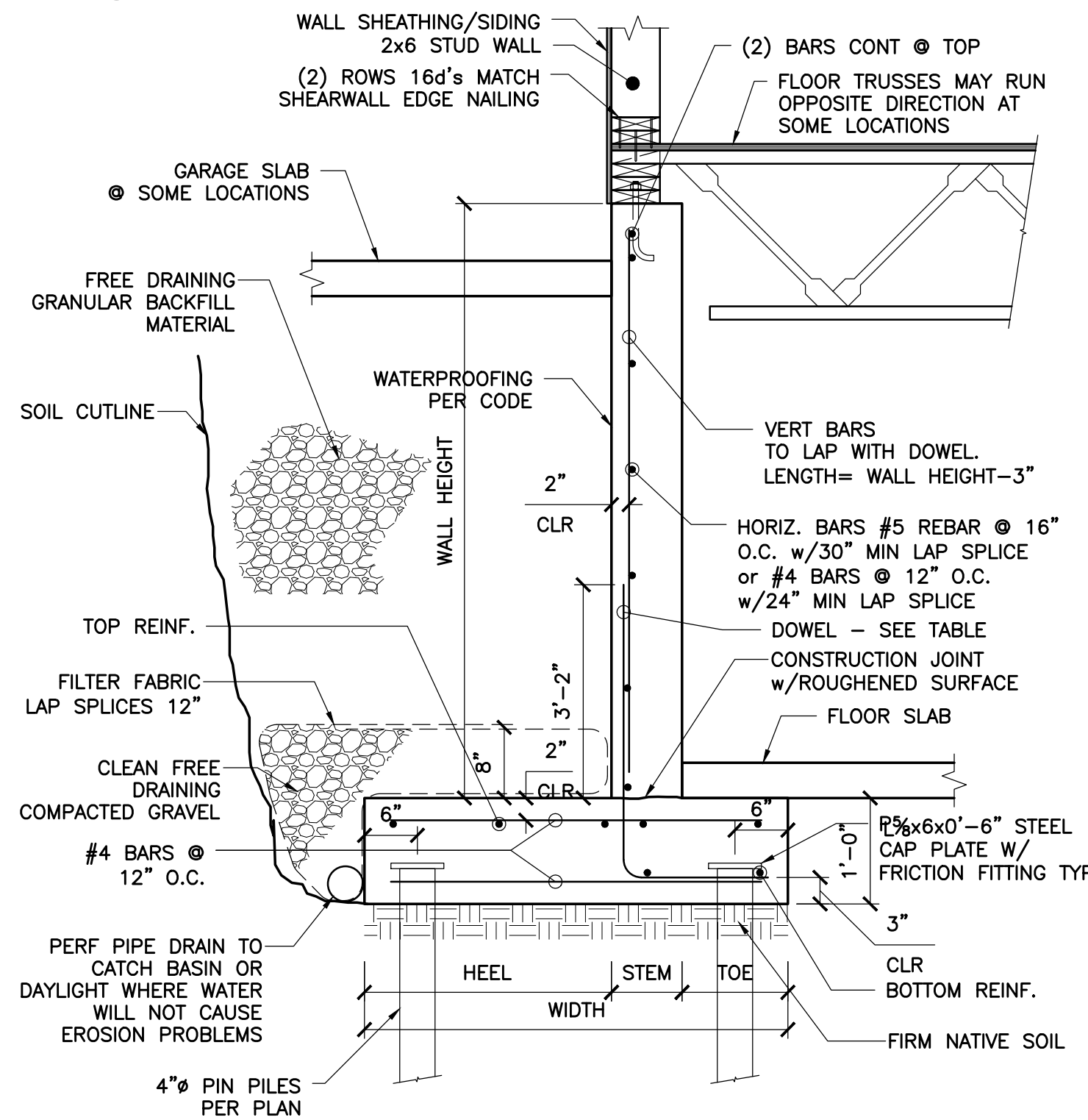


RETAINING WALL SCHEDULE								
WALL HEIGHT	HEEL	TOE	WIDTH	TOP REINF.	BOT REINF.	DOWEL	VERT BARS	STEM
11'-4"	5'-11"	1'-9"	8'-6"	(8) #5 BARS	(8) #5 BARS	#7's @ 12" O.C.	#7's @ 12" O.C.	10"

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



RETAINING WALL SCHEDULE								
WALL HEIGHT	HEEL	TOE	WIDTH	TOP REINF.	BOT REINF.	DOWEL	VERT BARS	STEM
11'-4"	5'-11"	1'-9"	6'-6"	(6) #5 BARS	(6) #5 BARS	#7's @ 12" O.C.	#7's @ 12" O.C.	10"
9'-3"	2'-8"	1'-9"	5'-3"	(5) #5 BARS	(5) #5 BARS	#7's @ 12" O.C.	#7's @ 12" O.C.	10"
6'-3"	1'-8"	1'-9"	4'-3"	(4) #5 BARS	(4) #5 BARS	#7's @ 12" O.C.	#7's @ 12" O.C.	10"
4'-0"	0'-11"	1'-9"	3'-6"	(3) #5 BARS	(3) #5 BARS	#7's @ 12" O.C.	#7's @ 12" O.C.	10"

2 RETAINING WALL SECTION
3/4" = 1'-0"

General Notes:
These structural notes supplement the drawings. Any discrepancy found among the drawings, these notes, and the site conditions shall be reported to the Engineer, who shall correct such discrepancy in writing. Any work done by the Contractor after discovery of such discrepancy shall be done at the Contractor's risk. The Contractor shall verify and coordinate the dimensions among all drawings prior to proceeding with any work or fabrication. The Contractor is responsible for all bracing and shoring during construction. All construction shall conform to the applicable portions of the latest edition of the International Building Code except where noted.

- Design Criteria:**
- 1. Live Load = 25 PSF (Snow)
 - 2. Dead Load = 40 PSF (Floor)
 - 3. Wind = 15 PSF (Roof and Floor)
 - 4. Earthquake = 10 PSF (Partition)
 - 5. Soil = 12 PSF (Wall)
 - 6. Wind = 150 PCF (Concrete)
 - 7. Earthquake = 2015 IBC Exposure B @ 110 mph (LRFD), 85 MPH (ASD), 3 second gust
 - 8. Earthquake = 2015 IBC, Ss = 1.484 Site Class D, SL = 0.555, IE = 1.0, Seismic Design Category D, SDS = 0.989, SDL = 0.555, Light Frame Wood Shearwalls, R = 6.5, ρ = 1.3 Non-Redundant Structure, Cs = SDS I/R, V = ρ Cs W, V = 0.193W for Load Factor Design, Cs = SDS I / (1.4R), V = ρ Cs W, V = 0.135W for Allowable Stress Design, 3000 PSF, Assumed Bearing Capacity, 35 PCF, Active Pressure, 400 PCF, Passive Pressure, 0.50, Coefficient of Friction

- Concrete & Reinforcing Steel:**
- All concrete work shall be per the 2015 IBC Chapter 19 and ACI 318-14. Concrete quality, mixing and placement shall be per ACI 318-14. Mixing and placement shall be per ACI 318-14 and inspections shall be per 2015 IBC, Chapter 19, sections 03 and 04.
 - All reinforcing shall be ASTM A615 Grade 60 except as shown on the plans.
 - Concrete shall be in accordance with ASTM 150. f'c = 2500 PSI @ 28 day slump = 4" maximum, 6% Air entrained

- Carpentry:**
- Structural framing shall be #2 Douglas Fir.
 - 6X columns shall be #1 Douglas Fir.
 - 2X joists shall be kiln dried and stored in a dry area prior to installation.
 - Floor trusses shall be by Trus-Joist or other approved manufacturer. Roof trusses shall be by a preapproved manufacturer and constructed according to the specifications of the Truss Plate Institute. Truss manufacturers are responsible for all bracing of the trusses including end wall bracing and all other bracing between the building and the trusses unless specifically shown otherwise on the drawings.
 - Glue laminated beams shall be 24F-V8 for cantilevered or continuous beams and 24F-V4 for simple spans.
 - (Fb = 2,400 PSI)
(Fv = 265 PSI)
(E = 1,800,000 PSI)
(Fcl = 650 PSI)
 - Continuous and cantilevered glue laminated beams shall not be cambered. All other glue laminated beams shall be cambered for L/480. See the framing plans for any exceptions. Plywood shall be nailed 6" o.c. edges and 12" field with 8d's unless otherwise noted on the drawings.

Hardware:
All connection hardware shall be Simpson "Strong Tie", unless noted otherwise.

Connection hardware exposed to weather or in contact with the ground or pressure treated wood shall be galvanized per ASTM A-123 with 1.25 oz. of zinc spelter per square foot of contact area.

CAUTION:
PLACE TRUSSES PER MANUFACTURER'S RECOMMENDATIONS BRACE PER RECOMMENDATIONS.

CONTRACTOR TO FIELD VERIFY ALL CONDITIONS AND ALL ELEVATIONS.

STRUCTURAL NOTES

TYPICAL SHEAR WALL NOTES

Use 1/2" dia. by 10" Anchor Bolts (AB's) with single plates or 1/2" dia. by 12" AB's with 3X or double plates spaced as shown on the drawings. AB's shall have 7" of embedment into footing, shall be centered in the stud wall, and shall project through the bottom plate of the wall. All anchor bolts shall be placed within 12" from corners, and 12" from the ends of both plates at splices. All anchor bolts shall have a 3" square, 1/4" thick plate washers between the top of the sill plate and the nut. (If using expansion anchors as substitutes for anchor bolts, embed a minimum of 3-1/2" into concrete.)

All wall sheathing shall be 1/2" CDX plywood, 5/8" T1-11 siding, or 7/16" OSB with exterior exposure glue and span rated "SR 24/0" or better. All free sheathing edges shall be blocked with 2x4 or 2x6 flat blocking except where noted on the drawings or below.

All nails shall be 8d or 10d common (8d common nails must be 0.131 inch diameter, Senco KC27 Nails are equivalent. If 10d common nails are called for the diameter must be 0.148 inches. Senco MD23 Nails are equivalent when used with 1/2" plywood). Nail size and spacing at all sheathing edges shall be as required below or as in the drawings. Nail spacings shall be 12" o.c. for all field nailing except as noted.

Hold downs are Simpson "Strong Tie" and shall be installed per the manufacturer's recommendation. Equivalent holdowns by United Steel Products Company "Kant-Sag" that have ICC approval can be substituted in place of Simpson holdowns.

The nailing of the sole plate to the floor shall be 16d common nails to match the spacing of the shear wall edge nailing. Wall framing shall be #2 Doug-Fir or better. 3X, 4X, or 6X studs can be made from multiple 2X studs glued and nailed together with (2) rows of 10d's at 8" on center each row.

3x sill plates can be a combination of (1) pressure treated 2X sill directly in contact with concrete and another non-treated 2X sill plate nailed to the lower plate with (2) rows of 10d common nails at 6" on center each row.

All fasteners in pressure treated wood shall be hot dipped galvanized or stainless steel. Anchor bolts are not required to be of stainless steel or galvanized.

ROOF DIAPHRAGM

1/2" plywood or 7/16" OSB, span rated 24/16 or better, nail with 8d common nails at 6" on center edges and 12" on center field. Sheathing shall lay perpendicular to framing.

FLOOR DIAPHRAGM

3/4" tongue and groove plywood or OSB sheathing span rated 48/24 or better. Glue and nail with 10d commons at 6" on center edges, and 12" on center field. Sheathing shall lay perpendicular to framing.

SHEAR WALL SCHEDULE

- sheathing nailed with 8d's at 6" on center all edges. (Capacity= 260 plf)
- sheathing nailed with 8d's at 4" on center all edges with 3X or 4X studs at adjoining panel edges. (Capacity= 380 plf)
- sheathing nailed with 8d's at 2" on center all edges with 3X or 4X studs at adjoining panel edges. (Capacity= 640 plf)
- sheathing nailed with 10d's at 2" on center all edges with 3X or 4X studs at adjoining panel edges. (Capacity= 770 plf)

HOLDOWN SCHEDULE

- LTT20B: LTT20B attaches to foundation with 1/2" diameter anchor bolt with 7" minimum embedment for cast in place construction. Use 1/2" diameter threaded rod in cleaned 5/8" diameter hole 6" deep and epoxy with Simpson AT-XP if installed after concrete has been cast. LTT20B attaches to double stud minimum with (10) 16d sinker nails. (Cap = 1500)
- HDU2: HDU2 attaches to foundation with a 5/8" diameter anchor bolt with 14" minimum embedment for cast in place construction. Use 5/8" diameter threaded rod in cleaned 3/4" diameter hole 7" deep and epoxy with Simpson AT-XP if installed after concrete has been cast. HDU2 attaches to double studs with (6) Simpson SDS1/4X3 screws. (Cap = 3075)
- HDU8: HDU8 attaches to foundation with a 7/8" diameter anchor bolt with 18" minimum embedment into a 8" concrete stem wall for cast in place construction. Use 7/8" diameter threaded rod in cleaned 1" diameter hole 12" deep and epoxy with Simpson AT-XP if installed after concrete has been cast. HDU8 attaches to double studs with (20) Simpson SDS1/4X3 screws. (Cap = 6765)

PIN PILE NOTES

- PIN PILES SHALL BE 4 INCH DIAMETER SCHEDULE 40 BLACK PIPES.
- PIN PILES SHALL BE DRIVEN WITH A 650 POUND HYDRAULIC HAMMER.
- STRUCTURAL PIPE SHALL BE ASTM A53 TYPE S (Fy = 35 KSI).
- WELDING SHALL BE BY AWS CERTIFIED WELDERS WITH E70 ELECTRODES IN ACCORDANCE WITH AWS D1.1-75.

PIN PILE INSTALLATION PROCEDURES

- EXCAVATE TO EXPOSE BOTTOM OF THE EXISTING FOOTING AT LOCATIONS OF THE PIN PILES.
- NOTCH OR CORE THE FOOTING FOR DRIVING THE PIN PILES IF REQUIRED.
- DRIVE 4" DIAMETER PIN PILES WITH A 650 POUND HYDRAULIC HAMMER TO REFUSAL. REFUSAL IS DEFINED AS LESS THAN ONE INCH OF PENETRATION PER ONE MINUTE OF CONTINUOUS JACKING.
- CUT OFF PILES AND WELD BEARING PLATE TO PILE. JACK PILE Laterally TO BE CENTERED UNDER THE FOOTING.
- PLACE CONCRETE TO SURROUND PILES.
- JACK FOOTING AND BUILDING TO ORIGINAL LEVEL POSITION IF REQUIRED. BLOCK AND SUPPORT ON PILES AND CONCRETE.
- REPEAT STEPS 1-4 FOR PILES LOCATED BETWEEN FIRST STAGE PILES.
- PLACE CONCRETE UNDER EXISTING FOOTING TO BE SUPPORTED BY PILES AND CONCRETE GRADE BEAM.

NOTE: PILE SPLICES AND BEARING PLATE CONNECTIONS MAY EITHER BE FIELD WELDED OR MAY BE CONNECTED WITH FRICTION FITTINGS APPROVED BY THE ENGINEER.

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NO.	DATE	REVISION

Sheet Contents
Structural Notes & Details
Project: Benjamin Altman
9167 SE 64th ST
Mercer Island, WA
Benjamin Altman

Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20

Professional Engineer Seal for Jesse M. Chase, State of Washington, License No. 47564, Structural Engineering.

