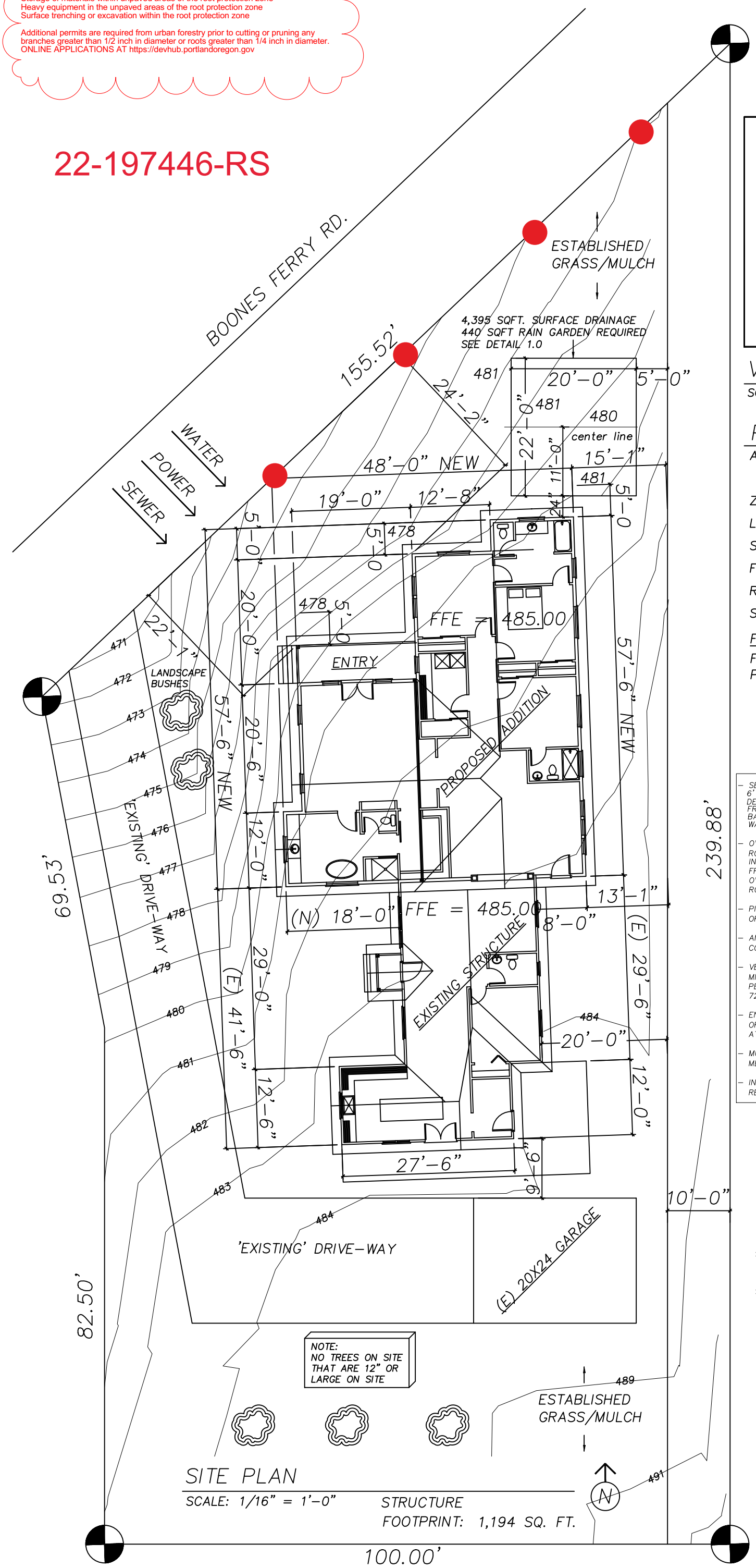
STREET TREE PROTECTION REQUIRED
PRESCRIPTIVE PATH - BASIC

Active protection measures, such as fencing, are NOT required.
THE FOLLOWING IS PROHIBITED WITHIN THE ROOT PROTECTION ZONE:
Ground disturbance
Storage of materials within unpaved areas of the root protection zone
Heavy equipment in the unpaved areas of the root protection zone
Surface trenching or excavation within the root protection zone

Additional permits are required from urban forestry prior to cutting or pruning any branches greater than 1/2 inch in diameter or roots greater than 1/4 inch in diameter.
ONLINE APPLICATIONS AT https://devhub.portlandoregon.gov

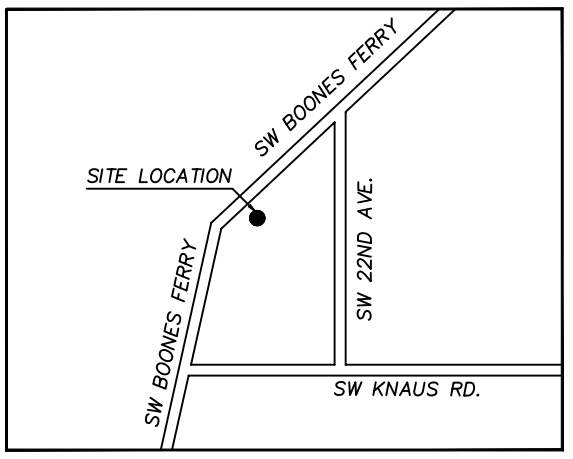
22-197446-RS



SITE PLAN

SCALE: 1/16" = 1'-0"

STRUCTURE FOOTPRINT: 1,194 SQ. FT.



VICINITY MAP

SCALE: N.T.S.

PROPERTY INFORMATION:

ADDRESS: 12714 SW BOONES FERRY RD.
LAKE OSWEGO, OR. 97035

ZONING: R10

LOT SIZE: 0.40 ACRES (17,299 SQFT)

SETBACKS:

FRONT: 20 FEET

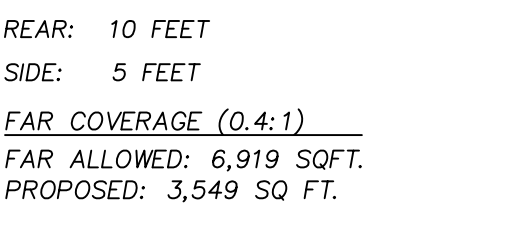
REAR: 10 FEET

SIDE: 5 FEET

FAR COVERAGE (0.4:1)

FAR ALLOWED: 6,919 SQFT.
PROPOSED: 3,549 SQ FT.

- SETBACKS: 2' FROM ANY BUILDING WITHOUT A BASEMENT: 6' FROM ANY ONSITE BUILDING WITH A BASEMENT: THE DEEPEST POINT MUST BE 10' FROM ALL STRUCTURES; 5' FROM PROPERTY LINES EXCEPT TO RIGHT OF WAY: 5' FROM BASE OF RETAINING WALLS > 3'; 10; FROM TOP OF RETAINING WALLS > 3' HIGH.
- OVERFLOW: A RAIN GARDEN MUST INCLUDE AN OVERFLOW ROUTE THAT SAFELY DIRECTS RUNOFF TO A DISPOSAL POINT IN HEAVY RAINFALL. OVERFLOW ROUTES MUST DRAIN AWAY FROM BUILDING FOUNDATIONS AND ADJACENT PROPERTIES. OVERFLOW ROUTES MUST BE PLANTED OR COVERED WITH ROCK TO LIMIT EROSION.
- PIPING: MUST CONFORM WITH THE REQUIREMENTS OF THE OREGON SPECIALTY PLUMBING CODE.
- AMENDED SOIL: AMENDED NATIVE SOIL WITH 3" YARD DEBRIS COMPOST, BLEND TO A DEPTH OF 12".
- VEGETATION: REFER TO PLANT LIST IN SWMM SECTION 3.5 MINIMUM CONTAINER SIZE IS 1 GAL. NUMBER OF PLANTINGS PER 100 SF OF FACILITY AREA: 80 HERBACEOUS PLANTS OR 72 HERBACEOUS PLANTS AND 4 SMALL SHRUBS.
- ENTRANCE EROSION CONTROL: INSTALL RIVER ROCK, FLAGSTONE OR SIMILAR TO DISSIPATE THE ENERGY OF INCOMING WATER AT ENTRANCE AND ENDS OF DOWNSPOUT EXTENSIONS.
- MULCH: THE SURFACE CAN BE MULCHED WITH 2" OF DARK(AGED) MEDIUM HEMLOCK MULCH.
- INSPECTIONS: CALL BDS IVR INSPECTION LINE, (503) 823-7000, REQUEST 487. 3 INSPECTIONS REQUIRED.



1.0 — RAIN GARDEN DETAIL

SCALE: NTS.

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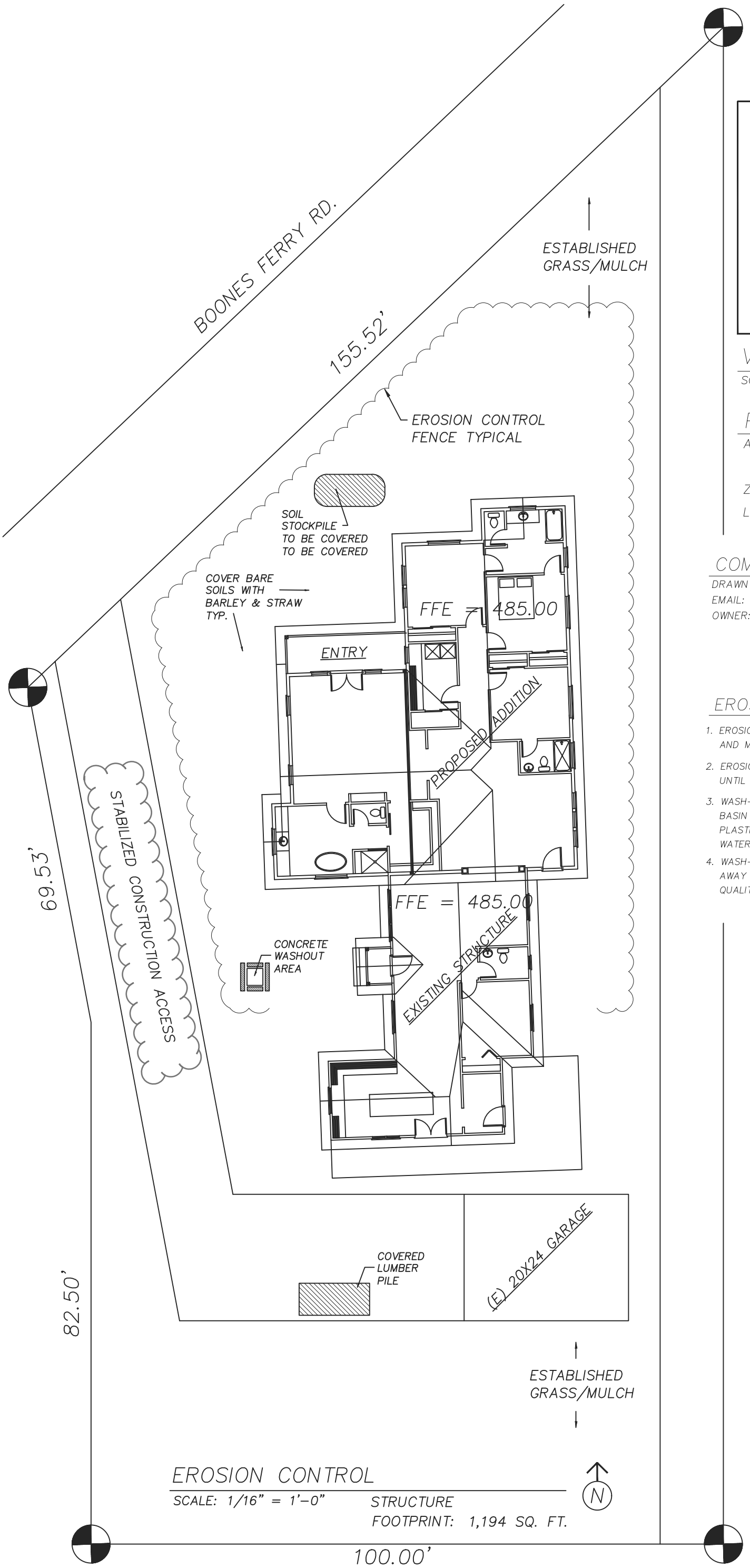
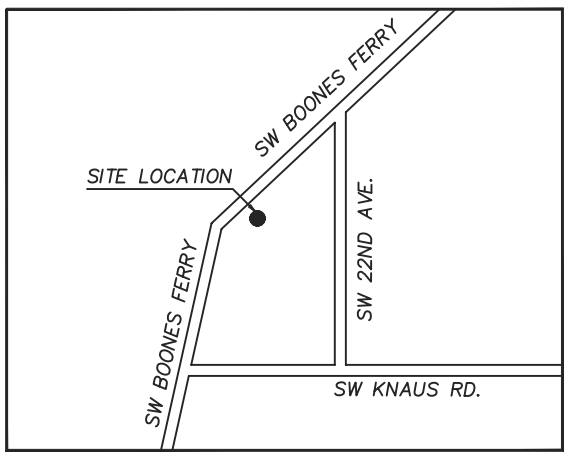
NO.

Date: 11/13/23

Permit #: 22-197446-000-00-RS

SUBMITTED 10/25/2023





VICINITY MAP

SCALE: N.T.S.

PROPERTY INFORMATION:

ADDRESS: 12714 SW BOONES FERRY RD.
LAKE OSWEGO, OR. 97035

ZONING: R10

LOT SIZE: 0.40 ACRES (17,299 SQFT)

COMPANY / OWNER INFO:

DRAWN BY: J & E POLY SERVICES INC. (503-962-0515)
EMAIL: JANDEPOLYSERVICES@YAHOO.COM
OWNER: THEO & JUDITHA CIRSTEAN (971-678-6930)

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES TO BE INSPECTED DAILY AND MAINTAINED AS NEEDED TO ENSURE THEIR FUNCTION.
2. EROSION CONTROL MEASURES TO BE KEPT IN PLACE UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
3. WASH-OUT FACILITY TO BE BELOW GRADE OR ABOVE GRADE BASIN CONSTRUCTED OF STRAW BALES OR LUMBER, LINED WITH PLASTIC SHEETING, WHERE WASTE CAN SOLIDIFY AND EXCESS WATER EVAPORATE.
4. WASH-OUT FACILITY TO BE CLEARLY MARKED AND LOCATED AWAY FROM THE STREET, STORM SEWER INLETS, AND WATER QUALITY FACILITIES.

EROSION CONTROL

SCALE: 1/16" = 1'-0"

STRUCTURE FOOTPRINT: 1,194 SQ. FT.

N

City of Portland
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Date: 11/13/23
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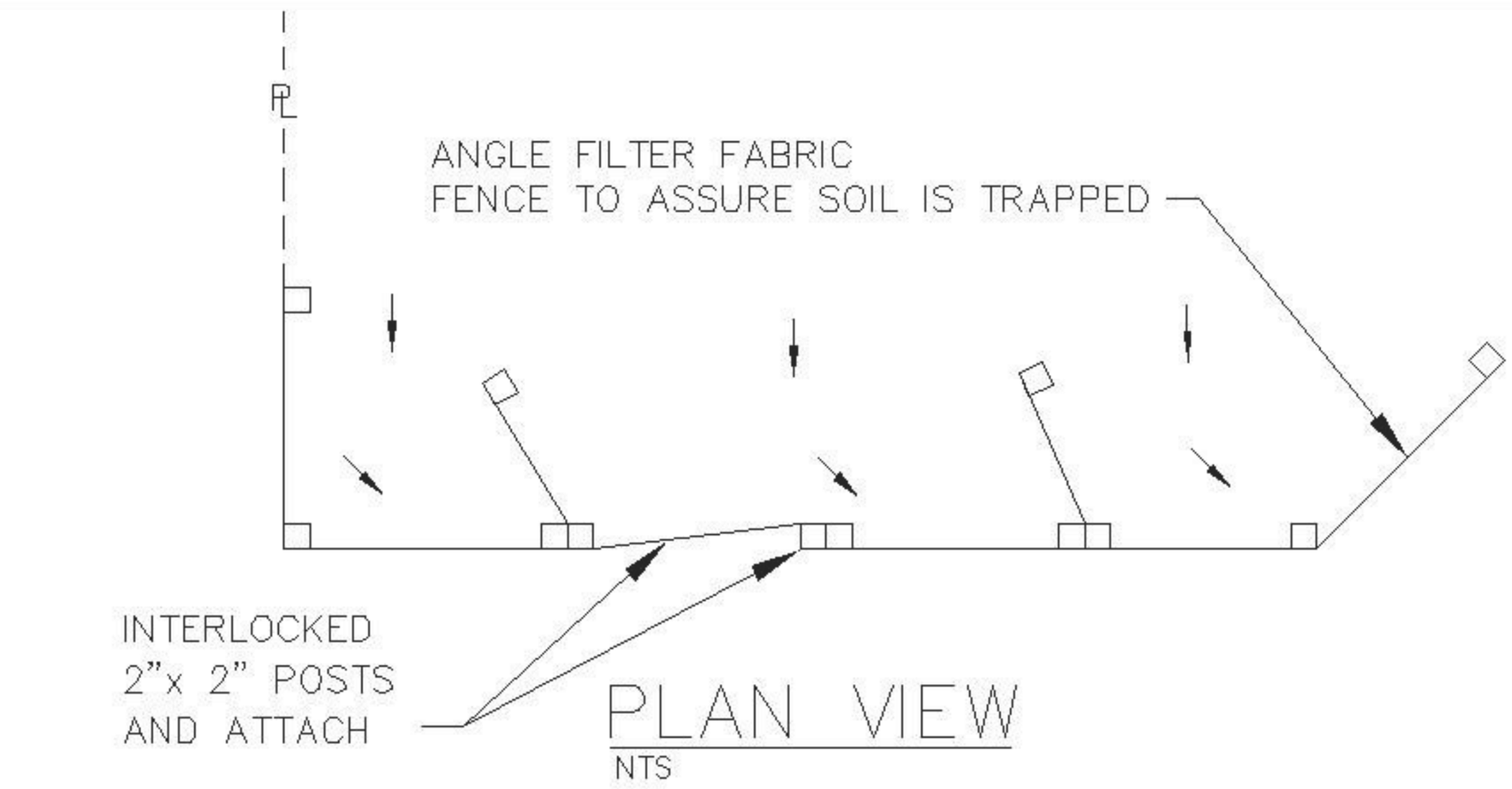
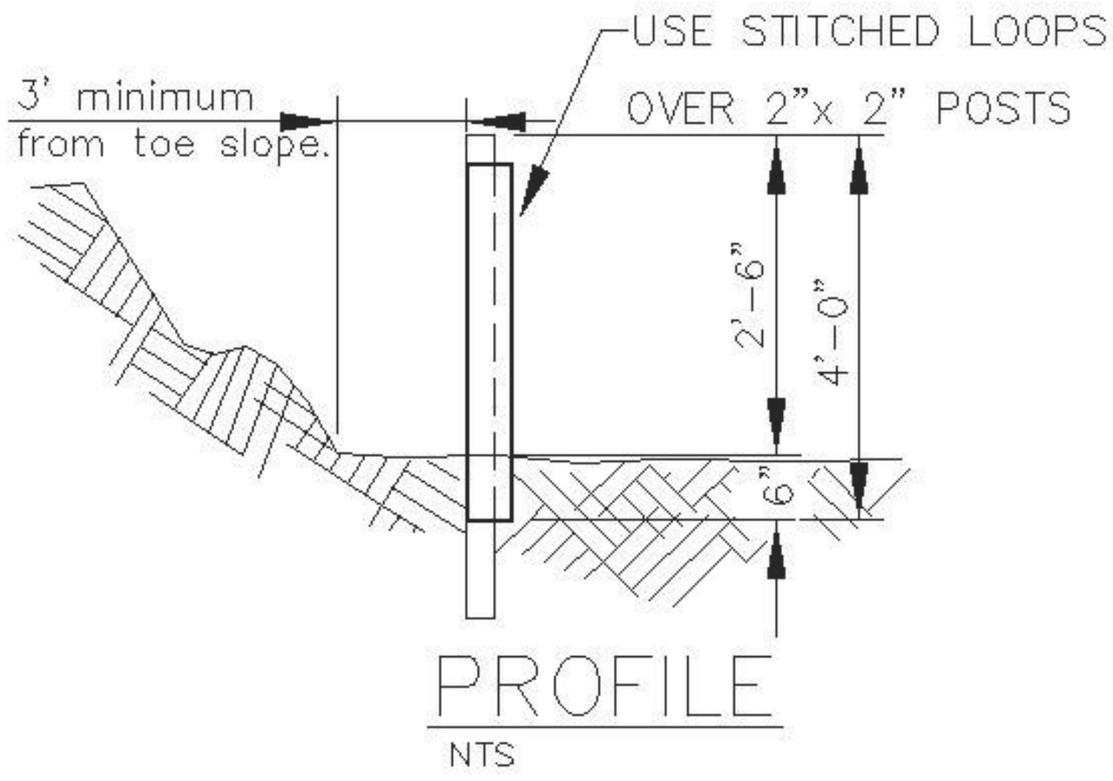


