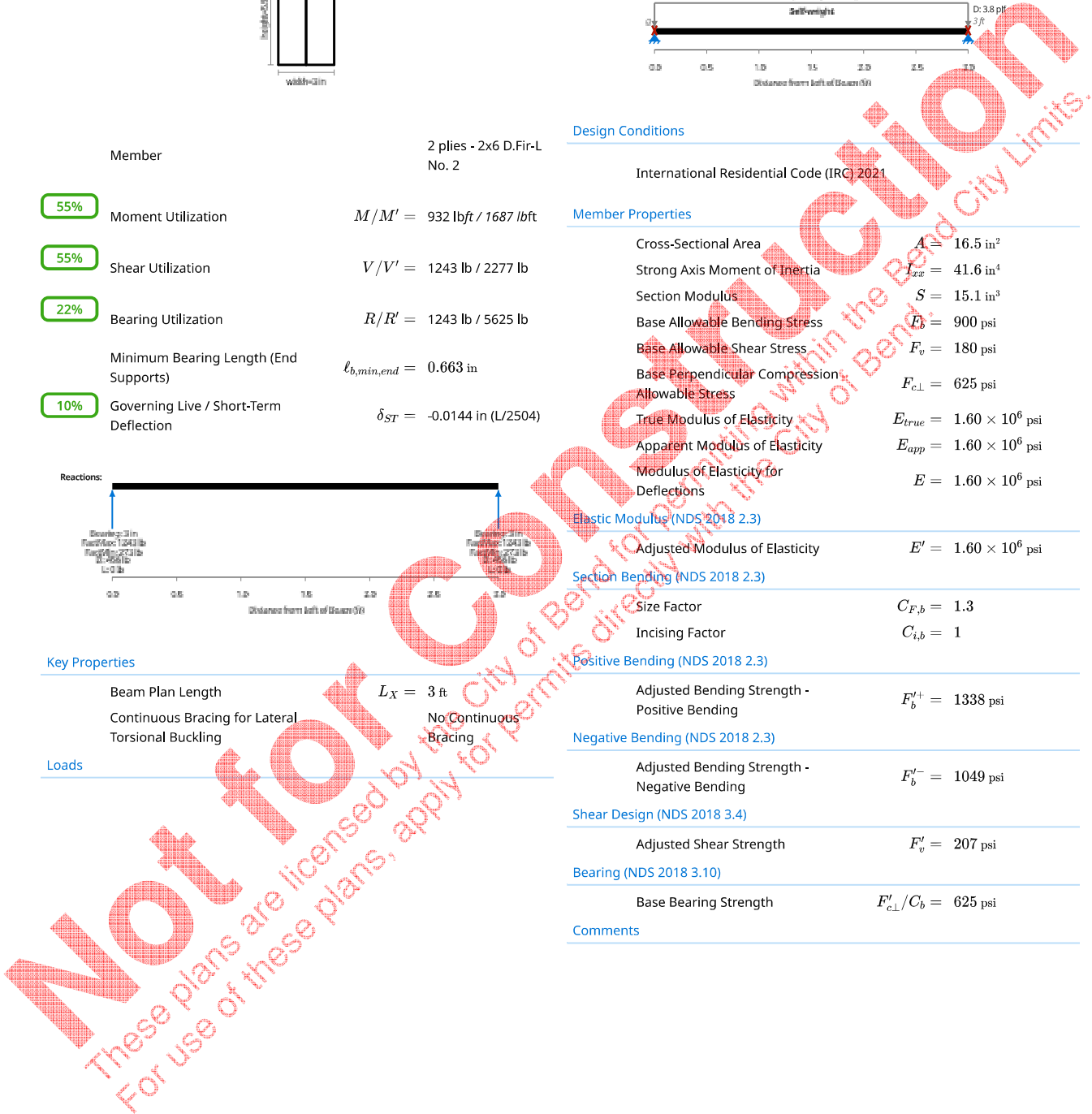
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c\perp}'/C_b = 625 \text{ psi}$
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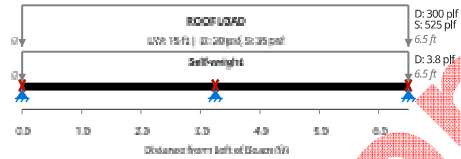
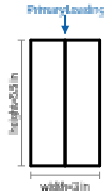
Comments



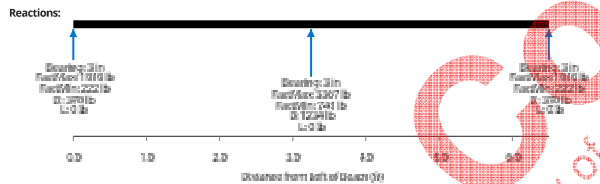


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 2H5 (2 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2
65% Moment Utilization	$M/M' = -1094 \text{ lbft} / 1691 \text{ lbft}$
74% Shear Utilization	$V/V' = 1684 \text{ lb} / 2277 \text{ lb}$
53% Bearing Utilization	$R/R' = 3367 \text{ lb} / 6328 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.539 \text{ in}$
Minimum Bearing Length (Int Supports)	$\ell_{b,min,int} = 1.6 \text{ in}$
5% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.00824 \text{ in} (L/4735)$



Key Properties

Beam Plan Length	$L_x = 6.5 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 16.5 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 41.6 \text{ in}^4$
Section Modulus	$S = 15.1 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1342 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1342 \text{ psi}$
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Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c\perp}'/C_b = 625 \text{ psi}$
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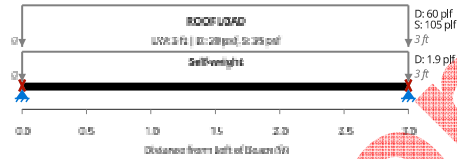
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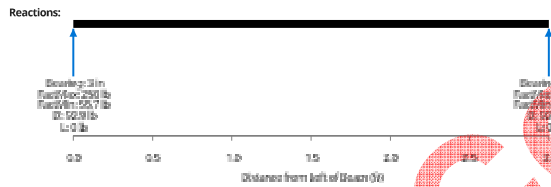


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 2H6 (2 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	2x6 D.Fir-L No. 2
23% Moment Utilization	$M/M' = 188 \text{ lbft} / 823 \text{ lbft}$
22% Shear Utilization	$V/V' = 250 \text{ lb} / 1138 \text{ lb}$
9% Bearing Utilization	$R/R' = 250 \text{ lb} / 2812 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.267 \text{ in}$
4% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.00575 \text{ in (L/6260)}$



Key Properties

Beam Plan Length	$L_x = 3 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 8.25 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 20.8 \text{ in}^4$
Section Modulus	$S = 7.56 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1306 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1031 \text{ psi}$
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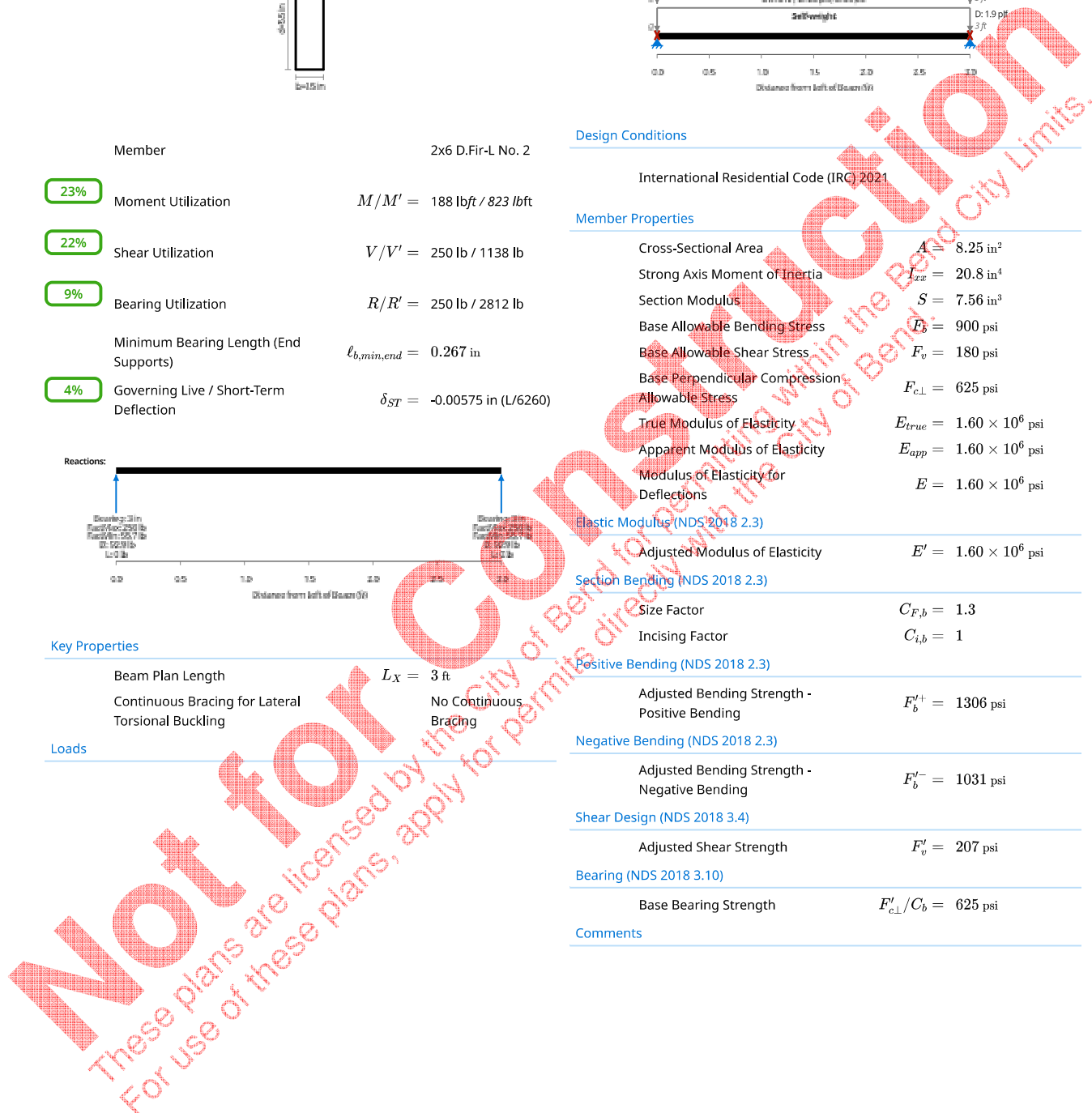
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c\perp}'/C_b = 625 \text{ psi}$
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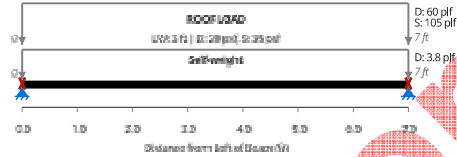
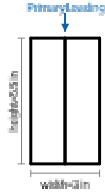
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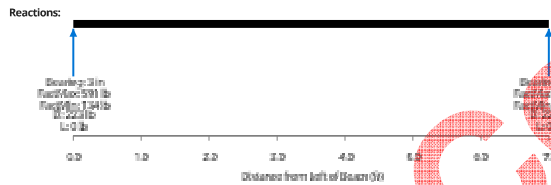


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 2H7 (2 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2
62% Moment Utilization	$M/M' = 1034 \text{ lbft} / 1677 \text{ lbft}$
26% Shear Utilization	$V/V' = 591 \text{ lb} / 2277 \text{ lb}$
11% Bearing Utilization	$R/R' = 591 \text{ lb} / 5625 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.315 \text{ in}$
24% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0852 \text{ in} (L/986)$



Key Properties

Beam Plan Length	$L_X = 7 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 16.5 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 41.6 \text{ in}^4$
Section Modulus	$S = 15.1 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1330 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1044 \text{ psi}$
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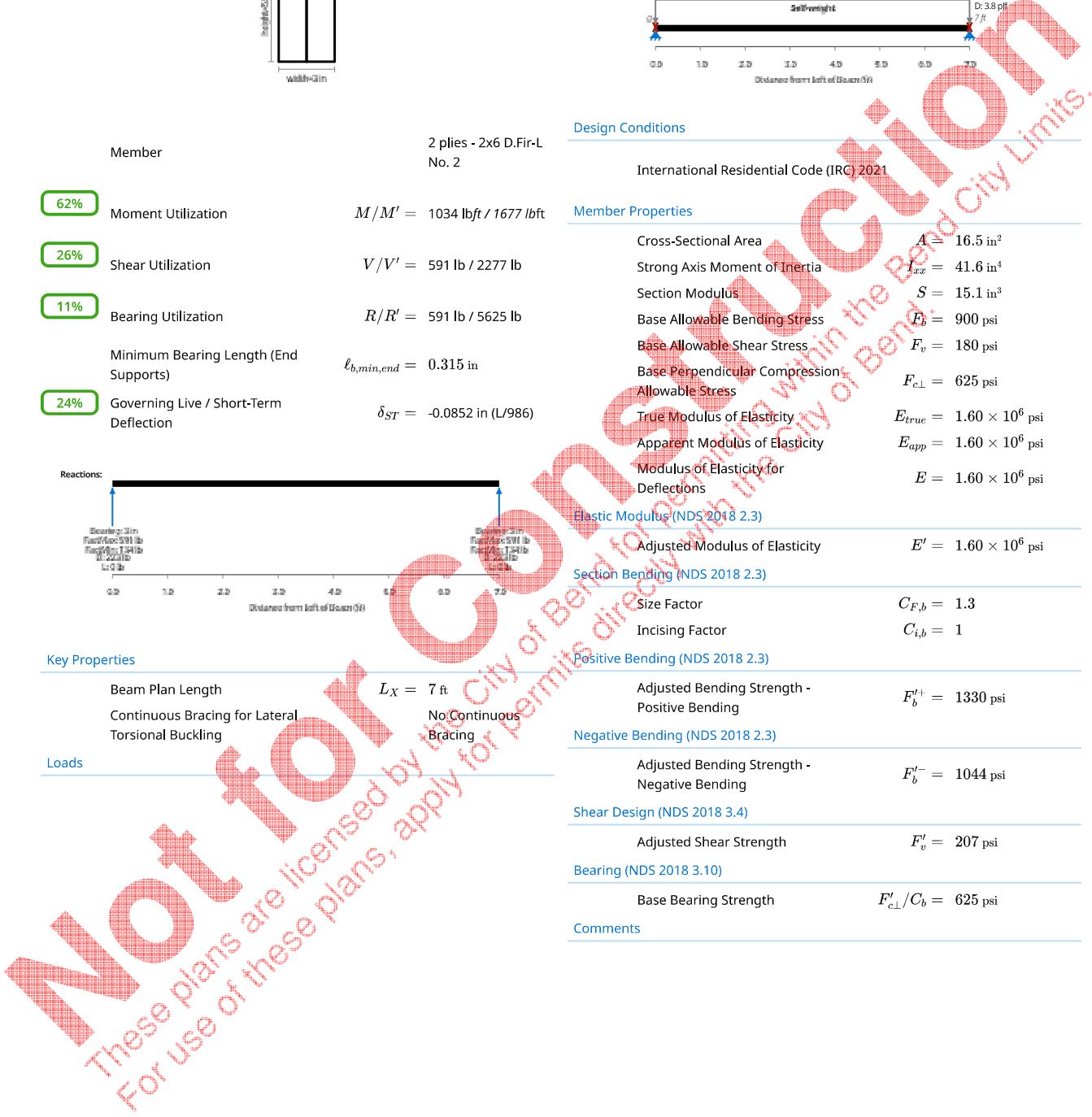
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c\perp}'/C_b = 625 \text{ psi}$
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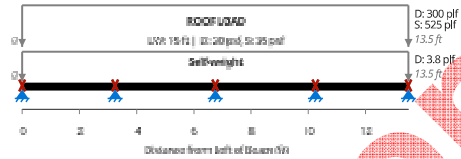
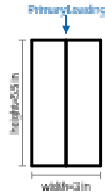
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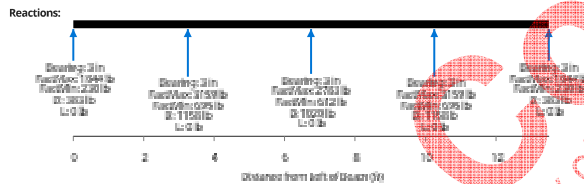


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 2H8 (2 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 2x6 D.Fir-L No. 2	
58% Moment Utilization	$M/M' =$	-983 lbft / 1690 lbft
72% Shear Utilization	$V/V' =$	1649 lb / 2277 lb
50% Bearing Utilization	$R/R' =$	3159 lb / 6328 lb
Minimum Bearing Length (End Supports)	$l_{b,min,end} =$	0.557 in
Minimum Bearing Length (Int Supports)	$l_{b,min,int} =$	1.5 in
6% Governing Live / Short-Term Deflection	$\delta_{ST} =$	-0.00936 in (L/4168)



Key Properties

Beam Plan Length	$L_x =$	13.5 ft
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing	

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A =$	16.5 in ²
Strong Axis Moment of Inertia	$I_{xx} =$	41.6 in ⁴
Section Modulus	$S =$	15.1 in ³
Base Allowable Bending Stress	$F_b =$	900 psi
Base Allowable Shear Stress	$F_v =$	180 psi
Base Perpendicular Compression Allowable Stress	$F_{c\perp} =$	625 psi
True Modulus of Elasticity	$E_{true} =$	1.60×10^6 psi
Apparent Modulus of Elasticity	$E_{app} =$	1.60×10^6 psi
Modulus of Elasticity for Deflections	$E =$	1.60×10^6 psi

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' =$	1.60×10^6 psi
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} =$	1.3
Incising Factor	$C_{i,b} =$	1

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} =$	1341 psi
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} =$	1341 psi
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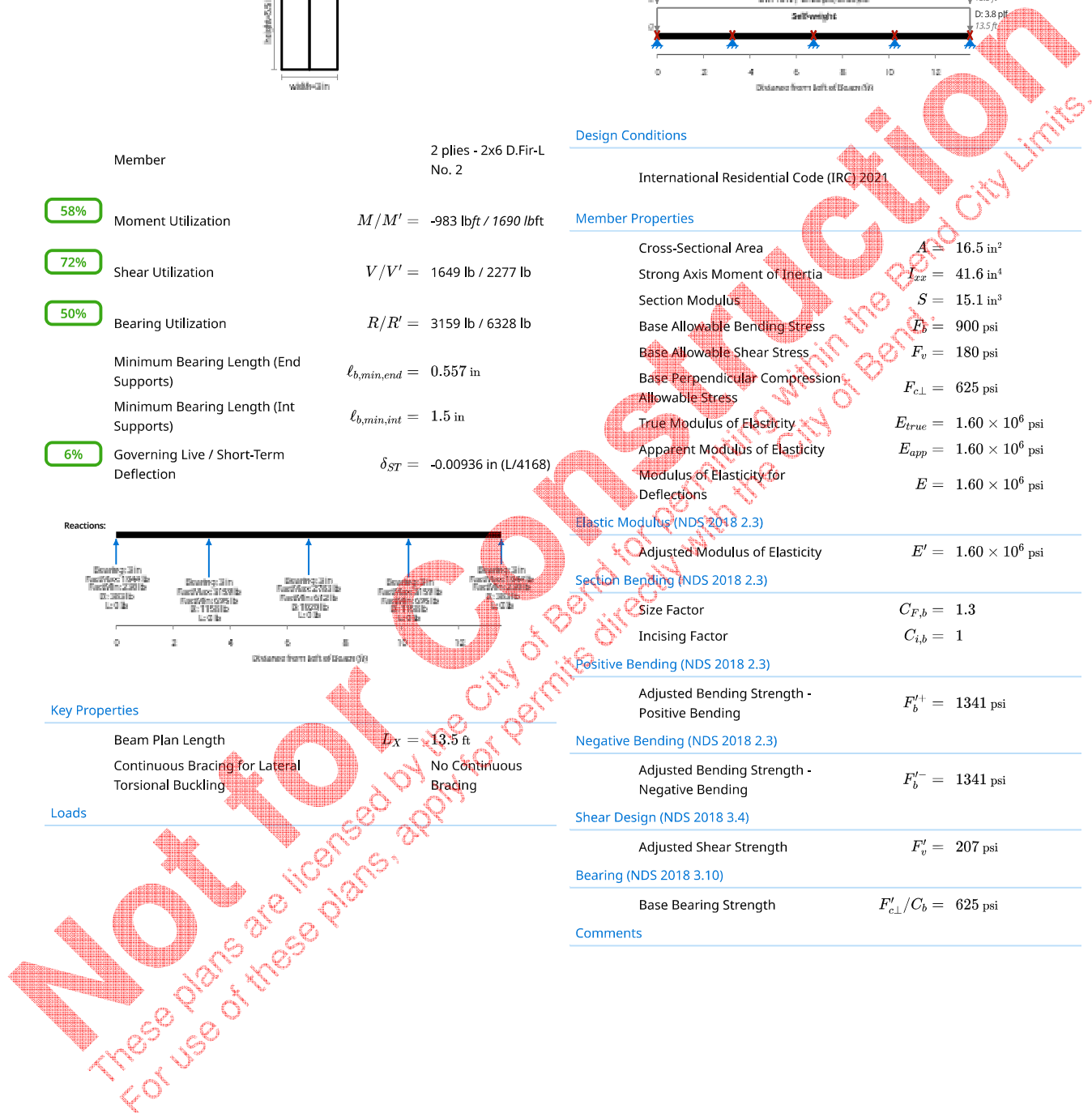
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' =$	207 psi
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c\perp}/C_b =$	625 psi
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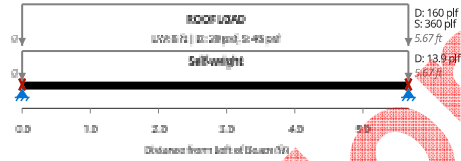
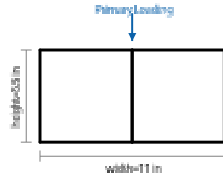
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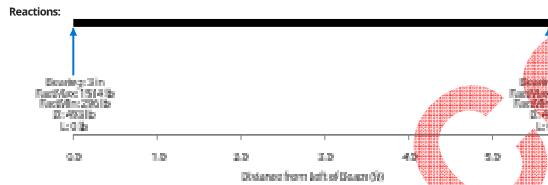