Project Number	2020-0198
Sheet Number	S1.0
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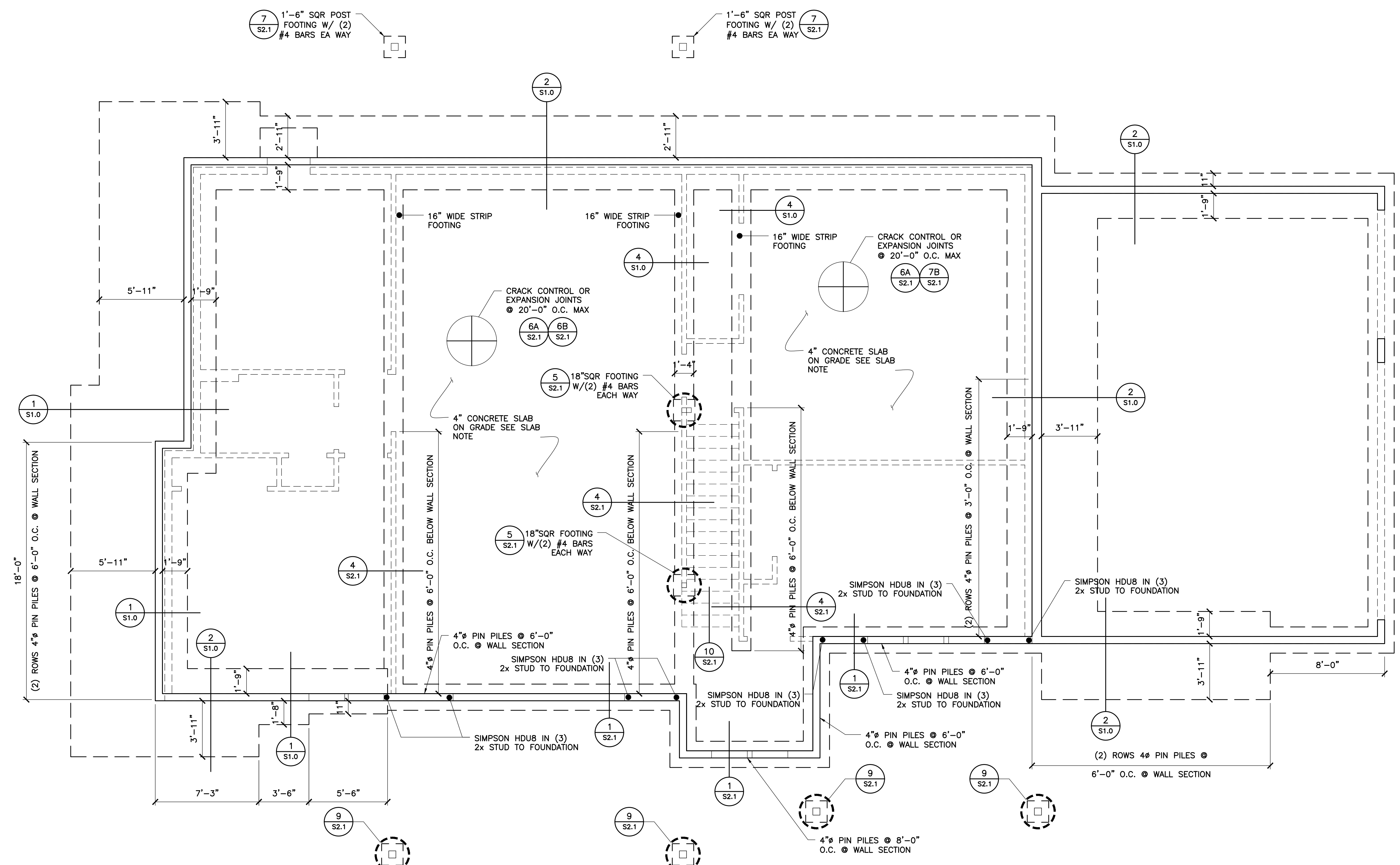
REV	REVISION	DATE

Sheet Contents	Foundation Plan
Project	Benjamin Altman
	9167 SE 64th ST Mercer Island, WA
	Benjamin Altman

Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20



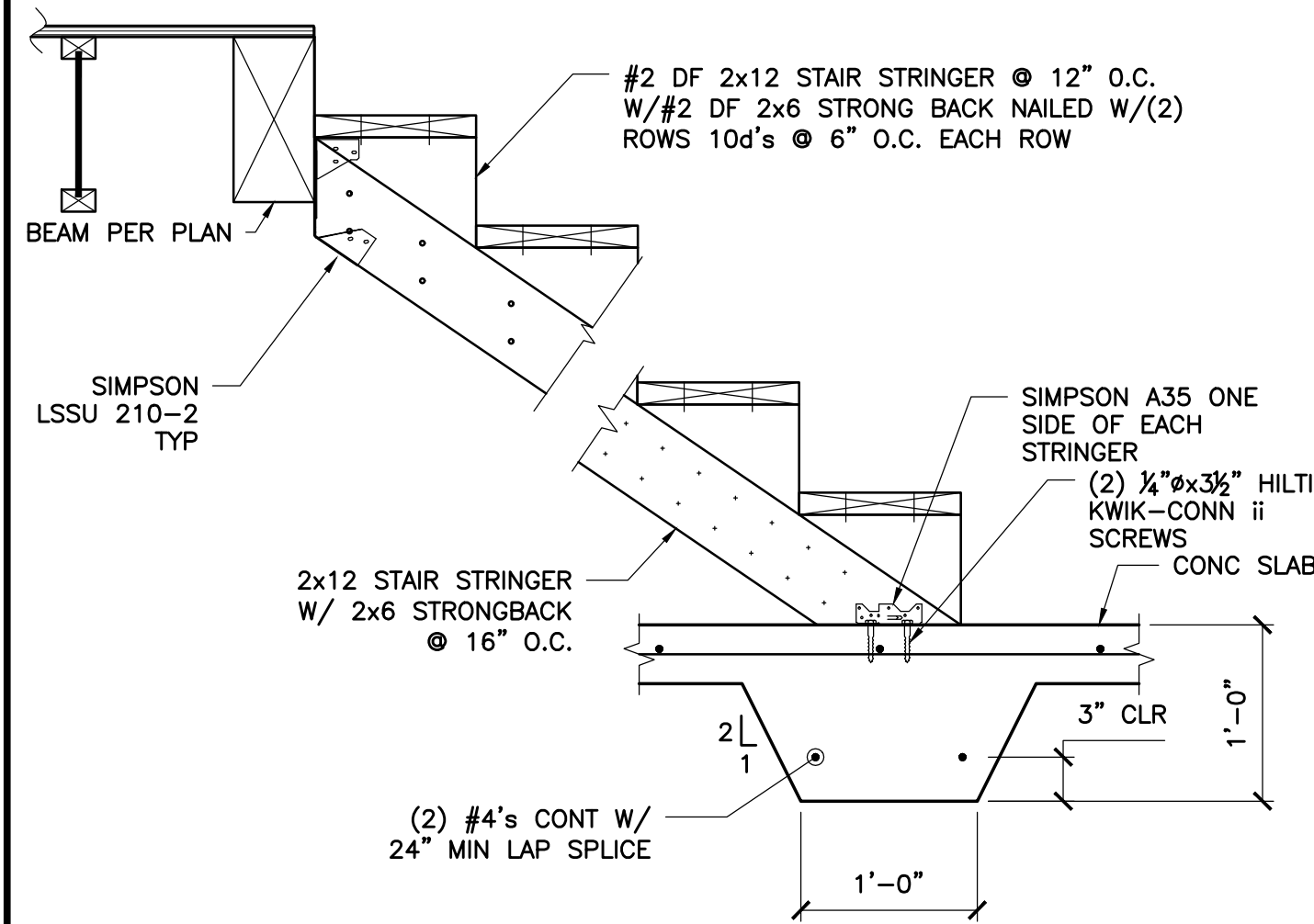
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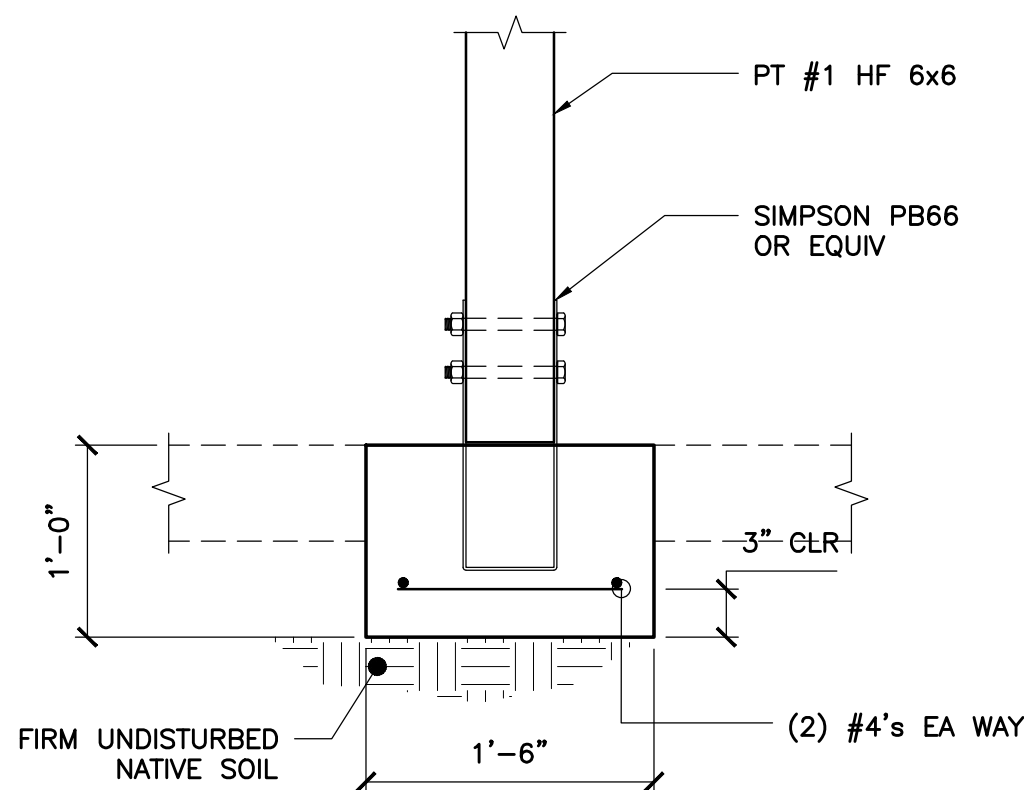
ANCHOR BOLTS:
1/2" ANCHOR BOLTS W/ 7" MIN
EMBEDMENT IN CONCRETE W/
3"x3"x1/4" PLATE WASHERS @
48" O.C. W/ PT #2 HF 2x
SILL PLATE U.N.O. SEE
SHEARWALL NOTES

SLAB NOTE:
4" CONCRETE SLAB ON GRADE
W/ OPTIONAL #3 BARS @ 18"
O.C. OVER 6MIL VAPOR BARRIER
OVER 6" COMPACTED CRUSHED
ROCK TYPICAL

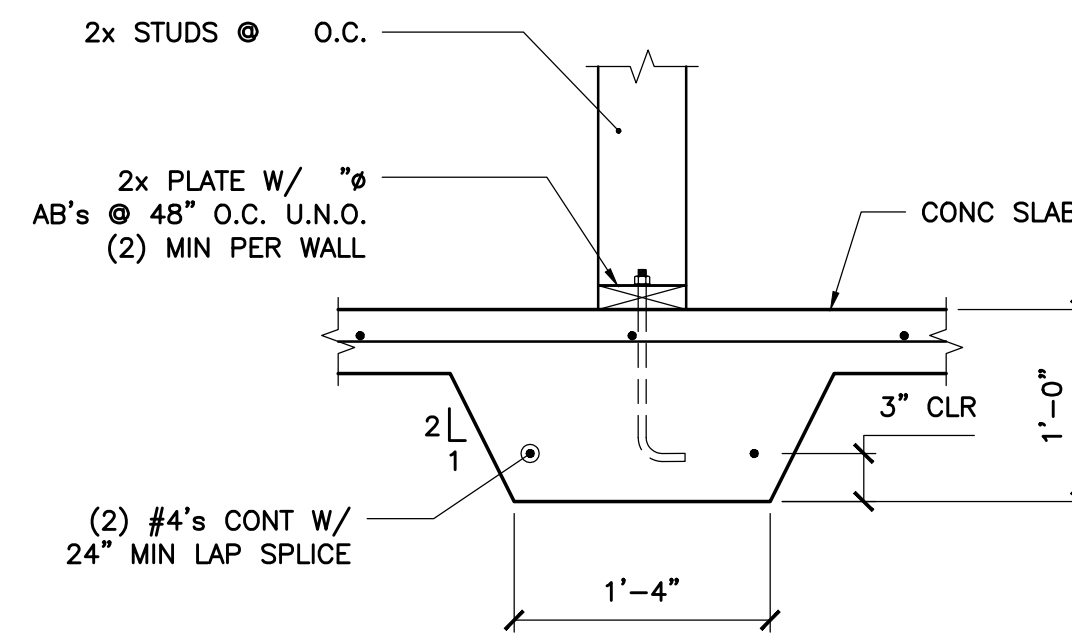
FOUNDATION PLAN
1/4"=1'-0"



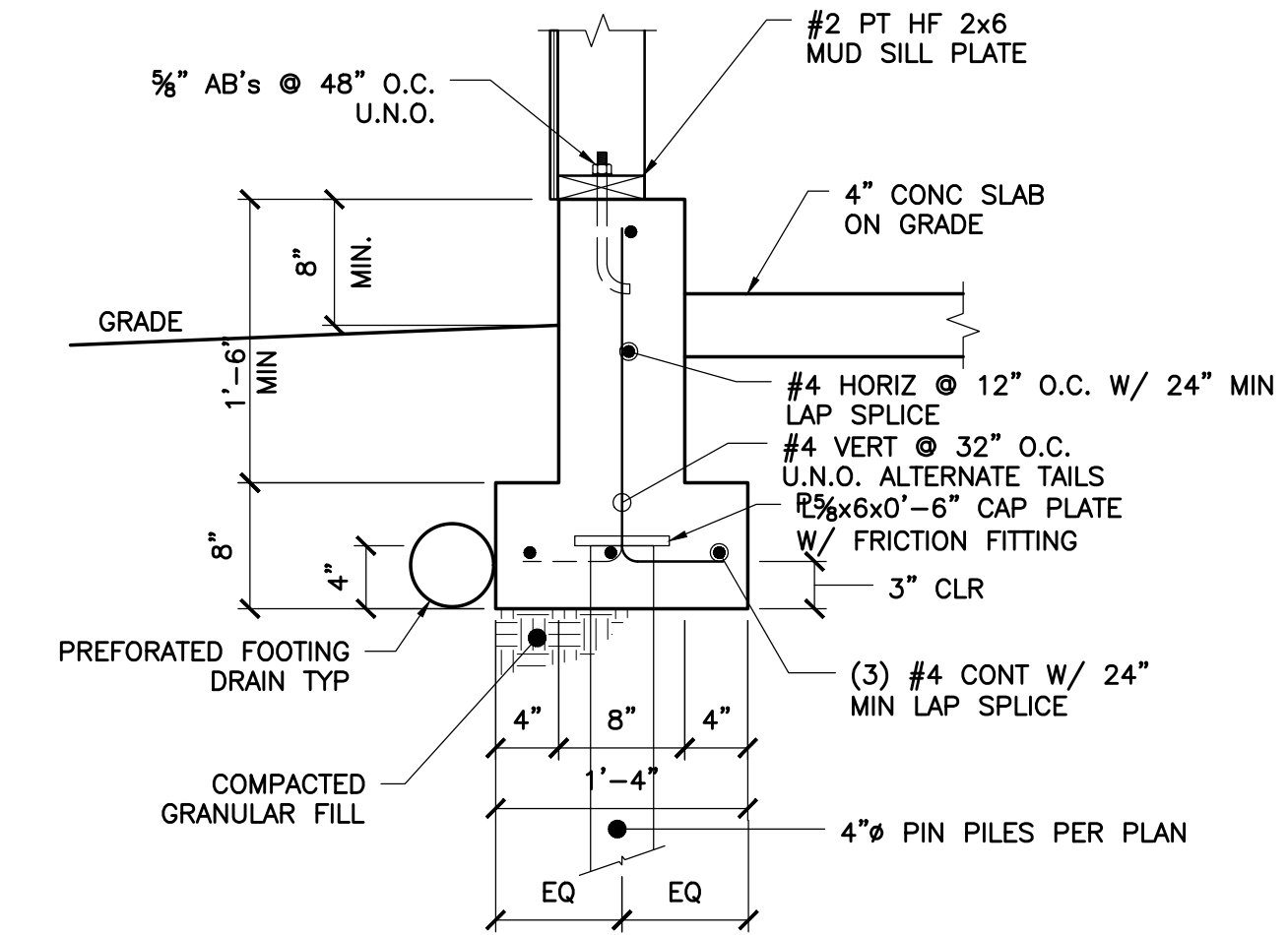
10 STAIR FOOTING SECTION
1" = 1'-0"