PLAN VIEW

NTS

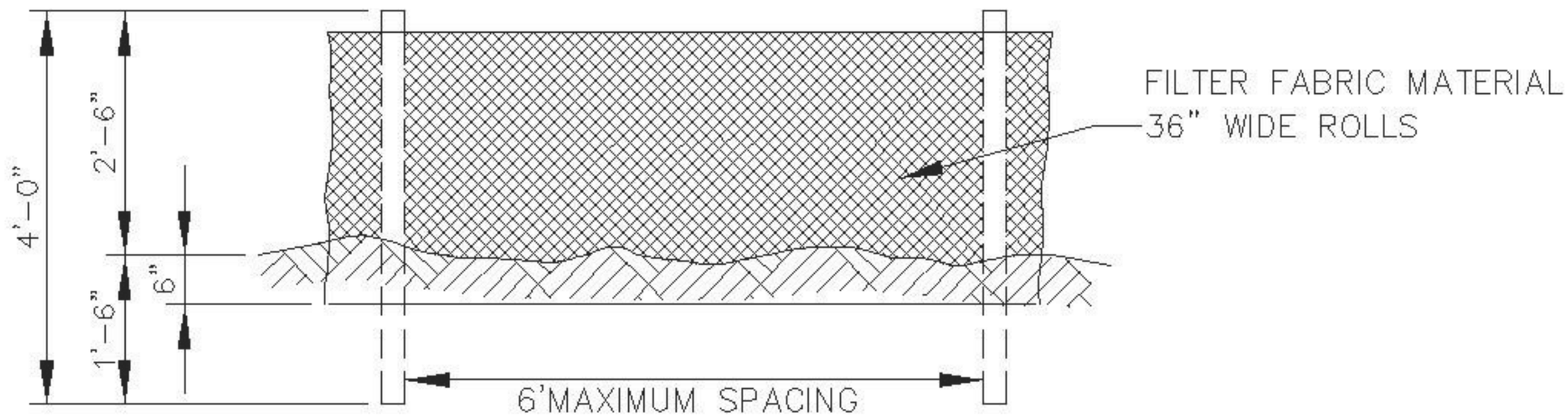


PROFILE

NTS

NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. 2"x 2" FIR, PINE OR STEEL FENCE POSTS.
3. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
4. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
5. PANELS MUST BE PLACED ACCORDING TO SPACING ON DETAIL NO.940



FRONT VIEW

NTS

SEDIMENT FENCE

DETAIL DRAWING 4-23

City of Portland

Reviewed for Code Compliance

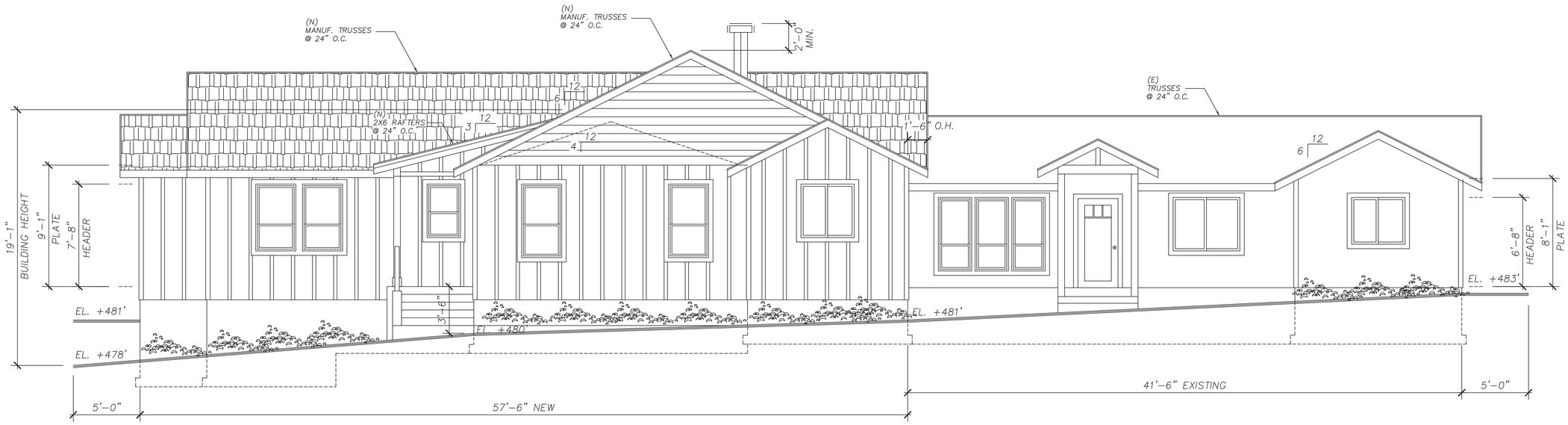
Date: 11/13/23 REVISED 01-09

Permit #: 22-197446-000-00-RS

RECEIVED 6.26.2023

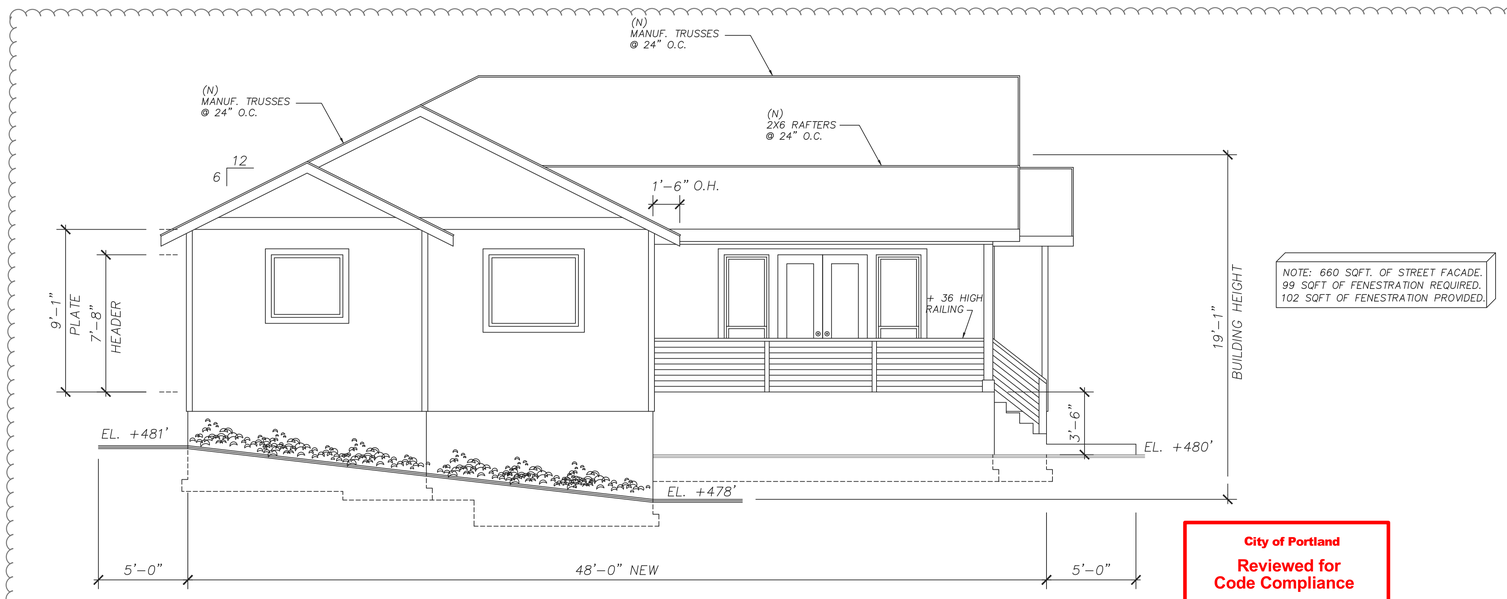
SUBMITTED 5/23/2023

ATTIC VENTILATION CALC:
2,085 SQFT. PROPOSED.
(14 VENTS) @ 150 SQFT PER VENT = 2,100 SQFT.



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

NOTE:
EXTEND ALL FLUES A MIN. OF 2'-0" ABOVE ANY PART OF THE BLD'G W/ IN A 10'-0" HORIZONTAL RADIUS



NOTE: 660 SQFT. OF STREET FACADE.
99 SQFT OF FENESTRATION REQUIRED.
102 SQFT OF FENESTRATION PROVIDED.

LEFT ELEVATION (STREET FACING)
SCALE: 1/4" = 1'-0"

City of Portland
Reviewed for Code Compliance
Date: 11/13/23
Permit #: 22-197446-000-00-RS

SUBMITTED 6/26/2023

J & E POLY SERVICES INC.
810 CHARMAN ST.
OREGON CITY, OR. 97045
503-962-0515

ADDRESS: 12714 BOONES FERRY RD.
LAKE OSWEGO, OR.

TITLE: ELEVATIONS
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN

DATE:
03/18/2021
PROJECT NO.:
~
REVISIONS:
REV-1(02-21-2023)
REV-2(05-02-2023)

NO: 1
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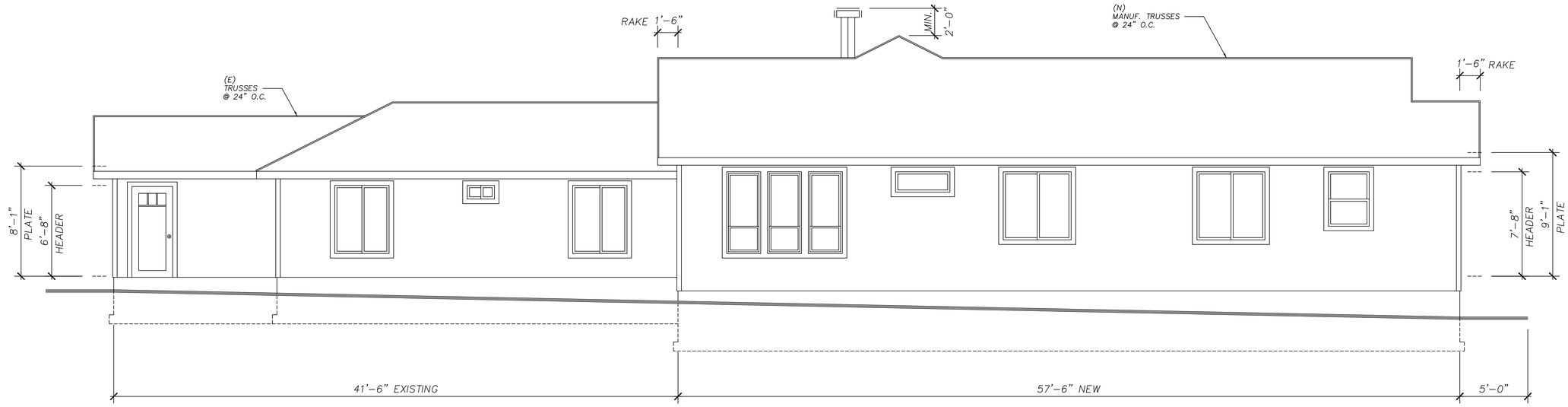
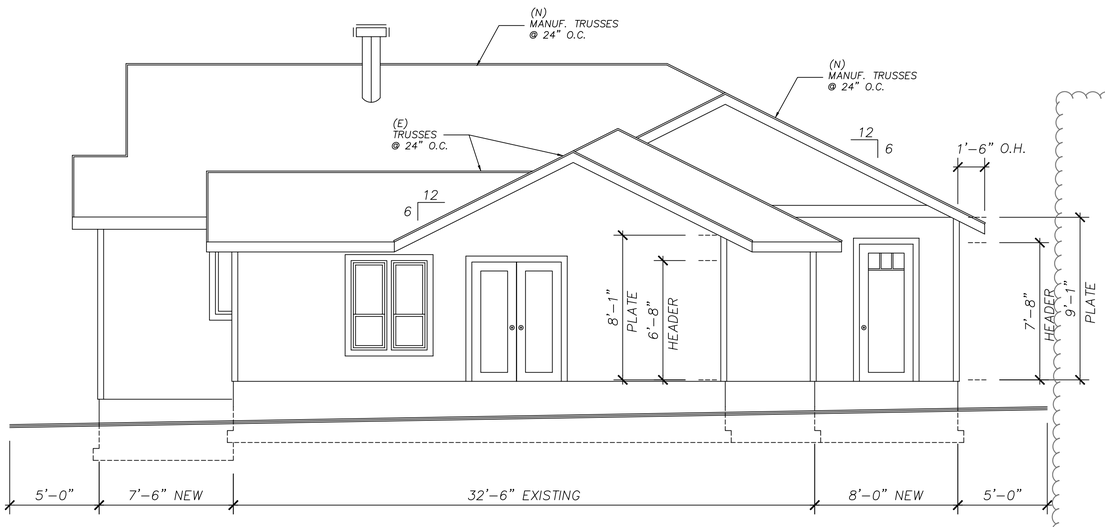


REAR ELEVATION

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



RIGHT ELEVATION

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

SUBMITTED 4/12/2023

GENERAL NOTES:

1. ALL EXTERIOR WALLS TO BE 2 X 6 STUDS AT 16" O.C. (TYP. U.N.O.).
2. ALL INTERIOR WALLS TO BE 2 X 4 STUDS AT 16" O.C. (TYP. U.N.O.).
3. ASSUME A MINIMUM OF (2) 2 X 4 STUDS AS BEAM SUPPORTS AT BEARING WALLS.
4. ALL WINDOWS AND SLIDING GLASS DOORS SHOWN ARE TO BE VINYL SASH (VERIFY ALL ROUGH OPENINGS).
5. ▨ DENOTES INTERIOR BEARING WALL(S).
6. PROVIDE OUTSIDE COMBUSTION AIR FOR ALL FIREPLACES AND FURNACE.
7. CONNECT ALL SMOKE DETECTORS TOGETHER AND TO HOUSE POWER SOURCE.
8. PROVIDE 5/8" TYPE "X" G.W.B. AT ALL ACCESSIBLE AREAS UNDER STAIRS.
9. PROVIDE U.L. LISTED FLUES AT ALL FURNACE AND METAL FIREPLACE LOCATIONS AS REQUIRED BY MANUFACTURER.
10. PROVIDE 18" HIGH NON-COMBUSTIBLE PLATFORM FOR ALL GAS FIRED APPLIANCES LOCATED IN GARAGE.
11. PROVIDE 3" DIA. X 5'-0" CONCRETE FILLED STEEL PIPE BOLLARD IN GARAGE FOR PROTECTION OF FURNACE AND WATER HEATER (EMBED IN 12" DIA. X 24" CONCRETE FOOTING).

N O T I C E

ALL CONSTRUCTION TO COMPLY WITH THE 2021 EDITION OF THE OREGON RESIDENTIAL SPECIALTY CODE AND WITH THE OREGON AMENDMENTS, INCLUDING THE 2017 OREGON RESIDENTIAL ENERGY CODE. COORDINATE ALL APPLICABLE MODIFICATIONS TO THESE DRAWINGS AS REQUIRED.

SPECIFICATIONS:

BUILDING COMPONENTS	STANDARD
Maximum Allowable Window Area	No Limit
Window Class	U=0.27
Exterior Doors	U=0.20
Exterior Doors w/ more than 2.5 sq.ft. glazing	U=0.40
Wall Insulation	R-21
Underfloor Insulation	R-30
Flat Ceilings	R-49
Vaulted Ceilings	R-30
Skylight Class	U=0.50
Skylight Area	<0%
Basement Walls	R-21
Slab Floor Edge Insulation	R-15
Forced Air Duct Insulation	R-8
ADDITIONAL MEASURES – TABLE N1101.(2)	
1 – HIGH EFFICIENCY HVAC SYSTEM	

Table N1101.1(1) & N1101.1(2) of the 2021 ORSC for residential buildings three stories or less.