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 2RB1 (2 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	2 plies - 6x6 D,Fir-L No. 2
54% Moment Utilization	$M / M' = 2146 \text{ lbft} / 3986 \text{ lbft}$
19% Shear Utilization	$V / V' = 1514 \text{ lb} / 7885 \text{ lb}$
7% Bearing Utilization	$R / R' = 1514 \text{ lb} / 20\,625 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.22 \text{ in}$
15% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0422 \text{ in} (L/1611)$



Key Properties

Beam Plan Length	$L_x = 5.67 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 60.5 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 153 \text{ in}^4$
Section Modulus	$S = 55.5 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 750 \text{ psi}$
Base Allowable Shear Stress	$F_v = 170 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c \perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.30 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.30 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.30 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.30 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1$
Incising Factor	$C_{i,b} = 1$
Beam Stability Factor	$C_L = 1$
Adjusted Bending Strength	$F'_b = 862 \text{ psi}$

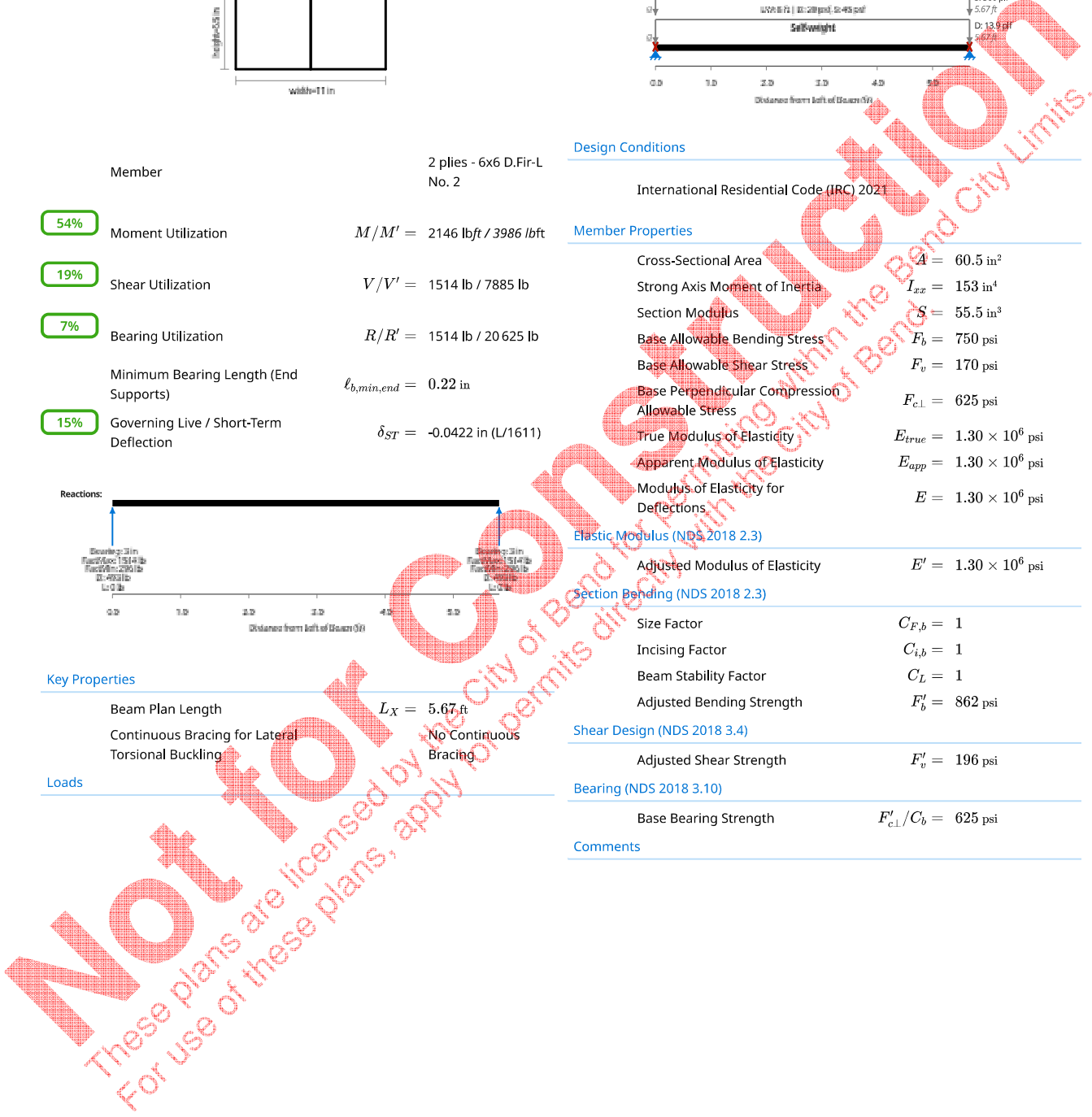
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F'_v = 196 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c \perp} / C_b = 625 \text{ psi}$
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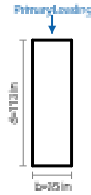
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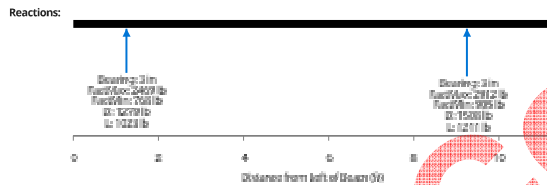


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1H1 (1 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



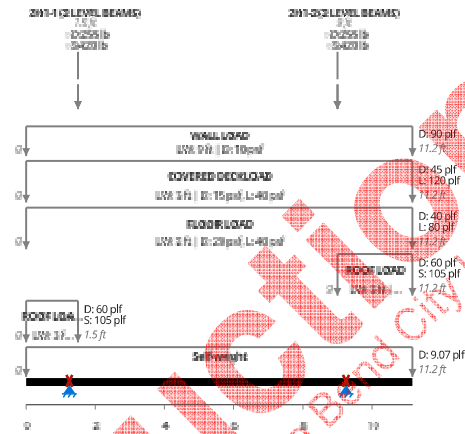
Member	4x12 D.Fir-L No. 2
43% Moment Utilization	$M/M' = 2560 \text{ lbft} / 5991 \text{ lbft}$
39% Shear Utilization	$V/V' = 1865 \text{ lb} / 4725 \text{ lb}$
39% Bearing Utilization	$R/R' = 2912 \text{ lb} / 7383 \text{ lb}$
Minimum Bearing Length (Int Supports)	$\ell_{b,min,int} = 1.18 \text{ in}$
13% Governing Live / Short-Term Deflection	$\delta_{ST} = 0.0108 \text{ in} (L/1394)$



Key Properties

Beam Plan Length	$L_x = 11.2 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads



Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 39.4 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 415 \text{ in}^4$
Section Modulus	$S = 73.8 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.1$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 974 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} = 974 \text{ psi}$
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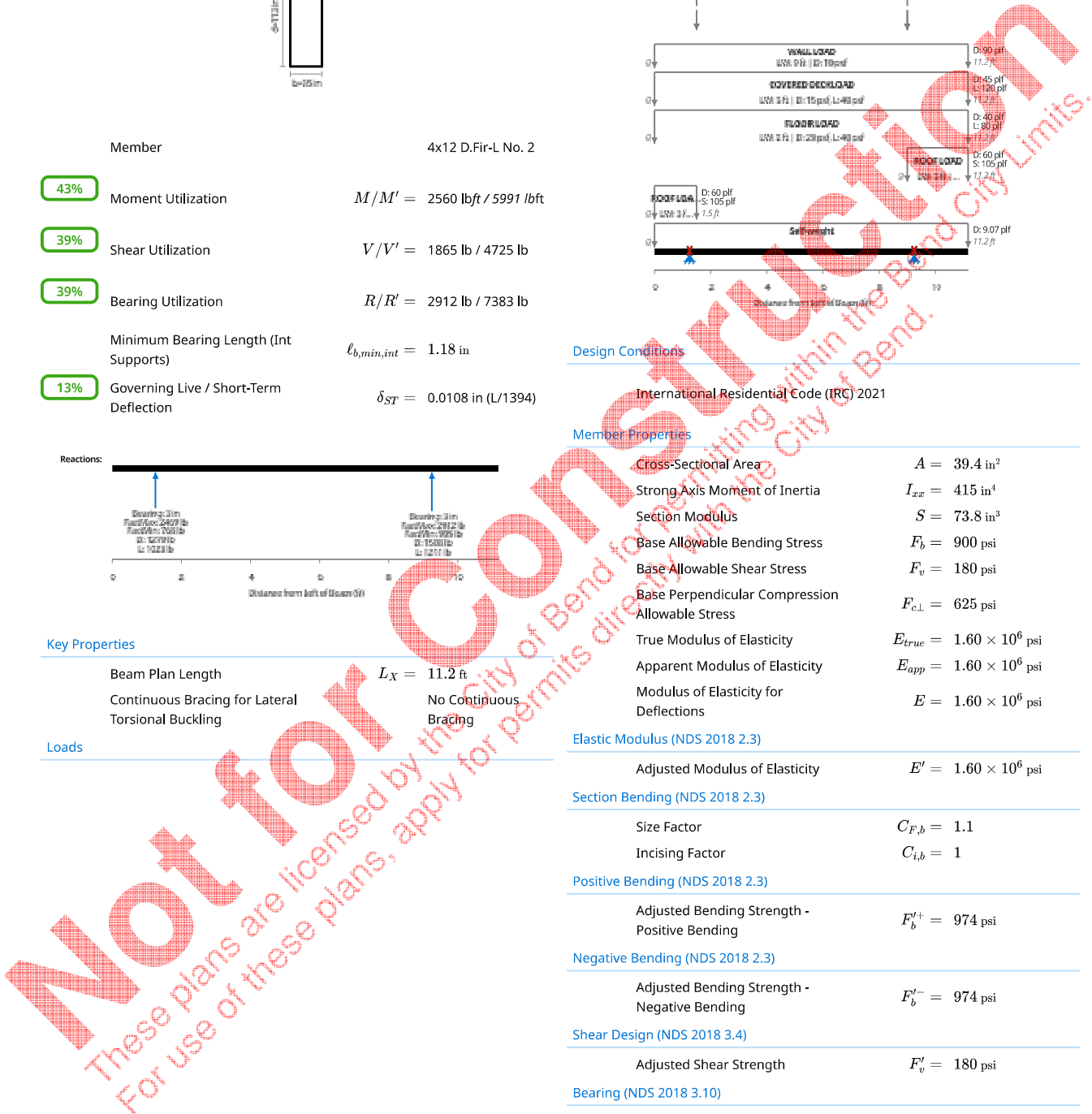
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 180 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c\perp}' / C_b = 625 \text{ psi}$
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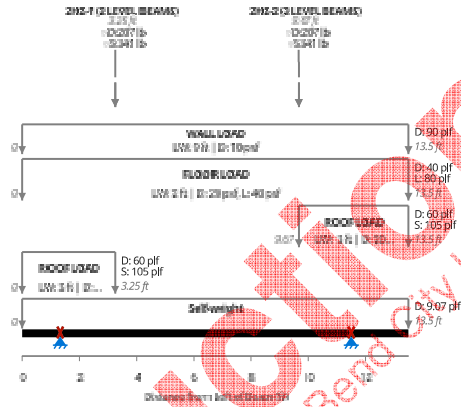
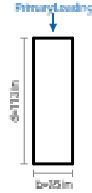
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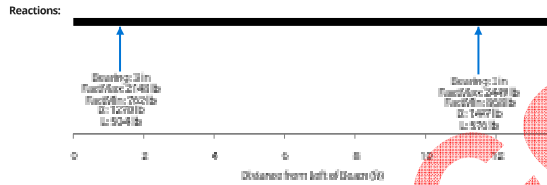


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 1H2 (1 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	4x12 D.Fir-L No. 2
49% Moment Utilization	$M/M' = 2927 \text{ lbft} / 5957 \text{ lbft}$
33% Shear Utilization	$V/V' = 1773 \text{ lb} / 5434 \text{ lb}$
33% Bearing Utilization	$R/R' = 2449 \text{ lb} / 7383 \text{ lb}$
Minimum Bearing Length (Int Supports)	$\ell_{b,min,int} = 0.995 \text{ in}$
12% Governing Live / Short-Term Deflection	$\delta_{ST} = 0.0103 \text{ in} (L/1553)$



Key Properties

Beam Plan Length	$L_x = 13.5 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 39.4 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 415 \text{ in}^4$
Section Modulus	$S = 73.8 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c \perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.1$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 968 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1107 \text{ psi}$
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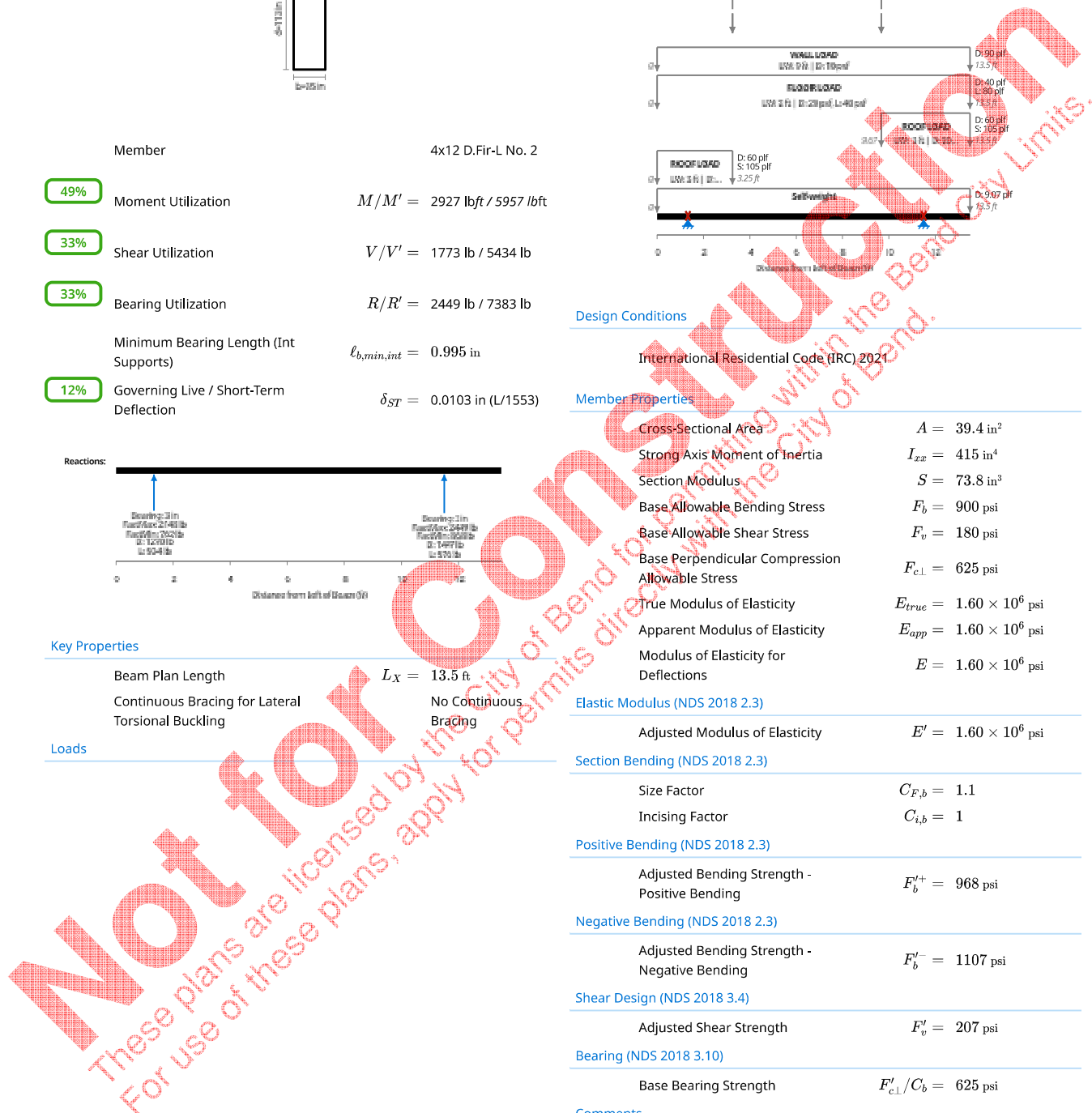
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c \perp}' / C_b = 625 \text{ psi}$
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Comments



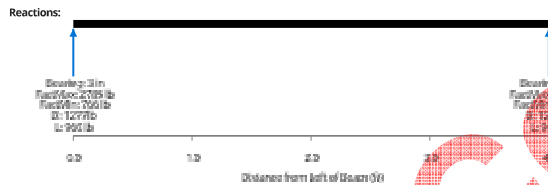


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1H3 (1 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



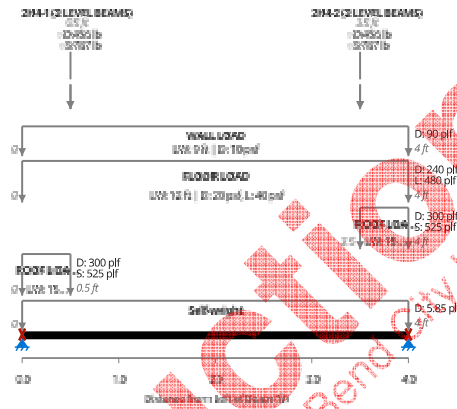
Member	4x8 D.Fir-L No. 2
64% Moment Utilization	$M/M' = 1897 \text{ lbft} / 2971 \text{ lbft}$
80% Shear Utilization	$V/V' = 2785 \text{ lb} / 3502 \text{ lb}$
42% Bearing Utilization	$R/R' = 2785 \text{ lb} / 6562 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 1.27 \text{ in}$
12% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0155 \text{ in} (L/3088)$



Key Properties

Beam Plan Length	$L_x = 4 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads



Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 25.4 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 111 \text{ in}^4$
Section Modulus	$S = 30.7 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c \perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1163 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1047 \text{ psi}$
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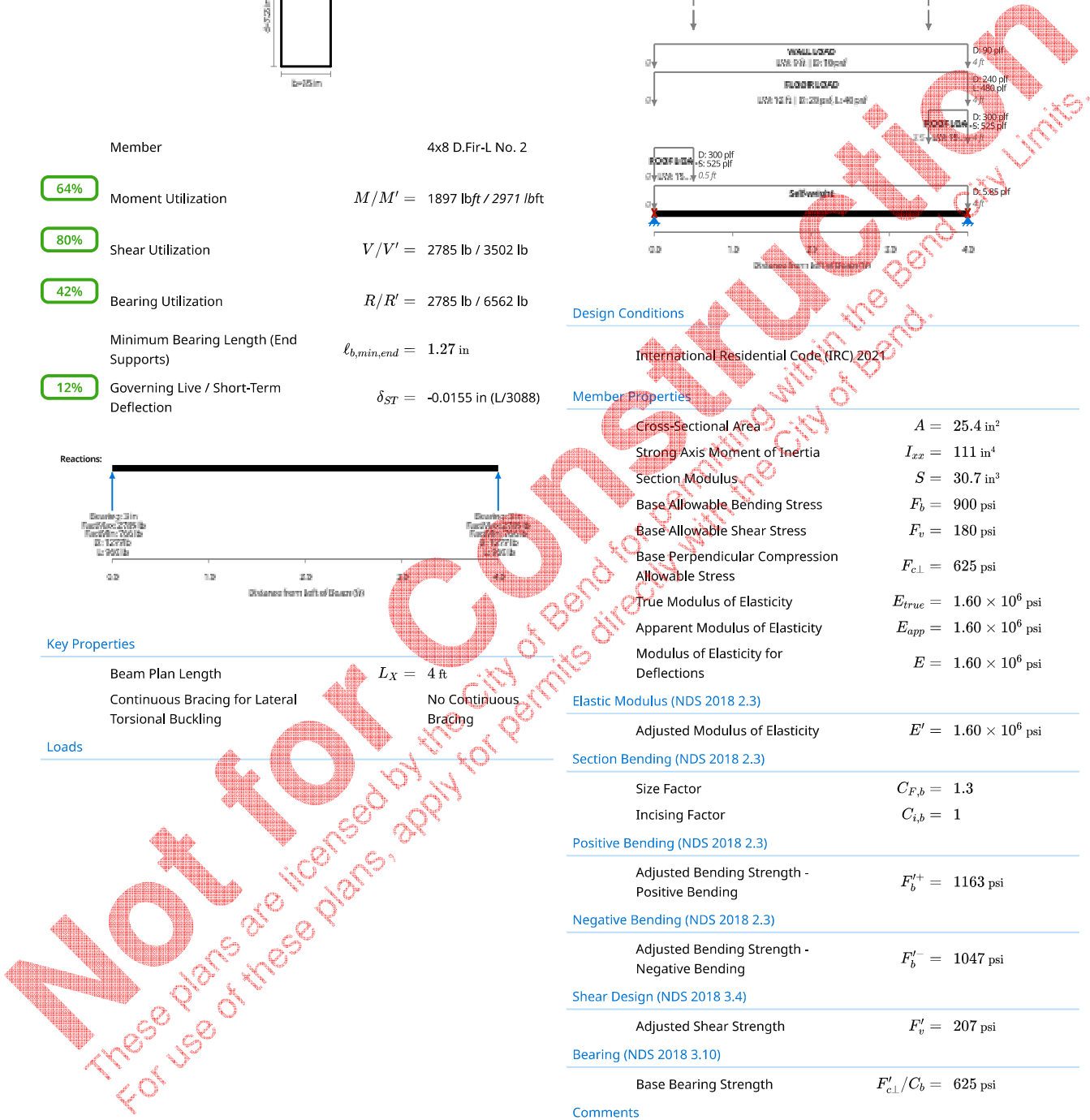
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F_{c \perp}' / C_b = 625 \text{ psi}$
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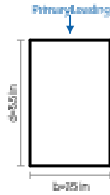
Comments



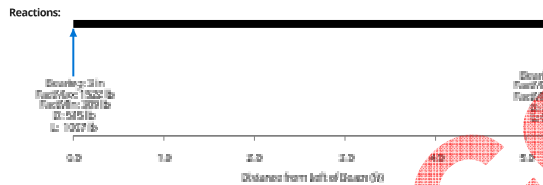


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 1H4 (1 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	4x6 D.Fir-L No. 2
93% Moment Utilization	$M/M' = 1599 \text{ lbft} / 1712 \text{ lbft}$
66% Shear Utilization	$V/V' = 1522 \text{ lb} / 2310 \text{ lb}$
23% Bearing Utilization	$R/R' = 1522 \text{ lb} / 6562 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.696 \text{ in}$
38% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0665 \text{ in} (L/947)$

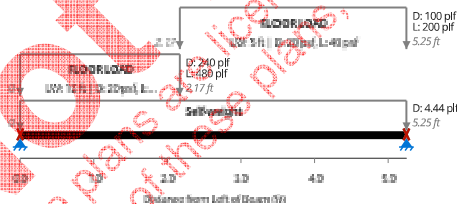


Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c \perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$
Elastic Modulus (NDS 2018 2.3)	
Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
Section Bending (NDS 2018 2.3)	
Size Factor	$C_{F_s} = 1.3$
Incising Factor	$C_{Ib} = 1$
Positive Bending (NDS 2018 2.3)	
Adjusted Bending Strength - Positive Bending	$F_b^{(+)} = 1164 \text{ psi}$
Negative Bending (NDS 2018 2.3)	
Adjusted Bending Strength - Negative Bending	$F_b^{(-)} = 1048 \text{ psi}$
Shear Design (NDS 2018 3.4)	
Adjusted Shear Strength	$F_v' = 180 \text{ psi}$
Bearing (NDS 2018 3.10)	
Base Bearing Strength	$F'_{c \perp} / C_b = 625 \text{ psi}$
Comments	

Key Properties

Beam Plan Length	$L_x = 5.25 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads



Design Conditions

International Residential Code (IRC) 2021

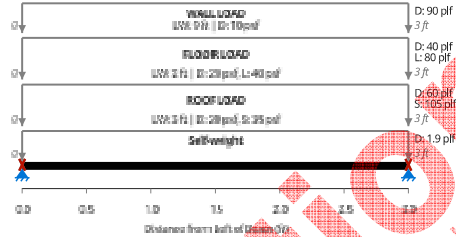
Member Properties

Cross-Sectional Area	$A = 19.2 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 48.5 \text{ in}^4$
Section Modulus	$S = 17.6 \text{ in}^3$



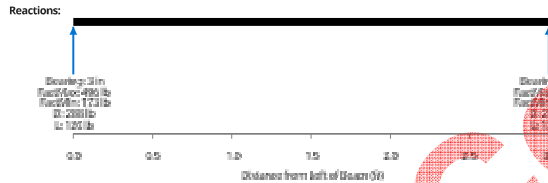
Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1H5 (1 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member 2x6 D.Fir-L No. 2

45%	Moment Utilization	$M/M' = 372 \text{ lbft} / 823 \text{ lbft}$
44%	Shear Utilization	$V/V' = 496 \text{ lb} / 1138 \text{ lb}$
18%	Bearing Utilization	$R/R' = 496 \text{ lb} / 2812 \text{ lb}$
	Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.529 \text{ in}$
6%	Governing Live / Short-Term Deflection	$\delta_{ST} = -0.00575 \text{ in (L/6260)}$



Key Properties

Beam Plan Length	$L_x = 3 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 8.25 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 20.8 \text{ in}^4$
Section Modulus	$S = 7.56 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c,\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1306 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 1031 \text{ psi}$
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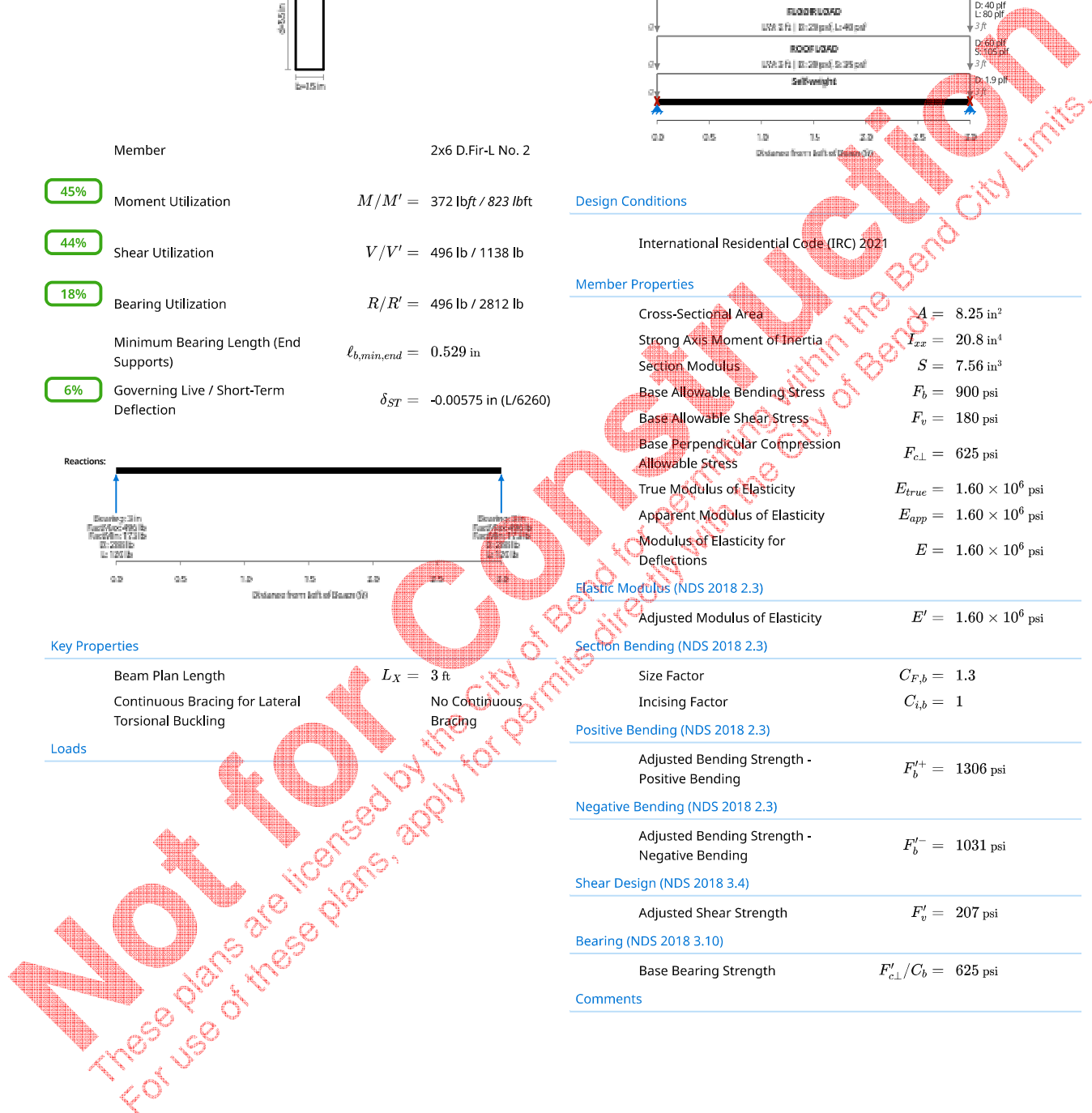
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c,\perp}/C_b = 625 \text{ psi}$
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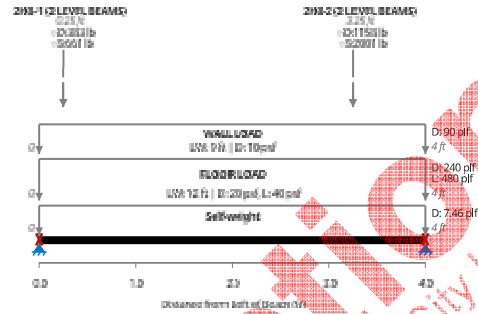
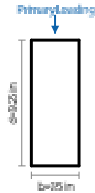
Comments



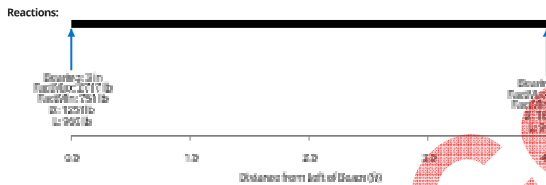


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 1H6 (1 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	4x10 D.Fir-L No. 2
52% Moment Utilization	$M/M' = 2643 \text{ lbft} / 5117 \text{ lbft}$
81% Shear Utilization	$V/V' = 3610 \text{ lb} / 4468 \text{ lb}$
55% Bearing Utilization	$R/R' = 3610 \text{ lb} / 6562 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 1.65 \text{ in}$
6% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.00756 \text{ in (L/6352)}$



Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 32.4 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 231 \text{ in}^4$
Section Modulus	$S = 49.9 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 900 \text{ psi}$
Base Allowable Shear Stress	$F_v = 180 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.60 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.2$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1230 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} = 965 \text{ psi}$
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Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 207 \text{ psi}$
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Bearing (NDS 2018 3.10)

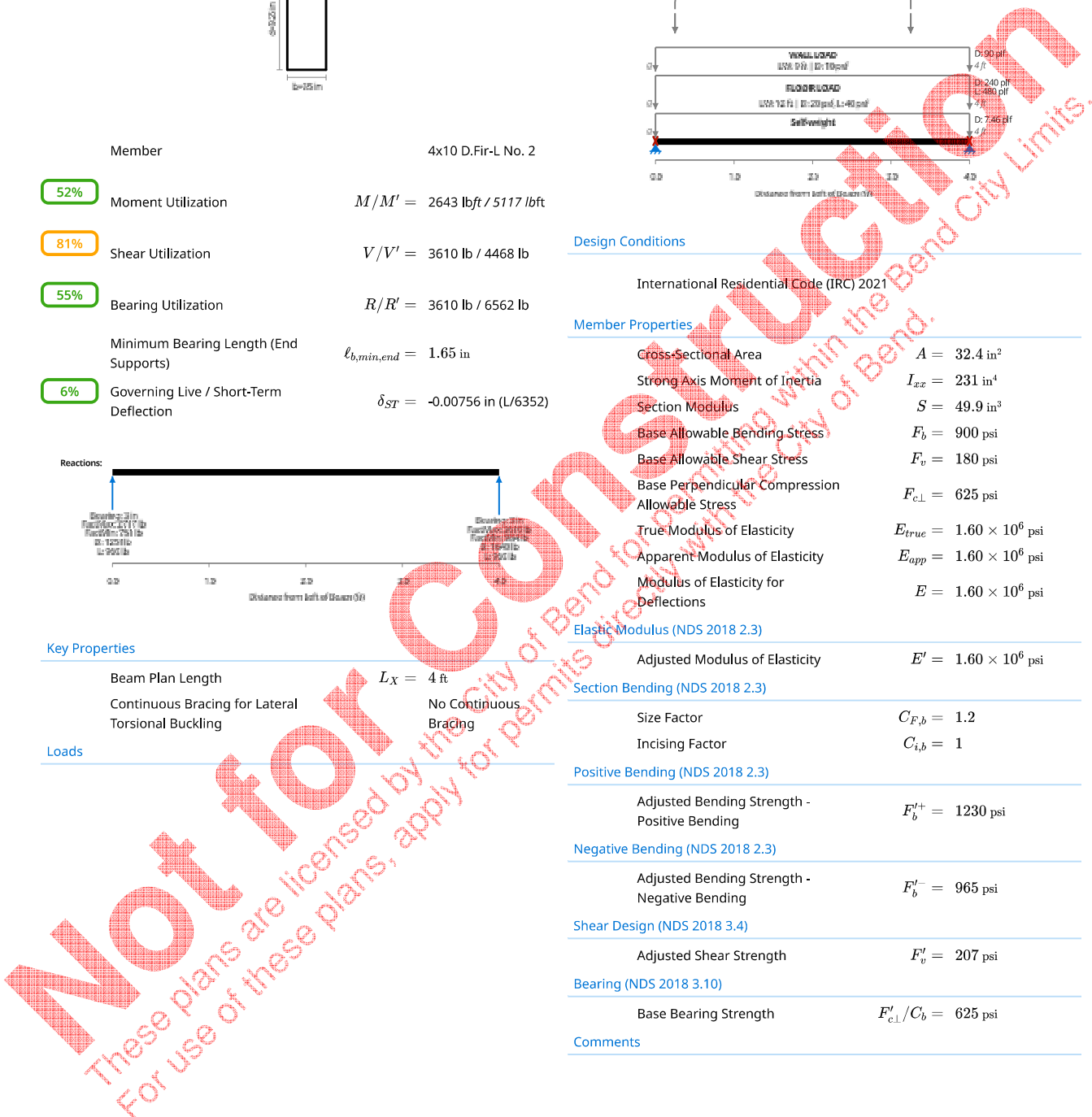
Base Bearing Strength	$F'_{c\perp} / C_b = 625 \text{ psi}$
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Comments

Key Properties

Beam Plan Length	$L_x = 4 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

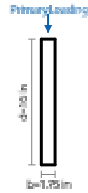
Loads





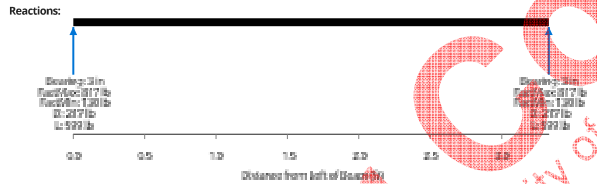
Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1FB1 (1 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	1-3/4x16 TimberStrand LSL 1.55E-2325Fb
9% Moment Utilization	$M/M' = 680 \text{ lbft} / 7376 \text{ lbft}$
14% Shear Utilization	$V/V' = 817 \text{ lb} / 5787 \text{ lb}$
17% Bearing Utilization	$R/R' = 817 \text{ lb} / 4725 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.518 \text{ in}$
3% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.00372 \text{ in} (L/10728)$

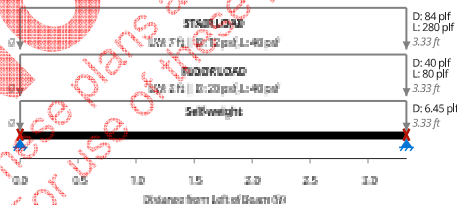
Cross-Sectional Area	$A = 28 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 597 \text{ in}^4$
Section Modulus	$S = 74.7 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 2325 \text{ psi}$
Base Allowable Shear Stress	$F_v = 310 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c \perp} = 900 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.55 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = NaN \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.55 \times 10^6 \text{ psi}$
Elastic Modulus (NDS 2018 2.3)	
Adjusted Modulus of Elasticity	$E' = 1.55 \times 10^6 \text{ psi}$
Adjusted Shear Modulus	$G' = 96875 \text{ psi}$
Section Bending (NDS 2018 2.3)	
Volume Factor	$C_V = 0.974$
Positive Bending (NDS 2018 2.3)	
Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1185 \text{ psi}$
Negative Bending (NDS 2018 2.3)	
Adjusted Bending Strength - Negative Bending	$F_b^{-} = 1172 \text{ psi}$
Shear Design (NDS 2018 3.4)	
Adjusted Shear Strength	$F_v' = 310 \text{ psi}$
Bearing (NDS 2018 3.10)	
Base Bearing Strength	$F_{c \perp}' / C_b = 900 \text{ psi}$



Key Properties

Beam Plan Length	$L_x = 3.33 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads



Design Conditions

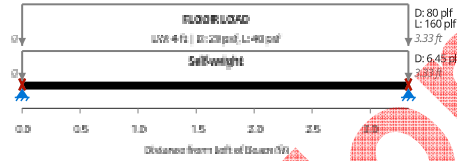
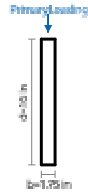
International Residential Code (IRC) 2021