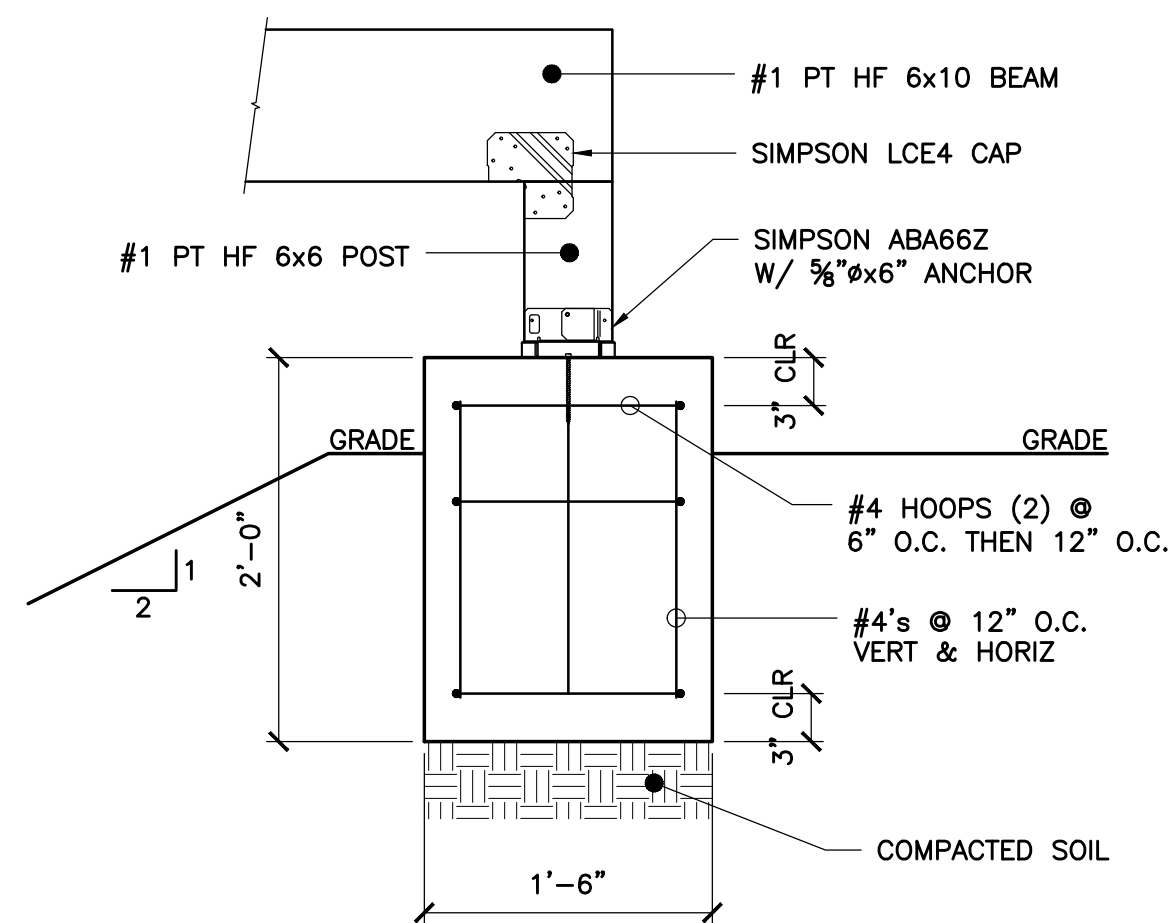
7 CONCRETE FOOTING FOR WOOD COLUMN
1" = 1'-0"



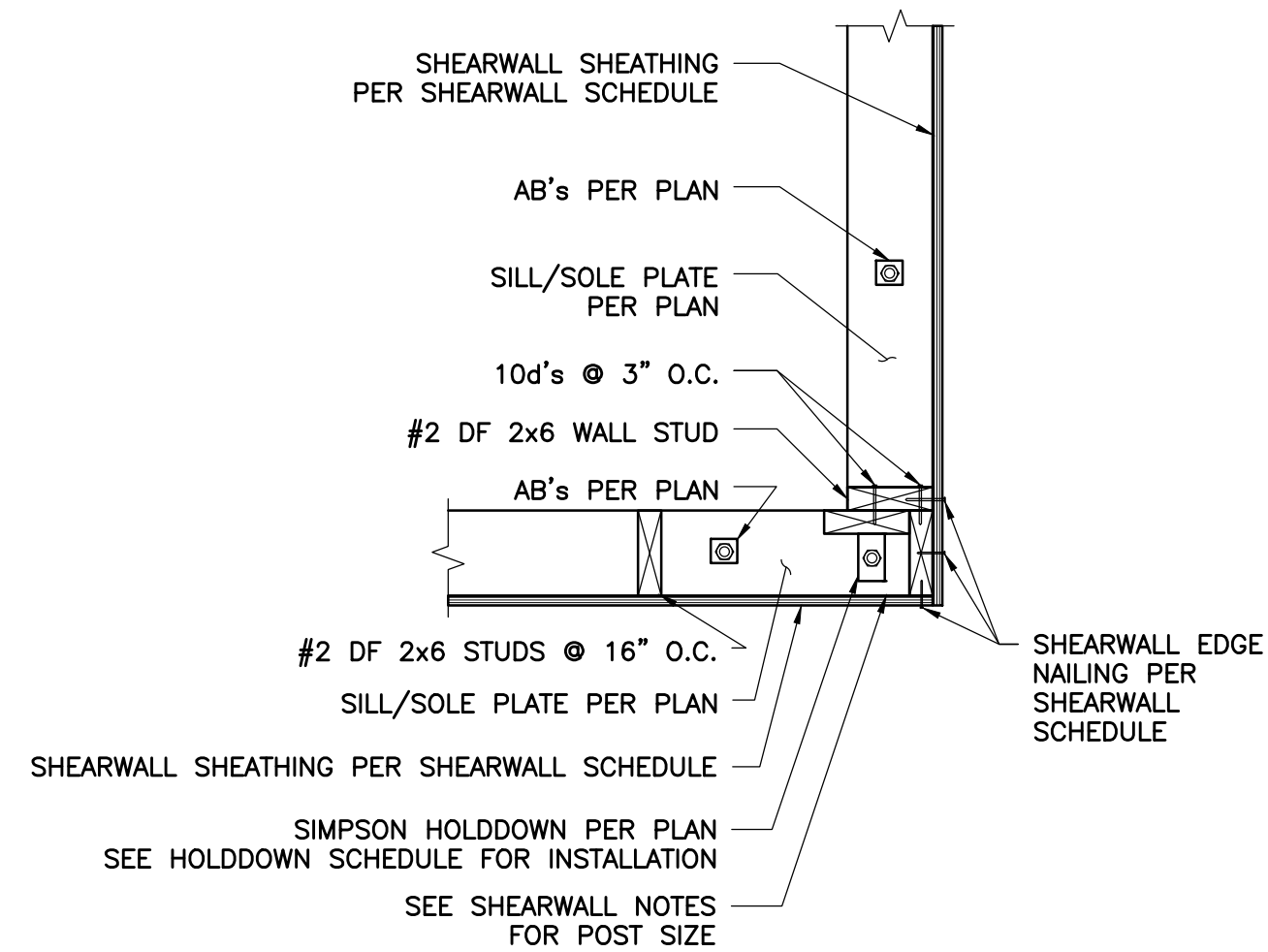
4 INTERIOR STRIP FOOTING
1" = 1'-0"



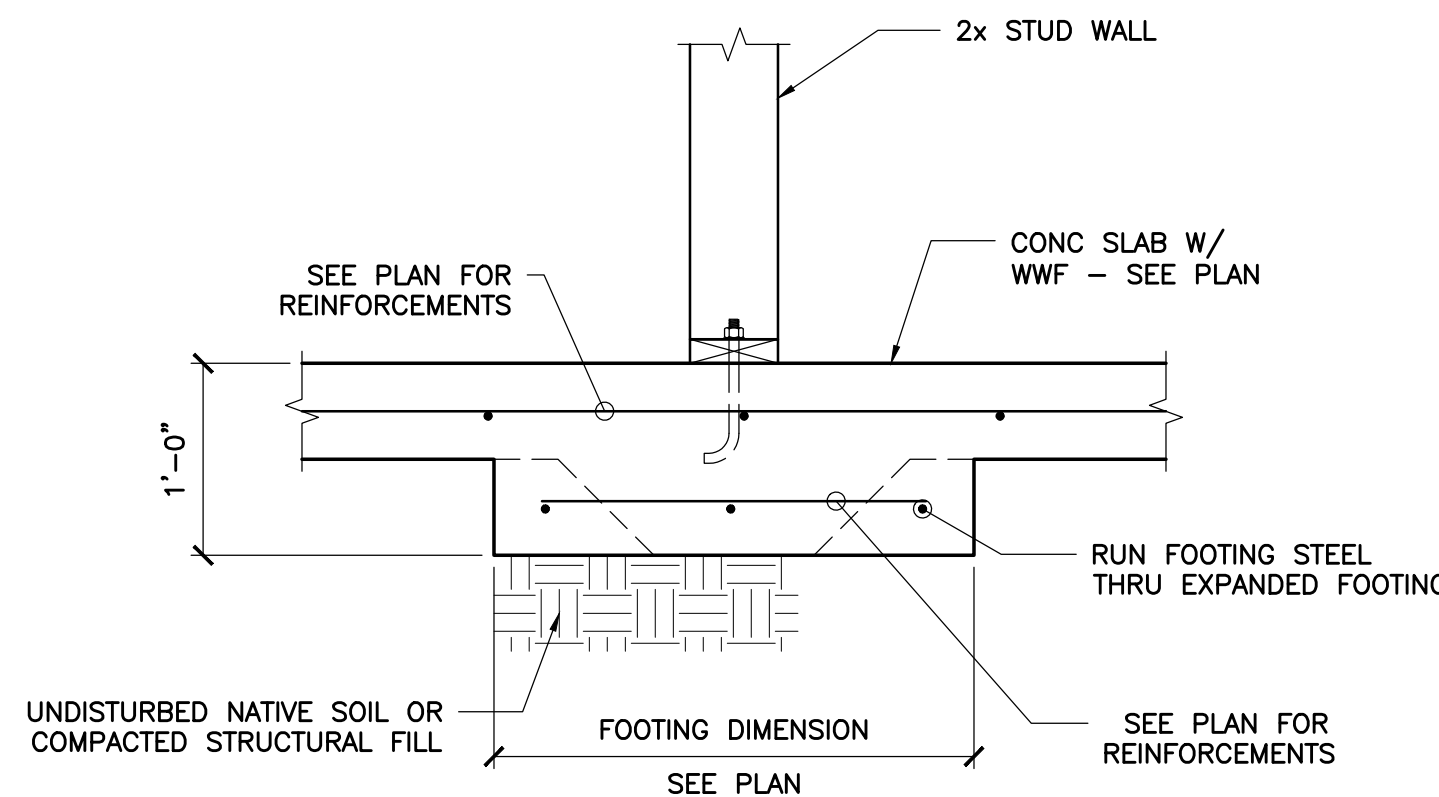
1 TYPICAL CONCRETE FOOTING
1" = 1'-0"



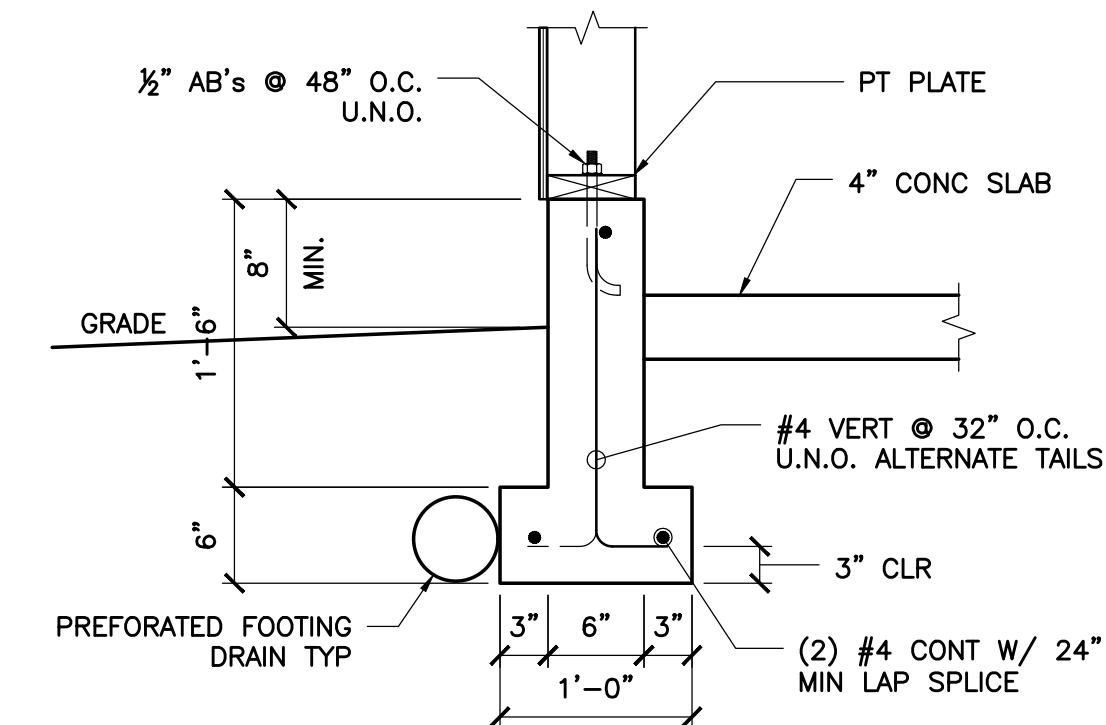
11 DECK POST FOOTING
1" = 1'-0"



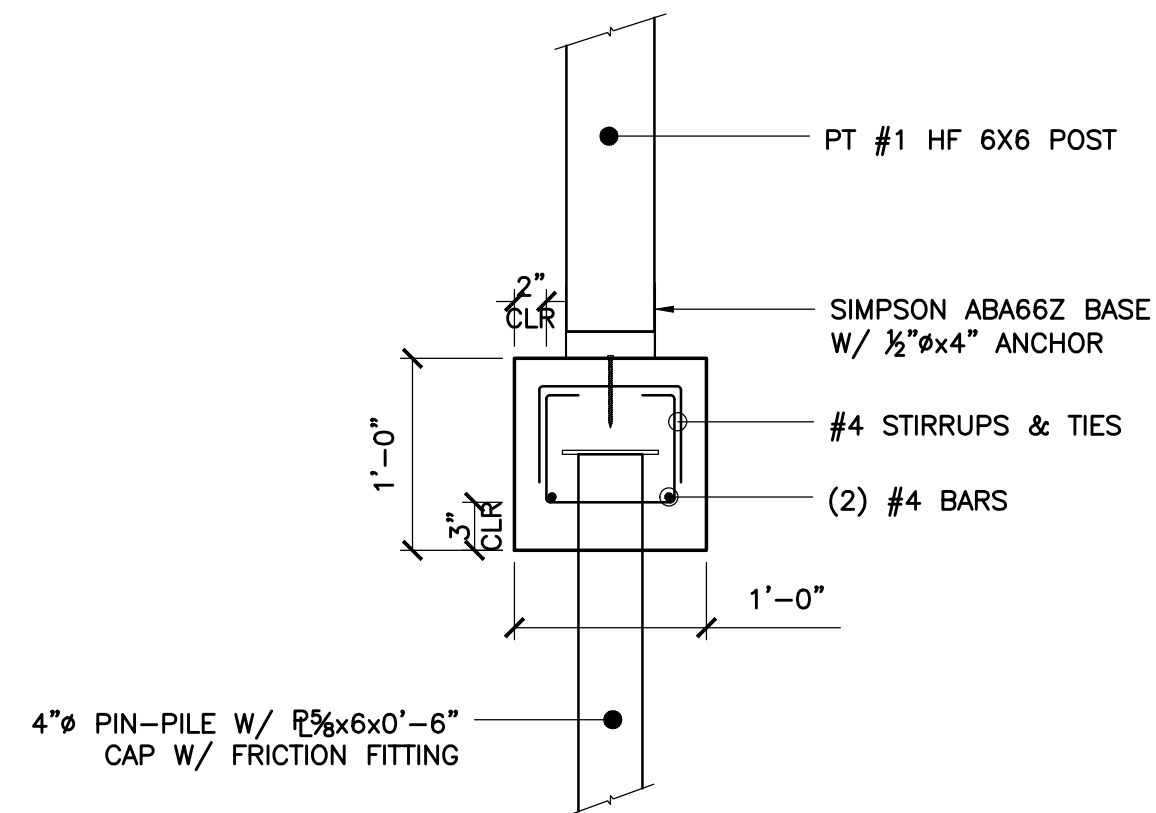
8 SINGLE HOLD DOWN AT CORNER CONNECTION
1" = 1'-0"



