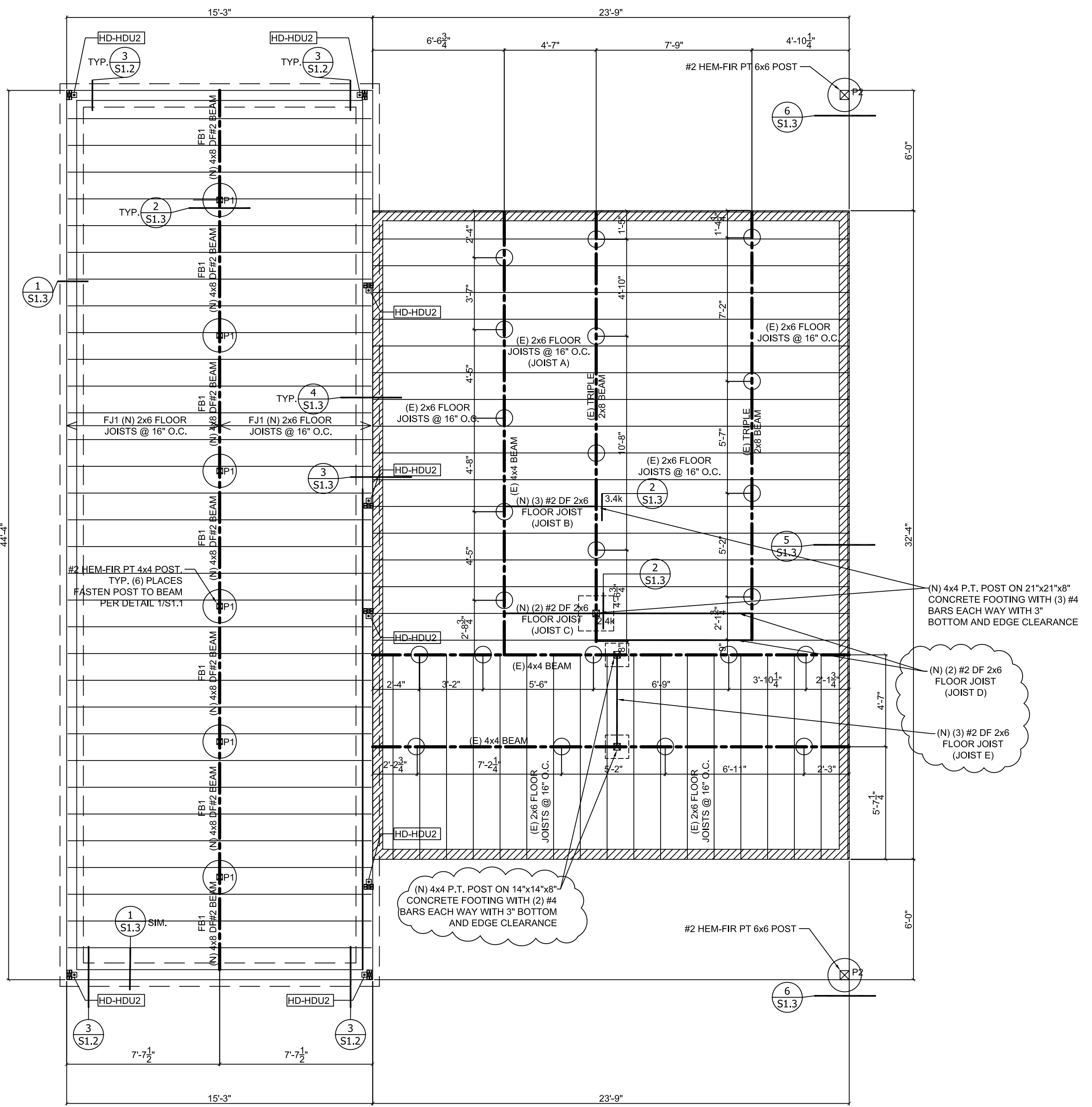


**1 FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"



**2 FLOOR FRAMING PLAN**  
SCALE: 1/4" = 1'-0"

LEGEND	
S6	SHEAR WALL AND FASTENING PER SCHEDULE ON TABLE 1/S1.1
HD-XXXX	HOLD-DOWN BRACKET AND ANCHOR PER TABLE 1/S1.2
FTAO-CSXX	FORCE TRANSFER STRAPPING AROUND OPENING PER DETAIL 1/S1.3
FF-CSXX	FLOOR-TO-FLOOR STRAP PER TABLE 5/S1.1
DS-CSXX	DRAG STRUT STRAP PER DETAIL 3/S1.5
TS-CSXX	TENSION STRAP PER DETAIL 1/S1.6
■	SHEARWALL
▨	(E) UNREINFORCED 6" CMU FOUNDATION WALL