Member Properties

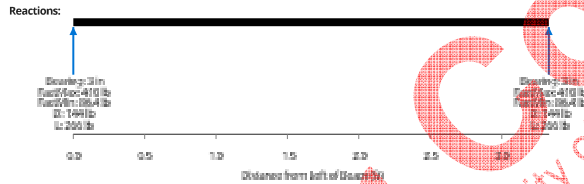


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1FB2 (1 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	1-3/4x16 TimberStrand LSL 1.55E-2325Fb
5% Moment Utilization	$M/M' = 342 \text{ lbft} / 7376 \text{ lbft}$
7% Shear Utilization	$V/V' = 410 \text{ lb} / 5787 \text{ lb}$
9% Bearing Utilization	$R/R' = 410 \text{ lb} / 4725 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.261 \text{ in}$
1% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.00166 \text{ in} (L/24 \text{ 139})$



Key Properties

Beam Plan Length	$L_x = 3.33 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 28 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 597 \text{ in}^4$
Section Modulus	$S = 74.7 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 2325 \text{ psi}$
Base Allowable Shear Stress	$F_v = 310 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c \perp} = 900 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.55 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = NaN \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.55 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.55 \times 10^6 \text{ psi}$
Adjusted Shear Modulus	$G' = 96 \text{ 875} \text{ psi}$

Section Bending (NDS 2018 2.3)

Volume Factor	$C_V = 0.974$
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Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1185 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} = 1172 \text{ psi}$
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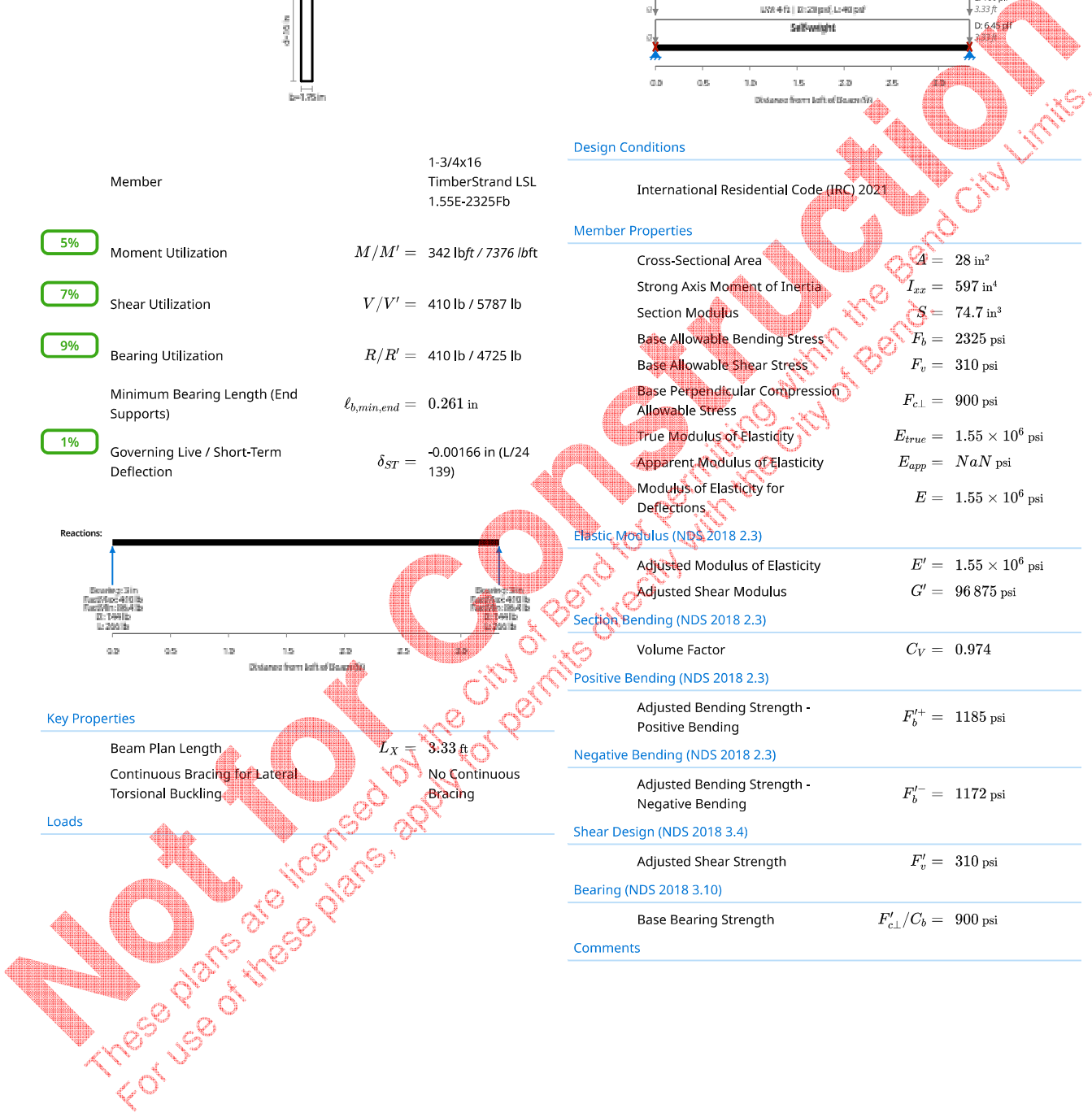
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v^i = 310 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c \perp} / C_b = 900 \text{ psi}$
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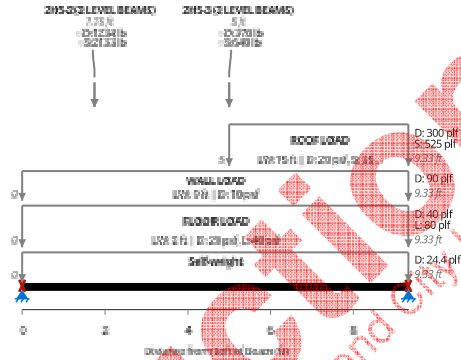
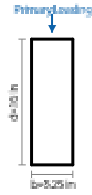
Comments



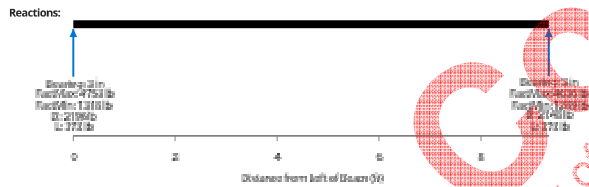


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 1FB3 (1 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	5-1/4x16 Versa-Lam LVL 2.1E-3100Fb
17% Moment Utilization	$M/M' = 10\,895\text{ lbft} / 64\,453\text{ lbft}$
26% Shear Utilization	$V/V' = 4753\text{ lb} / 18\,354\text{ lb}$
40% Bearing Utilization	$R/R' = 4753\text{ lb} / 11\,812\text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 1.21\text{ in}$
8% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0256\text{ in} (L/4379)$



Key Properties

Beam Plan Length	$L_x = 9.33\text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 84\text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 1792\text{ in}^4$
Section Modulus	$S = 224\text{ in}^3$
Base Allowable Bending Stress	$F_b = 3100\text{ psi}$
Base Allowable Shear Stress	$F_v = 285\text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c,L} = 750\text{ psi}$
True Modulus of Elasticity	$E_{true} = 2.10 \times 10^6\text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 2.00 \times 10^6\text{ psi}$
Modulus of Elasticity for Deflections	$E = 2.00 \times 10^6\text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 2.00 \times 10^6\text{ psi}$
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Section Bending (NDS 2018 2.3)

Volume Factor	$C_V = 0.969$
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Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 3453\text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} = 2702\text{ psi}$
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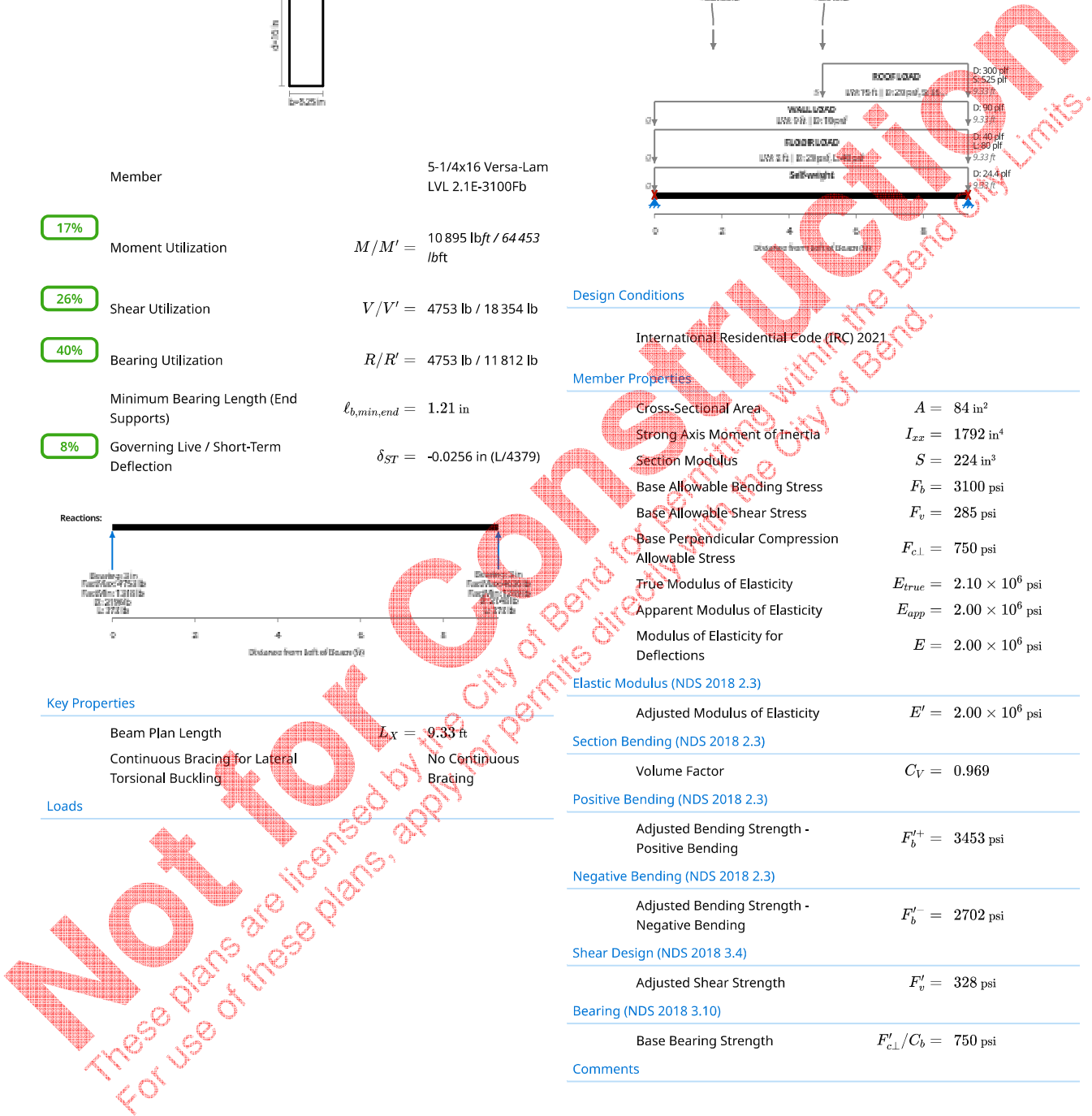
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 328\text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c,L}/C_b = 750\text{ psi}$
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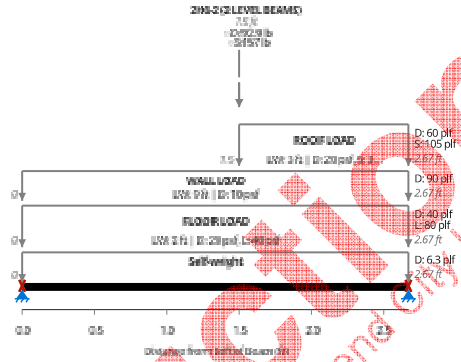
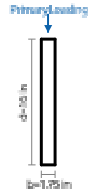
Comments



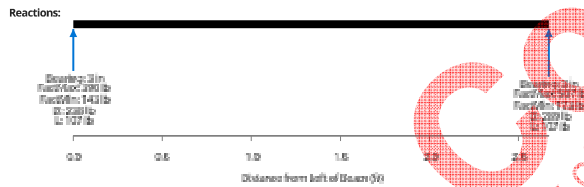


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: 1FB4 (1 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	1-3/4x16 Versa-Lam LVL 2.1E-2800Fb
3% Moment Utilization	$M/M' = 364 \text{ lbft} / 11\,583 \text{ lbft}$
8% Shear Utilization	$V/V' = 507 \text{ lb} / 6118 \text{ lb}$
13% Bearing Utilization	$R/R' = 507 \text{ lb} / 3937 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.387 \text{ in}$
0% Governing Live / Short-Term Deflection	$\delta_{ST} = -129 \times 10^{-6} \text{ in} (L / 247\,889)$



Key Properties

Beam Plan Length	$L_x = 2.67 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 28 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 597 \text{ in}^4$
Section Modulus	$S = 74.7 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 2800 \text{ psi}$
Base Allowable Shear Stress	$F_v = 285 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c.L} = 750 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 2.10 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 2.00 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 2.00 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 2.00 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Volume Factor	$C_V = 0.969$
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Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 1862 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} = 1753 \text{ psi}$
--	-------------------------------

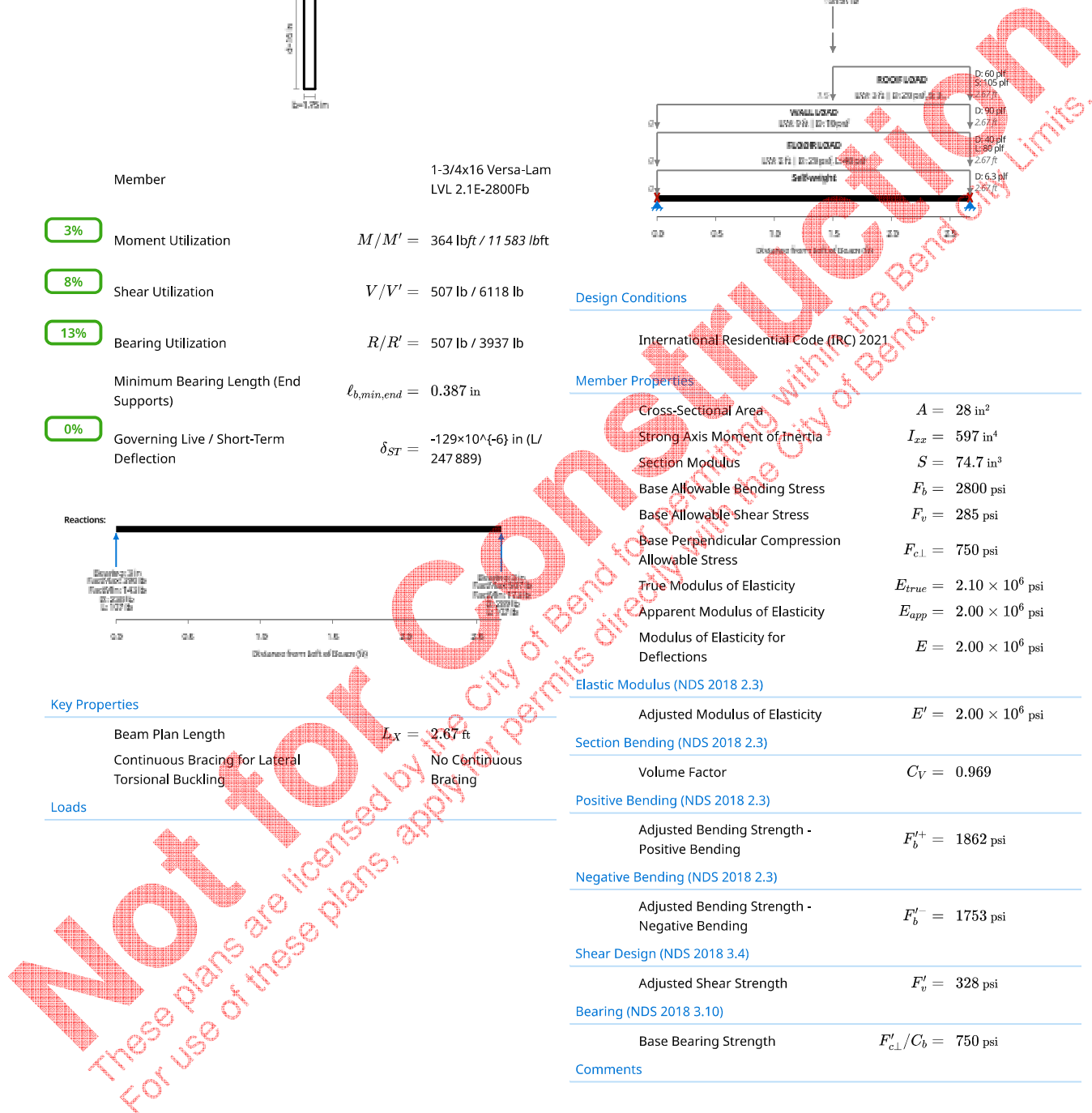
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v' = 328 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c.L} / C_b = 750 \text{ psi}$
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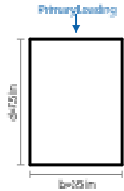
Comments



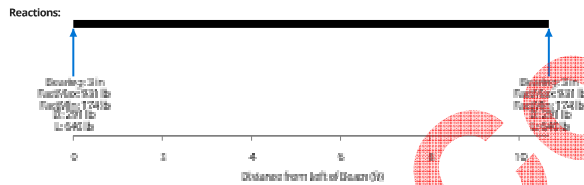


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD	Job #:	
Address:	Subject: 1DB1 (1 LEVEL BEAMS) PASS	
References: NDS 2018 (ASD)		

Summary



Member	6x8 D.Fir-L No. 2
77% Moment Utilization	$M/M' = 2483 \text{ lbft} / 3209 \text{ lbft}$
20% Shear Utilization	$V/V' = 931 \text{ lb} / 4675 \text{ lb}$
9% Bearing Utilization	$R/R' = 931 \text{ lb} / 10312 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.271 \text{ in}$
39% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.139 \text{ in} (L/920)$