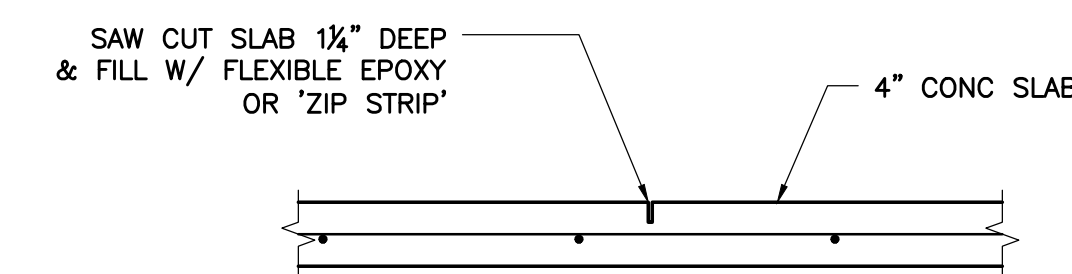
5 THICKENED SLAB AT 2x STUD WALL
1" = 1'-0"



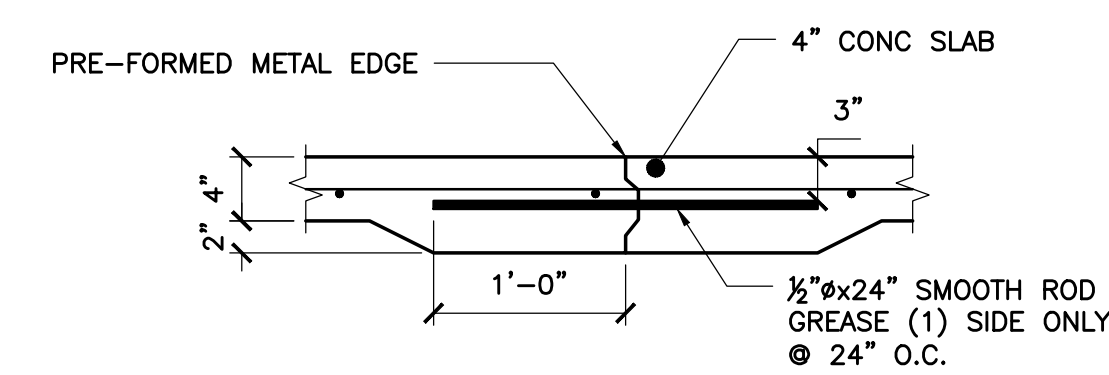
2 TYPICAL CONCRETE FOOTING AT GARAGE
1" = 1'-0"



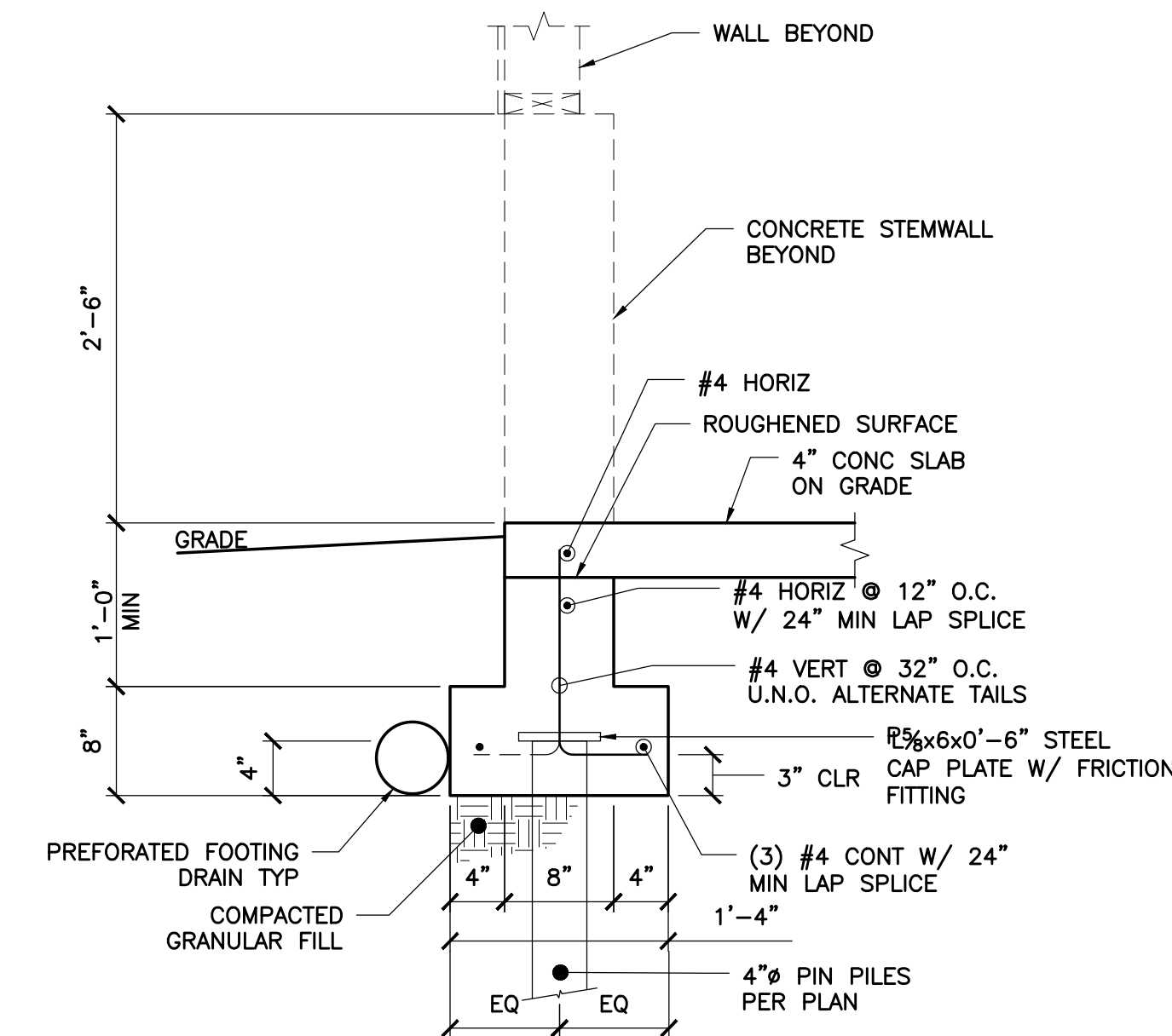
9 POST FOOTINGS WITH PIN-PILES
1" = 1'-0"



6A CRACK CONTROL JOINT
1" = 1'-0"



6B CONSTRUCTION JOINT
1" = 1'-0"



3 TYPICAL CONCRETE FOOTING AT GARAGE DOORS
1" = 1'-0"

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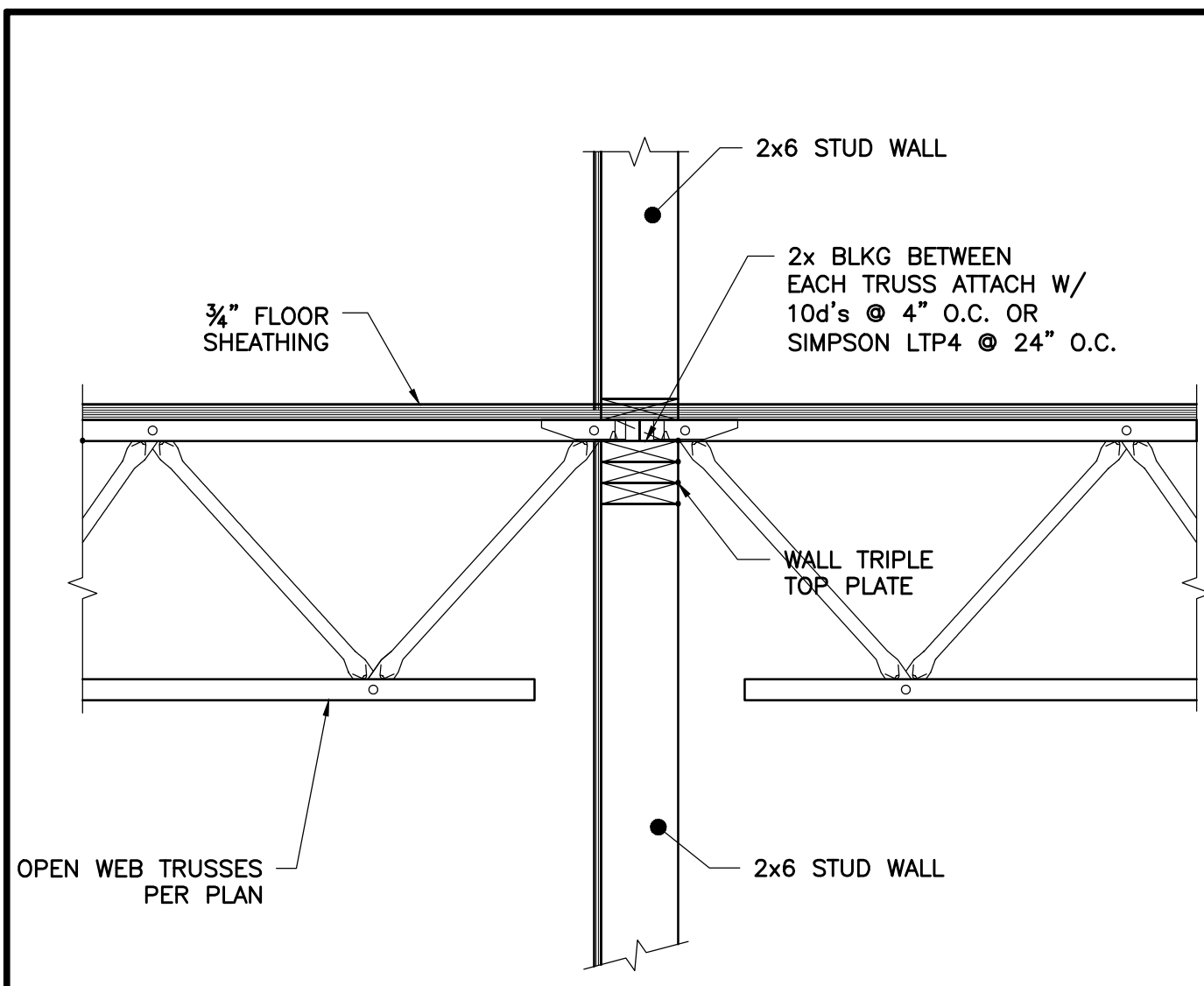
NO.	DATE	REVISION

Sheet Contents
Foundation Details
 Project
Benjamin Altman
 9167 SE 64th ST
 Mercer Island, WA
 Benjamin Altman

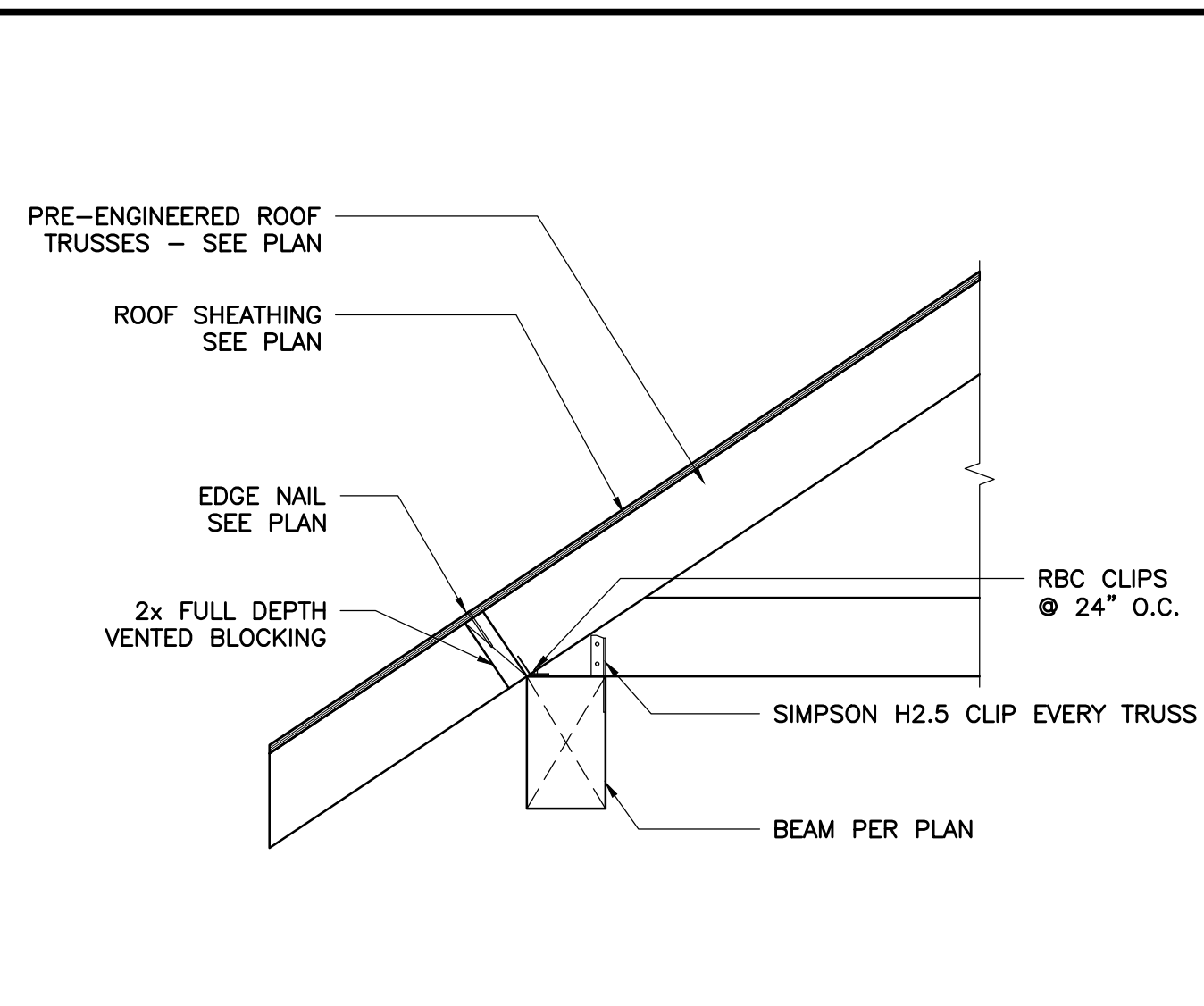
Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20