1 – HIGH EFFICIENCY HVAC SYSTEM

a. Gas fired furnace for boiler AFUE 94%, orOR R-21 advanced, and
b. Air source heat pump HSPF 10.0/14.0 SEER cooling, or
c. Ground source heat pump COP 3.5 or Energy Star rated

TYP. ROOF SHEATHING REQ'TS.:

INSTALL 15/32" APA RATED CDX PLYWOOD (OR APA RATED OSB) WITH 6d COMMON NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN FIELD. INSTALL PANEL EDGE NAILING FROM SHEATING TO BLOCKING OVER ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS.

TYP. EXT. WALL SHEATHING REQ'TS.:

INSTALL 15/32" APA RATED CDX PLYWOOD (OR APA RATED OSB) WITH 6d COMMON NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN FIELD. BLOCK ALL PANEL EDGES. ALL JOINTS OCCUR ON COMMON MEMBER.

TYP. FLOOR SHEATHING REQ'TS.:

INSTALL 3/4" MIN. APA RATED CDX PLYWOOD (OR APA RATED OSB) WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN FIELD. BLOCK ALL PANEL EDGES. ALL JOINTS OCCUR ON COMMON MEMBER. INSTALL PANEL EDGE NAILING FROM SHEATHING TO BLOCKING OVER SHEAR WALLS.

City of Portland
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Date: 11/13/23
Permit #: 22-197446-000-00-RS

COMMON NAIL MIN. DIAMETERS AND LENGTHS

SIZE	6d	8d	10d	16d	20d
DIAMETER	.113"	.131"	.148"	.162"	.192"
LENGTH	2"	2 1/2"	3"	3 1/2"	4"

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503-962-0515

ADDRESS: 12714 BOONES FERRY RD.
LAKE OSWEGO, OR.

TITLE: ELEVATIONS
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN

DATE: 03/18/2021
PROJECT NO.: ~
REVISIONS: REV-1(02-21-2023)

NO: 2

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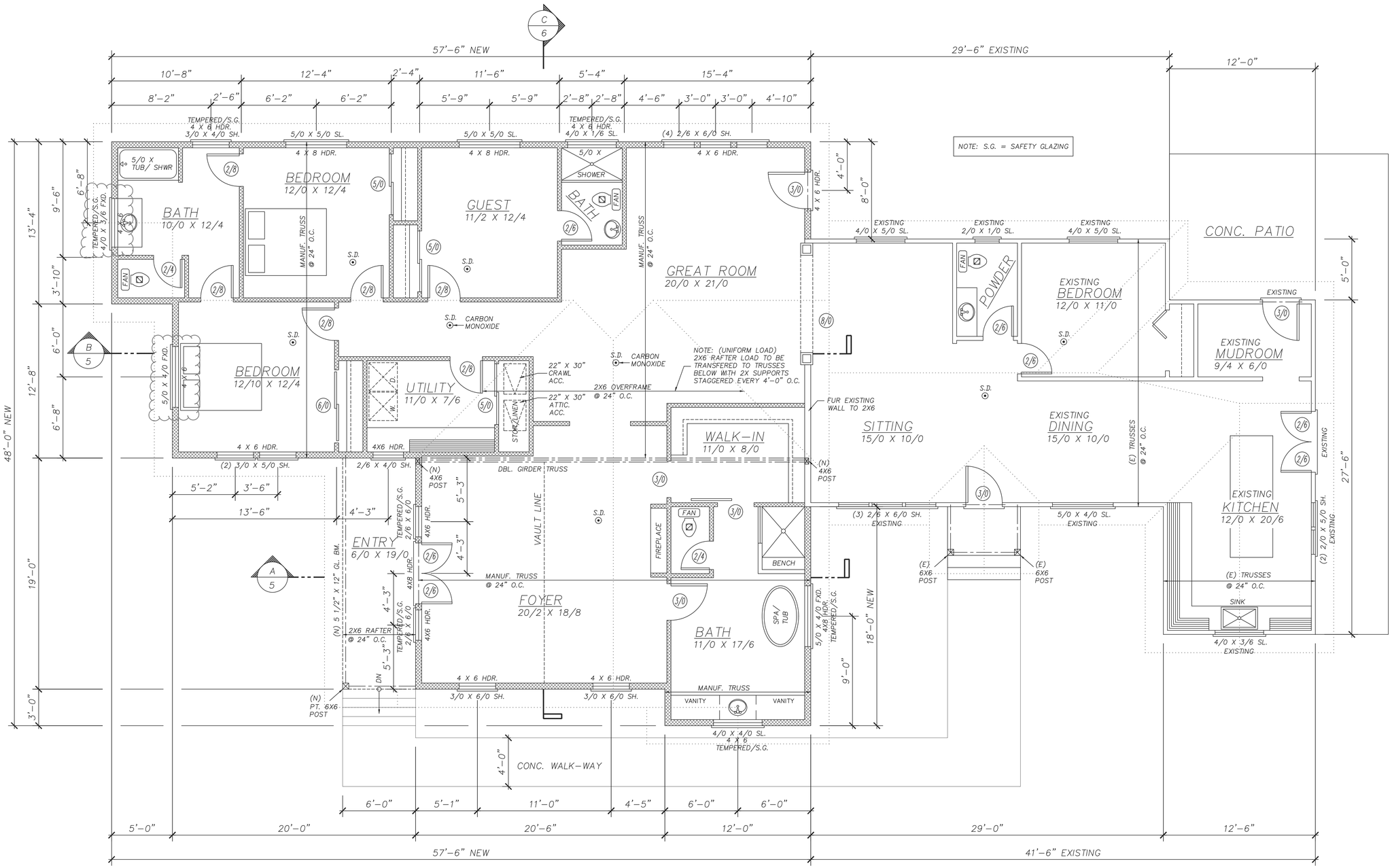


MAIN FLOOR PLAN

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

EXISTING SPACE: 996 SQ. FT.
ADDITION: 2,085 SQ. FT.
TOTAL: 3,081 SQ. FT.

LEGEND:

- DENOTES EXISTING WALLS.
- DENOTES NEW WALLS.
- DENOTES OPEN ARCH / MISC.

City of Portland
Reviewed for Code Compliance
Date: 11/13/23
Permit #: 22-197446-000-00-RS

RECEIVED 6.26.2023
SUBMITTED 5/23/2023

J & E POLY SERVICES INC.
810 CHARMAN ST.
OREGON CITY, OR. 97045
503-962-0515

ADDRESS: 12714 BOONES FERRY RD.
LAKE OSWEGO, OR.

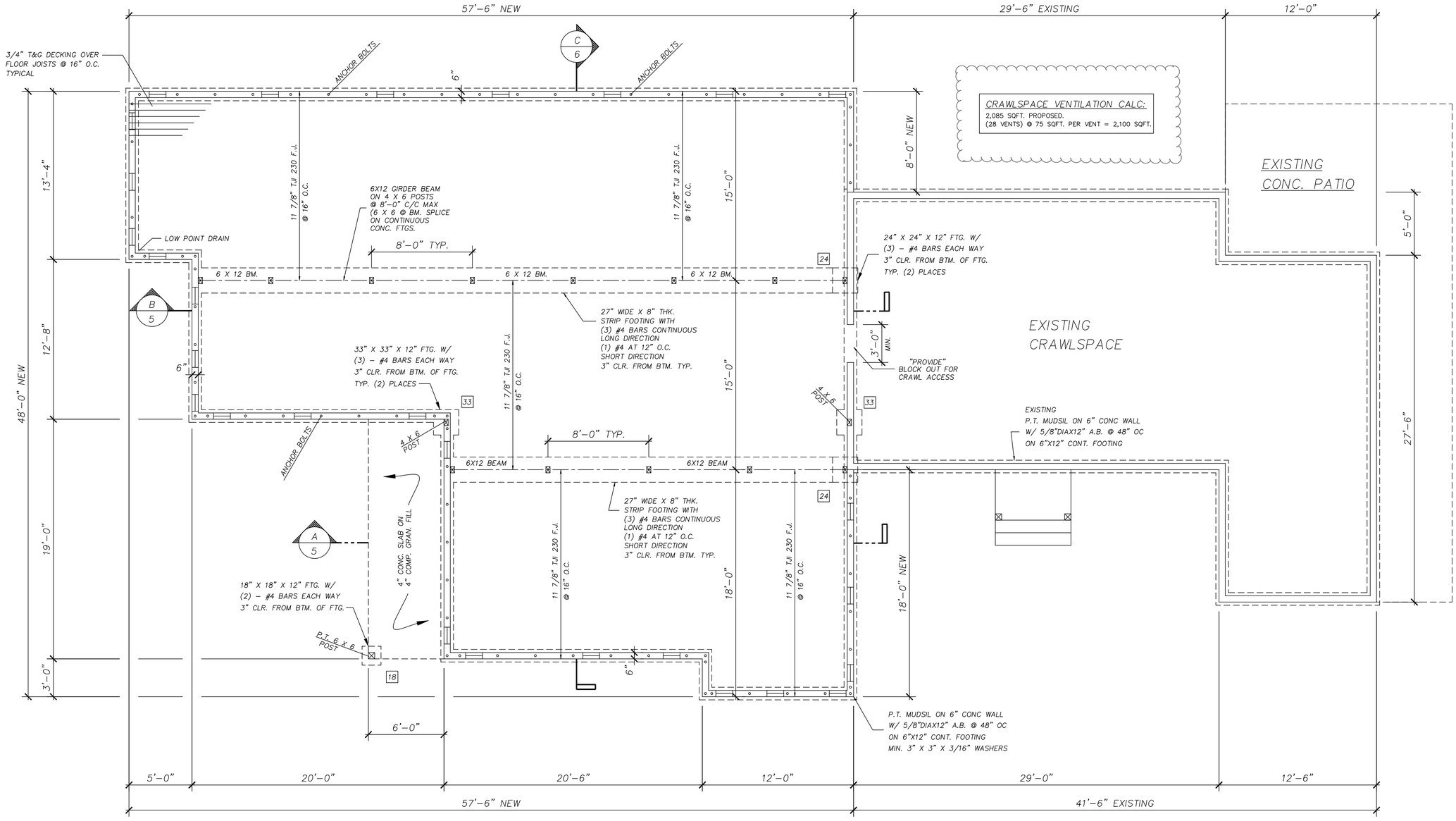
TITLE: MAIN FLOOR PLAN
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN

DATE: 03/18/2021
PROJECT NO.: ~
REVISIONS:
REV-1(02-21-2023)
REV-2(05-02-2023)

NO: 3

UFER GROUND

UNCOATED #4 REINFORCING BAR INSTALLED NOT LESS THAN 3" FROM BOTTOM OF FOOTING AND NOT LESS THAN 20' IN LENGTH ENCASED WITH A MIN. OF 2 INCHES OF CONCRETE.



FOUNDATION PLAN

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

FOUNDATION NOTES:

1. CONTRACTOR TO EXCAVATE AS TO MAINTAIN 18" MIN. GROUND TO GIRDER CLEARANCE
2. COVER ENTIRE GROUND AREA OF CRAWLSPACE W/6 MIL. "VISQUEEN". EXTEND A MIN. OF 1'-0" UP FOUNDATION WALL.
3. GIRDERS TO HAVE 3" MIN. BEARING ON ASPHALT COMPOSITE SHINGLE W/ 1/2" AIR SPACE AT ENDS AND SIDES OF GIRDER AND FOUNDATION WALL.
4. FOUNDATION VENTS TO 16" X 8" W/#4 MESH CORR. RESIST. SCREEN
5. PROVIDE CRAWLSPACE ACCESS. (22" X 30" RECOMMENDED).
6. PROVIDE CRAWLSPACE DRAIN.

NOTE

4" CONC. SLAB W/ OPTIONAL 6 X 6 10/10 W.W.M. ON 4" GRANULAR FILL.
12" THICKEN SLAB W/ (2) #4 BARS HORIZ CONT. TIED TO FND WALLS AT GARAGE DOOR OPENINGS.

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SUBMITTED 4/12/2023

J & E POLY SERVICES INC.
810 CHARMAN ST.
OREGON CITY, OR. 97045
503-962-0515

ADDRESS: 12714 BOONES FERRY RD.
LAKE OSWEGO, OR.

TITLE: FOUNDATION PLAN
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN

DATE: 03/18/2021
PROJECT NO.: ~
REVISIONS: REV-1(02-21-2023)

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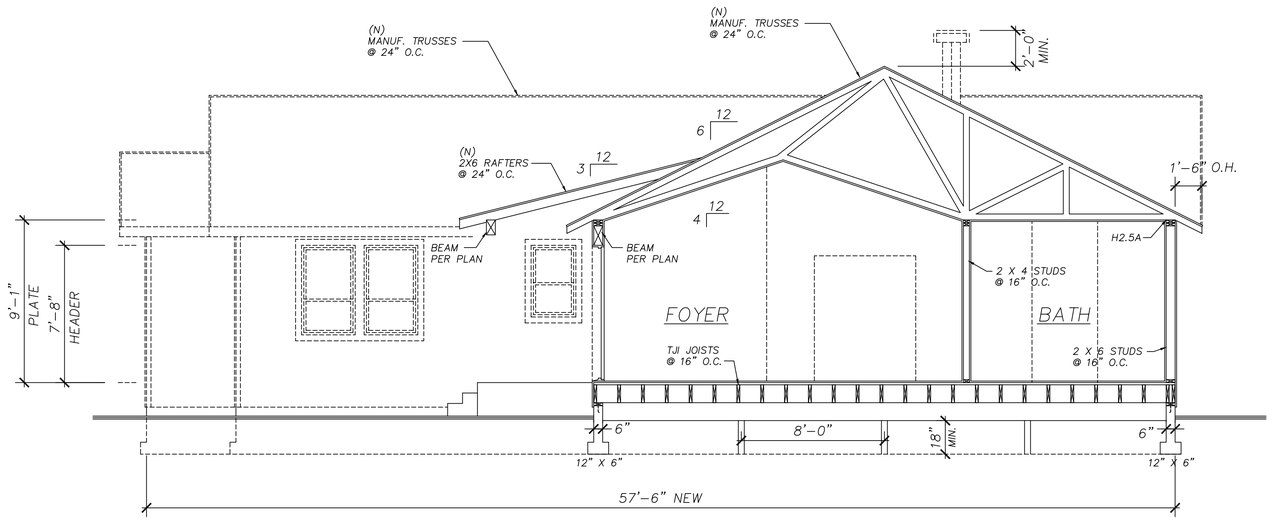
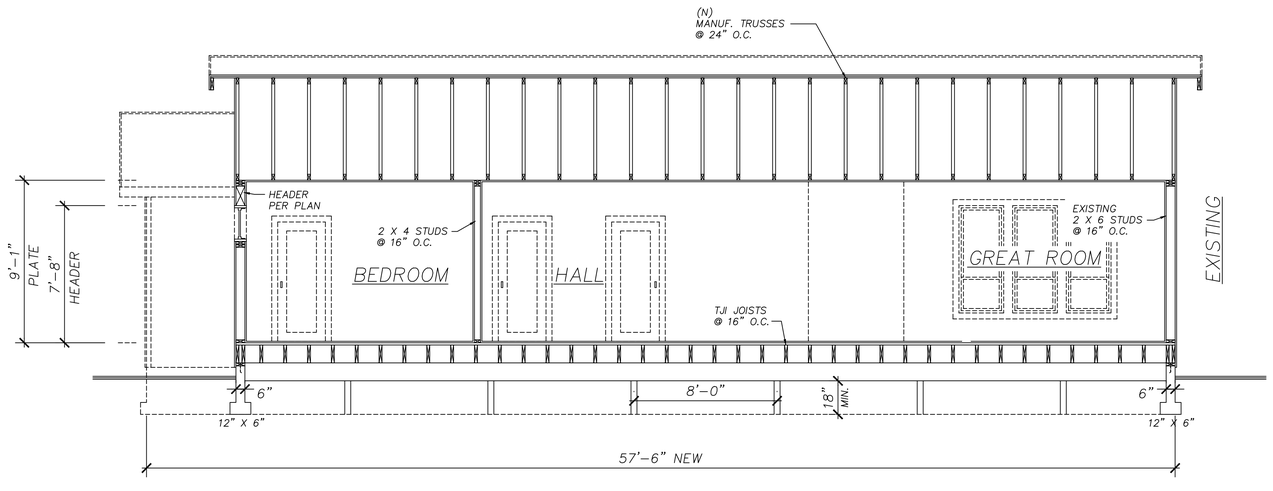


A BUILDING SECTIONS

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



B BUILDING SECTIONS

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

SUBMITTED 4/12/2023

GENERAL NOTES

GENERAL CONDITIONS

1. All work shall comply with the latest adopted issue of the 2021 ORSC (OREGON RESIDENTIAL SPECIALTY CODE) any applicable state, county or local regulations.
2. The contractor is responsible to check the plans and site conditions and to notify the design professional of any errors or omissions prior to the start of construction.
3. Written dimensions have precedence over scaled dimensions.

SITE WORK

1. Remove top soil and organic material from the building site, stock-piling it if possible for use in final grading.
2. Footings are to bear on undisturbed level soil, stepped as required to maintain the required depth below finish grade.
3. Any fill under grade supported concrete slabs to be 4" (min.) gravel compacted to 95%.
4. Concrete slabs to be 4", 3500 p.s.i. at 28 days with control joints at 25'-0" o.c. (max.) each way. Provide 3/4" tooled joints at 5'-0" o.c. in concrete sidewalks.
5. Finish grades are to remain at least 6" below wood siding.

FOUNDATIONS

1. All concrete to have a minimum compressive strength of 3000 p.s.i. after 28 days with a minimu of 6 sacks pf cement per yard and a maximum slump of 4".
2. All reinforcing steel to be A-615 grade 40. Welded wire mesh to to be A-185.
3. Place all reinforcing as per A.C.I. codes and standards.
4. Lap all continuos bars 30 X dia. (min.).
5. Provide a minimum clearance of 18" under girders.
6. Cover entire crawlspace with 6 mil. black "Visqueen" and extend up foundation walls and fasten to mudsill.
7. Provide a minimum of 1 s.f. of net ventilation area for each 150 s.f. of crawlspace area. Vents are to be closable and have 1/4" open-ings in corrosive resistant screen. Post notice about opening vents by electrical panel.
8. All wood in contact with concrete to be pressure treated or pro-tected with 55 lbs. roll roofing.
9. Beam pockets in concrete walls to have 1/2" air space at sides and ends and provide a minimum bearing of 3".
10. Mudsills to be 2 X pressure treated wood with 5/8"~ X 12" anchor bolts at 4'-0" o.c., within 12" of corners.
11. Waterproof basement walls before backfilling, providing 4" ~ perf-orated drain tile below the top of the footing.