**PLAN NOTES:**

<b>A</b>	20"Ø SONOTUBE FOOTING WITH (2) #4 EACH WAY
<b>B</b>	EXISTING CONCRETE FOOTING
<b>C</b>	EXISTING UNGROUTED CMU FOUNDATION WALL
<b>D</b>	NEW 6" CONCRETE STEM WALL W/ 1'-2" W x 8" D FOOTING. PROVIDE #4 @ 12" O.C., E.W. @ WALL AND (2) #4 CONTINUOUS AT FOOTING
<b>E</b>	ALL HEADERS TO BE (2) 2x8 U.N.O.

- GENERAL NOTES**
- ALL TOP PLATE SPLICES SHALL BE PER DETAIL 10/S1.1
  - REFER TO SHEET S1.0 FOR GENERAL CONSTRUCTION NOTES AND FASTENING SCHEDULE
  - SPECIFICATIONS ON PLANS TAKE PRECEDENCE OVER GENERAL NOTES ON SHEET S1.0
  - FLOOR SHEATHING AND ROOF SHEATHING PER "WOOD SHEATHING" NOTES ON SHEET S1.0, UNLESS NOTED OTHERWISE

**VISTA**  
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CLIENT: NEW LEGACY CONSTRUCTION, LLC  
JOB TITLE: SHMELEV RESIDENCE  
5907 SE LAMBERT STREET  
LOCATION: PORTLAND, OREGON 97206