DESIGNED BY
Jesse M. Chase
 STATE OF WASHINGTON
 47564
 PROFESSIONAL ENGINEER
 06-15-20

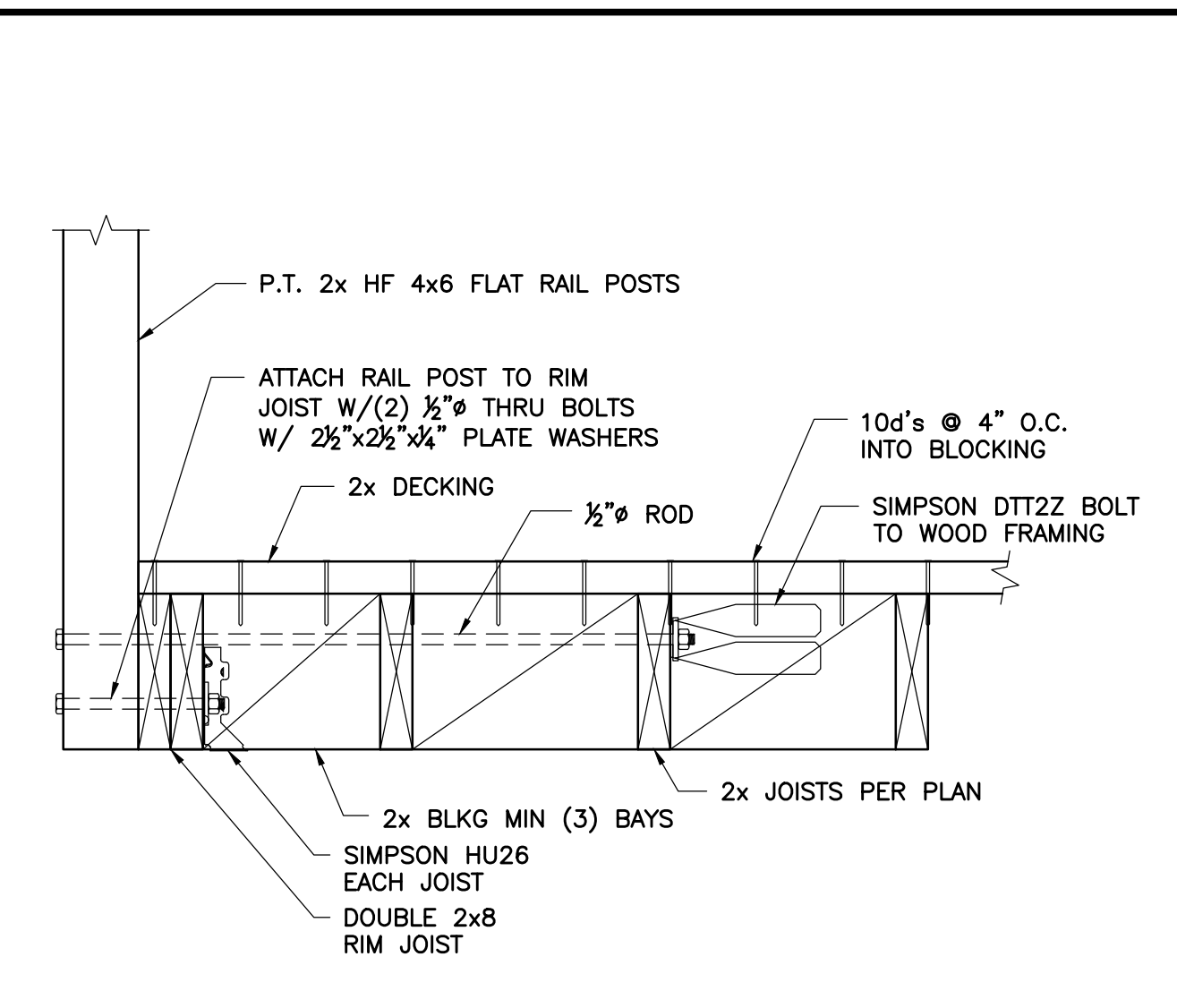
Project Number	2020-0198
Sheet Number	S2.1
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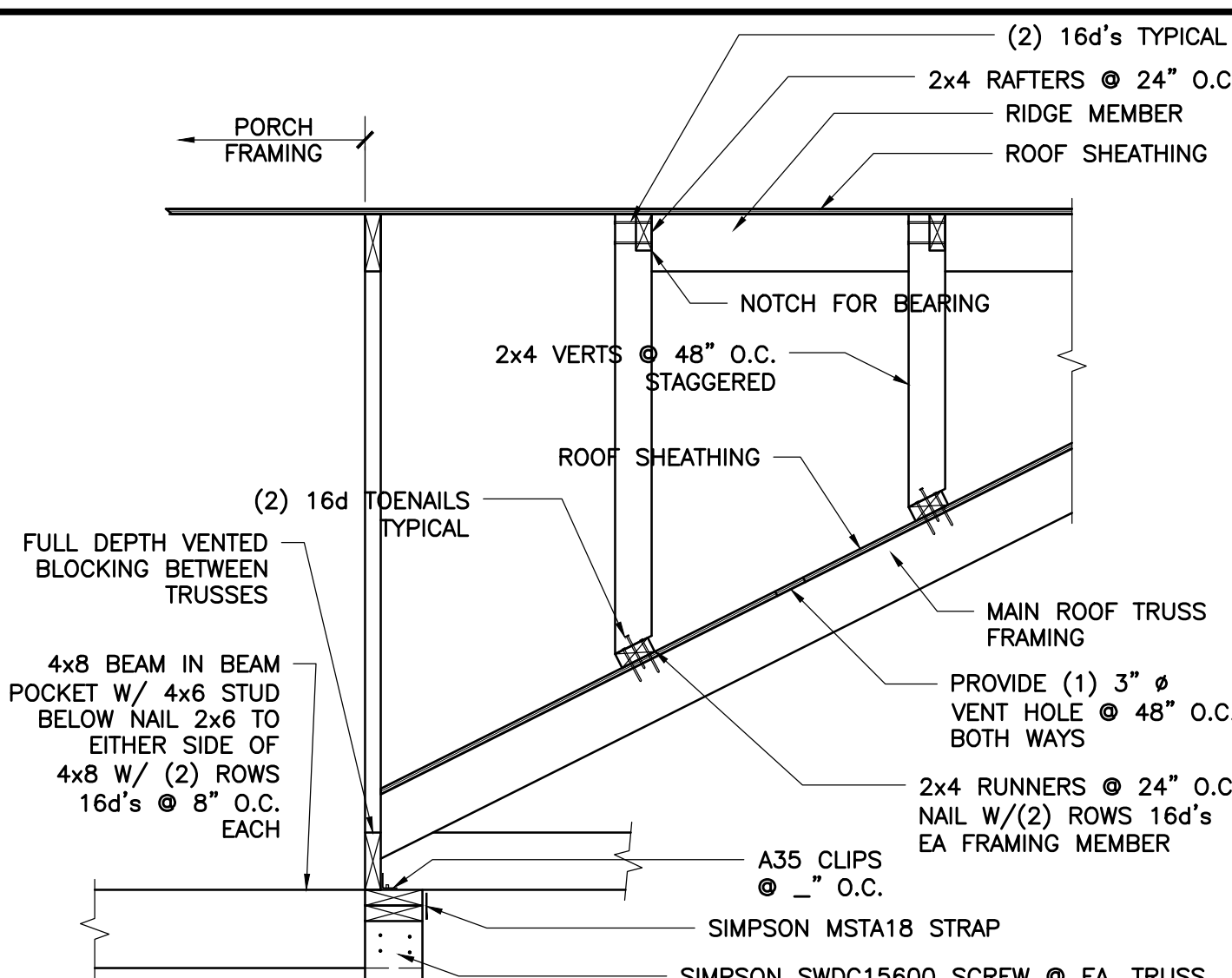
10 TOP CHORD BEARING ON INTERIOR WALL
1" = 1'-0"



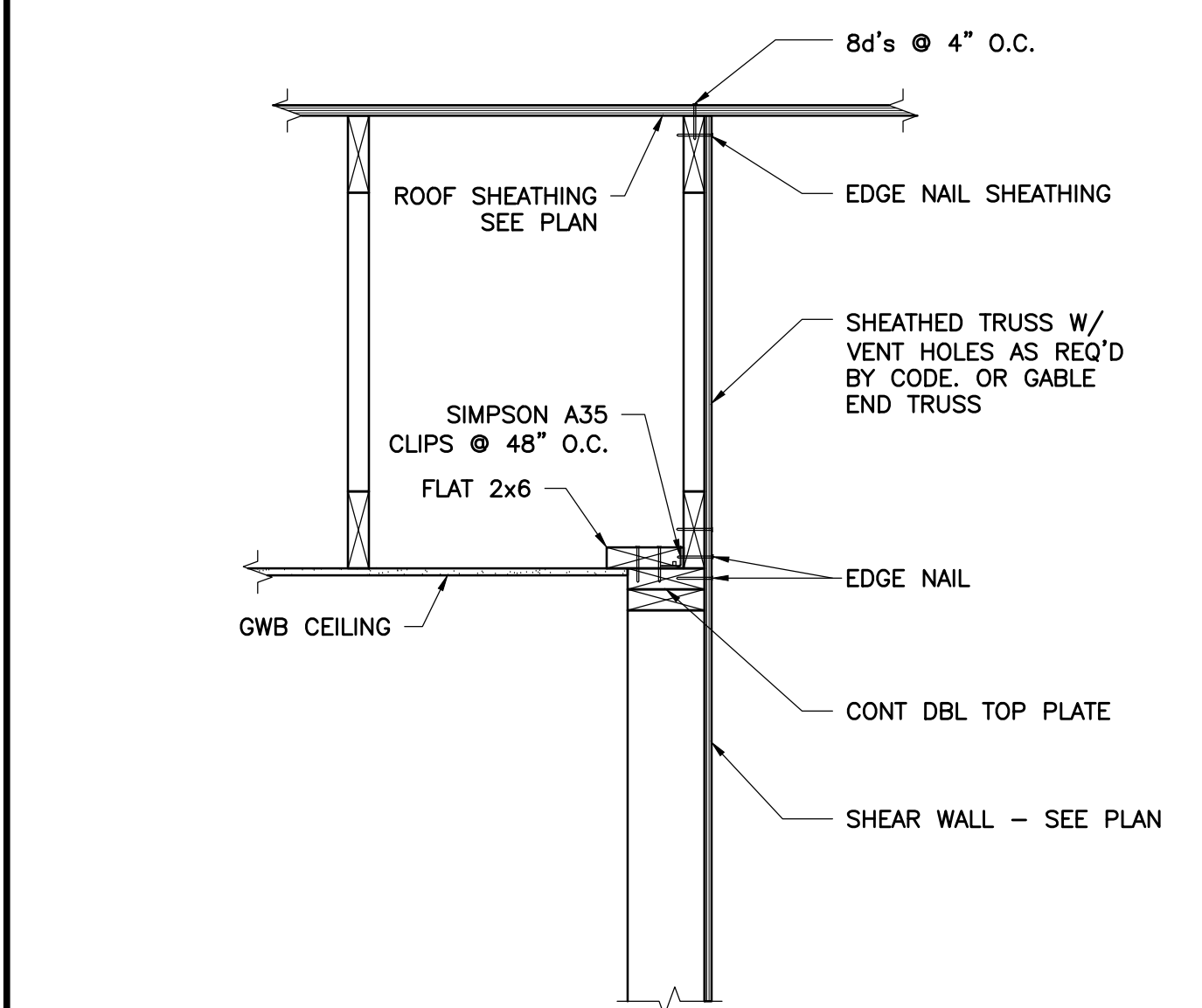
7 TRUSS TO BEAM CONNECTION
1" = 1'-0"



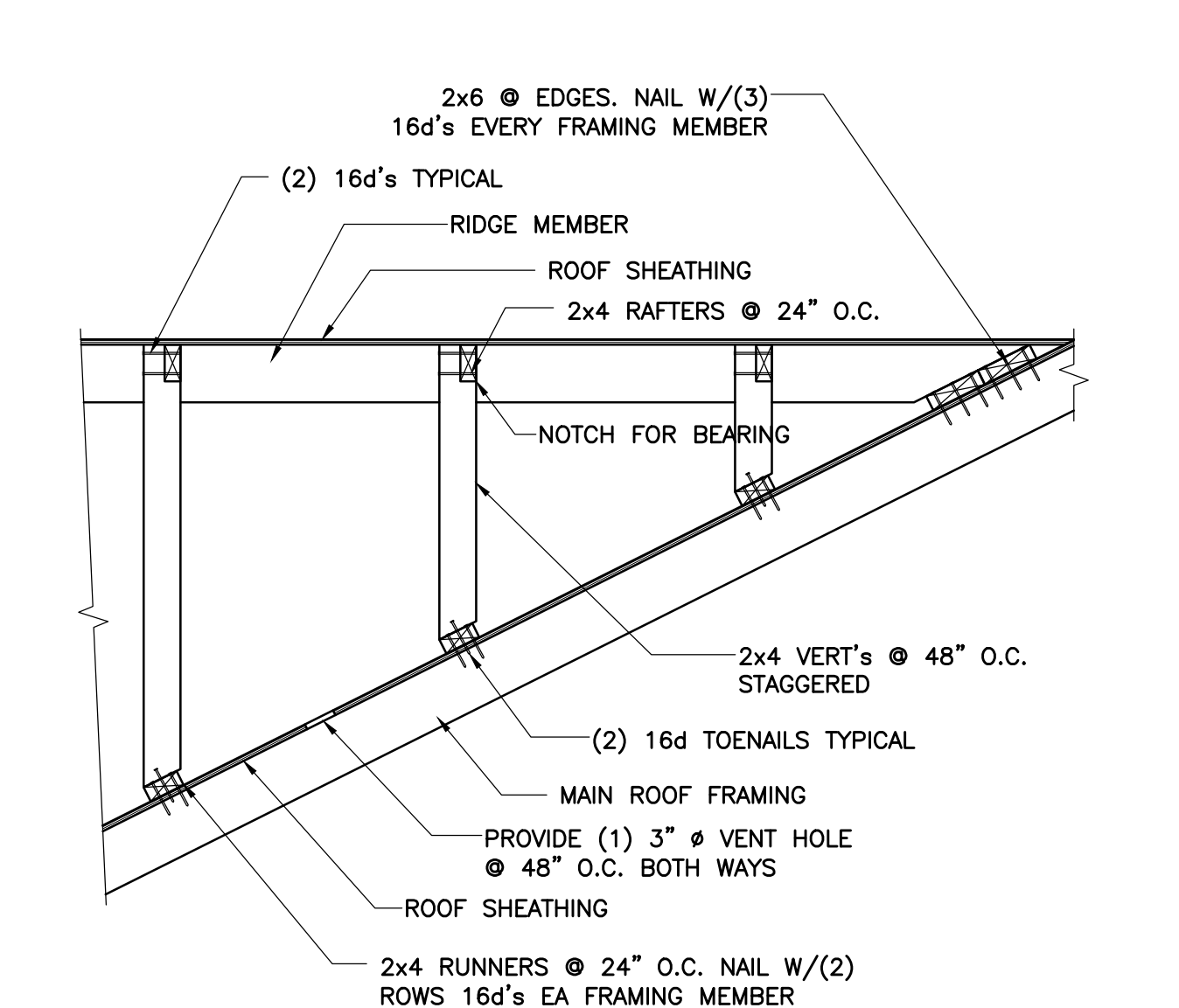
4 TYPICAL GUARDRAIL TO RIM JOIST CONNECTION AT BLKG
1 1/2" = 1'-0"



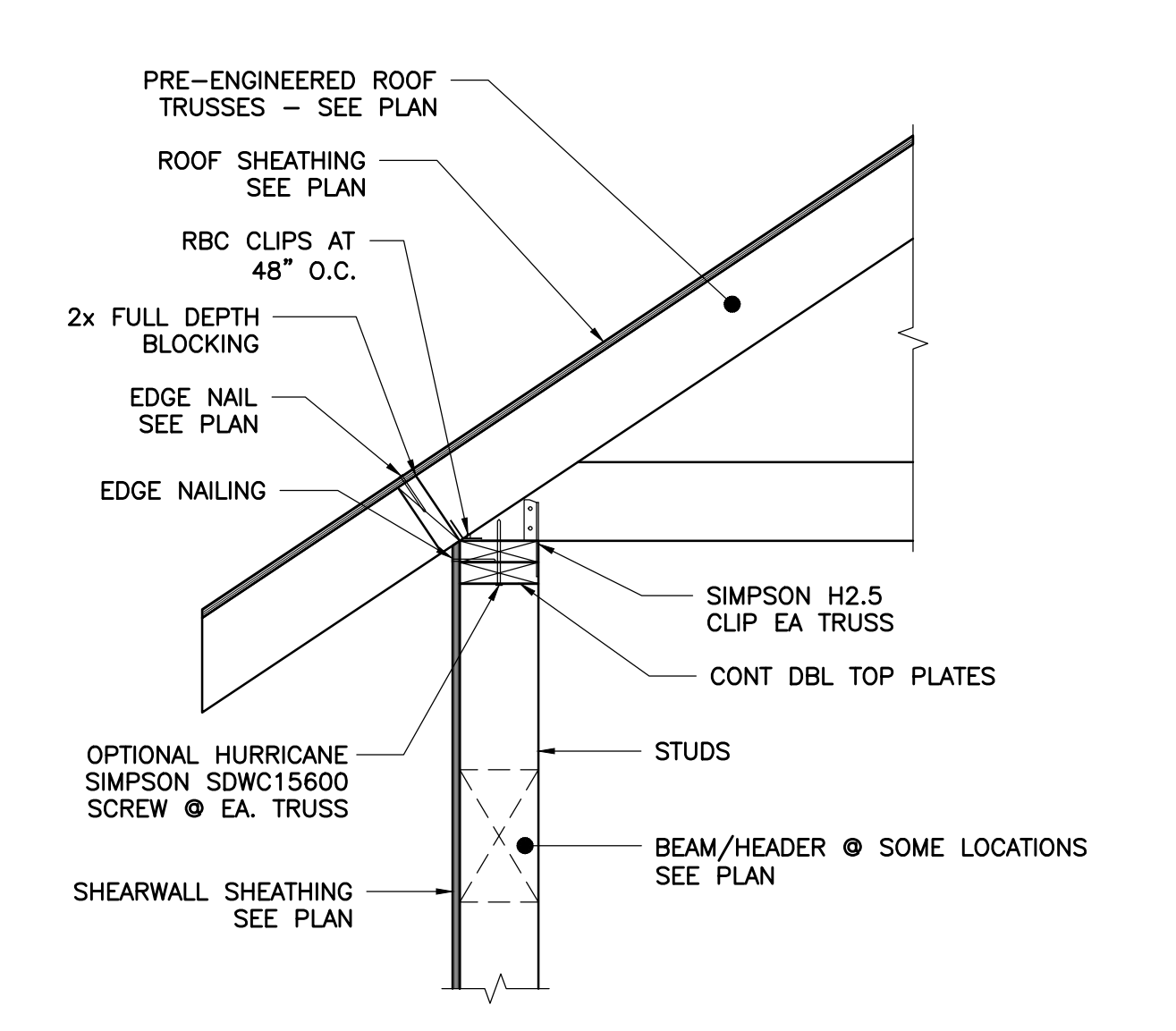
1 PORCH CONNECTION
3/4" = 1'-0"