CARPENTRY

1. Wood framing member grades are as follows unless, otherwise noted on the plans:

A. Posts, beams, headers joists and rafters	no. 2 Douglas Fir
B. Plates, blocking and bridging etc...	no. 3 Douglas Fir
C. Studs	stud grade Douglas Fir
D. Post and Beam decking	utility grade Douglas Fir
E. Ply sheathing	CD Douglas Fir Ply 32/16

2. Unless otherwise noted on plans, all exterior window and door headers are to be 4 X 12, no. 2 Douglas Fir.
3. Provide double joists under all parallel bearing partitions (u.n.o.).
4. Design loads:

Roof	25 p.s.f. (live load)
Wind/Exposure	120 p.s.f.
Snow	25 p.s.f.
Floor	40 p.s.f.
Stairs	100 p.s.f.
Garage floor	50 p.s.f.
Decks	60 p.s.f.

If your local area requires different live loads, appropriate changes to the structural members will have to be made. Consult with a local structural engineer.

5. Soil bearing pressure is assumed to be 1500 p.s.f.
6. Nailing schedule as per, nailing schedule (I.R.C.) Typical plywood nailing with 8d nails at 6" o.c. at edges and 12" o.c. on interior.
7. Deck and balcony guardrails to be 36" high with maximum opening spaces so that a 4" sphere can not pass through.
8. Provide metal truss and rafter tie downs such as a, "Simpson" H2.5 at top plate.

INSULATION

1. Wood framing member grades are as follows unless, otherwise noted

Exterior walls	R - 21
Flat ceilings	R - 49
Vaulted ceilings	R - 30
Floors (over unheated area)	R - 30
Basement walls	R - 21
Slab-on-grade (24" from ext. wall)	R - 15

2. All exposed insulation to have a flame spread rating of less than 25 and a smoke density of less than 450.
3. Provide insulation baffles at roof vents under eaves.
4. Provide a total of 1/300 of attic area ventilation with 50% at the cornice and 50% at ridge or gable vents.
5. All exterior windows to be double glazed (U = 0.27).
6. All exterior doors to be solid core with weatherstripping (U = 0.20 except main entry door U = 0.54).

MISCELLANEOUS

1. All windows within 18" of floor or within 24" of doors are to be tempered.
2. All shower or tub enc sures are to have safety glazing (tempered).
3. Provide 1/2" moisture p oof gypsum board around tub and shower enclosures with a hard n oisture resistant surface up 6'-0".
4. Each bedroom to hav a minimum window opening of 5.7 s.f. with a minimum width of 2 ' and a minimum height of 24". The sill is to be no more than 4 " off the floor.
5. All skylights to be gl e with either tempered glass or wired glass (U = 0.50).
6. Provide combustion ai vents to all fireplaces, wood stoves and any heating appliances usin open flame.
7. Bathrooms and utility ooms are to be vented with a 90 c.f.m. fan vented to the outside. Range hoods and clothes dryers are also to be vented to the outside.
8. The lighting layout, when shown on the plans, is meant to be used as a guide only. Electrical switches and outlets are to be installed as per local codes and the owners requirements.
9. Cabinet elevations are not generally shown on the plans however, they can be furnished upon request as an additional service.

City of Portland
Reviewed for
Code Compliance
Date: 11/13/23
Permit #: 22-197445-000-00-RS

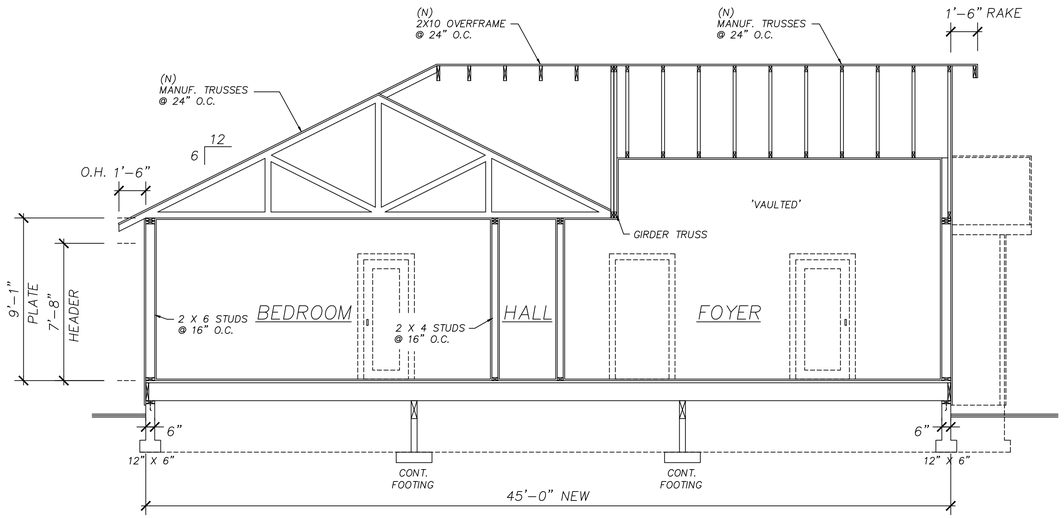
J & E POLY SERVICES INC.
810 CHARMAN ST.
OREGON CITY, OR. 97045
503-962-0515

ADDRESS: 12714 BOONES FERRY RD.
LAKE OSWEGO, OR.

TITLE: BUILDING SECTIONS
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN

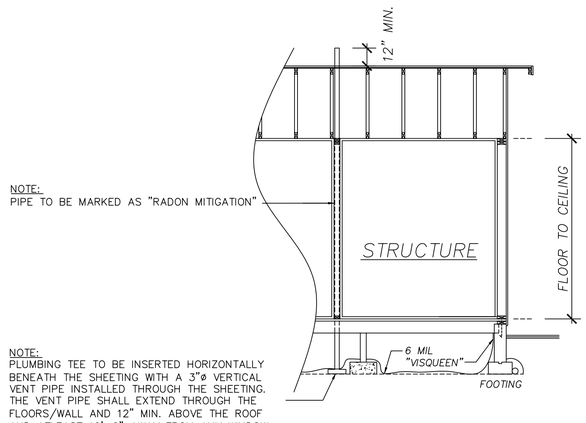
DATE:
03/18/2021
PROJECT NO.:
~
REVISIONS:
REV-1(02-21-2023)

NO:
5
OF 7 PAGES



© BUILDING SECTIONS

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



RADON-MITIGATION CONSTRUCTION

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

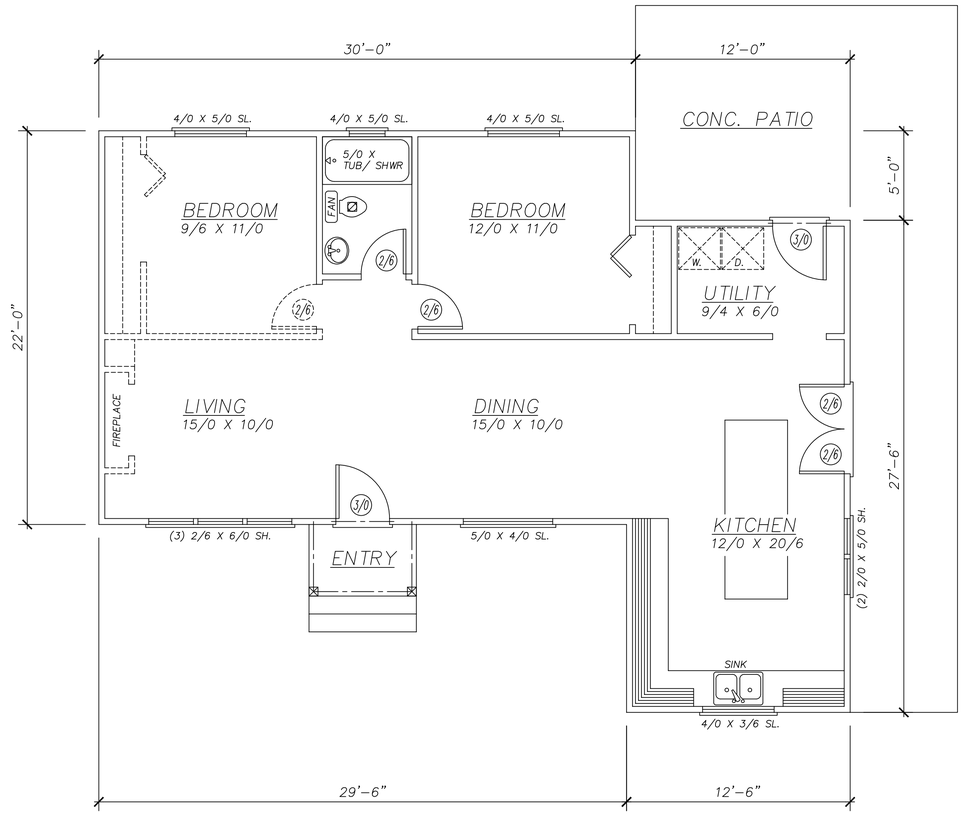
City of Portland
Reviewed for Code Compliance
Date: 11/13/23
Permit #: 22-197446-000-00-RS

SUBMITTED 4/12/2023

J & E POLY SERVICES INC.
810 CHARMAN ST.
OREGON CITY, OR. 97045
503-962-0515

TITLE: BUILDING SECTIONS
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN
ADDRESS: 12714 BOONES FERRY RD. LAKE OSWEGO, OR.

DATE: 03/18/2021
PROJECT NO.: ~
REVISIONS: REV-1(02-21-2023)



(EXISTING) MAIN FLOOR PLAN

SCALE: 1/4" = 1'-0" HEATED SPACE: 996 SQ. FT.

LEGEND:

- DENOTES EXISTING WALLS.
- DENOTES NEW WALLS.
- DENOTES OBJECTS TO BE REMOVED
- DENOTES BEARING POINT FROM STRUCTURE ABOVE.

City of Portland
Reviewed for Code Compliance
Date: 11/13/23
Permit #: 22-197446-000-00-RS

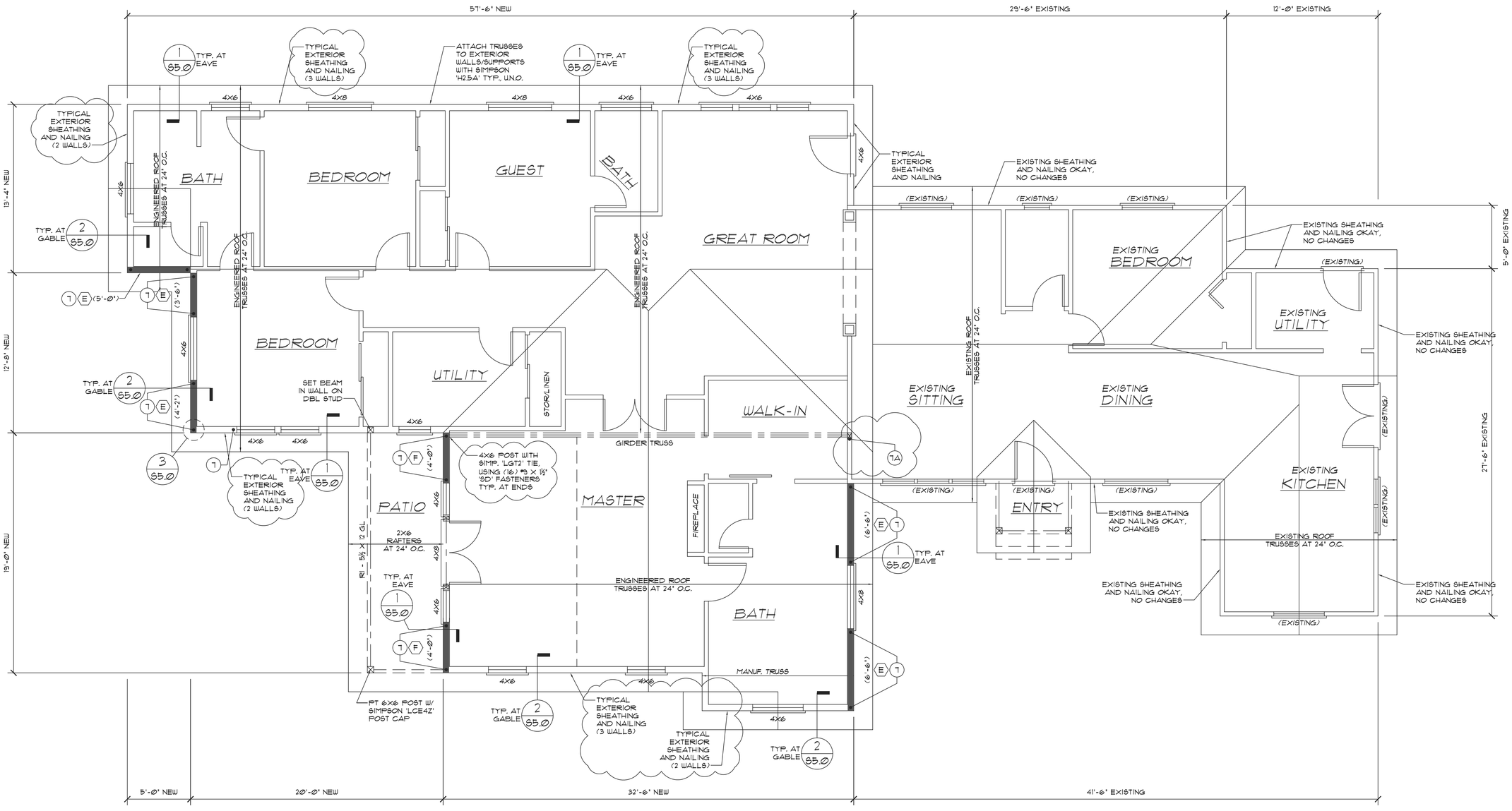
J & E POLY SERVICES INC.
810 CHARMAN ST.
OREGON CITY, OR. 97045
503-962-0515

ADDRESS: 12714 BOONES FERRY RD.
LAKE OSWEGO, OR.

TITLE: EXISTING FLOOR PLAN
PROJECT: CIRSTEAN RESIDENCE
OWNER: THEO & JUDITHA CIRSTEAN

DATE: 03/18/2021
PROJECT NO.: ~
REVISIONS: ~

NO: 7
OF 7 PAGES



A S1.0 UPPER FLR SHEARWALL PLAN

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

NOTE: SEE ARCHITECTURAL SHEETS FOR INFORMATION NOT SHOWN.

NOTE: SEE SHEET S5.0 FOR NOTES AND SHEARWALL AND HOLDOWN SCHEDULES, TYP.

SHEARWALL AND HOLDOWN TYPE LEGEND:

SEE ALL PLANS AND ATTACHED SHEARWALL AND HOLDOWN SCHEDULES FOR SHEARWALL AND HOLDOWN LOCATIONS, TYPES, SHEATHING, NAILING AND BOLTING REQUIREMENTS AT SHEARWALLS AND HD DOWNS.

SHEARWALL (MIN. LENGTH) (X'-X")

SHEARWALL PANEL TYPE (X)

SHEARWALL HOLDOWN TYPE (#)

City of Portland
Reviewed for
Code Compliance
Date: 11/13/23
Permit #: 22-197446-000-00-RS

SUBMITTED 6/26/2023

REGISTERED PROFESSIONAL ENGINEER
58065
5-10-23
OREGON
MAY 13, 2003
SEAN M. RAMSTEAD
Expires 12/31/2024

REVISIONS:
1. MISC. PLAN REVISIONS (5-10-23)

WEST COAST ENGINEERING, PC
STRUCTURAL ENGINEERING
2027 SE 37th Avenue
Portland, OR 97214
503-557-1600 (O)
503-557-1607 (F)
503-680-5784 (M)
seanwce@gmail.com

PROJECT NAME:
CIRSTEAN RESIDENCE

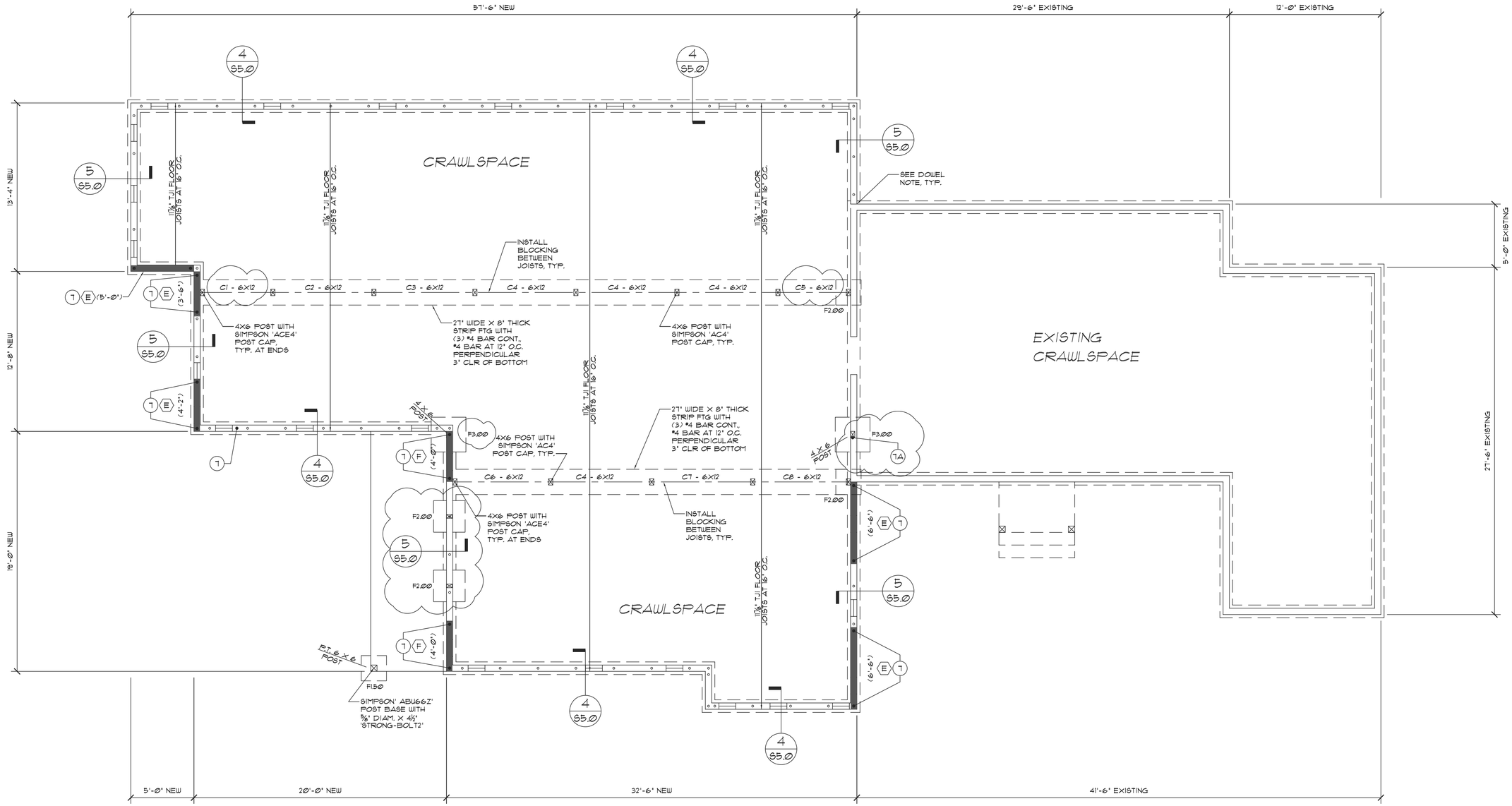
PROJECT LOCATION:
12714 SW BOONES FERRY RD
LAKE OSWEGO, OR 97035

PROJECT NO.
W21-93

DATE:
4-27-21

DRAWN BY:
SMR

DWG NO.
S1.0



CONCRETE FOOTING SCHEDULE

FTG TYPE	SQUARE FOOTING DIMENSIONS	STEEL REINFORCING (3" CLEAR OF BOTTOM)
F1.50	18" X 18" X 12" THICK	(2) #4 BARS EACH WAY
F2.00	24" X 24" X 12" THICK	(3) #4 BARS EACH WAY
F2.25	27" X 27" X 12" THICK	(3) #4 BARS EACH WAY
F2.50	30" X 30" X 12" THICK	(3) #4 BARS EACH WAY
F2.75	33" X 33" X 12" THICK	(3) #4 BARS EACH WAY
F3.00	36" X 36" X 12" THICK	(4) #4 BARS EACH WAY

NOTE: INSTALL #4 X 2'-0" DOWEL 4" MIN. INTO MIDHEIGHT OF EXISTING CONC. STEMWALL AND FOOTING W/ SIMPSON 'SET' EPOXY LAPPING NEW HORIZ. REINFORCING, TYPICAL WHERE NEW CONCRETE FOUNDATION MEETS EXISTING. (SPECIAL INSPECTION IS NOT REQUIRED)

A S1.1 FOUNDATION SHEARWALL PLAN

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

NOTE: SEE ARCHITECTURAL SHEETS FOR INFORMATION NOT SHOWN.