Key Properties

Beam Plan Length	$L_X = 10.7 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 41.2 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 193 \text{ in}^4$
Section Modulus	$S = 51.6 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 750 \text{ psi}$
Base Allowable Shear Stress	$F_v = 170 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c,L} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.30 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.30 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.30 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.30 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 747 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b^{'-} = 672 \text{ psi}$
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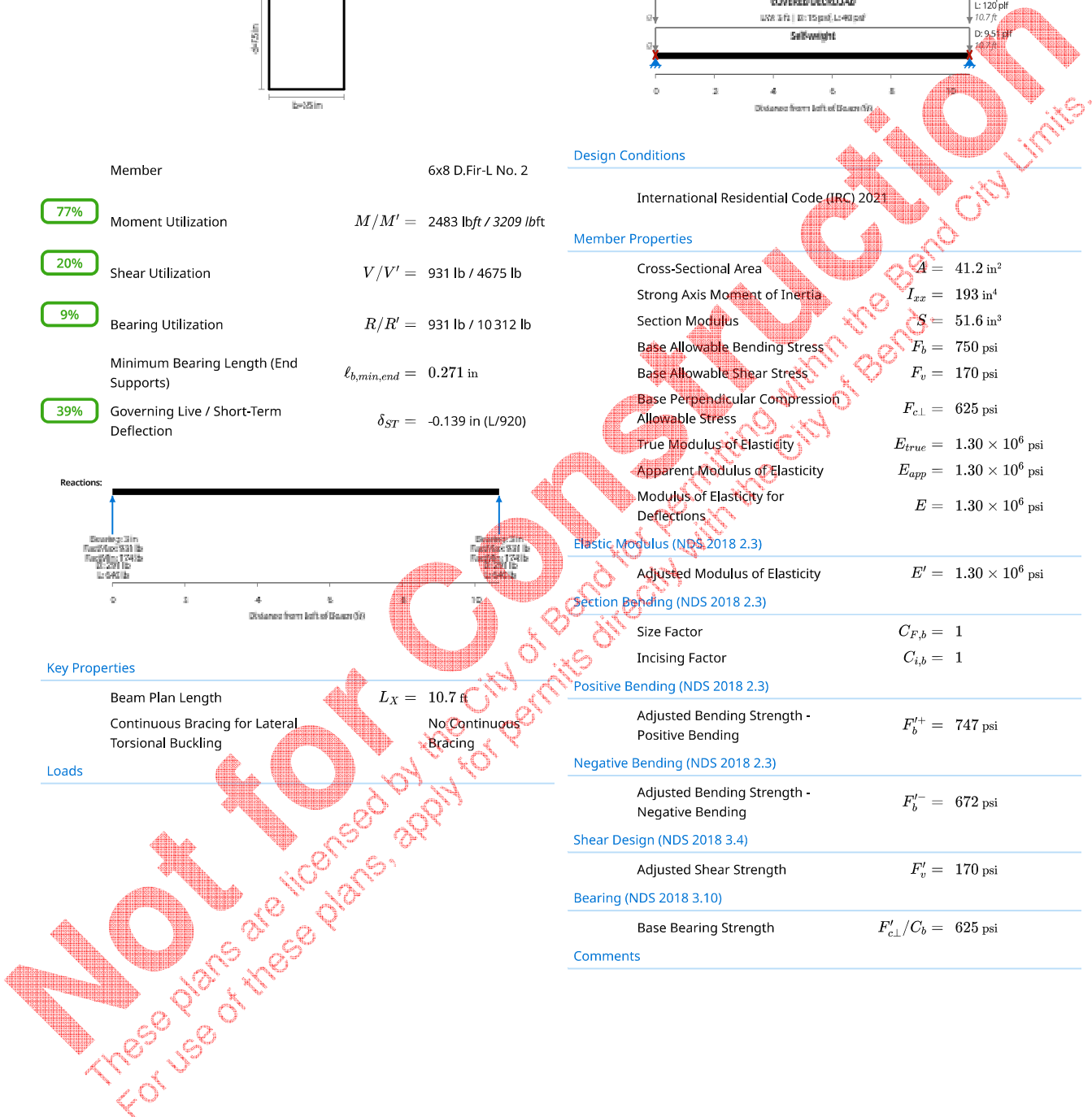
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v^i = 170 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c,L}/C_b = 625 \text{ psi}$
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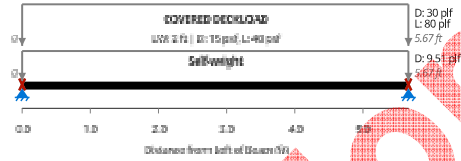
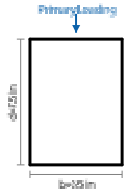
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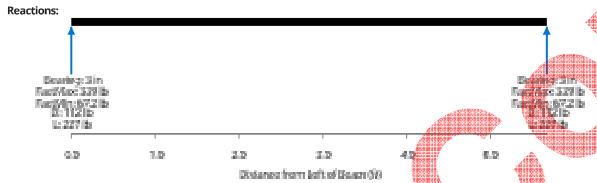


Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: 1DB2 (1 LEVEL BEAMS) PASS
References: NDS 2018 (ASD)		

Summary



Member	6x8 D.Fir-L No. 2
15% Moment Utilization	$M/M' = 480 \text{ lbft} / 3215 \text{ lbft}$
7% Shear Utilization	$V/V' = 339 \text{ lb} / 4675 \text{ lb}$
3% Bearing Utilization	$R/R' = 339 \text{ lb} / 10312 \text{ lb}$
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.0986 \text{ in}$
4% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.0074 \text{ in} (L/9194)$



Key Properties

Beam Plan Length	$L_X = 5.67 \text{ ft}$
Continuous Bracing for Lateral Torsional Buckling	No Continuous Bracing

Loads

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 41.2 \text{ in}^2$
Strong Axis Moment of Inertia	$I_{xx} = 193 \text{ in}^4$
Section Modulus	$S = 51.6 \text{ in}^3$
Base Allowable Bending Stress	$F_b = 750 \text{ psi}$
Base Allowable Shear Stress	$F_v = 170 \text{ psi}$
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625 \text{ psi}$
True Modulus of Elasticity	$E_{true} = 1.30 \times 10^6 \text{ psi}$
Apparent Modulus of Elasticity	$E_{app} = 1.30 \times 10^6 \text{ psi}$
Modulus of Elasticity for Deflections	$E = 1.30 \times 10^6 \text{ psi}$

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity	$E' = 1.30 \times 10^6 \text{ psi}$
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Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending	$F_b^{'+} = 748 \text{ psi}$
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Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending	$F_b'^{-} = 674 \text{ psi}$
--	------------------------------

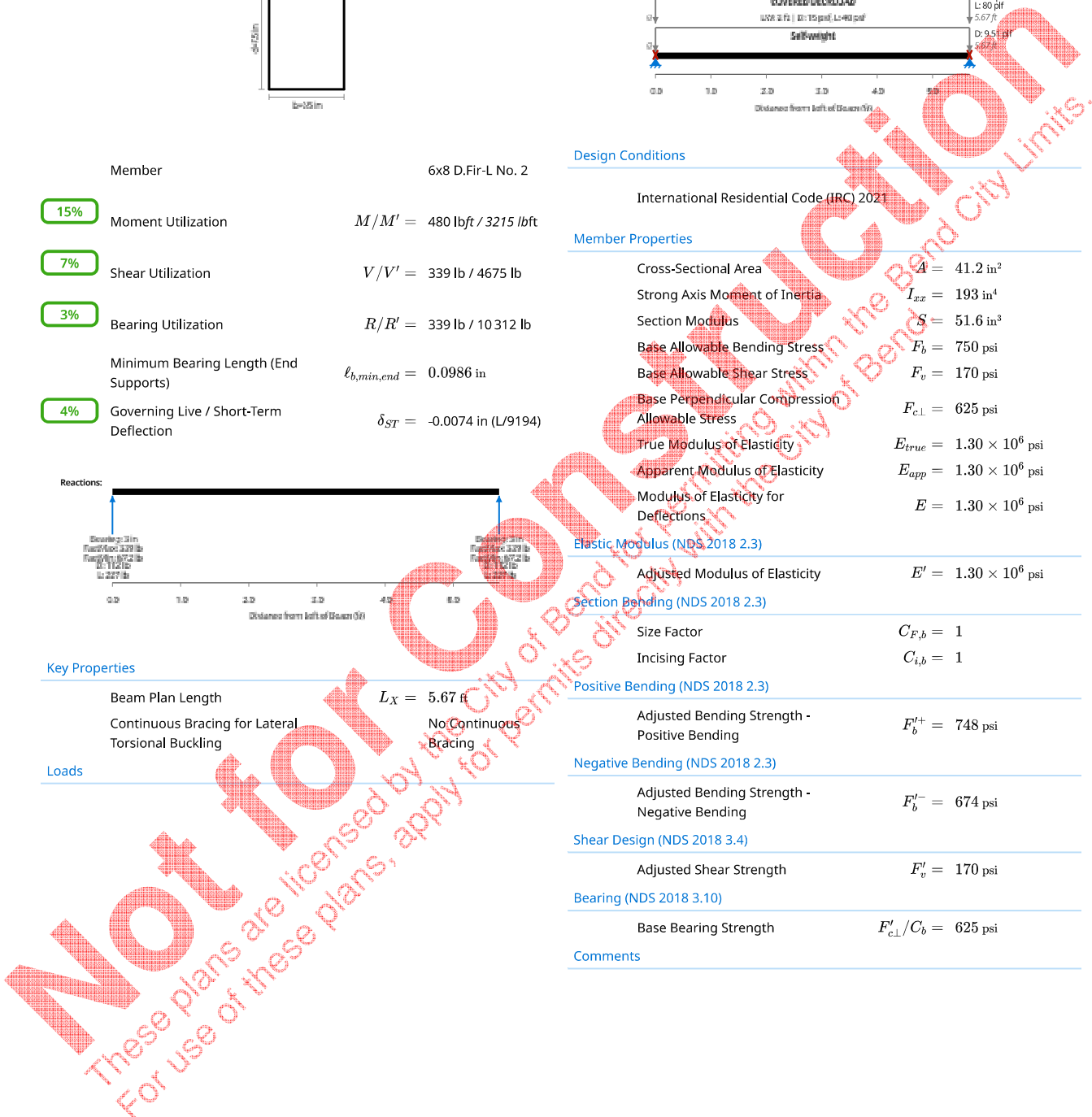
Shear Design (NDS 2018 3.4)

Adjusted Shear Strength	$F_v^I = 170 \text{ psi}$
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Bearing (NDS 2018 3.10)

Base Bearing Strength	$F'_{c\perp} / C_b = 625 \text{ psi}$
-----------------------	---------------------------------------

Comments

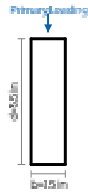




Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: DECK JOISTS (1 LEVEL BEAMS)	
References: NDS 2018 (ASD)		PASS

Summary

Center-to-Center Spacing (= tributary width) $s = 16$ in



Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 8.25$ in ²
Strong Axis Moment of Inertia	$I_{xx} = 20.8$ in ⁴
Section Modulus	$S = 7.56$ in ³
Base Allowable Bending Stress	$F'_b = 900$ psi
Base Allowable Shear Stress	$F'_v = 180$ psi
Base Perpendicular Compression Allowable Stress	$F'_{c\perp} = 625$ psi
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6$ psi
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6$ psi
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6$ psi

Elastic Modulus (NDS 2018 2.3)

Adjusted Modulus of Elasticity $E' = 1.60 \times 10^6$ psi

Section Bending (NDS 2018 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2018 2.3)

Adjusted Bending Strength - Positive Bending $F'_b{}^+ = 1345$ psi

Negative Bending (NDS 2018 2.3)

Adjusted Bending Strength - Negative Bending $F'_b{}^- = 1148$ psi

Shear Design (NDS 2018 3.4)

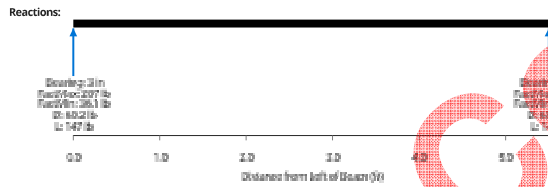
Adjusted Shear Strength $F'_v = 180$ psi

Bearing (NDS 2018 3.10)

Base Bearing Strength $F'_{c\perp}/C_b = 625$ psi

Comments

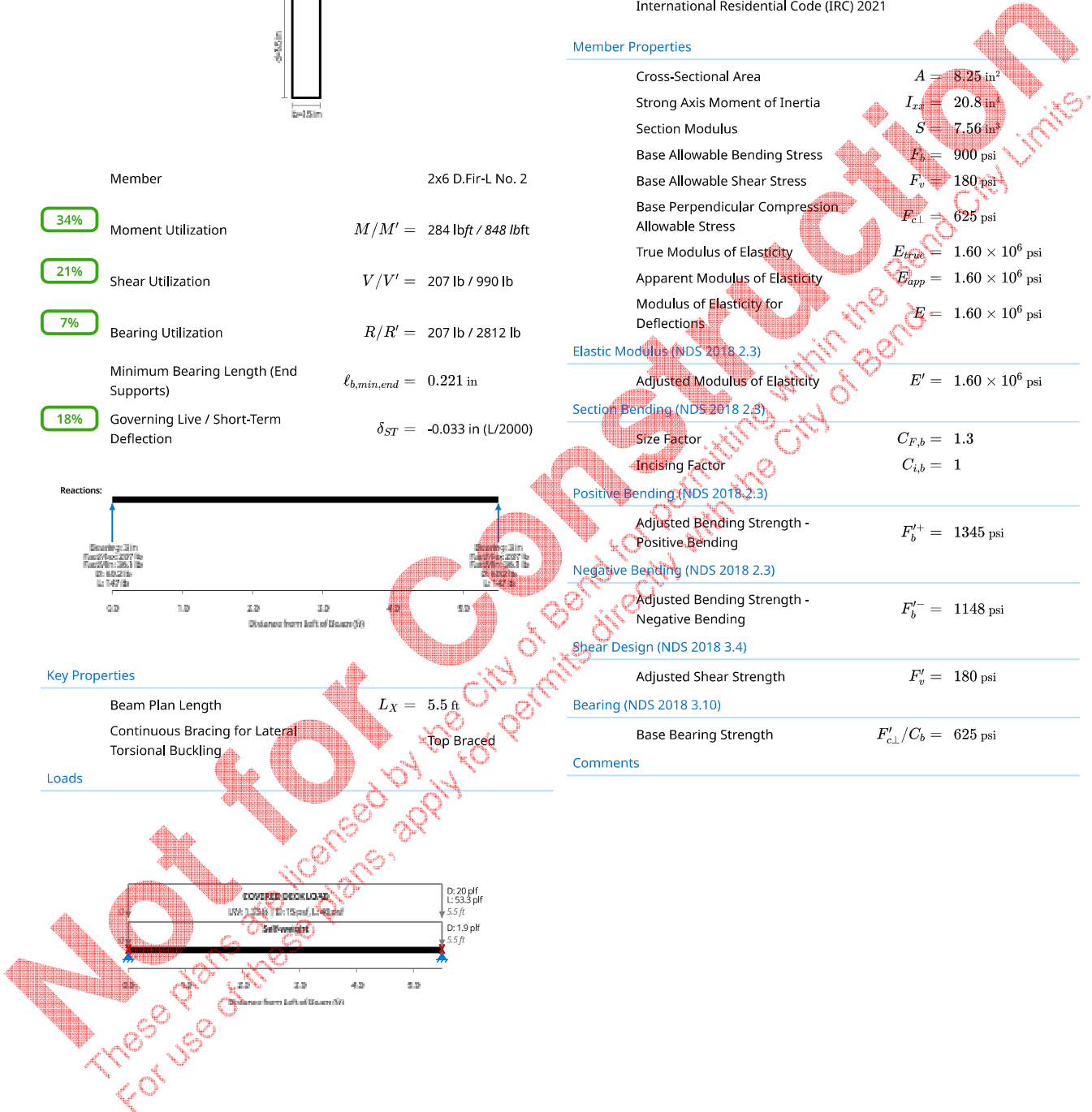
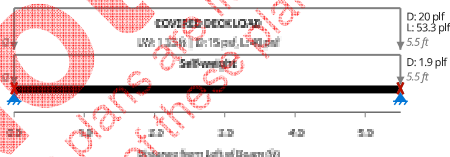
Member	2x6 D.Fir-L No. 2
34% Moment Utilization	$M/M' = 284$ lbft / 848 lbft
21% Shear Utilization	$V/V' = 207$ lb / 990 lb
7% Bearing Utilization	$R/R' = 207$ lb / 2812 lb
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.221$ in
18% Governing Live / Short-Term Deflection	$\delta_{ST} = -0.033$ in (L/2000)



Key Properties

Beam Plan Length	$L_X = 5.5$ ft
Continuous Bracing for Lateral Torsional Buckling	Top Braced

Loads

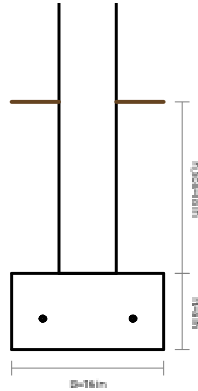




Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: WF1 (FOUNDATION) PASS
References: ACI 318-19		

Summary

Service Soil Bearing Stress	$q_s = 1414$ psf
94% Allowable Gross Soil Bearing Stress	$q_a = 1500$ psf
17% Factored Moment Capacity	$\phi M_n = 900$ lb · ft/ft
0% Factored One-Way Shear Capacity	$\phi V_n = 2880$ plf
Uplift Safety Factor	$FS_u =$ Uplift has not been found
Stability	Status = Footing in Total Compression



Footing Properties

Footing Width	$B = 1.33$ ft
Footing Thickness	$H = 8$ in
Wall Type	Concrete
Wall Width	$b = 6$ in
Concrete Strength	$f'_c = 2500$ psi
Volume of Concrete	$V_c = 0.0328$ yd ³ /ft

Soil Properties

Allowable Soil Gross Bearing Capacity	$q_a = 1500$ psf
Lateral Sliding Coefficient of Friction	$\mu = 0.3$

Bottom Reinforcement

Concrete Cover	cover = 3 in
Reinforcement Yield Strength	$f_y = 40\,000$ psi

Design Criteria

Design Code for Load Combinations	International Residential Code (IRC) 2021
Sliding and Overturning Minimum Factor of Safety	$FS_{min} = 1.5$

Comments

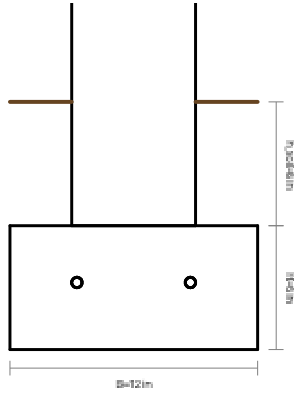
Not for Construction
 These plans are licensed by the City of Bend for permitting within the Bend City Limits.
 For use of these plans, apply for permits directly with the City of Bend.



Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:		Subject: WF2 (FOUNDATION) PASS
References: ACI 318-19		

Summary

Service Soil Bearing Stress	$q_s = 460$ psf
31% Allowable Gross Soil Bearing Stress	$q_a = 1500$ psf
4% Factored Moment Capacity	$\phi M_n = 400$ lb · ft/ft
0% Factored One-Way Shear Capacity	$\phi V_n = 1920$ plf
Uplift Safety Factor	$FS_u =$ Uplift has not been found
Stability	Status = Footing in Total Compression



Footing Properties

Footing Width	$B = 1$ ft
Footing Thickness	$H = 6$ in
Wall Type	Concrete
Wall Width	$b = 6$ in
Concrete Strength	$f'_c = 2500$ psi
Volume of Concrete	$V_c = 0.0185$ yd ³ /ft

Soil Properties

Allowable Soil Gross Bearing Capacity	$q_a = 1500$ psf
Lateral Sliding Coefficient of Friction	$\mu = 0.3$

Bottom Reinforcement

Concrete Cover	cover = 3 in
Reinforcement Yield Strength	$f_y = 40,000$ psi

Design Criteria

Design Code for Load Combinations	International Residential Code (IRC) 2021
Sliding and Overturning Minimum Factor of Safety	$FS_{min} = 1.5$

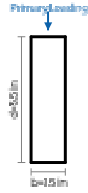
Comments

Not for Construction
 These plans are licensed by the City of Bend for permitting within the Bend City Limits.
 For use of these plans, apply for permits directly with the City of Bend.