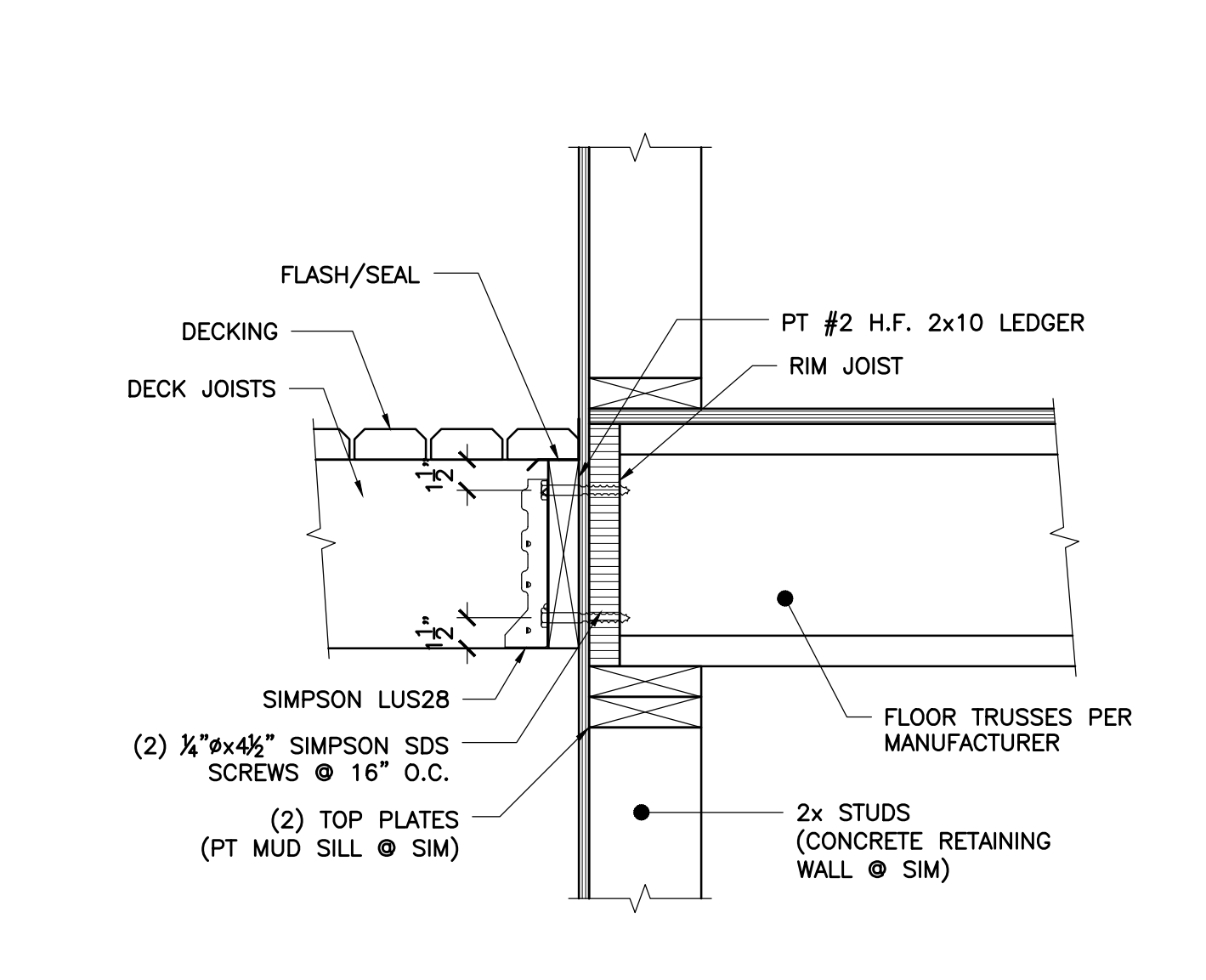
11 TRUSS AND ROOF TO SHEARWALL CONNECTION
1" = 1'-0"



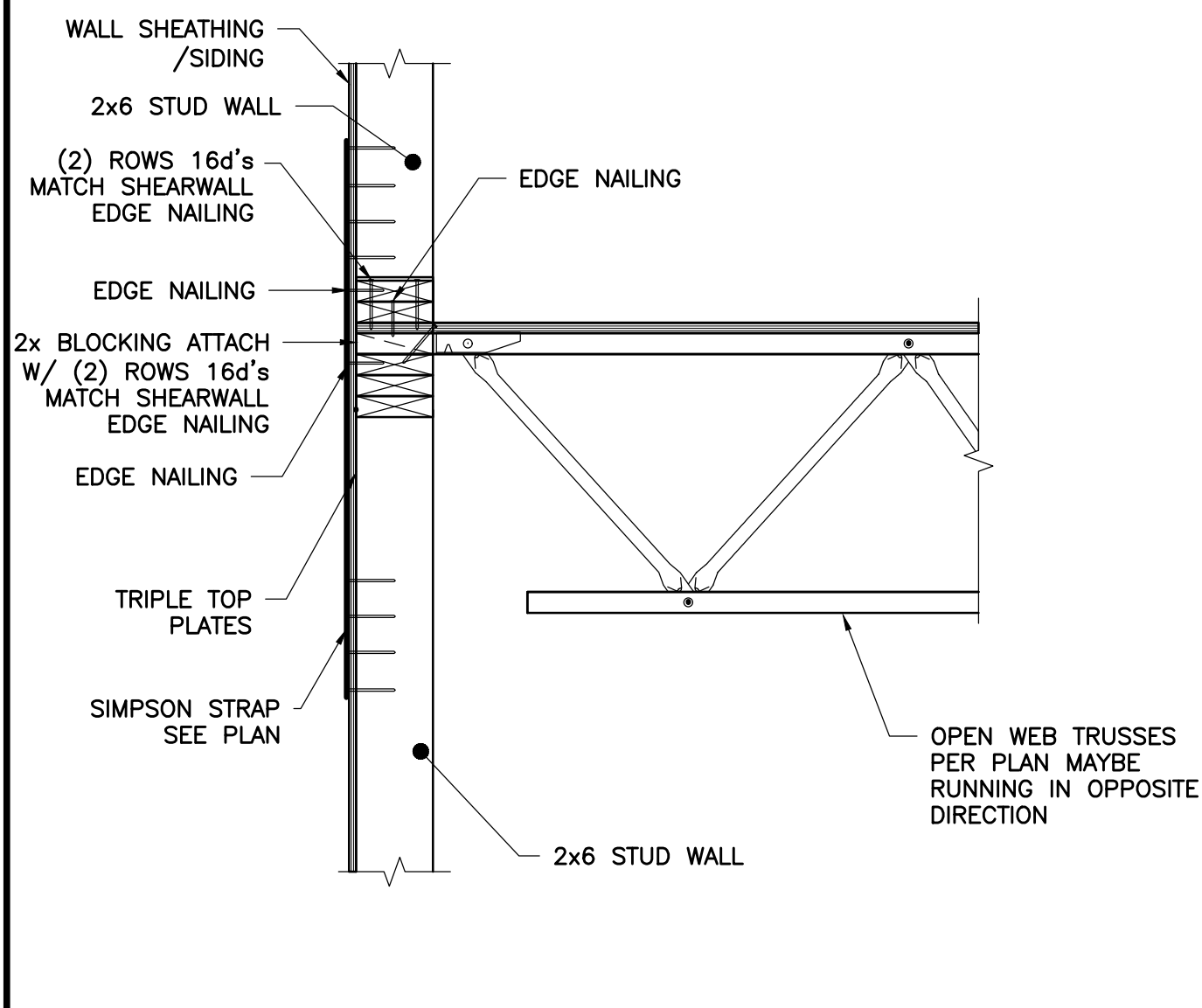
8 OVERFRAMING DETAIL
3/4" = 1'-0"



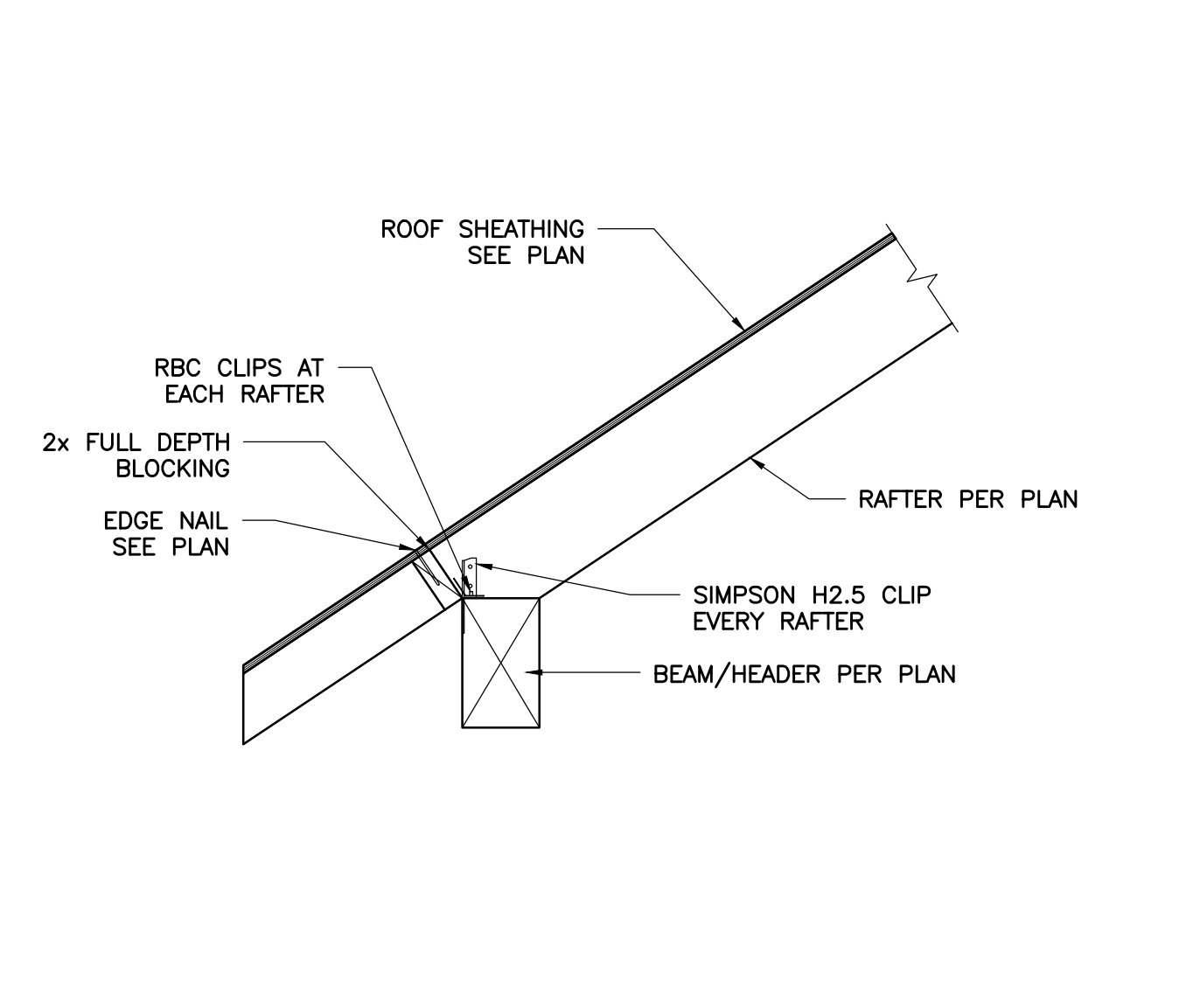
5 TRUSS TO WALL CONNECTION
1" = 1'-0"



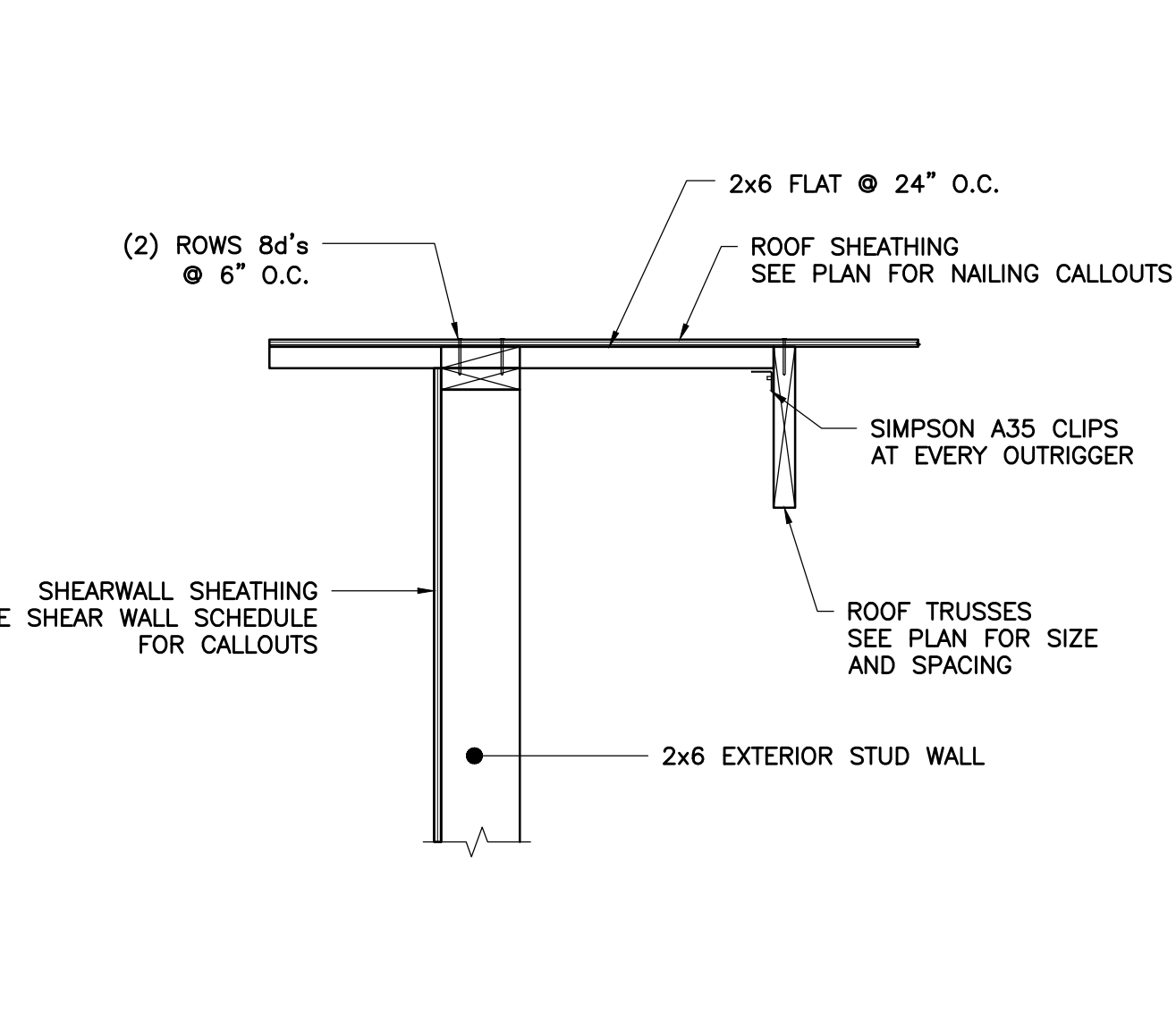
2 LEDGER DETAIL
1 1/2" = 1'-0"