NOTE: SEE SHEET S5.0 FOR NOTES AND SHEARWALL AND HOLDOWN SCHEDULES, TYP.

SHEARWALL AND HOLDOWN TYPE LEGEND:

SEE ALL PLANS AND ATTACHED SHEARWALL AND HOLDOWN SCHEDULES FOR SHEARWALL AND HOLDOWN LOCATIONS, TYPES, SHEATHING AND BOLTING REQUIREMENTS AT SHEARWALLS AND HOLDOWNS.

SHEARWALL (MIN. LENGTH) (X'-X")

SHEARWALL PANEL TYPE (X)

SHEARWALL HOLDOWN TYPE (#)

City of Portland
Reviewed for Code Compliance
Date: 11/13/23
Permit #: 22-197446-000-00-RS

SUBMITTED 6.26.2023

REGISTERED PROFESSIONAL ENGINEER
58903
5-10-23
OREGON
MAY 13, 2003
SEAN M. RAMSTEAD
Expires 12/31/2024

REVISIONS:
1 MISC. PLAN REVISIONS (5-10-23)
2
3
4
5

WEST COAST ENGINEERING, PC
STRUCTURAL ENGINEERING
2027 SE 37th Avenue
Portland, OR 97214
503-557-1600 (O)
503-557-1607 (F)
503-680-5784 (M)
seanwce@gmail.com

PROJECT NAME:
CIRSTEAN RESIDENCE

PROJECT LOCATION:
12714 SW BOONES FERRY RD
LAKE OSWEGO, OR 97035

PROJECT NO.
W21-93

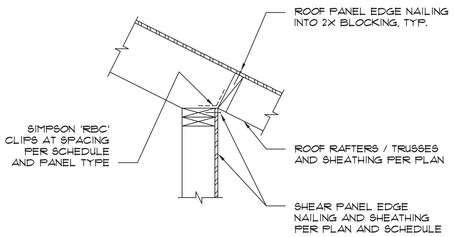
DATE: 4-27-21

DRAWN BY: SMR

DWG NO.
S1.1

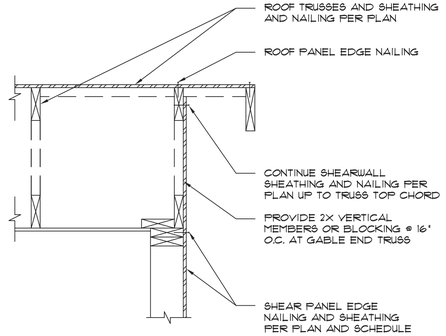
ROOF SHEAR TRANSFER NAILING SCHEDULE		
PANEL TYPE	ROOF PANEL EDGE NAILING	SIMPSON 'RBC' CLIPS
TYP.	8d @ 6" O.C.	26" O.C.
⟨D⟩	8d @ 4" O.C.	20" O.C.
⟨E⟩	8d @ 3" O.C.	15" O.C.
⟨F⟩	10d @ 3" O.C.	9" O.C.
⟨G⟩	10d @ 2½" O.C.	8" O.C.
⟨H⟩	10d @ 2" O.C.	6" O.C.

NOTE: RBC CLIP MAY BE INSTALLED WITH ¾" MAXIMUM GAP BETWEEN 2X BLOCKING AND DOUBLE TOP PLATE



1 / S5.0 SHEAR TRANSFER AT RF
SCALE = 1" = 1'-0"

ROOF SHEAR TRANSFER NAILING SCHEDULE		
PANEL TYPE	ROOF PANEL EDGE NAILING	SIMPSON 'A35' CLIPS
TYP.	8d @ 6" O.C.	48" O.C.
⟨D⟩	8d @ 4" O.C.	32" O.C.
⟨E⟩	8d @ 3" O.C.	22" O.C.
⟨F⟩	10d @ 3" O.C.	16" O.C.
⟨G⟩	10d @ 2½" O.C.	12" O.C.
⟨H⟩	10d @ 2" O.C.	10" O.C.



2 / S5.0 SHEAR TRANSFER AT RF
SCALE = 1" = 1'-0"

ROOF SHEATHING REQUIREMENTS:

INSTALL 15/32" APA RATED CDX PLYWOOD (OR APA RATED ORIENTED STRAND BOARD) WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND AT 12" O.C. IN THE FIELD OF THE PANEL. INSTALL PANEL EDGE NAILING INTO BLOCKING AT ALL EXTERIOR WALLS AND INTERIOR SHEARWALLS.

EXT. PLYWOOD WALL SHEATHING REQUIREMENTS:

INSTALL 7/16" APA RATED CDX PLYWOOD (OR APA RATED ORIENTED STRAND BOARD) WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND AT 12" O.C. IN THE FIELD OF THE PANEL. BLOCK ALL PANEL EDGES. ALL JOINTS SHALL OCCUR ON A COMMON MEMBER.

ROOF/FLOOR/WALL FRAMING NOTES:

1) STUD BEARING WALLS ARE 2X6 DFL #2 STUDS @ 16" O.C., U.N.O.
2) SAWN LUMBER MEMBERS TO BE DOUGLAS FIR LARCH #2 GRADE, U.N.O.
3) GLULAM BEAMS (GL.) ARE TO BE DOUG FIR GRADE (24F-V4).
4) PARALLAM BEAMS (PSL.) ARE TO BE TRUSS JOIST (2.0E).
5) MICROLLAM BEAMS (LVL.) ARE TO BE TRUSS JOIST (1.9E).
6) TIMBERSTRAND BEAMS (LSL.) ARE TO BE TRUSS JOIST (1.55E).
7) USE 4X6 DFL #2 MIN. AT HEADER LOCATIONS, U.N.O.

CONCRETE FOUNDATION:

1) MIN. 28 DAY CONCRETE COMPRESSIVE STRENGTH = 2500 PSI
2) REINFORCING TO BE ASTM A615, GRADE 60
3) WELDED WIRE MESH TO MEET ASTM A185 STANDARD

SEE ALL FLOOR PLANS FOR LOCATIONS OF SHEARWALL STRAPS AND CAST-IN-PLACE HOLDOWN ANCHORS, UNLESS NOTED OTHERWISE, INSTALL (1) #4 HORIZONTAL BAR AT TOP OF WALL EXTENDING FOR 6" MINIMUM BEYOND BOTH SIDES OF ALL CAST-IN-PLACE HOLDOWN ANCHORS (HOOK AROUND CORNERS IF NECESSARY.) INSTALL #4 VERTICAL BARS AT 24" O.C. FOR EXTENT OF REQUIRED HORIZONTAL BARS FOR HOLDOWNS.

LOCATE ALL FOUNDATION WALL PENETRATIONS (VENTS, DUCTS, BEAM POCKETS, ETC.) AWAY FROM HOLDOWN ANCHOR LOCATIONS AT LEAST 12" MINIMUM. IF WALL PENETRATION FALLS WITHIN REQUIRED HORIZONTAL BAR FOR HOLDOWNS, BEND HORIZONTAL BAR DOWN 18" MINIMUM AT EACH EDGE OF PENETRATION AND ADD #4 HORIZONTAL BAR, 6'-0" LONG CENTERED UNDER EACH WALL PENETRATION.

SEE PLANS FOR SHEARWALL HOLDOWN LOCATIONS AND SEE SHEARWALL SCHEDULE FOR SILL BOLT SIZE AND SPACING REQUIREMENTS FOR SHEARWALL TYPES.

DESIGN CRITERIA
NOMINAL WIND SPEED / EXP 'B' MPH B
SEISMIC DESIGN CATEGORY D
ZIP CODE: 97035, Ss: 0.99 Fa: 1.20

TYP. DIMENSIONS FOR STD. COMMON NAILS					
NAIL DIMENSION	PENNYWEIGHT				
	6d	8d	10d	16d	20d
LENGTH	2"	2 1/2"	3"	3 1/2"	4"
DIAMETER	.113"	.131"	.148"	.162"	.192"
HEAD DIAMETER	.266"	.281"	.312"	.344"	.406"

Values have been taken from Appendix L of the 2005 National Design Specification for Wood Construction by the American Forest & Paper Association

PLYWOOD SHEARWALL SCHEDULE (SEE NOTES 1-3)

PANEL TYPE	MIN. PANEL SHEATHING THICKNESS	PANEL EDGE NAILING	⅝" DIAM. SILL J-BOLT SPACING (7" EMBED)	16d NAIL SPACING AT SILL PLATES	SHEARWALL CAPACITY (PLF)	NOTES
TYP.	7/16"	8d @ 6" O.C.	48" O.C.	12" O.C.	200	
⟨D⟩	7/16"	8d @ 6" O.C.	48" O.C.	10" O.C.	260	
⟨E⟩	7/16"	8d @ 4" O.C.	42" O.C.	6" O.C.	380	
⟨F⟩	7/16"	8d @ 3" O.C.	32" O.C.	5" O.C.	490	SEE NOTE 4
⟨G⟩	7/16"	10d @ 3" O.C.	24" O.C.	4" O.C.	600	SEE NOTE 4
⟨H⟩	7/16"	10d @ 2" O.C.	24" O.C.	3" O.C.	770	SEE NOTES 4,5
⟨J⟩	7/16" EA. SIDE	8d @ 3" O.C.	20" O.C.	(2) SIMPSON SDWS Ø22Q x 6" @ 10" O.C.	980	SEE NOTES 4,5
⟨K⟩	7/16" EA. SIDE	10d @ 3" O.C.	16" O.C.	(2) SIMPSON SDWS Ø22Q x 6" @ 8" O.C.	1200	SEE NOTES 4,5
⟨L⟩	7/16" EA. SIDE	10d @ 2" O.C.	12" O.C.	(2) SIMPSON SDWS Ø22Q x 6" @ 6" O.C.	1540	SEE NOTES 4,5

NOTES:

1) Sheathing, all-veneer plywood, plywood siding, except Group 5 Species. Minimum nailing shall be 8d nails @ 6" o.c. at panel edges and 12" o.c. in the field of the panel, U.N.O. All Nails to be 'Common' or 'Galvanized Box' type nails. Galvanized nails shall be hot-dipped or tumbled.
2) All panel edges backed with 2x or wider framing using Douglas Fir-Larch No.2 or better lumber. Panels may be installed either horizontally or vertically. 2x stud spacing shall not exceed 16" o.c. At shearwalls with sheathing each side, studs must be 2x6 min. All anchor bolts shall have a minimum 3" x 3" x Ø.229" thick plate washers.
3) Shearwall panel edge nailing shall be installed at shearwall end stud(s) where holdown is attached. If holdown requires multiple studs then install 1/2 panel edge nailing to each stud. Face nail multiple studs at holdowns together with 16d nails @ 12" o.c. minimum, U.N.O.
4) At these panels only, all framing at adjoining panel edges shall be 3" nominal or wider, except that (2) 2x studs may be used in place of 3x or greater material when 2x studs are attached together with nailing specified in shearwall schedule for sill plates.
5) At these panels only, foundation sill plates shall not be less than a single 3" nominal member and sill plate fasteners should be staggered into 2x blocking and rim joist. Fasten 2x blocking to rim joist with same fasteners and spacing, typ.

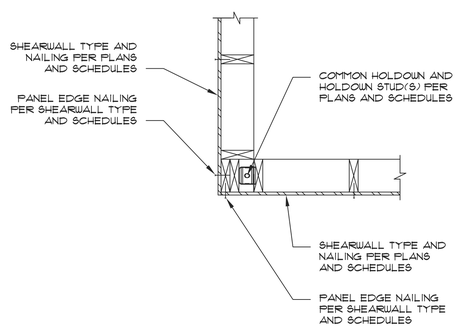
SHEARWALL HOLDOWN SCHEDULE (SEE NOTES 1-6)

HOLDOWN TYPE	SIMPSON BRAND OR EQUIVALENT	HOLDOWN CAPACITY (LBS)	INSTALLATION NOTES
1	MSTA24	900	Install strap across floor line into face of 2x stud with (9) 16d common nails each end of strap. Install equal lengths of strap above and below floor joist.
2	MSTA36	1400	Install strap across floor line into face of 2x stud with (9) 16d common nails each end of strap. Install equal lengths of strap above and below floor joist.
3	MST37	2465	Install strap across floor line into face of 3x or Dbl 2x studs with (18) 16d common nails each end of strap. (Attach Dbl 2x together with 16d common nails @ 8" o.c.) Install equal lengths of strap above and below floor joist.
4	MST48	3695	Install strap across floor line into face of 3x or Dbl 2x studs with (16) 16d common nails each end of strap. (Attach Dbl 2x together with 16d common nails @ 8" o.c.) Install equal lengths of strap above and below floor joist.
5	MST60	4830	Install strap across floor line into face of 3x or Dbl 2x studs with (23) 16d common nails each end of strap. (Attach Dbl 2x together with 16d common nails @ 4" o.c.) Install equal lengths of strap above and below floor joist.
6	T822	1215	Install strap across floor line into face of 2x stud above and Dbl 2x or 4x min. beam below with (9) 16d common nails each end of strap. Install equal lengths of strap above and below floor line.
7	HDU2	3075	Center holdown with 4x or Dbl 2x studs (min.) and attach to stud's with (6) Simpson 1/4" x 2 1/2" SDS Screws. (Attach Dbl 2x together with 16d common nails @ 4.5" o.c.) Install 5/8" A36 thrd'd rod 18" minimum into existing concrete with Simpson 'SET-XP' epoxy. (Special Inspection of anchor installation is required.)
7A	HDU2	3075	Center holdown with 4x or Dbl 2x studs (min.) and attach to stud's with (6) Simpson 1/4" x 2 1/2" SDS Screws. (Attach Dbl 2x together with 16d common nails @ 4.5" o.c.) Install 5/8" A36 thrd'd rod 18" minimum into existing concrete with Simpson 'SET-XP' epoxy. (Special Inspection of anchor installation is required.)
8	HDU4	4565	Center holdown with 4x or Dbl 2x studs (min.) and attach to stud's with (10) Simpson 1/4" x 2 1/2" SDS Screws. (Attach Dbl 2x together with 16d common nails @ 3.5" o.c.) Install 5/8" Diam. Simpson 'SB58x24' per manufacturer's specifications.
8A	HDU4	4565	Center holdown with 4x or Dbl 2x studs (min.) and attach to stud's with (10) Simpson 1/4" x 2 1/2" SDS Screws. (Attach Dbl 2x together with 16d common nails @ 3.5" o.c.) Install 5/8" A36 thrd'd rod 12" minimum into existing concrete with Simpson 'SET-XP' epoxy. (Special Inspection of anchor installation is required.)
9	HDU5	5645	Center holdown with 4x stud min. and attach to stud with (14) Simpson 1/4" x 2 1/2" SDS Screws. Install 5/8" Diam. Simpson 'SB58x24' per manufacturer's specifications.
10	HDU8	6970	Center holdown with 4x stud min. and attach to stud with (20) Simpson 1/4" x 2 1/2" SDS Screws. Install 7/8" Diam. Simpson 'SB78x24' per manufacturer's specifications. (Reduce capacity to 5750 lb if installed at end of stemwall)

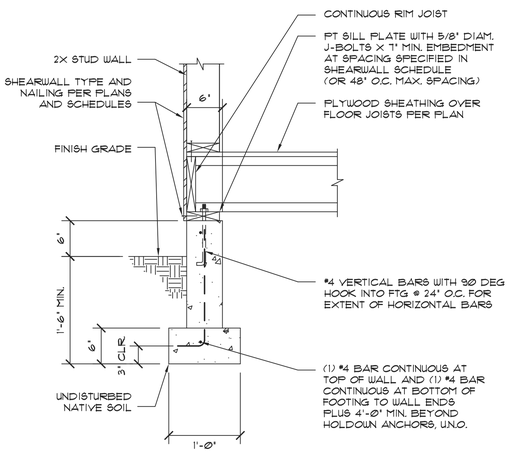
NOTES:

1) Anchor bolts shall be ASTM A307 or Std. J-bolt or Headed bolt (ASTM A36 threaded rod with double nut and washer may be substituted). Center holdown on stud(s) (minimum 3" from edge of concrete).
2) All studs at shearwall holdowns attach shall be Douglas Fir-Larch or lumber with equivalent specific gravity.
3) Holdowns at corners shall attach to corner studs. Holdowns away from corners shall attach to door or window jamb full height studs. Holdowns must attach to studs receiving shear panel edge nailing. See Shearwall Schedule for Holdown Installation Notes for all other information.
4) If holdowns 7 through 10 occur at floor to floor connection, use bolted connection from below (see detail 4 and 5/S5.0).
5) Unless specified otherwise, install #4 continuous horizontal reinforcing bar 2" below top of concrete at all holdowns. At holdown anchor bolt place bar on side closest to edge of concrete. Bar shall extend 5' minimum in both directions from holdown anchor bolt. For extent of horizontal bars, install #4 vertical bars @ 24" o.c. with 6" hook into footing. Tie horizontal bar to anchor bolt prior to pouring concrete.
6) At holdowns 9, 10 attach to 4x6 studs minimum.