Client: SIERRA JAMES CONSTRUCTION	Author: Allison Rymut	Date: Jan 26, 2026
Project: MT BACHELOR PAD		Job #:
Address:	Subject: STORAGE JOISTS (2 LEVEL BEAMS) PASS	
References: NDS 2024 (ASD)		

Summary



Center-to-Center Spacing (= tributary width) $s = 24$ in

Design Conditions

International Residential Code (IRC) 2021

Member Properties

Cross-Sectional Area	$A = 8.25$ in ²
Strong Axis Moment of Inertia	$I_{xx} = 20.8$ in ⁴
Section Modulus	$S = 7.56$ in ³
Base Allowable Bending Stress	$F_b = 900$ psi
Base Allowable Shear Stress	$F_v = 180$ psi
Base Perpendicular Compression Allowable Stress	$F_{c\perp} = 625$ psi
True Modulus of Elasticity	$E_{true} = 1.60 \times 10^6$ psi
Apparent Modulus of Elasticity	$E_{app} = 1.60 \times 10^6$ psi
Modulus of Elasticity for Deflections	$E = 1.60 \times 10^6$ psi

Elastic Modulus (NDS 2024, Cl. 2.3)

Adjusted Modulus of Elasticity $E' = 1.60 \times 10^6$ psi

Section Bending (NDS 2024, Cl. 2.3)

Size Factor	$C_{F,b} = 1.3$
Incising Factor	$C_{i,b} = 1$

Positive Bending (NDS 2024, Cl. 2.3)

Adjusted Bending Strength - Positive Bending $F_b^{'+} = 1130$ psi

Negative Bending (NDS 2024, Cl. 2.3)

Adjusted Bending Strength - Negative Bending $F_b^{'-} = 1211$ psi

Shear Design (NDS 2024, Cl. 3.4)

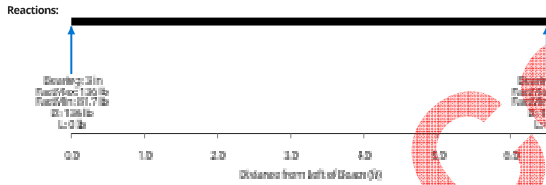
Adjusted Shear Strength $F_v' = 162$ psi

Bearing (NDS 2024, Cl. 3.10)

Base Bearing Strength $F_{c\perp}'/C_b = 625$ psi

Comments

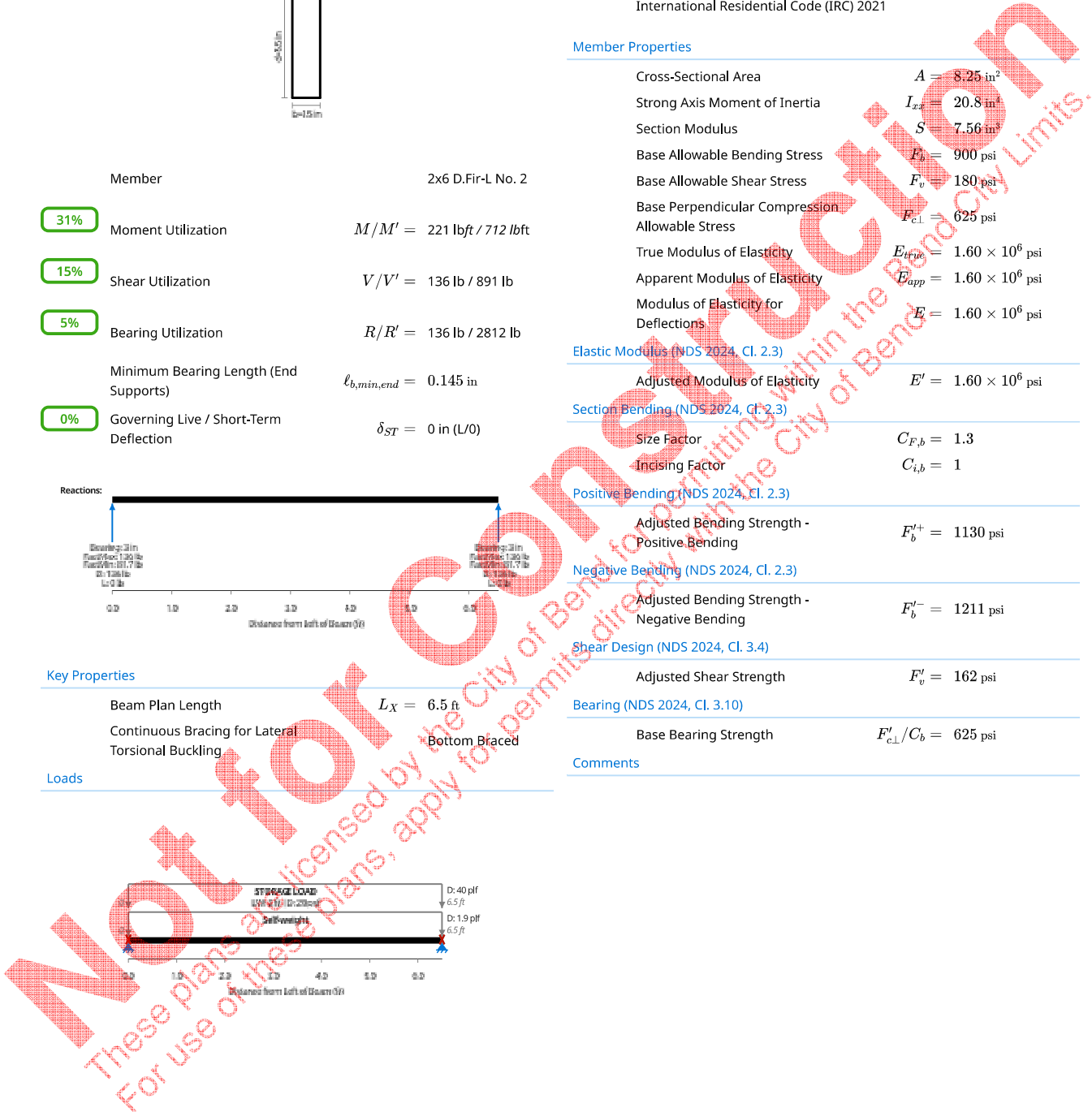
Member	2x6 D.Fir-L No. 2
31% Moment Utilization	$M/M' = 221$ lbft / 712 lbft
15% Shear Utilization	$V/V' = 136$ lb / 891 lb
5% Bearing Utilization	$R/R' = 136$ lb / 2812 lb
Minimum Bearing Length (End Supports)	$\ell_{b,min,end} = 0.145$ in
0% Governing Live / Short-Term Deflection	$\delta_{ST} = 0$ in (L/0)



Key Properties

Beam Plan Length	$L_X = 6.5$ ft
Continuous Bracing for Lateral Torsional Buckling	Bottom Braced

Loads



MiTek, Inc.

400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571

Re: 5273722

Sierra James - Mt. Bachelor Pad FLR

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Beaverton, OR).

Pages or sheets covered by this seal: R93096050 thru R93096067

My license renewal date for the state of Oregon is December 31, 2026.



EXPIRES: 12/31/2026

March 10, 2026

Reinmuth, Dustin

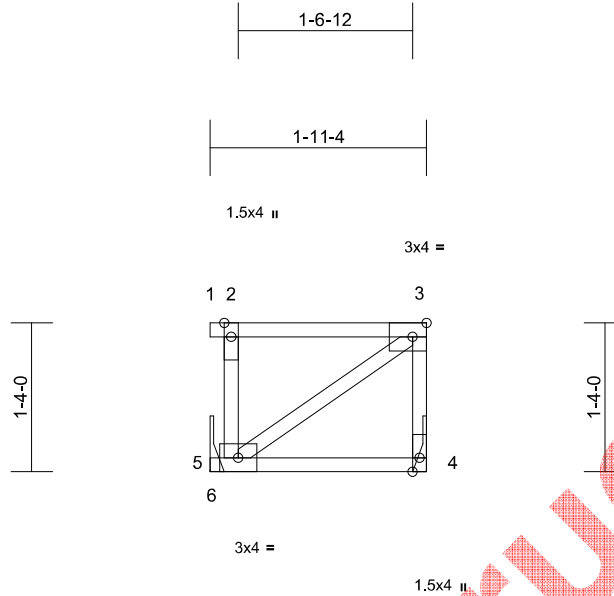
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job 5273722	Truss BK01	Truss Type Floor	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096050
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:15
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Page: 1



Scale = 1:20.6

Plate Offsets (X, Y): [3:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	-0.01	4-5	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.32	Vert(CT)	-0.02	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 11 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
 BOT CHORD 2x4 DF No.2(flat)
 WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-4 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
 Max Horiz 6=48 (LC 5)
 Max Uplift 4=-284 (LC 8), 6=-284 (LC 7)
 Max Grav 4=329 (LC 5), 6=329 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-104/0, 3-4=-349/322, 1-2=0/0, 2-3=-418/418
 BOT CHORD 5-6=-43/43, 4-5=-464/464
 WEBS 3-5=-571/571

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 284 lb uplift at joint 6 and 284 lb uplift at joint 4.
- This truss has been designed for a total drag load of 275 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-11-4 for 275.0 plf.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
 March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpin.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbccomponents.com)

MiTek®

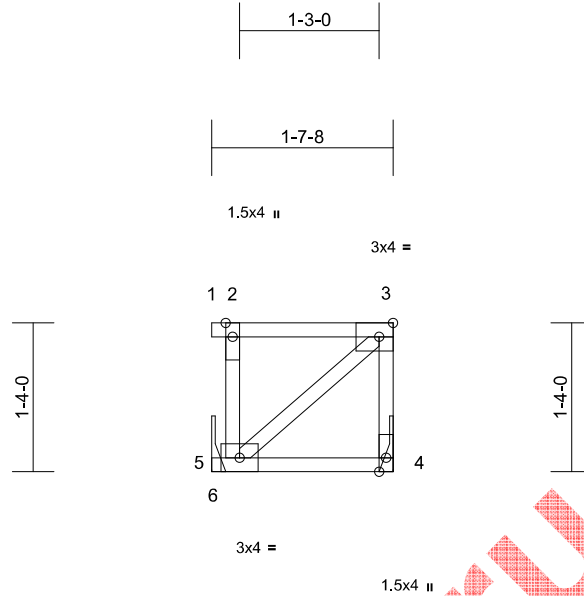
400 Sunrise Ave., Suite 270
 Roseville, CA 95661
 916.755.3571 / MiTek-US.com

Job 5273722	Truss BK02	Truss Type Floor	Qty 4	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096051
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 E Sep 3 2025 Print: 8.830 E Sep 3 2025 MiTek Industries, Inc. Tue Mar 10 15:05:41
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Page: 1



Scale = 1:20.6

Plate Offsets (X, Y): [3:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	-0.01	4-5	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 10 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
 BOT CHORD 2x4 DF No.2(flat)
 WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 4=85/ Mechanical, 6=87/ Mechanical

Max Horiz 6=48 (LC 5)
 Max Uplift 4=-281 (LC 8), 6=-281 (LC 7)
 Max Grav 4=318 (LC 5), 6=318 (LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 3-4=-346/324, 2-3=-340/340
 BOT CHORD 4-5=-378/378
 WEBS 3-5=-503/503

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 281 lb uplift at joint 6 and 281 lb uplift at joint 4.
- This truss has been designed for a total drag load of 275 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-7-8 for 275.0 plf.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
 March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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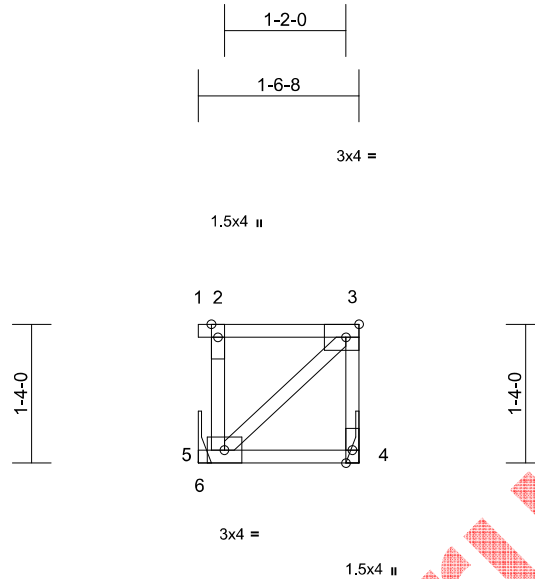
400 Sunrise Ave., Suite 270
 Roseville, CA 95661
 916.755.3571 / MiTek-US.com

Job 5273722	Truss BK03	Truss Type Floor	Qty 6	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096052
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:16
ID:bwEnTf7DBB1UMnbcTNP2oiziAqK-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:22.1

Plate Offsets (X, Y): [3:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	-0.01	4-5	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 9 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 DF No.2(flat)
BOT CHORD 2x4 DF No.2(flat)
WEBS 2x4 DF Stud/Std(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Horiz 6=48 (LC 5)
Max Uplift 4=-279 (LC 8), 6=-279 (LC 7)
Max Grav 4=315 (LC 5), 6=315 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 3-4=-345/325, 1-2=0/0, 2-3=-320/320, 2-5=-85/0
BOT CHORD 5-6=-43/43, 4-5=-355/355
WEBS 3-5=-486/486

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Refer to girder(s) for truss to truss connections.
 - 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 279 lb uplift at joint 6 and 279 lb uplift at joint 4.
 - 4) This truss has been designed for a total drag load of 275 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-6-8 for 275.0 plf.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



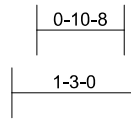
EXPIRES: 12/31/2026
March 10, 2026

Job 5273722	Truss BK04	Truss Type Floor	Qty 5	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096053
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

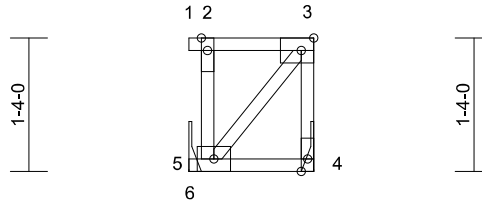
Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:16
ID:mJwMLDTnbnZWj4k?6GvcxciApu-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?

Page: 1



3x4 =

1.5x4 ||



3x4 =

1.5x4 ||

Scale = 1:23

Plate Offsets (X, Y): [3:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	0.00	4-5	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.25	Vert(CT)	-0.01	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 8 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
BOT CHORD 2x4 DF No.2(flat)
WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Horiz 6=71 (LC 5)
Max Uplift 4=-272 (LC 8), 6=-272 (LC 7)
Max Grav 4=300 (LC 5), 6=301 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 3-4=-342/327, 1-2=0/0, 2-3=-248/248, 2-5=-71/0
BOT CHORD 5-6=-66/66, 4-5=-295/295
WEBS 3-5=-431/431

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 272 lb uplift at joint 6 and 272 lb uplift at joint 4.
- This truss has been designed for a total drag load of 275 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-2-0 for 294.6 plf.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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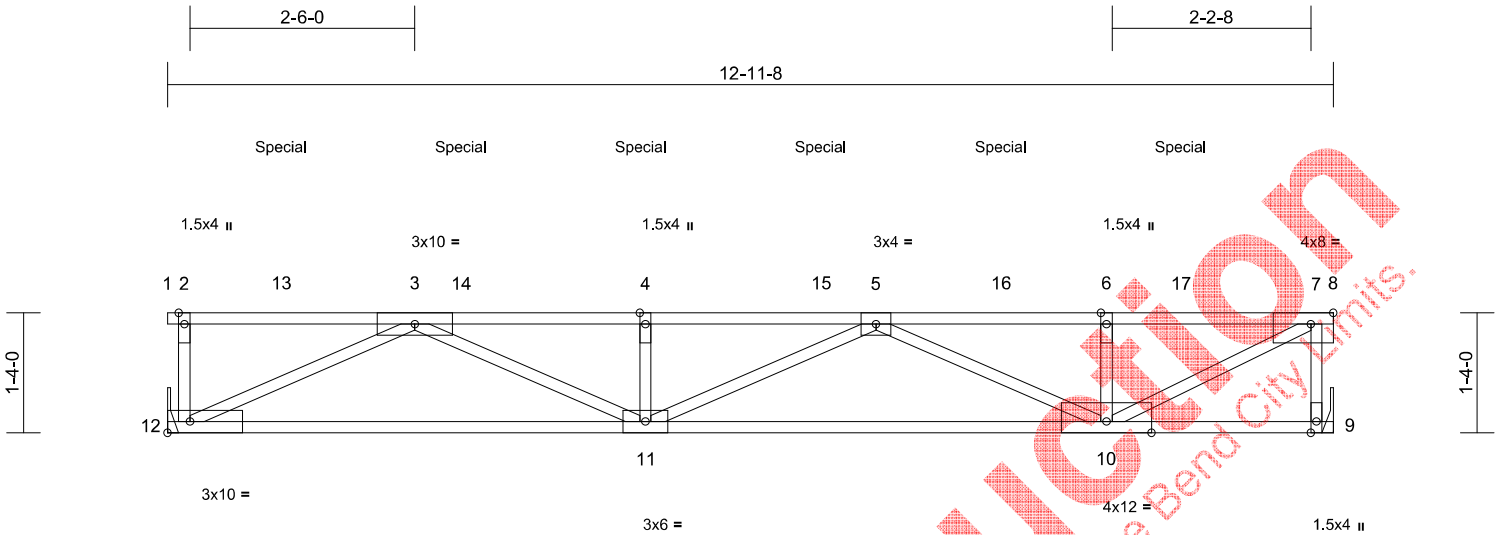
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Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5273722	Truss FT01	Truss Type Floor Girder	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096054
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:16
ID:yRD?Mem66iHSCMH0mIFosBzjqT1-RfC?PsB70Hq3NSgPqL8w3uITxBGKWRcD0i7J4zJC?f

Page: 1



Scale = 1:25.6

Plate Offsets (X, Y): [7:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.07	10-11	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.12	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 59 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
 BOT CHORD 2x4 DF No.2(flat)
 WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 9= Mechanical, 12= Mechanical
 Max Uplift 9=-721 (LC 6), 12=-776 (LC 6)
 Max Grav 9=1065 (LC 3), 12=1123 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-12=-155/110, 7-9=-1057/722, 1-2=0/0,
 2-3=0/0, 3-4=-2947/2039, 4-5=-2947/2039,
 5-6=-1881/1309, 6-7=-1881/1309, 7-8=0/0
 BOT CHORD 11-12=-1434/2006, 10-11=-2032/2877,
 9-10=0/0
 WEBS 3-12=-2218/1586, 3-11=-669/1041,
 4-11=-420/326, 5-11=-8/78, 5-10=-1100/800,
 6-10=-466/363, 7-10=-1474/2118

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 776 lb uplift at joint 12 and 721 lb uplift at joint 9.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

- 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 300 lb down and 288 lb up at 1-3-4, 300 lb down and 288 lb up at 3-3-4, 300 lb down and 288 lb up at 5-3-4, 300 lb down and 288 lb up at 7-3-4, and 300 lb down and 288 lb up at 9-3-4, and 300 lb down and 288 lb up at 11-3-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 9-12=-10, 1-2=-100, 2-7=-100, 7-8=-100
 Concentrated Loads (lb)
 Vert: 4=-10 (F), 13=-10 (F), 14=-10 (F), 15=-10 (F), 16=-10 (F), 17=-10 (F)



EXPIRES: 12/31/2026
 March 10, 2026

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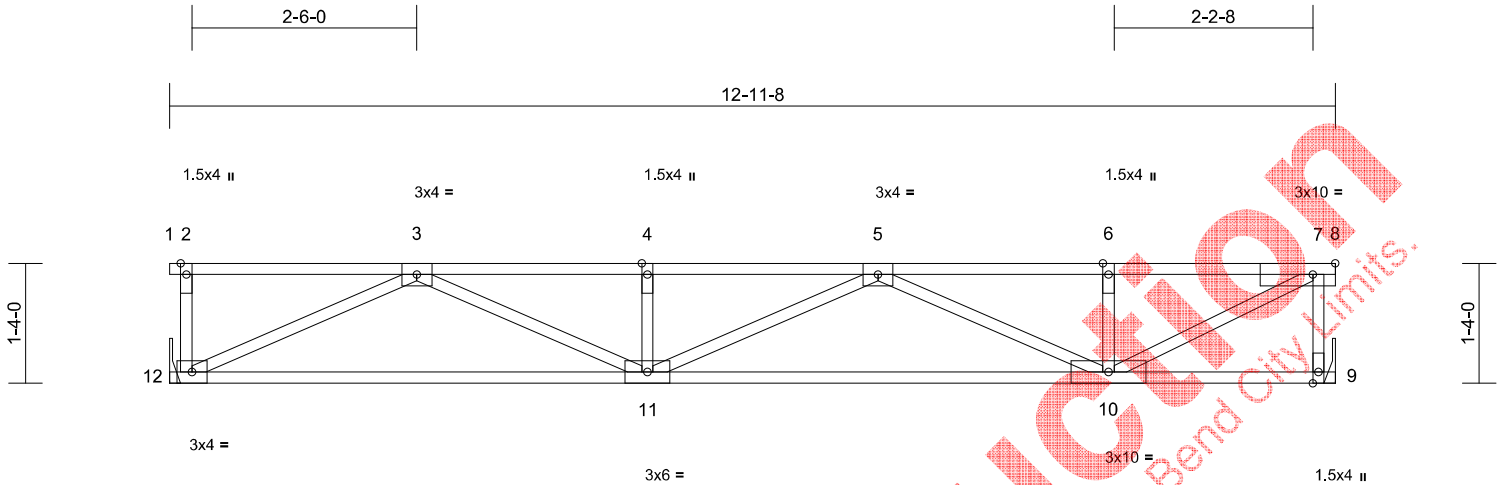
400 Sunrise Ave., Suite 270
 Roseville, CA 95661
 916.755.3571 / MiTek-US.com