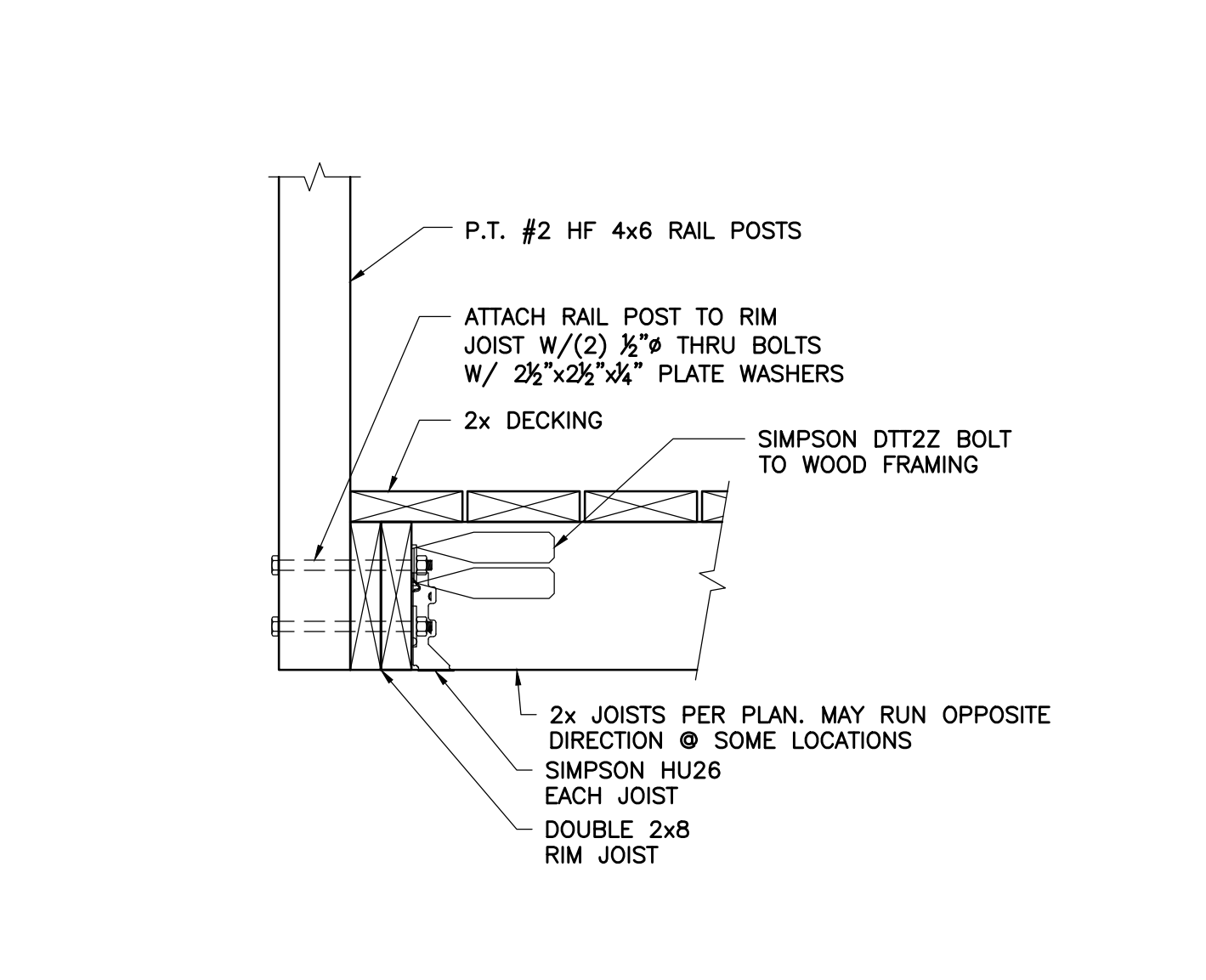
12 TOP CHORD BEARING NO-NOTCH CLIP
1" = 1'-0"



9 RAFTER TO BEAM CONNECTION
1" = 1'-0"



6 ROOF JOIST AND OUTRIGGER TO EXTERIOR WALL CONN
1" = 1'-0"



3 TYPICAL GUARDRAIL TO RIM JOIST CONNECTION
1 1/2" = 1'-0"

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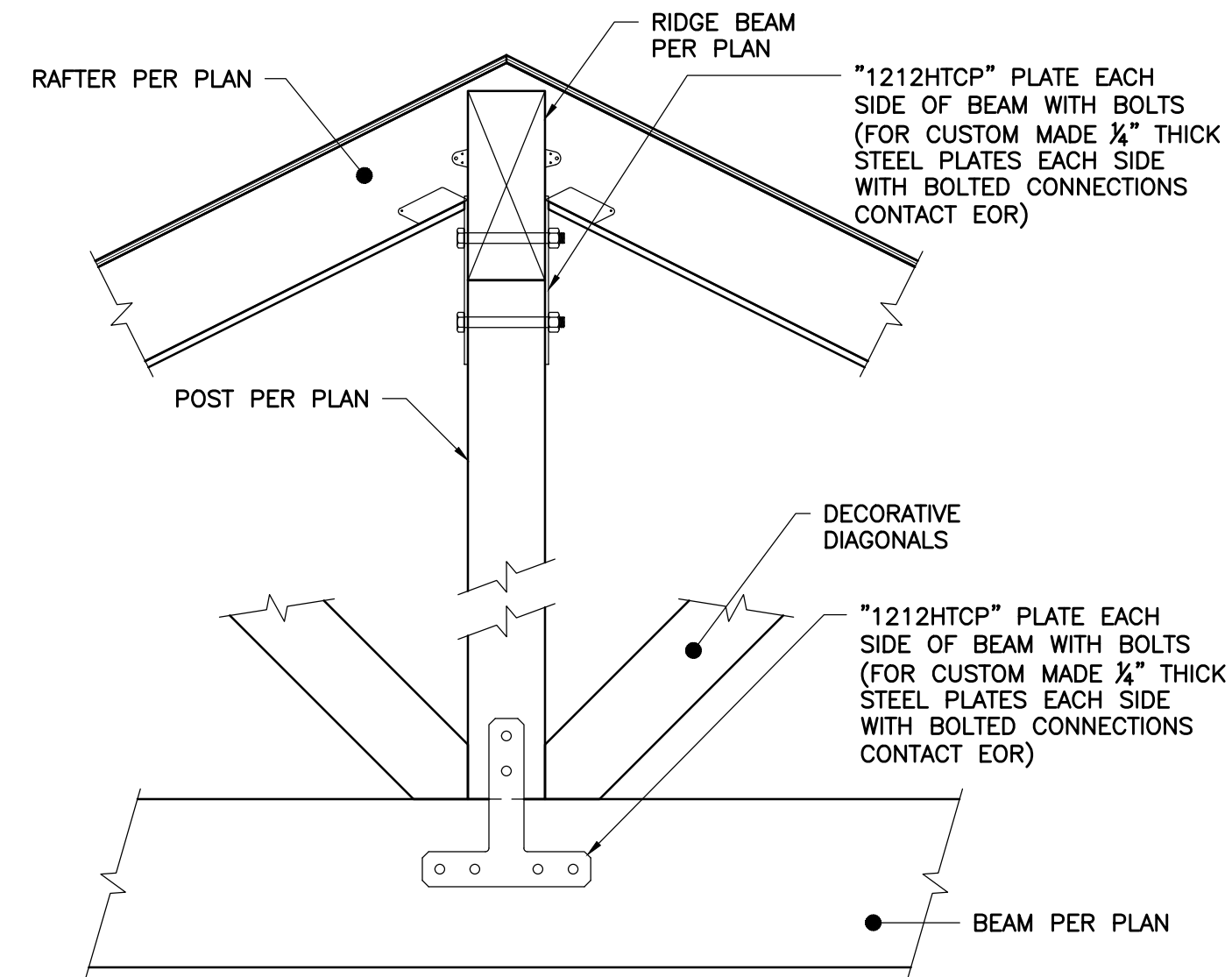
NO.	DATE	REVISION

Sheet Contents
Roof & Floor Framing Details
 Project
Benjamin Altman
 9167 SE 64th ST
 Mercer Island, WA
 Benjamin Altman

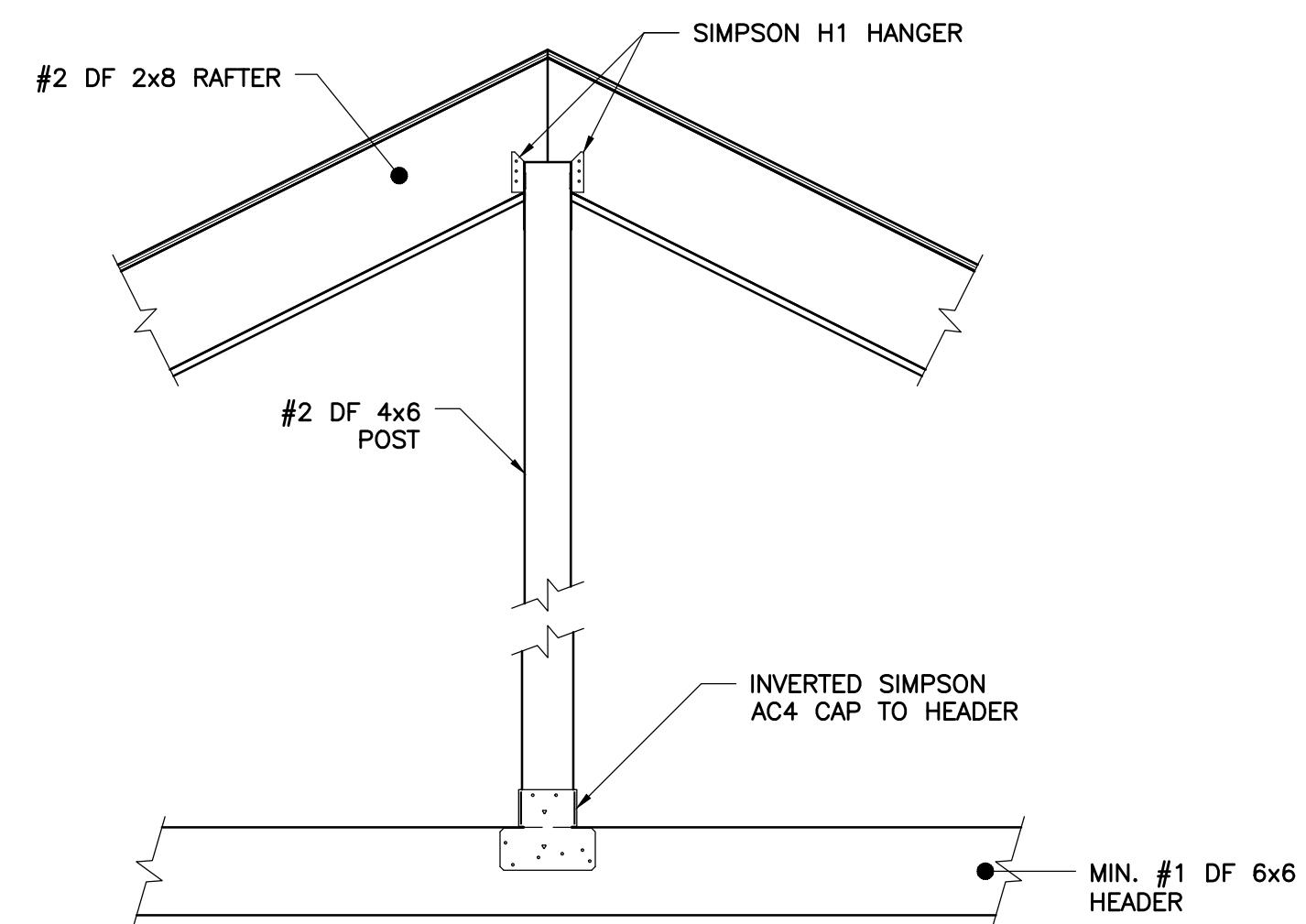
Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20

Professional Engineer Seal for Jesse M. Chase, State of Washington, License No. 47564, Structural Engineering.

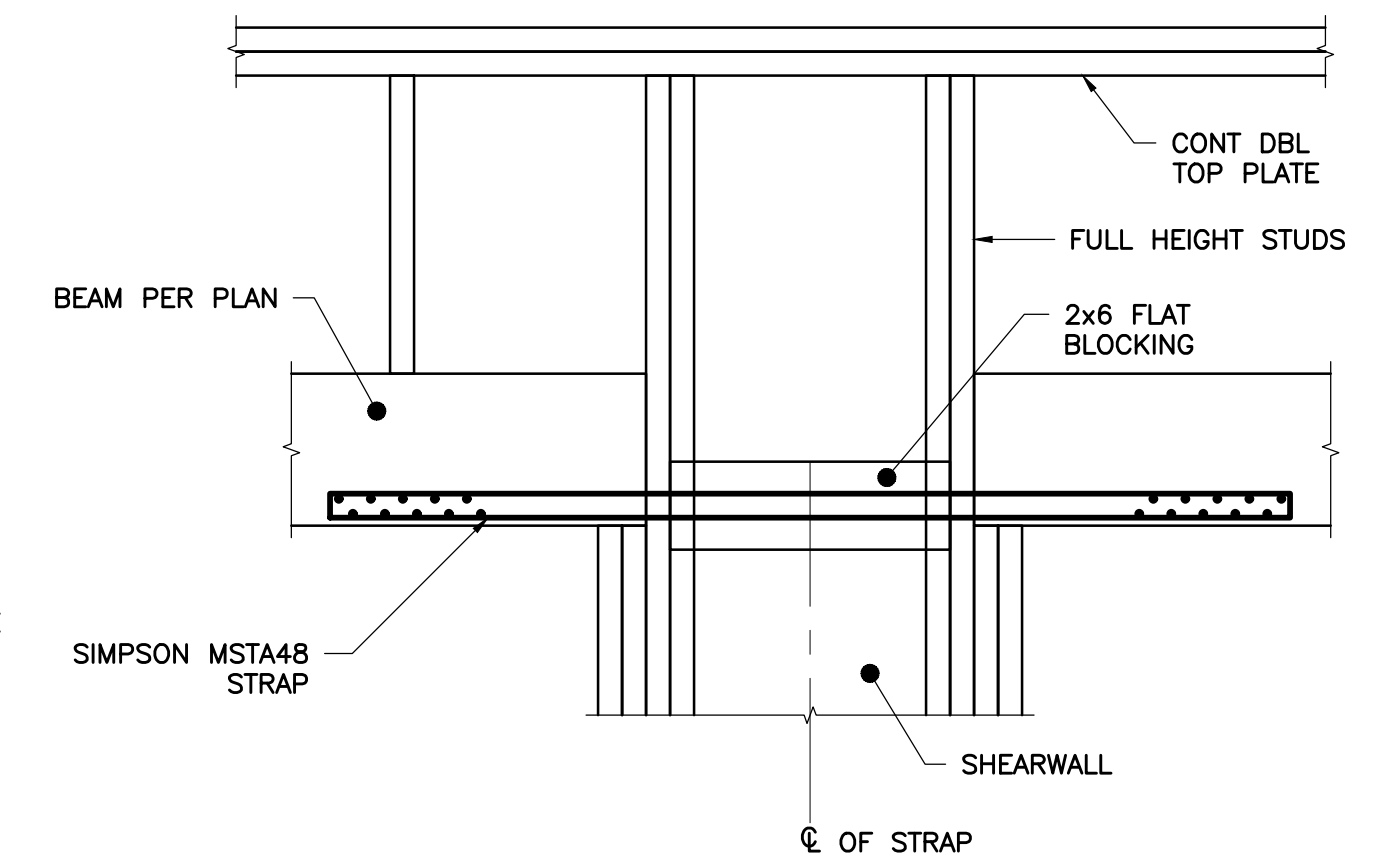
Project Number	2020-0198
Sheet Number	S3.1
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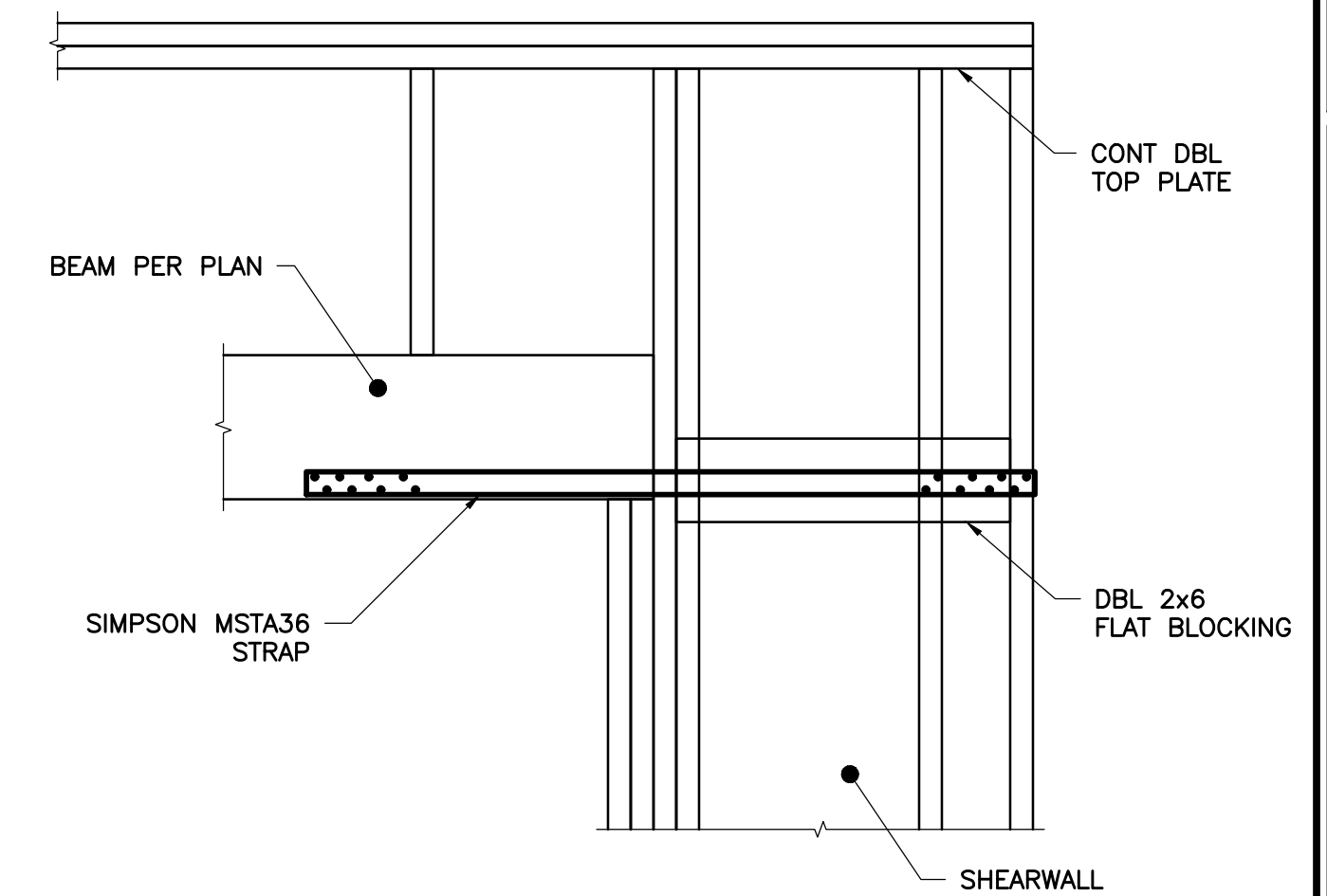
4 FRAMING DETAIL AT GABLE END
 1" = 1'-0"