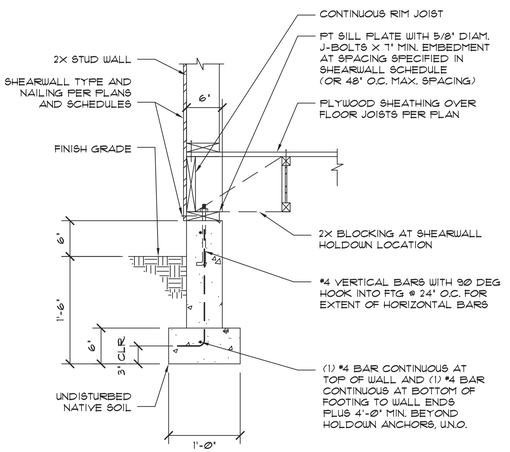
SUBMITTED 6.26.2023



3 / S5.0 COMMON HOLDOWN DETAIL
SCALE = 1" = 1'-0"



4 / S5.0 DETAIL AT EXT. WALL FTG.
SCALE = 1" = 1'-0"



5 / S5.0 DETAIL AT EXT. WALL FTG.
SCALE = 1" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
58903
5-10-23
OREGON
MAY 13, 2003
SEAN M. RAMSTEAD
Expires 12/31/2024

REVISIONS:
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seanwce@gmail.com

PROJECT NAME:
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PROJECT LOCATION:
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PROJECT NO.
W21-93

DATE: 4-27-21
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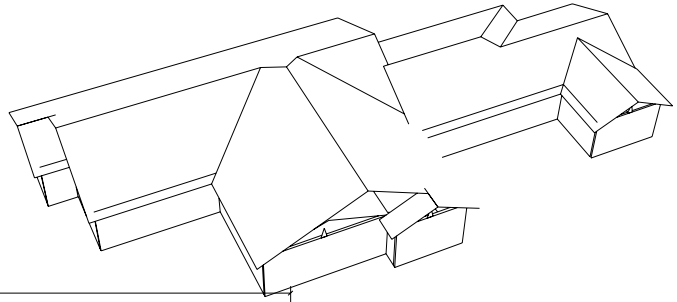
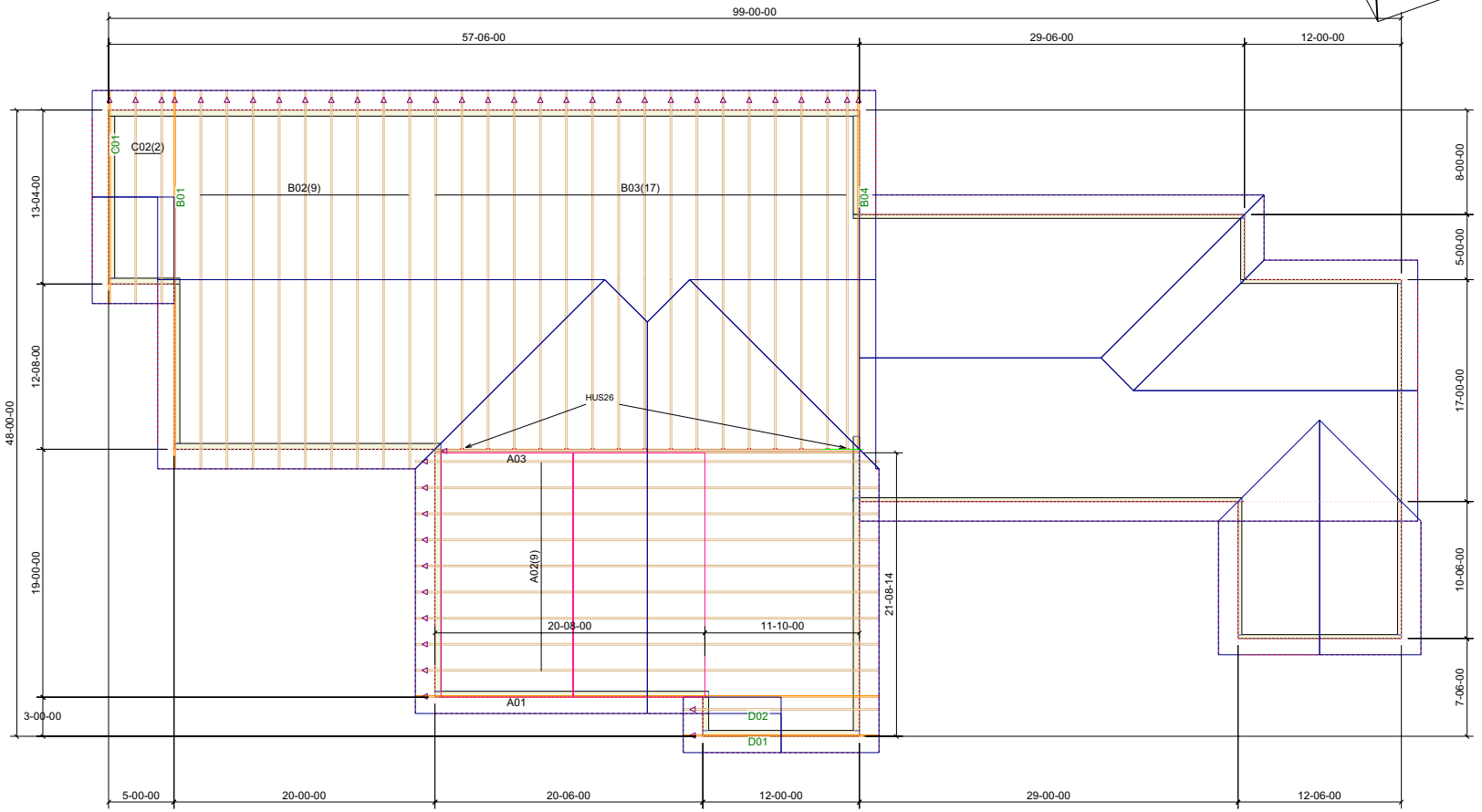




Client: Theo Cirstean

Plan : Cirtean Addition

Project #

Sales : Cliff Puckett

21-CP0891

Site : Lake Oswego, OR

Lot :

Pitch: 6/12
Overhang 18"

LOading: 25-7-0-10
Date: 3/29/2021

PRECISION TRUSS & LUMBER
11500 E Jennifer St
Clackamas, OR 97015
(503) 650-2983
(503) 650-2647

SUBMITTED 4/12/2023

MiTek USA, Inc.
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661
Telephone 916-755-3571

Re: 21-CP0891

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Precision Roof Trusses, Inc.

Pages or sheets covered by this seal: R74858528 thru R74858538

My license renewal date for the state of Oregon is December 31, 2023.

February 21,2023

Baxter, David

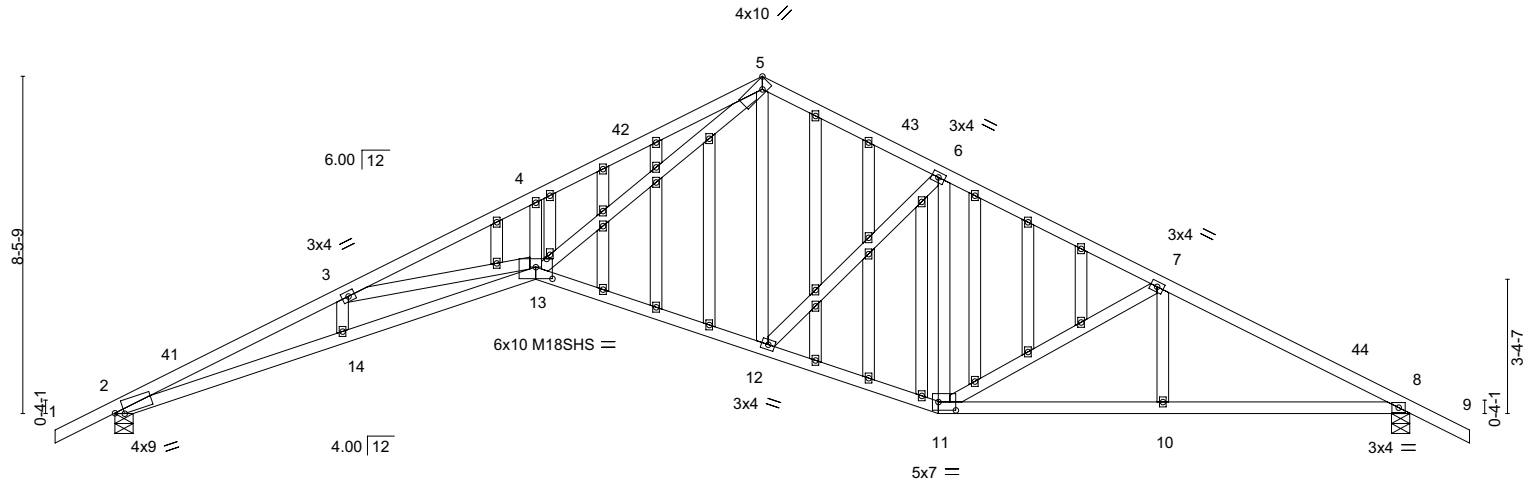
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	Truss	Truss Type	Qty	Ply	
21-CP0891	A01	GABLE	1	1	R74858528
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:05 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-XGwPwMtR5?Z1KVTgDAYOyvitSLArAGkwX1ANyOzirbm

-1-6-0	5-8-9	10-6-12	16-3-0	20-8-0	26-3-10	32-6-0	34-0-0
1-6-0	5-8-9	4-10-3	5-8-4	4-5-0	5-7-10	6-2-6	1-6-0

Scale = 1:57.8



5-8-9	10-6-12	16-3-0	20-8-0	26-3-10	32-6-0
5-8-9	4-10-3	5-8-4	4-5-0	5-7-10	6-2-6

Plate Offsets (X,Y)-- [2:0-2-12,Edge], [5:0-2-12,Edge], [11:0-5-4,0-2-8], [13:0-5-0,0-3-8], [23:0-1-4,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.60	13-14	>636	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-1.02	13-14	>377	180	M18SHS	185/148
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.62	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 198 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.1&Btr
BOT CHORD 2x4 DF No.2 *Except*
2-13: 2x4 DF No.1&Btr
WEBS 2x4 HF Std *Except*
5-13: 2x4 DF No.2
OTHERS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=-171(LC 17)
Max Uplift 2=-340(LC 12), 8=-340(LC 13)
Max Grav 2=1456(LC 1), 8=1456(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6057/1351, 3-4=-5462/1117, 4-5=-5485/1252, 5-6=-1892/452, 6-7=-1972/446, 7-8=-2494/496
BOT CHORD 2-14=-1335/5544, 13-14=-1335/5554, 12-13=-210/1738, 11-12=-222/1791, 10-11=-334/2136, 8-10=-334/2136
WEBS 3-13=-524/304, 4-13=-345/255, 5-13=-998/4180, 5-12=-152/320, 7-11=-518/224, 7-10=0/251

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-9-0, Interior(1) 1-9-0 to 16-3-0, Exterior(2R) 16-3-0 to 19-6-0, Interior(1) 19-6-0 to 34-0-0 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) 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.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x3 MT20 unless otherwise indicated.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=340, 8=340.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

RENEWAL DATE: 12-31-2023
February 21,2023

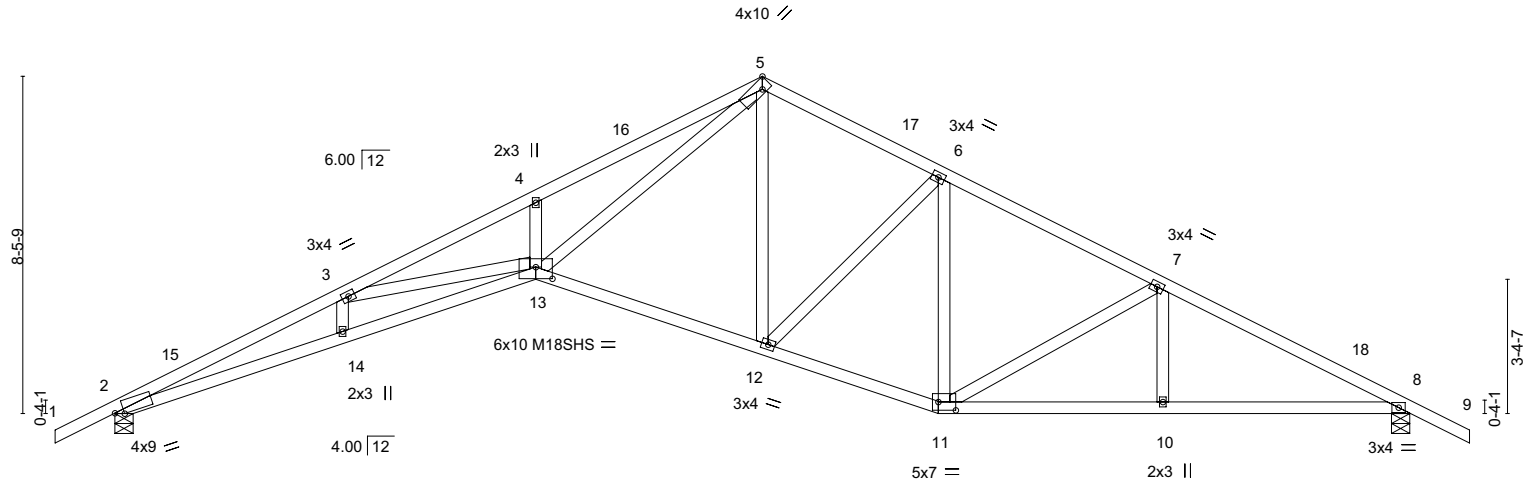
MiTek®
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	A02	Roof Special	9	1	R74858529
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:06 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-?SUn8it3sJhuyf2snt3dV7F2ClW4vj_4lhvxVqzirbl

-1-6-0	5-8-9	10-6-12	16-3-0	20-8-0	26-3-10	32-6-0	34-0-0
1-6-0	5-8-9	4-10-3	5-8-4	4-5-0	5-7-10	6-2-6	1-6-0

Scale = 1:57.8



5-8-9	10-6-12	16-3-0	20-8-0	26-3-10	32-6-0
5-8-9	4-10-3	5-8-4	4-5-0	5-7-10	6-2-6

Plate Offsets (X,Y)-- [2:0-2-12,Edge], [5:0-2-12,Edge], [11:0-5-4,0-2-8], [13:0-5-0,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.60	13-14	>636	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-1.02	13-14	>377	180	M18SHS	185/148
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.62	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 149 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.1&Btr
BOT CHORD 2x4 DF No.2 *Except*
2-13: 2x4 DF No.1&Btr
WEBS 2x4 HF Std *Except*
5-13: 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=-171(LC 17)
Max Uplift 2=-340(LC 12), 8=-340(LC 13)
Max Grav 2=1456(LC 1), 8=1456(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6057/1351, 3-4=-5462/1117, 4-5=-5485/1252, 5-6=-1892/452, 6-7=-1972/446, 7-8=-2494/496
BOT CHORD 2-14=-1335/5544, 13-14=-1335/5554, 12-13=-210/1738, 11-12=-222/1791, 10-11=-334/2136, 8-10=-334/2136
WEBS 3-13=-524/304, 4-13=-345/255, 5-13=-998/4180, 5-12=-152/320, 7-11=-518/224, 7-10=0/251

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-9-0, Interior(1) 1-9-0 to 16-3-0, Exterior(2R) 16-3-0 to 19-6-0, Interior(1) 19-6-0 to 34-0-0 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=340, 8=340.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

RENEWAL DATE: 12-31-2023
February 21,2023

MiTek®
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	A03	Roof Special Girder	1	2	R74858530

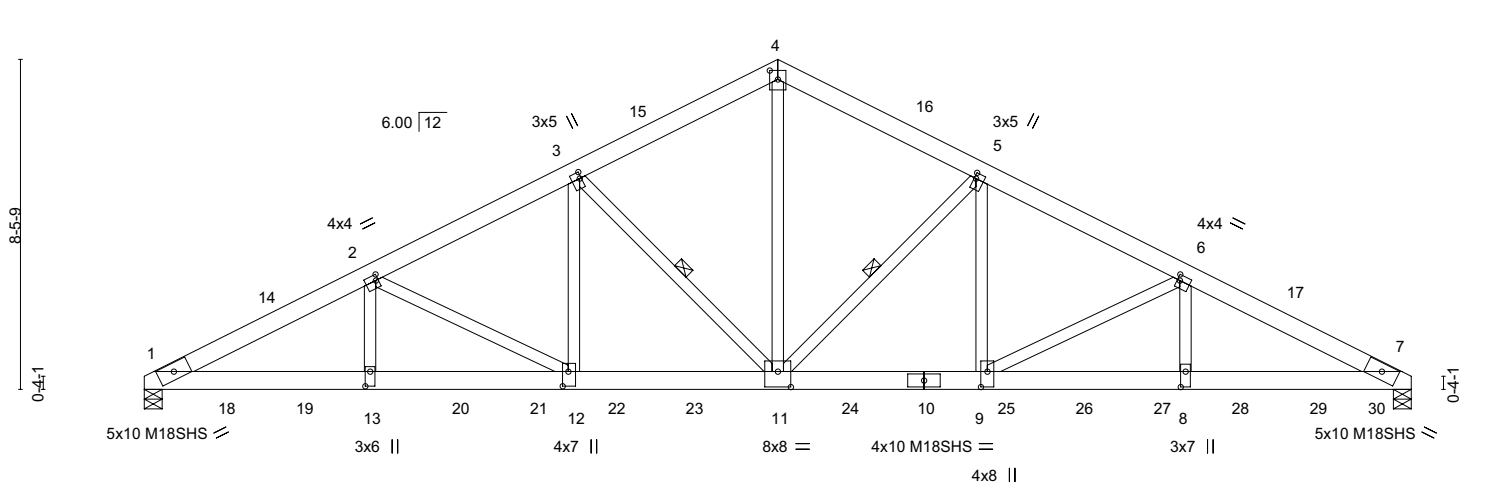
Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:09 2023 Page 1

ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-Q1Awmjwx9E3Sp6nRS0cK7ItbRzYv62eWSf8b59zirbi

5-9-8	11-0-4	16-3-0	21-5-12	26-8-8	32-6-0
5-9-8	5-2-12	5-2-12	5-2-12	5-2-12	5-9-8

Scale = 1:59.1



5-9-8	11-0-4	16-3-0	21-5-12	26-8-8	32-6-0
5-9-8	5-2-12	5-2-12	5-2-12	5-2-12	5-9-8

Plate Offsets (X,Y)-- [2:0-0-12,0-1-12], [3:0-2-0,0-0-8], [4:0-2-12,0-2-8], [5:0-1-12,0-0-8], [6:0-0-12,0-1-12], [8:0-4-12,0-1-8], [9:0-4-12,0-2-0], [11:0-4-0,0-4-12], [12:0-4-8,0-1-12], [13:0-4-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.34	9-11	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.55	9-11	>699	180	M18SHS	220/195
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.18	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 407 lb	FT = 0%

LUMBER-

TOP CHORD 2x6 DF 1800F 1.6E
BOT CHORD 2x6 DF 2500F 2.2E *Except*
7-10: 2x6 DF 2400F 2.0E
WEBS 2x4 HF Std *Except*
4-11,5-9,3-12: 2x4 DF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-11, 3-11

REACTIONS. (size) 1=0-5-8, 7=0-5-8
Max Horz 1=153(LC 41)
Max Uplift 1=-2142(LC 12), 7=-2327(LC 13)
Max Grav 1=9623(LC 2), 7=10484(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-19041/4214, 2-3=-15211/3414, 3-4=-11591/2678, 4-5=-11591/2678, 5-6=-15309/3436, 6-7=-19261/4263
BOT CHORD 1-13=-3868/17058, 12-13=-3868/17058, 11-12=-2993/13562, 9-11=-2912/13648, 8-9=-3763/17270, 7-8=-3763/17270
WEBS 4-11=-2160/9855, 5-11=-4713/1182, 5-9=-1035/4862, 6-9=-4092/1022, 6-8=-620/3212, 3-11=-4591/1155, 3-12=-1004/4724, 2-12=-3948/989, 2-13=-602/3129

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-5-12, Interior(1) 3-5-12 to 16-3-0, Exterior(2R) 16-3-0 to 19-6-0, Interior(1) 19-6-0 to 32-3-4 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
5) All plates are MT20 plates unless otherwise indicated.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=2142, 7=2327.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

REGISTERED PROFESSIONAL ENGINEER 89200PE OREGON MAY 14, 2014 DAVID MERRILL BAXTER

RENEWAL DATE: 12-31-2023
February 21,2023

MiTek®

City of Portland
Reviewed for code compliance
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661
Date: 11/3/23
Project #: 22-197446-000-00-RS

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1113 lb down and 251 lb up at 2-0-12, 1113 lb down and 251 lb up at 4-0-12, 1113 lb down and 251 lb up at 6-0-12, 1113 lb down and 251 lb up at 8-0-12, 1113 lb down and 251 lb up at 10-0-12, 1113 lb down and 251 lb up at 12-0-12, 1113 lb down and 251 lb up at 14-0-12, 1113 lb down and 251 lb up at 16-0-12, 1113 lb down and 251 lb up at 18-0-12, 1113 lb down and 251 lb up at 20-0-12, 1113 lb down and 251 lb up at 22-0-12, 1113 lb down and 251 lb up at 24-0-12, 1113 lb down and 251 lb up at 26-0-12, 1113 lb down and 251 lb up at 28-0-12, and 1113 lb down and 251 lb up at 30-0-12, and 1116 lb down and 248 lb up at 31-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

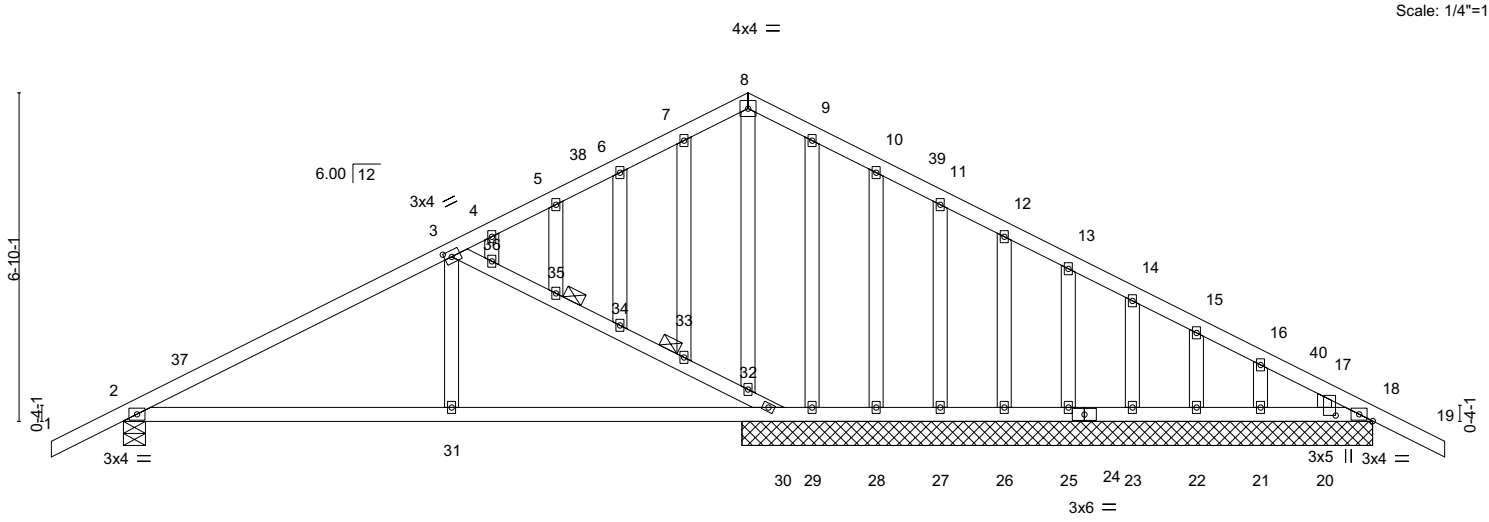
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-64, 4-7=-64, 1-7=-20
   Concentrated Loads (lb)
   Vert: 10=-1056(B) 11=-1056(B) 13=-1056(B) 18=-1056(B) 19=-1056(B) 20=-1056(B) 21=-1056(B) 22=-1056(B) 23=-1056(B) 24=-1056(B) 25=-1056(B) 26=-1056(B) 27=-1056(B) 28=-1056(B) 29=-1056(B) 30=-1059(B)

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	B01	KINGPOST	1	1	R74858531
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:11 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-MQlgBPxBhrJA2QwqZRfoCAy_DmNaa4PpvzdiA2zirbg

-1-6-0 | 6-9-15 | 13-0-0 | 26-0-0 | 27-6-0
1-6-0 | 6-9-15 | 6-2-1 | 13-0-0 | 1-6-0

Scale: 1/4"=1'



6-9-15 | 26-0-0
6-9-15 | 19-2-1

Plate Offsets (X,Y)-- [3:0-1-12,0-1-8], [20:0-1-6,0-9-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.04	2-31	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	2-31	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.02	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 142 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 2-31,30-31.
JOINTS 1 Brace at Jt(s): 33, 35

REACTIONS. All bearings 13-1-8 except (jt=length) 2=0-5-8.
(lb) - Max Horz 2=-139(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 28, 27, 26, 25, 23, 22, 21, 18 except 2=-230(LC 12), 29=-187(LC 3)
Max Grav All reactions 250 lb or less at joint(s) 29, 28, 27, 26, 25, 23, 22, 21, 20 except 2=735(LC 1), 30=649(LC 3), 18=286(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-925/265, 3-4=-289/192
BOT CHORD 2-31=-252/743, 30-31=-252/743
WEBS 3-36=-710/299, 35-36=-643/254, 34-35=-670/274, 33-34=-688/286, 32-33=-686/290, 30-32=-697/271, 3-31=0/290

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 13-0-0, Exterior(2R) 13-0-0 to 16-0-0, Interior(1) 16-0-0 to 27-6-0 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) All plates are 2x3 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 27, 26, 25, 23, 22, 21, 18 except (jt=lb) 2=230, 29=187.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

REGISTERED PROFESSIONAL ENGINEER 89200PE OREGON MAY 14, 2014 DAVID MERRILL BAXTER

RENEWAL DATE: 12-31-2023
February 21,2023

MiTek
MiTek USA, Inc.
400 Sunrise Avenue, Suite 270
Roseville, CA 95661

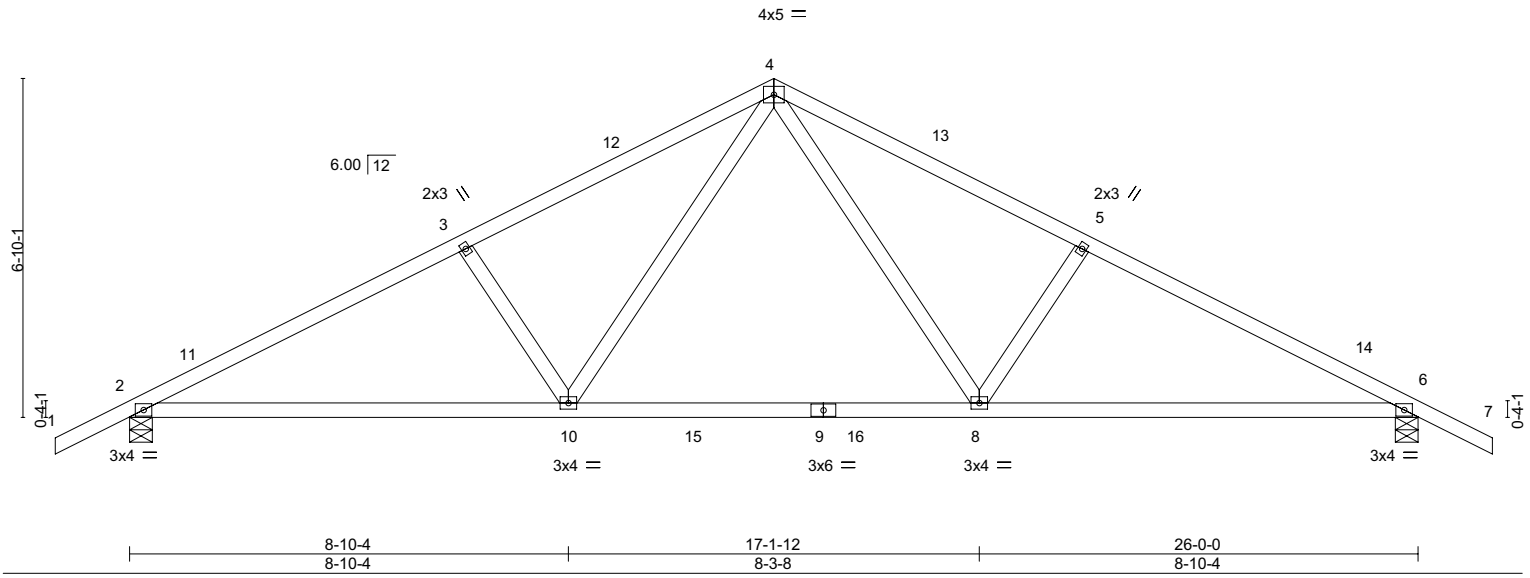
City of Portland
Reviewed for code compliance
Date: 11/3/23
Project #: 22-197446-000-00-RS

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	B02	Common	9	1	R74858532
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:13 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-loPQc5zSDTZulk4ChrhGHb1KcaxJ2?g5MH6oEwzirbe

-1-6-0 | 6-9-6 | 13-0-0 | 19-2-10 | 26-0-0 | 27-6-0
1-6-0 | 6-9-6 | 6-2-10 | 6-2-10 | 6-9-6 | 1-6-0

Scale = 1:46.5



8-10-4 | 17-1-12 | 26-0-0
8-10-4 | 8-3-8 | 8-10-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.16	8-10	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.28	6-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 106 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 6=0-5-8
Max Horz 2=139(LC 12)
Max Uplift 2=-282(LC 12), 6=-282(LC 13)
Max Grav 2=1218(LC 2), 6=1218(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1913/427, 3-4=-1747/430, 4-5=-1747/430, 5-6=-1913/427
BOT CHORD 2-10=-368/1653, 8-10=-133/1118, 6-8=-283/1653
WEBS 4-8=-161/721, 5-8=-387/277, 4-10=-161/721, 3-10=-387/277

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 13-0-0, Exterior(2R) 13-0-0 to 16-0-0, Interior(1) 16-0-0 to 27-6-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=282, 6=282.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

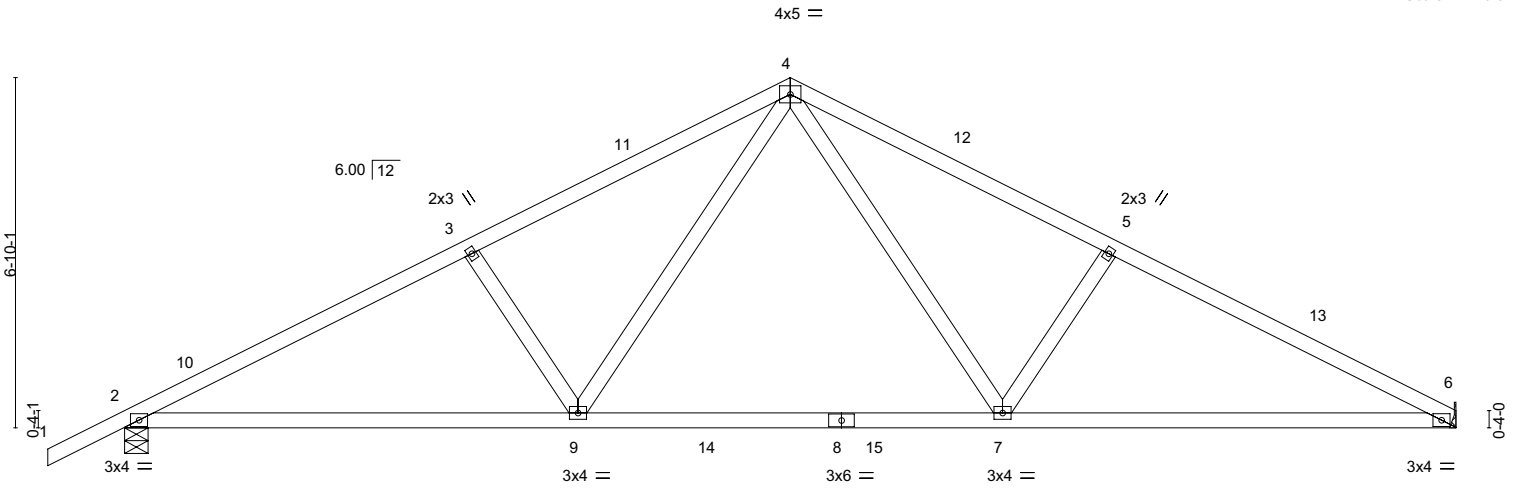
RENEWAL DATE: 12-31-2023
February 21,2023

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	B03	Common	17	1	R74858533
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:14 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-m?zppRz4_mhlwtfPFZCVppaUz_HfnRaFbxrMnNzirbd

-1-6-0 | 6-9-6 | 13-0-0 | 19-2-10 | 26-0-0
1-6-0 | 6-9-6 | 6-2-10 | 6-2-10 | 6-9-6

Scale = 1:45.0



8-10-4 | 17-1-12 | 26-0-0
8-10-4 | 8-3-8 | 8-10-4

Plate Offsets (X,Y)-- [2:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.17	6-7	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.33	6-7	>937	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 103 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-11-12 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-5-8
Max Horz 2=153(LC 16)
Max Uplift 6=-231(LC 13), 2=-284(LC 12)
Max Grav 6=1133(LC 2), 2=1229(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1935/441, 3-4=-1768/443, 4-5=-1799/463, 5-6=-1972/462
BOT CHORD 2-9=-384/1673, 7-9=-150/1139, 6-7=-333/1717
WEBS 4-7=-179/765, 5-7=-420/290, 4-9=-160/719, 3-9=-388/277

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 13-0-0, Exterior(2R) 13-0-0 to 16-0-0, Interior(1) 16-0-0 to 25-11-4 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=231, 2=284.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

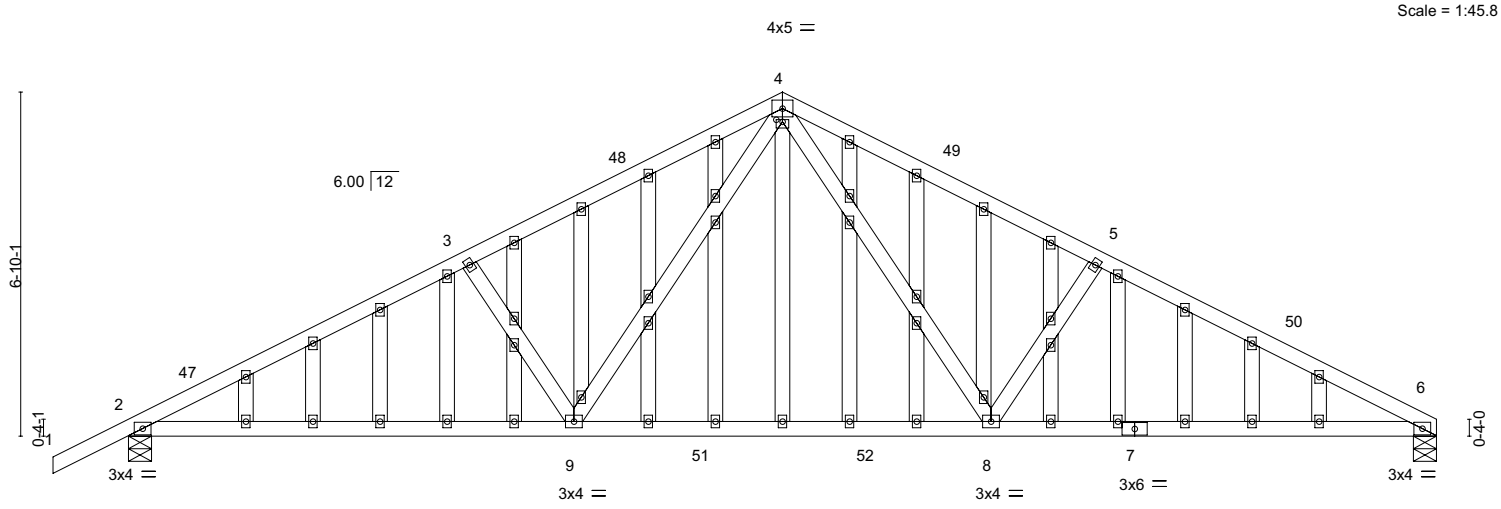
RENEWAL DATE: 12-31-2023
February 21,2023