Job 5273722	Truss FT02	Truss Type Floor	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096055
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:17
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Page: 1



Scale = 1:25.6

Plate Offsets (X, Y): [7:0-3:0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.31	Vert(LL)	-0.07	10-11	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.11	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 59 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
 BOT CHORD 2x4 DF No.2(flat)
 WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9= Mechanical, 12= Mechanical
 Max Grav 9=711 (LC 1), 12=711 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/0, 2-3=0/0, 3-4=-1796/0, 4-5=-1796/0, 5-6=-1143/0, 6-7=-1143/0, 7-8=0/0, 2-12=-122/0, 7-9=-704/0
 BOT CHORD 11-12=0/1204, 10-11=0/1740, 9-10=0/0
 WEBS 3-12=-1331/0, 3-11=0/655, 4-11=-247/0, 5-11=0/62, 5-10=-660/0, 6-10=-271/0, 7-10=0/1287

NOTES

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
 March 10, 2026

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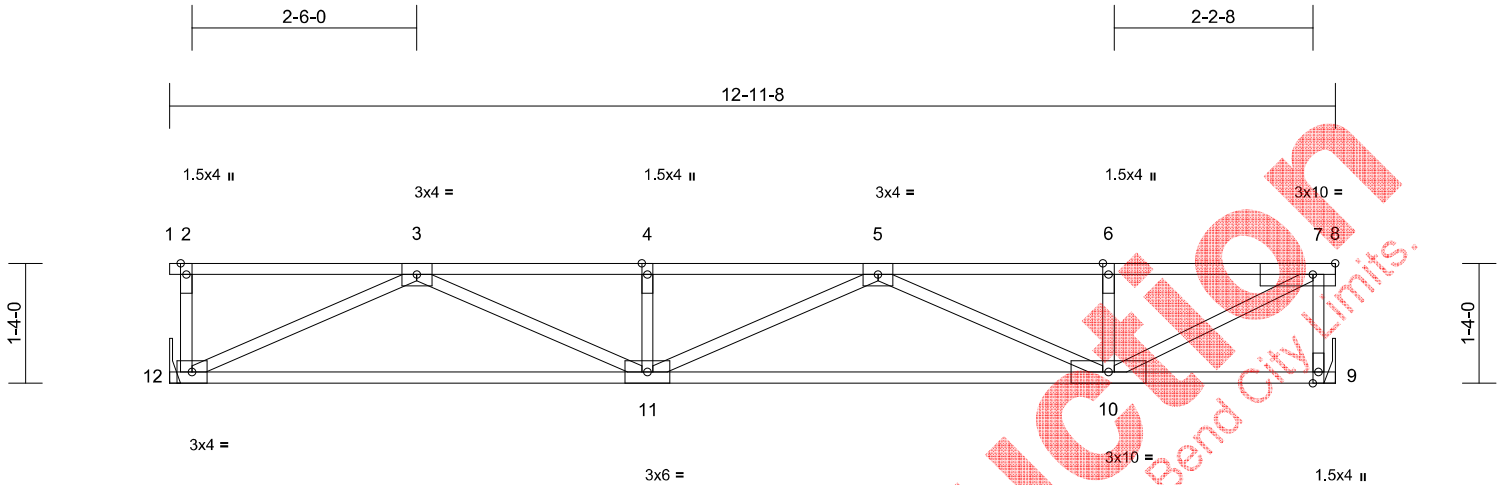
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 Roseville, CA 95661
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Job 5273722	Truss FT03	Truss Type Floor	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096056
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Scale = 1:25.6

Plate Offsets (X, Y): [7:0-3:0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.31	Vert(LL)	-0.07	10-11	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.11	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 59 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
 BOT CHORD 2x4 DF No.2(flat)
 WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9= Mechanical, 12= Mechanical
 Max Grav 9=711 (LC 1), 12=711 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 2-12=122/0, 7-9=-704/0, 1-2=0/0, 2-3=0/0, 3-4=-1796/0, 4-5=-1796/0, 5-6=-1143/0, 6-7=-1143/0, 7-8=0/0
 BOT CHORD 11-12=0/1204, 10-11=0/1740, 9-10=0/0
 WEBS 3-12=-1331/0, 3-11=0/655, 4-11=-247/0, 5-11=0/62, 5-10=-660/0, 6-10=-271/0, 7-10=0/1287

NOTES

- 1) Refer to girder(s) for truss to truss connections.
- 2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
 March 10, 2026

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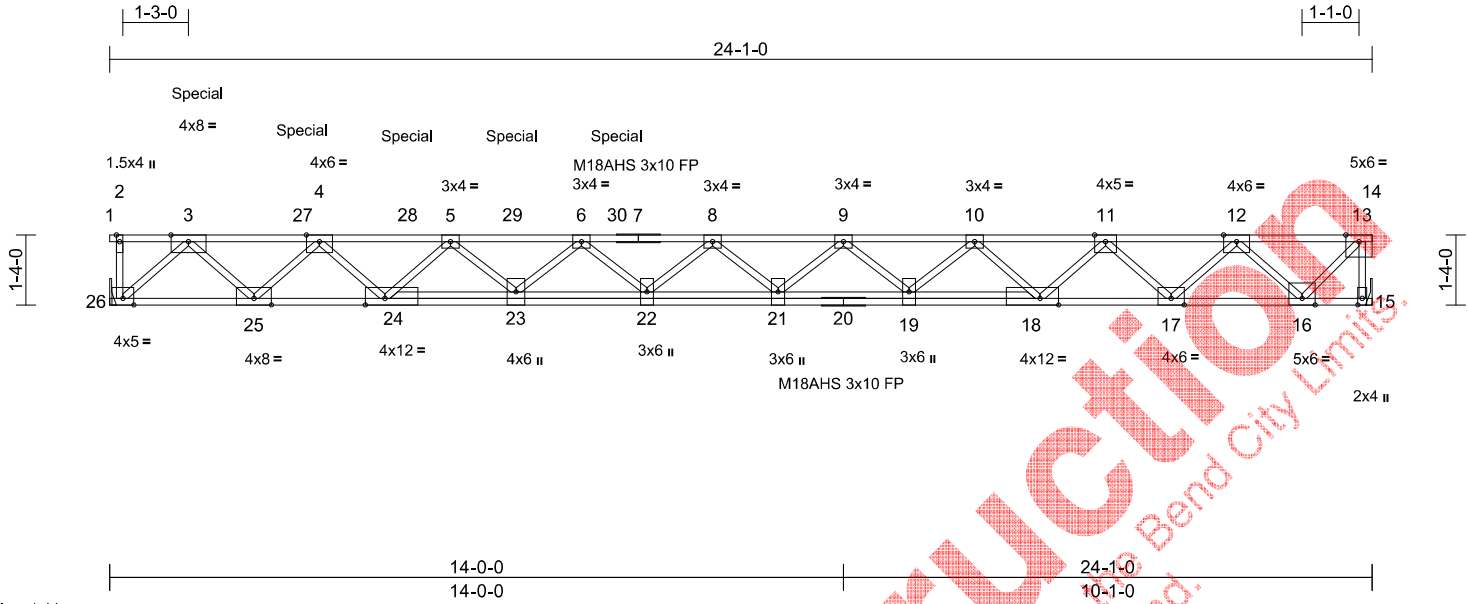
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 Roseville, CA 95661
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Job 5273722	Truss FT04	Truss Type Floor Girder	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096057
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Scale = 1:44
Plate Offsets (X, Y): [18:0-4-4,Edge], [24:0-4-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	-0.52	21-22	>545	480	M18AHS	169/162
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.73	21-22	>392	360	MT20	220/195
BCLL	0.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.10	15	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH								Weight: 126 lb FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 DF No.1&Btr(flat) *Except* 7-14:2x4 DF 2400F 2.0E(flat)
BOT CHORD 2x4 DF No.2(flat) *Except* 20-15:2x4 DF No.1&Btr(flat)
WEBS 2x4 DF Stud/Std(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 15-16.

REACTIONS (size) 15= Mechanical, 26= Mechanical
Max Uplift 15=-106 (LC 1), 26=-858 (LC 10)
Max Grav 15=1332 (LC 1), 26=1472 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-26=-58/0, 13-15=-1325/107, 1-2=0/0, 2-3=0/0, 3-4=-2716/1570, 4-5=-4850/2708, 5-6=-5903/3003, 6-8=-6630/2694, 8-9=-6741/2019, 9-10=-6245/1389, 10-11=-5280/905, 11-12=-3332/423, 12-13=-1147/114, 13-14=0/0
BOT CHORD 25-26=-948/1577, 24-25=-2265/3917, 23-24=-3005/5442, 22-23=-3031/6409, 21-22=-2372/6823, 19-21=-1680/6629, 18-19=-1116/5856, 17-18=-626/4356, 16-17=-252/2382, 15-16=0/0
WEBS 3-26=-2144/1289, 3-25=-865/1584, 4-25=-1669/965, 4-24=-571/1353, 5-24=-1003/432, 5-23=0/695, 6-23=-686/38, 9-19=-611/394, 10-19=-370/631, 10-18=-839/308, 11-18=-359/1190, 11-17=-1422/281, 12-17=-238/1322, 12-16=-1718/192, 13-16=-166/1667, 8-22=-457/374, 8-21=-518/480, 9-21=-460/560, 6-22=-350/493

- Unbalanced floor live loads have been considered for this design.
 - All plates are MT20 plates unless otherwise indicated.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 858 lb uplift at joint 26 and 106 lb uplift at joint 15.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 289 lb down and 279 lb up at 1-8-4, 289 lb down and 279 lb up at 3-8-4, 289 lb down and 279 lb up at 5-8-4, and 289 lb down and 279 lb up at 7-8-4, and 289 lb down and 279 lb up at 9-8-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-2=-100, 2-13=-100, 13-14=-100
Concentrated Loads (lb)
Vert: 3=-8 (F), 27=-8 (F), 28=-8 (F), 29=-8 (F), 30=-8 (F)



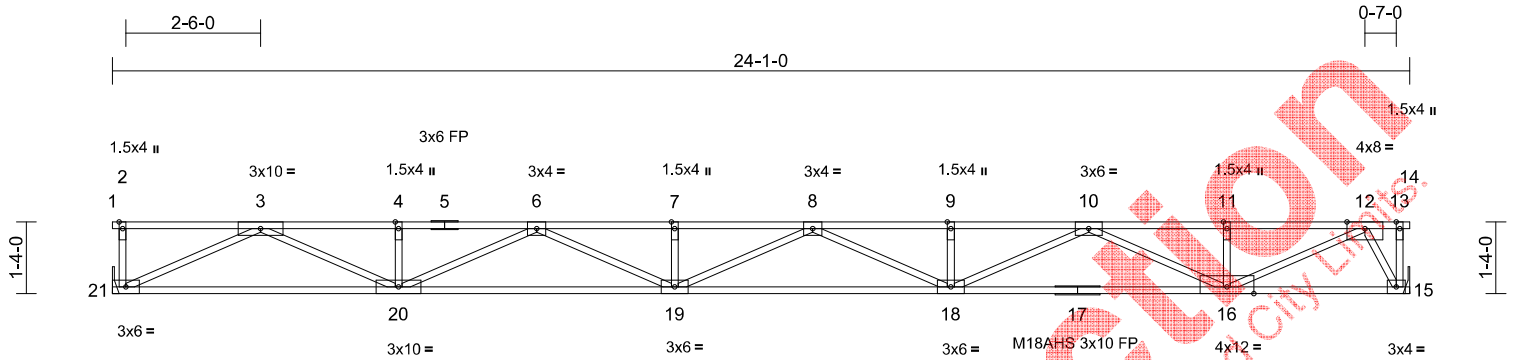
EXPIRES: 12/31/2026
March 10, 2026

Job 5273722	Truss FT05	Truss Type Floor	Qty 11	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096058
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:17
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Page: 1



Scale = 1:42.8

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	-0.47	18-19	>604	480	M18AHS	169/162
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.66	18-19	>431	360	MT20	220/195
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.10	15	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH								
											Weight: 109 lb	FT = 20%F, 11%E

LUMBER

- TOP CHORD 2x4 DF No.2(flat)
- BOT CHORD 2x4 DF No.2(flat)
- WEBS 2x4 DF Stud/Std(flat)

BRACING

- TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 18-19.

- REACTIONS** (size) 15= Mechanical, 21= Mechanical
Max Grav 15=882 (LC 1), 21=882 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 2-21=-82/0, 13-15=0/15, 1-2=0/0, 2-3=0/0, 3-4=-2920/0, 4-6=-2920/0, 6-7=-4209/0, 7-8=-4209/0, 8-9=-3914/0, 9-10=-3914/0, 10-11=-2027/0, 11-12=-2027/0, 12-13=0/0, 13-14=0/0
- BOT CHORD 20-21=0/1664, 19-20=0/3748, 18-19=0/4243, 16-18=0/3152, 15-16=0/475
- WEBS 3-21=-1840/0, 3-20=0/1389, 4-20=-164/0, 6-20=-915/0, 6-19=0/510, 7-19=-169/0, 8-19=-38/0, 8-18=-364/0, 9-18=-170/0, 10-18=0/843, 10-16=-1244/0, 11-16=-171/0, 12-16=0/1715, 12-15=-1008/0

NOTES

- All plates are MT20 plates unless otherwise indicated.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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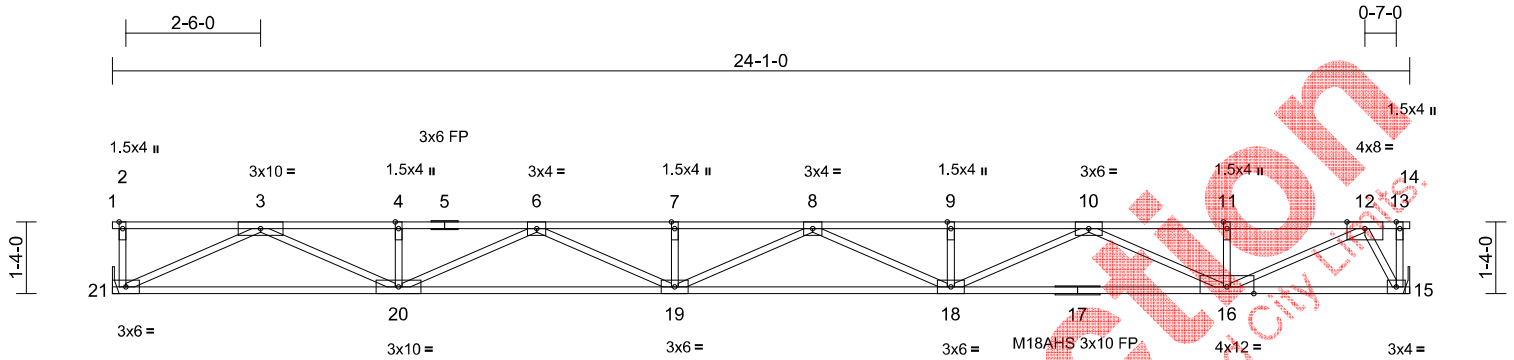
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5273722	Truss FT05D	Truss Type Floor	Qty 2	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096059
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:18
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Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	-0.47	18-19	>604	480	M18AHS 169/162
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.66	18-19	>431	360	MT20 220/195
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.10	15	n/a	n/a	
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 109 lb FT = 20%F, 11%E

LUMBER

- TOP CHORD 2x4 DF No.2(flat)
- BOT CHORD 2x4 DF No.2(flat)
- WEBS 2x4 DF Stud/Std(flat)

BRACING

- TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 18-19.

- REACTIONS** (size) 15= Mechanical, 21= Mechanical
Max Grav 15=882 (LC 1), 21=882 (LC 1)

FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 2-21=-82/0, 13-15=0/15, 1-2=0/0, 2-3=0/0, 3-4=-2920/0, 4-6=-2920/0, 6-7=-4209/0, 7-8=-4209/0, 8-9=-3914/0, 9-10=-3914/0, 10-11=-2027/0, 11-12=-2027/0, 12-13=0/0, 13-14=0/0
 - BOT CHORD 20-21=0/1664, 19-20=0/3748, 18-19=0/4243, 16-18=0/3152, 15-16=0/475
 - WEBS 3-21=-1840/0, 3-20=0/1389, 4-20=-164/0, 6-20=-915/0, 6-19=0/510, 7-19=-169/0, 8-19=-38/0, 8-18=-364/0, 9-18=-170/0, 10-18=0/843, 10-16=-1244/0, 11-16=-171/0, 12-16=0/1715, 12-15=-1008/0

NOTES

- All plates are MT20 plates unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 4-0-0 oc.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcscomponents.com)

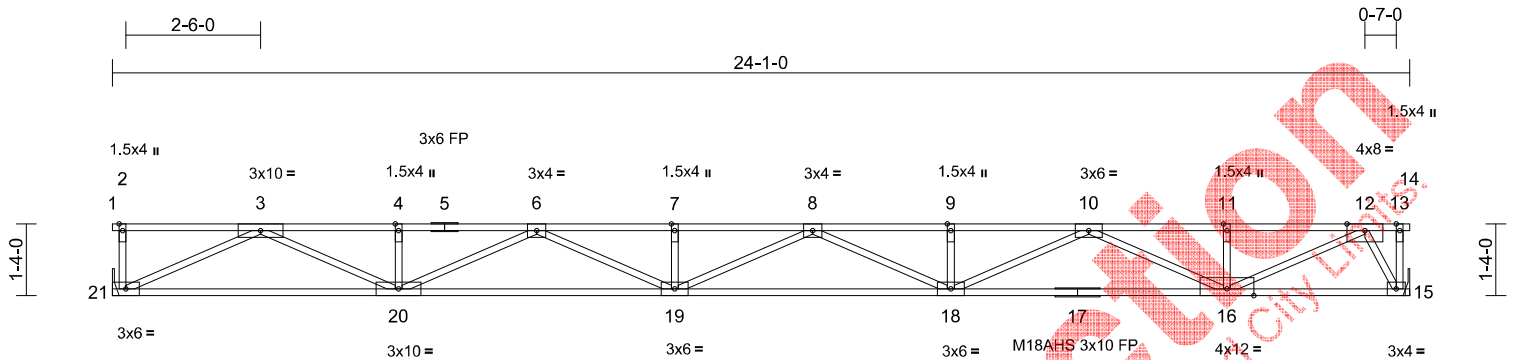
MiTek®
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Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5273722	Truss FT06	Truss Type Floor	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096060
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Scale = 1:42.8

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	-0.47	18-19	>604	480	M18AHS 169/162
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.66	18-19	>431	360	MT20 220/195
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.10	15	n/a	n/a	
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH							Weight: 109 lb FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 DF No.2(flat)
 BOT CHORD 2x4 DF No.2(flat)
 WEBS 2x4 DF Stud/Std(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 2-2-0 oc bracing: 18-19.