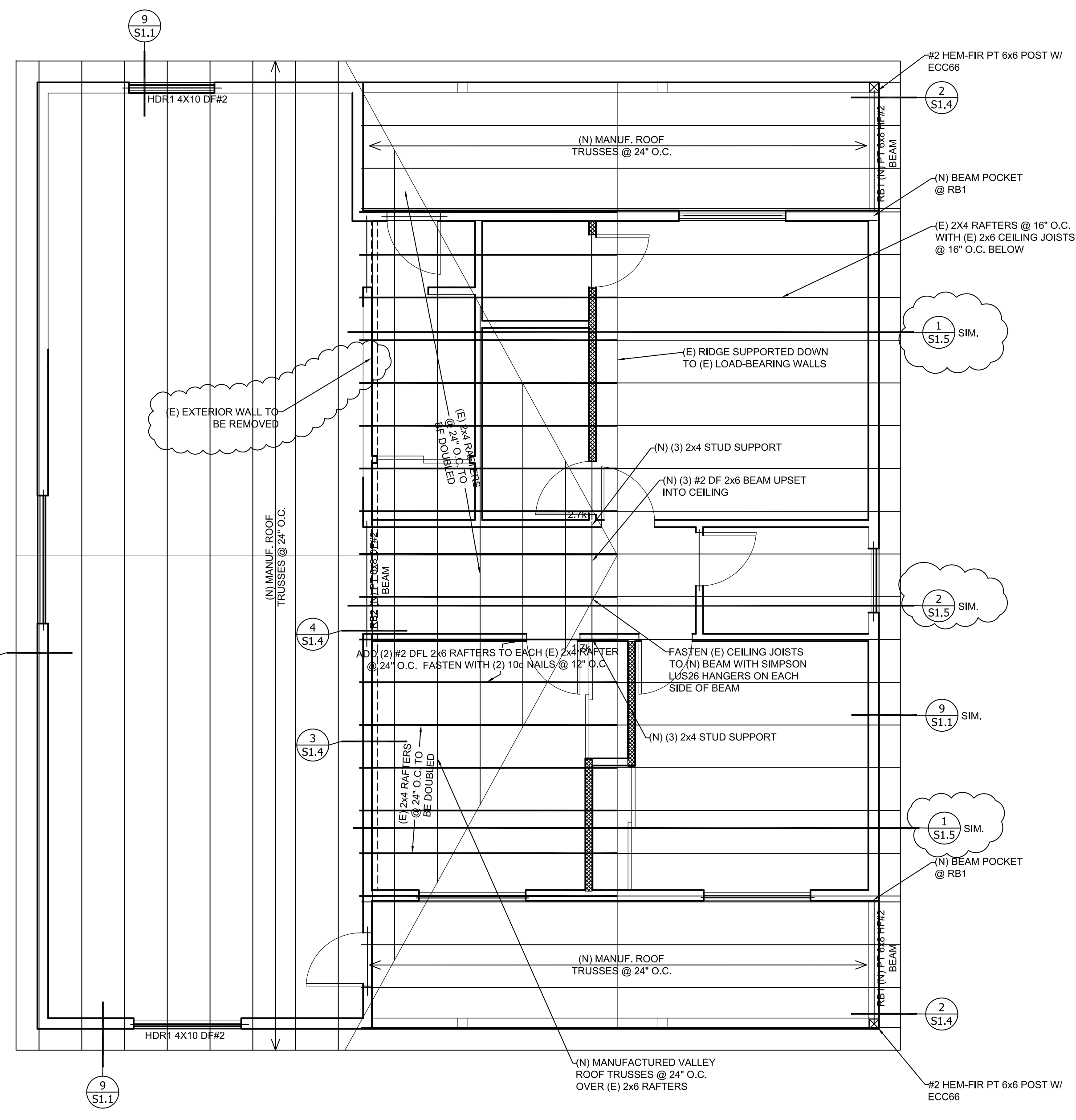
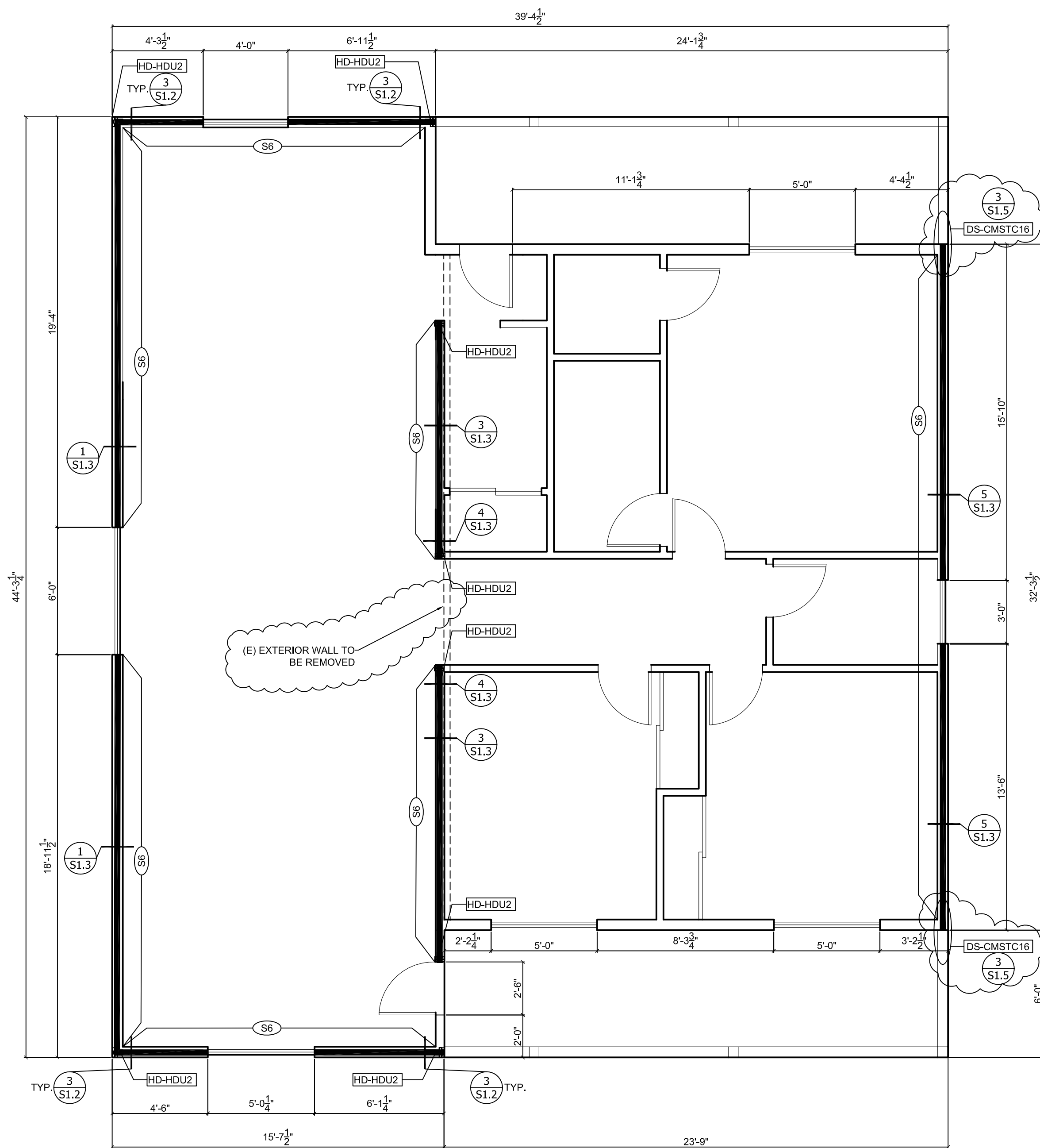
REGISTERED PROFESSIONAL ENGINEER  
68275  
OREGON  
JAN 31, 2011  
DENNIS MICHAEL HEER  
2-1-2017  
EXPIRES: 6/30/2017