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	B04	Roof Special Structural Gable	1	1	R74858534
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:16 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-jN5ZE7?KWOyT9BpnM_E_vEfq1nzYFMHY3ELTrFzirbb

-1-6-0	6-9-6	13-0-0	19-2-10	26-0-0
1-6-0	6-9-6	6-2-10	6-2-10	6-9-6

Scale = 1:45.8



8-10-4	17-1-12	26-0-0
8-10-4	8-3-8	8-10-4

Plate Offsets (X,Y)-- [2:0-0-0,0-0-0], [4:0-1-8,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.15	8-9	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.30	6-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 171 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 HF Std
OTHERS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-5-8, 2=0-5-8
Max Horz 2=153(LC 16)
Max Uplift 6=-229(LC 13), 2=-283(LC 12)
Max Grav 6=1126(LC 2), 2=1221(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1919/438, 3-4=-1753/440, 4-5=-1764/456, 5-6=-1932/453
BOT CHORD 2-9=-383/1659, 8-9=-148/1124, 6-8=-323/1673
WEBS 4-8=-173/737, 5-8=-399/284, 4-9=-160/720, 3-9=-388/277

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 13-0-0, Exterior(2R) 13-0-0 to 16-0-0, Interior(1) 16-0-0 to 25-9-4 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) 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.
4) All plates are 2x3 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=229, 2=283.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

RENEWAL DATE: 12-31-2023
February 21,2023

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	C01	Common Supported Gable	1	1	R74858535
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:18 2023 Page 1
ID:?F4jXkf?AIGTSgyZnF5G8fzW5Hf-fmDJfo1a2?CBOVzAUPHS_fkFbbqqjLqrWYqZw8zirbZ

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1-6-0 6-8-0 6-8-0 1-6-0

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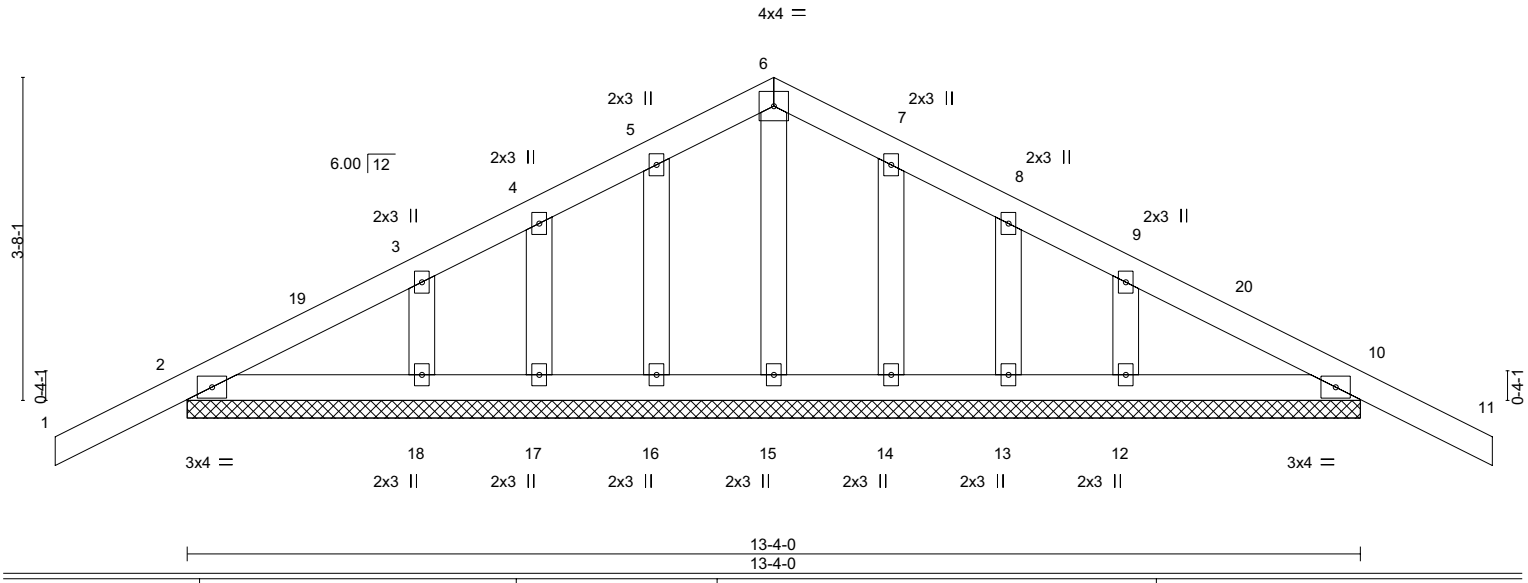

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.01	11	n/r	120	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.01	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 59 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
OTHERS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 13-4-0.
(lb) - Max Horz 2=78(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 6-8-0, Corner(3R) 6-8-0 to 9-8-0, Exterior(2N) 9-8-0 to 14-10-0 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) 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.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 1-4-0 oc.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18, 14, 13, 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

RENEWAL DATE: 12-31-2023
February 21,2023

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	C02	Common	2	1	R74858536
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:19 2023 Page 1
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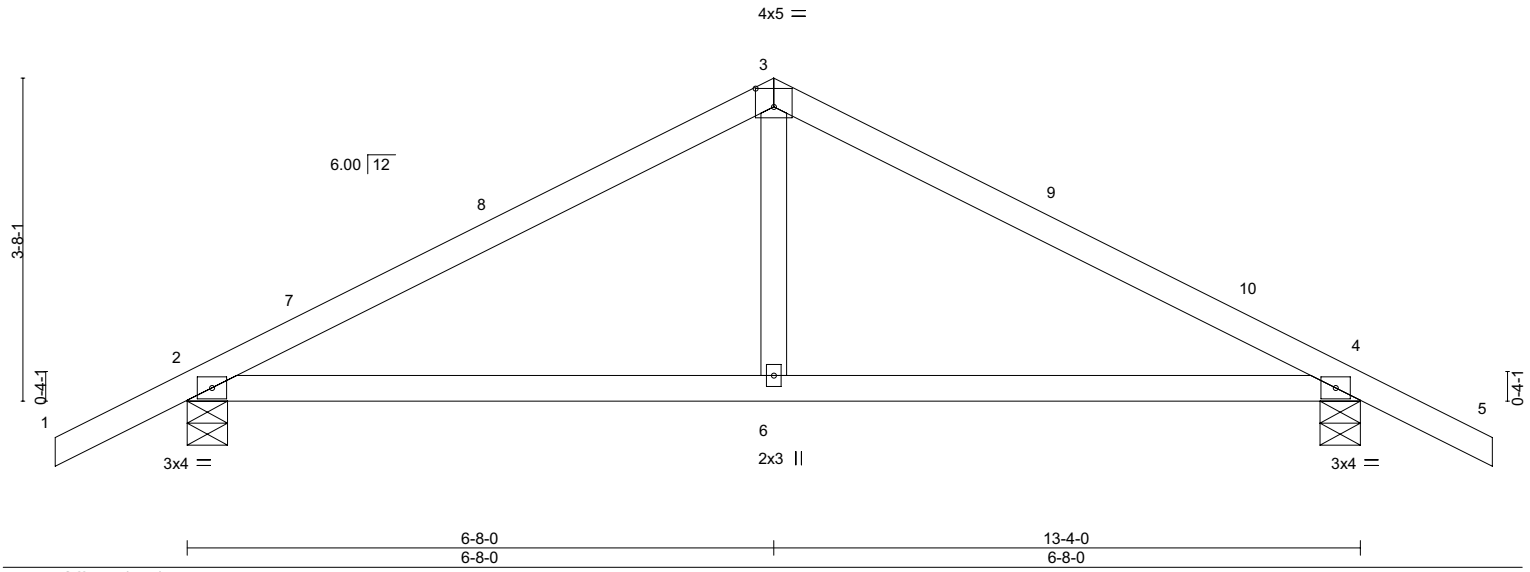
Scale = 1:26.2



6-8-0 13-4-0
6-8-0 6-8-0

Plate Offsets (X,Y)-- [3:0-2-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.04	4-6	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.08	4-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 47 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 4=0-5-8
Max Horz 2=78(LC 12)
Max Uplift 2=-169(LC 12), 4=-169(LC 13)
Max Grav 2=651(LC 1), 4=651(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-762/296, 3-4=-762/296
BOT CHORD 2-6=-116/600, 4-6=-116/600
WEBS 3-6=0/296

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-8-0, Exterior(2R) 6-8-0 to 9-8-0, Interior(1) 9-8-0 to 14-10-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=169, 4=169.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

RENEWAL DATE: 12-31-2023
February 21,2023

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	D01	Common Supported Gable	1	1	R74858537
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:21 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-3LuSHq3TKwamFyhl9Xq9cHMmqosFwimHCW2DWTzirbW

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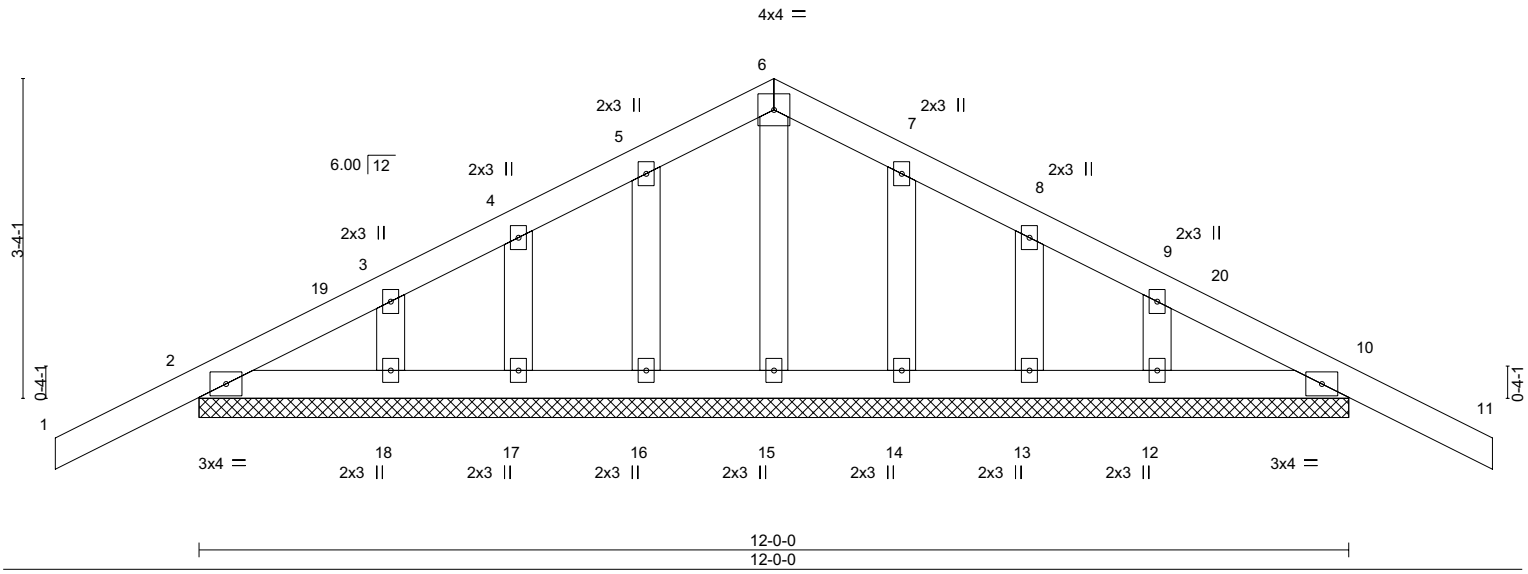
1-6-0 6-0-0 6-0-0 1-6-0

Scale: 1/2"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.01	11	n/r	120	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 53 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
OTHERS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 2=72(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 13-6-0 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) 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.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 1-4-0 oc.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18, 14, 13, 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

RENEWAL DATE: 12-31-2023
February 21,2023

Job	Truss	Truss Type	Qty	Ply	
21-CP0891	D02	Common	1	1	R74858538
					Job Reference (optional)

Precision Truss & Lumber, Inc., CLACKAMAS, OR - 97015, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Feb 21 17:26:22 2023 Page 1
ID:?F4jXkf?AlGTSgyZnF5G8fzW5Hf-XXSqVA455Dict6GxjELO8VvuGC84f8jQRAon3vzirbV

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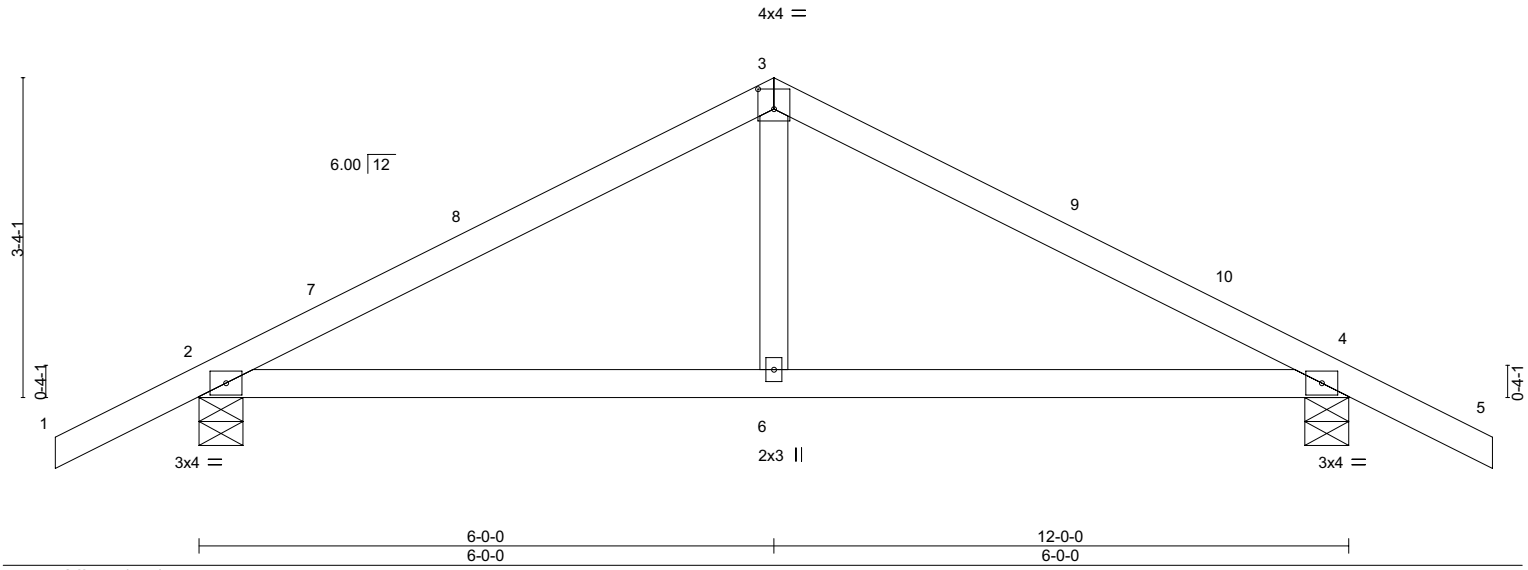
Scale: 1/2"=1'



6-0-0 6-0-0 | 12-0-0 6-0-0

Plate Offsets (X,Y)-- [3:0-2-0,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	4-6	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	4-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 43 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 HF Std

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 4=0-5-8
Max Horz 2=72(LC 16)
Max Uplift 2=-158(LC 12), 4=-158(LC 13)
Max Grav 2=595(LC 1), 4=595(LC 1)

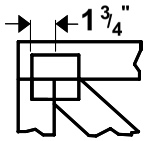
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-671/280, 3-4=-671/280
BOT CHORD 2-6=-103/525, 4-6=-103/525
WEBS 3-6=0/263

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 13-6-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158, 4=158.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

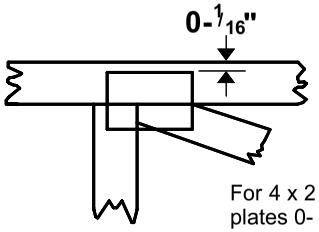
RENEWAL DATE: 12-31-2023
February 21,2023

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.

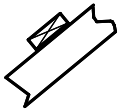
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

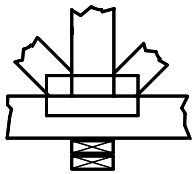
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

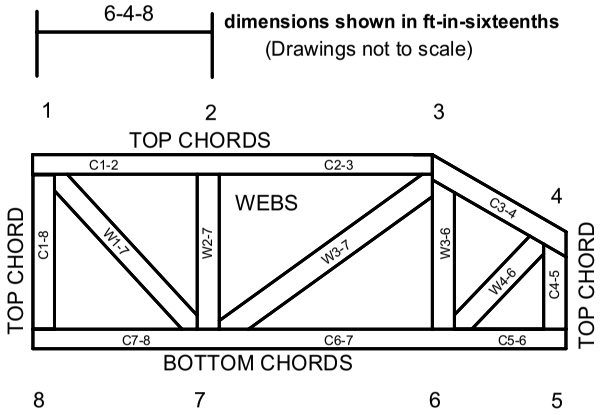


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

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 wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
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/TPI 1 Quality Criteria.

21.The design does not take into account any dynamic or other loads other than those expressly stated.