REACTIONS (size) 15= Mechanical, 21= Mechanical
 Max Grav 15=882 (LC 1), 21=882 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 2-21=-82/0, 13-15=0/15, 1-2=0/0, 2-3=0/0,
 3-4=-2920/0, 4-6=-2920/0, 6-7=-4209/0,
 7-8=-4209/0, 8-9=-3914/0, 9-10=-3914/0,
 10-11=-2027/0, 11-12=-2027/0, 12-13=0/0,
 13-14=0/0
 BOT CHORD 20-21=0/1664, 19-20=0/3748, 18-19=0/4243,
 16-18=0/3152, 15-16=0/475
 WEBS 3-21=-1840/0, 3-20=0/1389, 4-20=-164/0,
 6-20=-915/0, 6-19=0/510, 7-19=-169/0,
 8-19=-38/0, 8-18=-364/0, 9-18=-170/0,
 10-18=0/843, 10-16=-1244/0, 11-16=-171/0,
 12-16=0/1715, 12-15=-1008/0

NOTES

- All plates are MT20 plates unless otherwise indicated.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
 March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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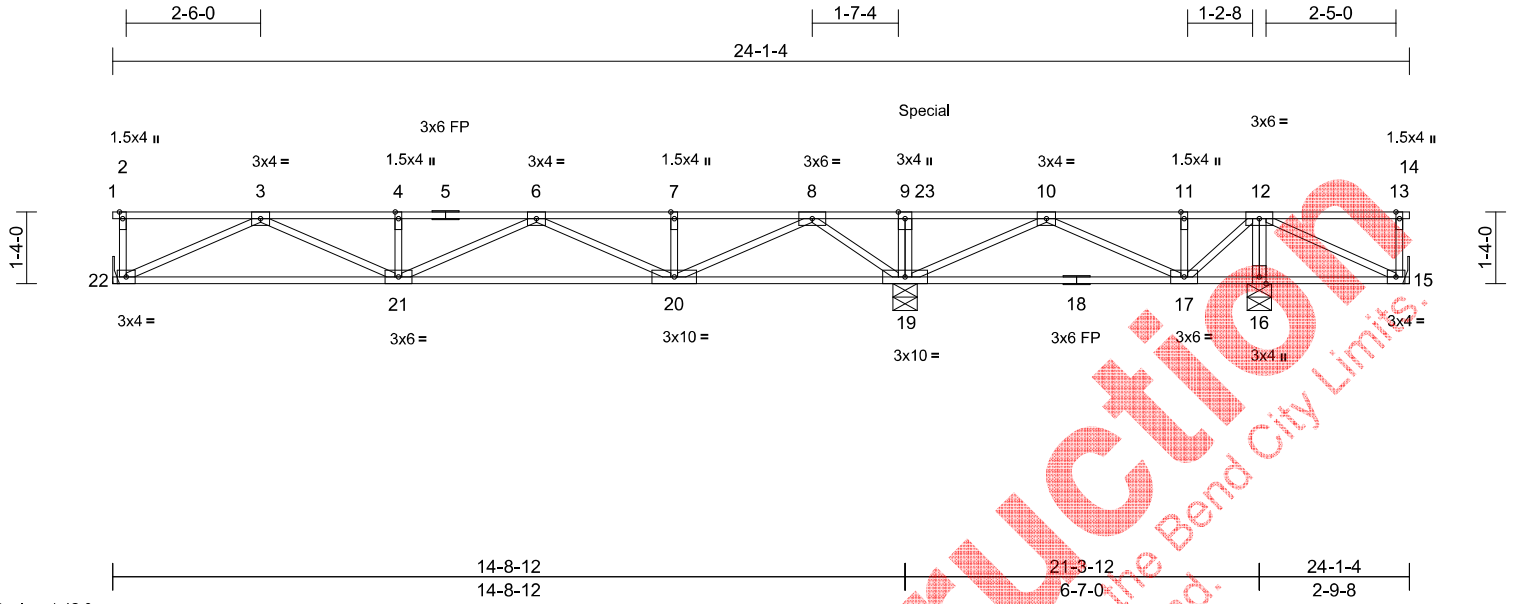
400 Sunrise Ave., Suite 270
 Roseville, CA 95661
 916.755.3571 / MiTek-US.com

Job 5273722	Truss FT07G	Truss Type Floor Girder	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096062
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

Run: 8.83 S Jan 22 2026 Print: 8.830 S Jan 22 2026 MiTek Industries, Inc. Tue Mar 10 13:05:18
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Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.62	Vert(LL)	-0.06	20-21	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.33	Vert(CT)	-0.09	20-21	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.01	19	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-SH								
											Weight: 113 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 DF No.2(flat)
BOT CHORD 2x4 DF No.2(flat)
WEBS 2x4 DF Stud/Std(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 15= Mechanical, 16=0-5-8, 19=0-5-8, 22= Mechanical
Max Uplift 15=29 (LC 6), 16=-4 (LC 19)
Max Grav 15=89 (LC 5), 16=376 (LC 4), 19=1329 (LC 3), 22=460 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-22=-81/0, 13-15=-84/0, 1-2=0/0, 2-3=0/0, 3-4=-1159/0, 4-6=-1159/0, 6-7=-685/0, 7-8=-685/0, 8-9=0/982, 9-10=0/986, 10-11=-89/153, 11-12=-89/153, 12-13=0/0, 13-14=0/0
BOT CHORD 21-22=0/784, 20-21=0/1103, 19-20=-237/0, 17-19=-496/142, 16-17=-117/15, 15-16=-110/14
WEBS 9-19=-460/84, 12-16=-366/12, 3-22=-867/0, 3-21=0/415, 4-21=-165/0, 6-21=0/76, 6-20=-473/0, 7-20=-183/0, 8-20=0/966, 8-19=-948/0, 10-19=-780/0, 10-17=-71/379, 11-17=-134/8, 12-17=-220/269, 12-15=-16/121

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 15 and 4 lb uplift at joint 16.

- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 315 lb down and 100 lb up at 15-1-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-22=-7, 1-2=-67, 2-13=-67, 13-14=-67
Concentrated Loads (lb)
Vert: 23=-307 (B)



EXPIRES: 12/31/2026
March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpin.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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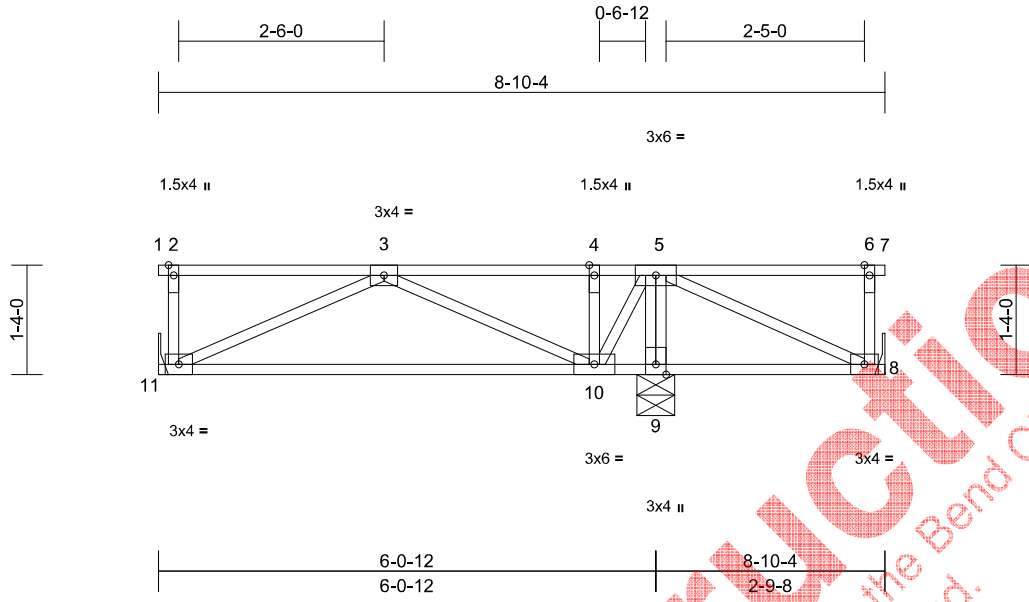
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5273722	Truss FT08	Truss Type Floor	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096063
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.20	Vert(Lt)	0.00	10-11	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.14	Vert(CT)	-0.04	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 44 lb	FT = 20%F, 11%E

LUMBER

- TOP CHORD 2x4 DF No.2(flat)
- BOT CHORD 2x4 DF No.2(flat)
- WEBS 2x4 DF Stud/Std(flat)

BRACING

- TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

- (size) 8= Mechanical, 9=0-5-8, 11= Mechanical
- Max Uplift 8=-15 (LC 3)
- Max Grav 8=77 (LC 4), 9=384 (LC 1), 11=206 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

- TOP CHORD 6-8=-82/0, 1-2=0/0, 2-3=0/0, 3-4=-68/0, 4-5=-68/0, 5-6=0/0, 6-7=0/0, 2-11=-80/0
- BOT CHORD 10-11=0/244, 9-10=-93/0, 8-9=-82/0
- WEBS 5-9=-389/0, 5-8=0/91, 3-11=-270/0, 3-10=-206/0, 4-10=-121/35, 5-10=0/293

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 8.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



EXPIRES: 12/31/2026
March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

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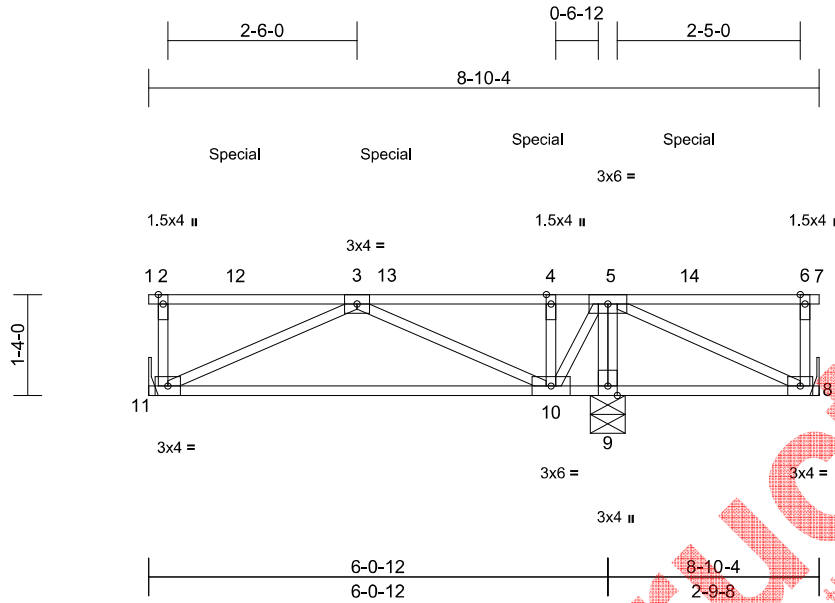
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5273722	Truss FT09	Truss Type Floor Girder	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096064
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	0.00	10-11	>999	480	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.17	Vert(CT)	-0.04	10-11	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 44 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 DF No.2(flat)
BOT CHORD 2x4 DF No.2(flat)
WEBS 2x4 DF Stud/Std(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 8= Mechanical, 9=0-5-8, 11= Mechanical
Max Uplift 8=-16 (LC 3), 9=-705 (LC 10), 11=-342 (LC 10)
Max Grav 8=88 (LC 4), 9=922 (LC 7), 11=451 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-8=-97/64, 1-2=0/0, 2-3=0/0, 3-4=-92/52, 4-5=-92/52, 5-6=0/0, 6-7=0/0, 2-11=-164/131
BOT CHORD 10-11=-463/577, 9-10=-179/134, 8-9=-148/111
WEBS 5-9=-922/691, 5-8=-123/163, 3-11=-638/512, 3-10=-537/455, 4-10=-150/125, 5-10=-340/495

6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 305 lb down and 289 lb up at 1-1-12, 305 lb down and 289 lb up at 3-1-12, and 305 lb down and 289 lb up at 5-1-12, and 317 lb down and 291 lb up at 7-1-12 on top chord. The design/selection of such connection device (s) is the responsibility of others.

7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced) Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 8-11=-7, 1-2=-67, 2-6=-67, 6-7=-67
Concentrated Loads (lb)
Vert: 4=-20 (B), 12=-20 (B), 13=-20 (B), 14=-43 (B)

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) Refer to girder(s) for truss to truss connections.
 - 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 8, 705 lb uplift at joint 9 and 342 lb uplift at joint 11.
 - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 5) CAUTION, Do not erect truss backwards.



EXPIRES: 12/31/2026
March 10, 2026

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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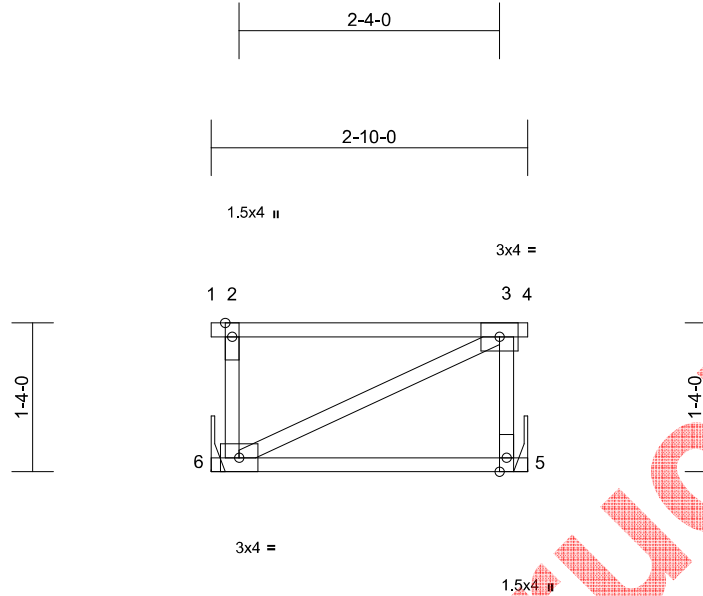
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Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job 5273722	Truss FT10	Truss Type Floor	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096065
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Scale = 1:20.6

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LT)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	0.00	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 14 lb	FT = 20%F, 11%E

LUMBER

- TOP CHORD 2x4 DF No.2(flat)
- BOT CHORD 2x4 DF No.2(flat)
- WEBS 2x4 DF Stud/Std(flat)

BRACING

- TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 6= Mechanical
Max Grav 5=103 (LC 1), 6=103 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 2-6=-94/0, 1-2=0/0, 2-3=0/0, 3-4=0/0, 3-5=-94/0
- BOT CHORD 5-6=0/0
- WEBS 3-6=0/0

NOTES

- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



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March 10, 2026

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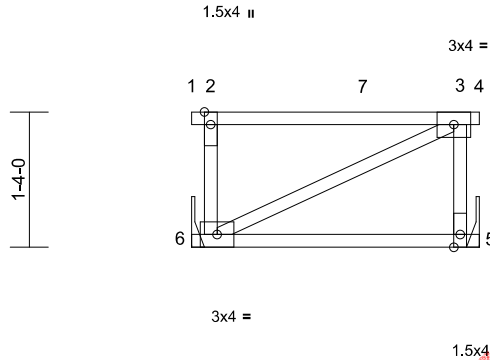
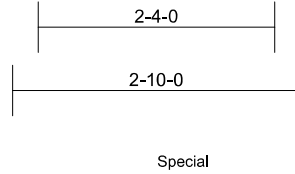
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Job 5273722	Truss FT11	Truss Type Floor Girder	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096066
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LT)	n/a	-	n/a	999	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(CT)	0.00	5-6	>999	360	
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	n/a		n/a	n/a	
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-P							
										Weight: 14 lb	FT = 20%F, 11%E

- LUMBER**
- TOP CHORD 2x4 DF No.2(flat)
 - BOT CHORD 2x4 DF No.2(flat)
 - WEBS 2x4 DF Stud/Std(flat)

- Uniform Loads (lb/ft)
Vert: 5-6=-7, 1-2=-67, 2-3=-67, 3-4=-67
Concentrated Loads (lb)
Vert: 7=-20 (B)

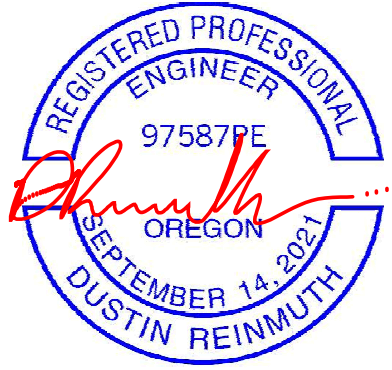
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except end verticals.
 - BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

- REACTIONS** (size) 5= Mechanical, 6= Mechanical
Max Uplift 5=-160 (LC 6), 6=-96 (LC 6)
Max Grav 5=213 (LC 3), 6=146 (LC 3)

- FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-138/101, 1-2=0/0, 2-3=0/0, 3-4=0/0, 3-5=-205/165
BOT CHORD 5-6=0/0
WEBS 3-6=0/0

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 6 and 160 lb uplift at joint 5.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 305 lb down and 289 lb up at 1-3-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00



EXPIRES: 12/31/2026
March 10, 2026

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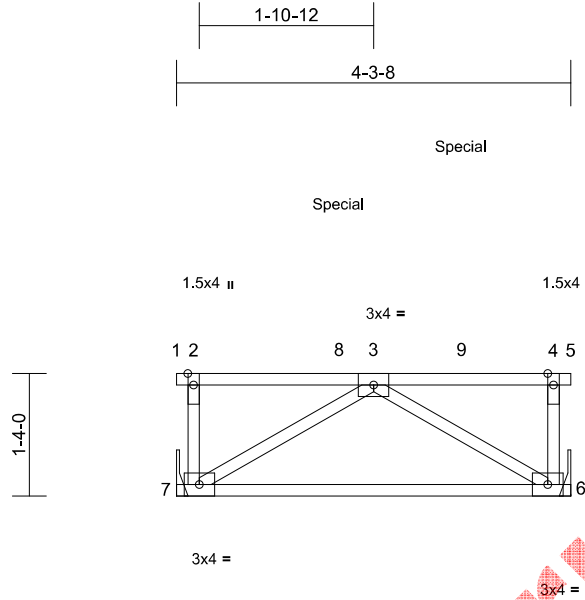
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Job 5273722	Truss FT12	Truss Type Floor Girder	Qty 1	Ply 1	Sierra James - Mt. Bachelor Pad FLR Job Reference (optional)	R93096067
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Builders FirstSource (Beaverton, OR), Beaverton, OR - 97005,

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Page: 1



Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	10.0	Lumber DOL	1.00	BC	0.16	Vert(CT)	-0.02	6-7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IBC2021/TPI2014	Matrix-P							Weight: 20 lb	FT = 20%F, 11%E

LUMBER		Uniform Loads (lb/ft)
TOP CHORD	2x4 DF No.2(flat)	Vert: 6-7=-7, 1-2=-67, 2-4=-67, 4-5=-67
BOT CHORD	2x4 DF No.2(flat)	Concentrated Loads (lb)
WEBS	2x4 DF Stud/Std(flat)	Vert: 8=-186 (B), 9=-161 (B)

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 4-3-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	6= Mechanical, 7= Mechanical
Max Uplift	6=-95 (LC 6), 7=-175 (LC 6)	
Max Grav	6=351 (LC 1), 7=317 (LC 3)	

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-7=-71/38, 4-6=-115/9, 1-2=0/0, 2-3=0/0, 3-4=0/0, 4-5=0/0
BOT CHORD	6-7=-234/389
WEBS	3-7=-457/274, 3-6=-457/274

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 7 and 95 lb uplift at joint 6.
 - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 442 lb down and 347 lb up at 1-9-4, and 161 lb down at 3-1-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)	Standard
1)	Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00



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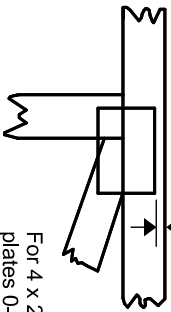
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Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

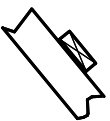
This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MITek software or upon request.

PLATE SIZE

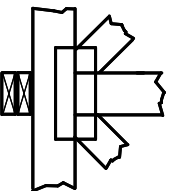
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

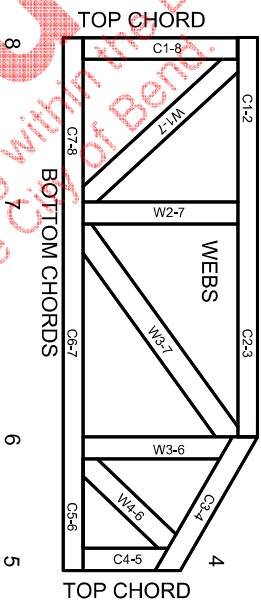
Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and weave at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023