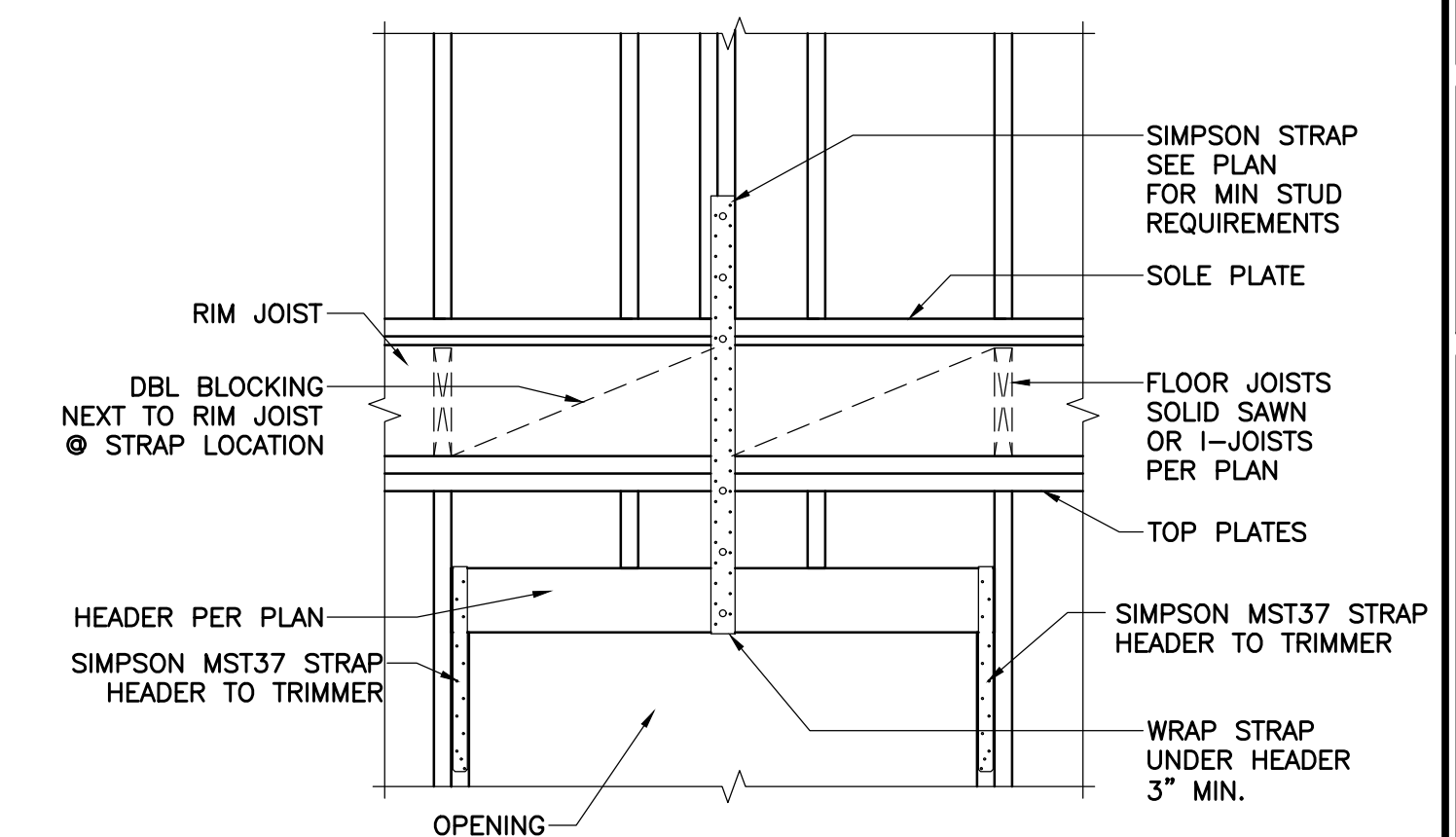
5 FRAMING DETAIL AT GABLE END WINDOWS
 1" = 1'-0"



1 BEAM TO WALL STRAP DETAIL @ GARAGE DOORS
 1" = 1'-0"



2 GARAGE BEAM TO WALL STRAP DETAIL @ WALL CORNER
 1" = 1'-0"



DESIGNER NOTE:
 VERIFY IF TRIMMER STRAPS NEED TO BE BENT OVER THE TOP OF HEADER, AND IF STRAPS CAN BE ON ONE SIDE OR BOTH SIDES OF HEADER

ALL STRAPS TO HAVE ALL HOLES FILLED WITH NAILS

3 STRAP TO HEADER CONNECTION
 3/4" = 1'-0"

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NO.	DATE	REVISION

Sheet Contents
Roof & Shearwall Details
 Project
Benjamin Altman
 9167 SE 64th ST
 Mercer Island, WA
 Benjamin Altman

Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20

Professional Engineer Seal for Jesse M. Chase, State of Washington, License No. 47564, dated 06-15-20.

Project Number	2020-0198
Sheet Number	S4.1
	7 of 9



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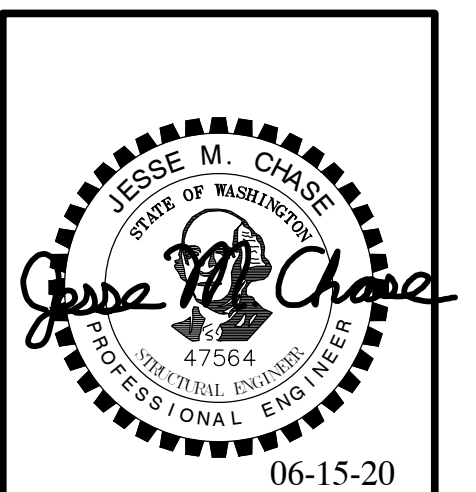
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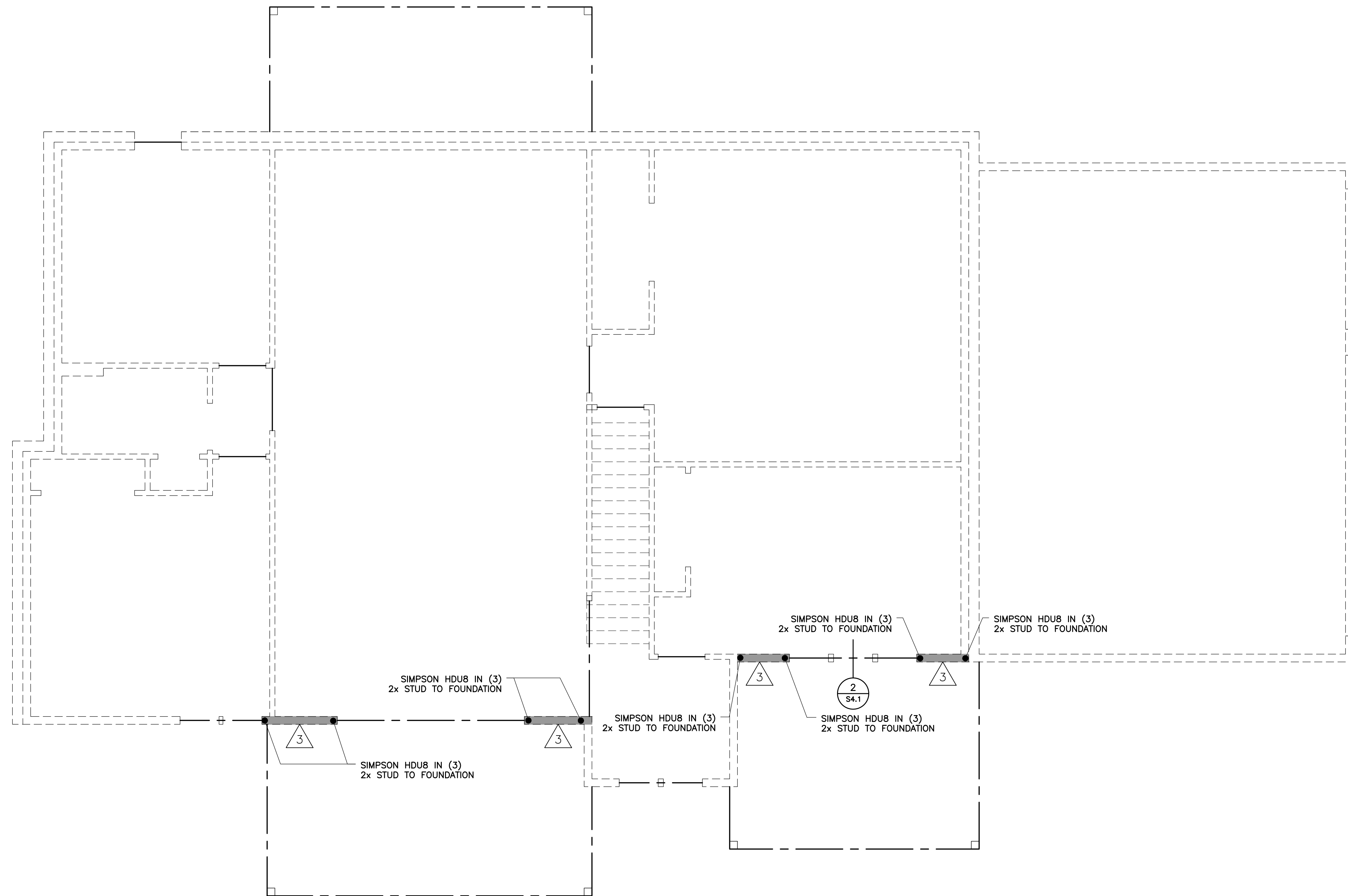
REV	REVISION	DATE

Sheet Contents	Lower Floor Shearwall Plan
Project	Benjamin Altman
	9167 SE 64th ST Mercer Island, WA
	Benjamin Altman

Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20



Project Number	2020-0198
Sheet Number	S5.0
	8 of 9



△ - TYPICAL SHEARWALL CALLOUT
SEE SHEARWALL SCHEDULE

■ - SHADING INDICATES
SHEARWALLS

LOWER FLOOR SHEARWALL PLAN
1/4"=1'-0"



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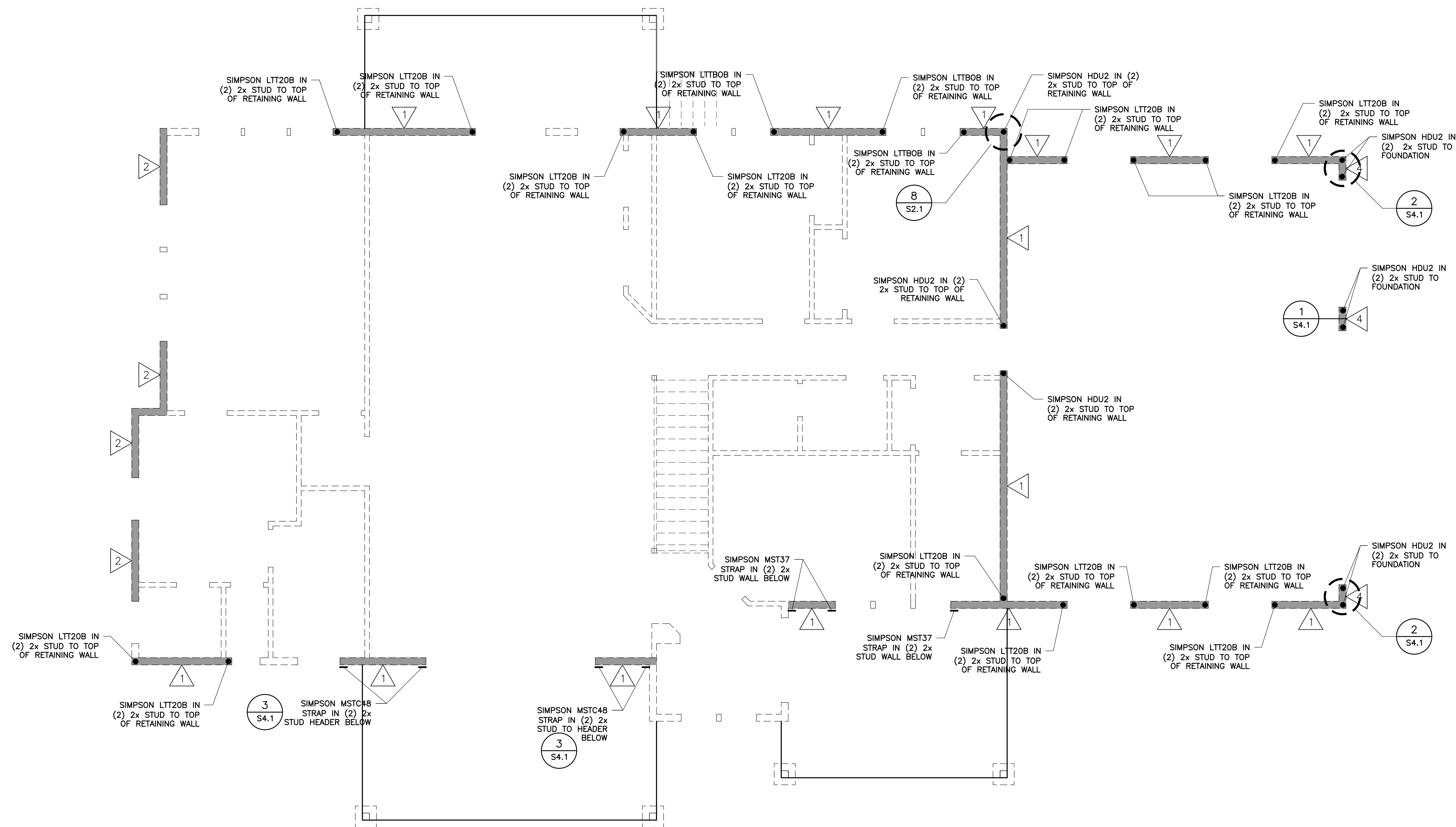
REV	REVISION	DATE

Sheet Contents	Upper Floor Shearwall Plan
Project	Benjamin Altman
	9167 SE 64th ST Mercer Island, WA
	Benjamin Altman

Designed By	JAG
Drawn By	CLH
Checked By	JMC
Date	06-15-20



Project Number	2020-0198
Sheet Number	S5.1
	9 of 9



MAIN FLOOR SHEARWALL PLAN
1/4"=1'-0"

△ - TYPICAL SHEARWALL CALLOUT
SEE SHEARWALL SCHEDULE

■ - SHADING INDICATES
SHEARWALLS