NO.	DATE	REVISION	BY
1	12-19-16	CITY REVIEW	DMH

DRAWING TITLE  
**LATERAL DESIGN PLANS**

ENGINEER: DMH CHECKED BY: DMH  
JOB NO. 1539 DRAWN BY: DMH  
DATE: 2-1-17  
SHEET NUMBER

**S0.1**



LEGEND

S6	SHEAR WALL AND FASTENING PER SCHEDULE ON TABLE 1/S1.1
HD-XXXX	HOLD-DOWN BRACKET AND ANCHOR PER TABLE 1/S1.2
FTAO-CSXX	FORCE TRANSFER STRAPPING AROUND OPENING PER DETAIL 1/S1.3
FF-CSXX	FLOOR-TO-FLOOR STRAP PER TABLE 5/S1.1
DS-CSXX	DRAG STRUT STRAP PER DETAIL 3/S1.5
TS-CSXX	TENSION STRAP PER DETAIL 1/S1.6
[Solid Black]	SHEARWALL
[Hatched]	(E) UNREINFORCED 6" CMU FOUNDATION WALL
[Dotted]	(E) LOAD-BEARING WALL

- GENERAL NOTES
- ALL TOP PLATE SPLICES SHALL BE PER DETAIL 10/S1.1
  - REFER TO SHEET S1.0 FOR GENERAL CONSTRUCTION NOTES AND FASTENING SCHEDULE
  - SPECIFICATIONS ON PLANS TAKE PRECEDENCE OVER GENERAL NOTES ON SHEET S1.0
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- PLAN NOTES:
- [A] 20"Ø SONOTUBE FOOTING WITH (2) #4 EACH WAY
  - [B] EXISTING CONCRETE FOOTING
  - [C] EXISTING UNGROUTED CMU FOUNDATION WALL
  - [D] NEW 6" CONCRETE STEM WALL W/ 1'-2" W x 8" D FOOTING. PROVIDE #4 @ 12" O.C. E.W. @ WALL AND (2) #4 CONTINUOUS AT FOOTING
  - [E] ALL HEADERS TO BE (2) 2x8 U.N.O.

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DRAWING TITLE  
**LATERAL DESIGN PLANS**

ENGINEER: DMH | CHECKED BY: DMH  
JOB NO. 1539 | DRAWN BY: DMH  
DATE: 2-1-17  
SHEET NUMBER  
**S0.2**

## GENERAL REQUIREMENTS

- THE STRUCTURAL NOTES SUPPLEMENT THE PLANS AND SPECIFICATIONS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS, NOTES, SITE CONDITIONS, AND ARCHITECTURAL PLANS SHALL BE REPORTED TO THE ARCHITECT OR ENGINEER WHO SHALL CORRECT THE DISCREPANCY IN WRITING. ANY WORK COMPLETED AFTER DISCOVERY OF THE DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK. REFER TO ARCHITECTURAL PLANS FOR OPENINGS, ARCHITECTURAL TREATMENTS, AND DIMENSIONS NOT SHOWN.
- THE CONTRACTOR SHALL PROVIDE BRACING AND SUPPORT REQUIRED FOR TEMPORARY CONSTRUCTION LOADS AND FOR STRUCTURAL COMPONENTS AS REQUIRED DURING ERECTION. BACKFILL BEHIND WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE EXCAVATION, SHORING, AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES. CALL THE UTILITY LOCATE SERVICE PRIOR TO ANY WORK AT (800) 332-2344

## CODE REQUIREMENTS

- ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2014 OREGON RESIDENTIAL SPECIALTY CODE AND THE 2014 OREGON STRUCTURAL SPECIALTY CODE, BOTH AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION

## DESIGN LOADS

### LIVE LOADS

ROOF (SNOW + RAIN-ON-SNOW SURCHARGE)	25 PSF
FLOORS (SLEEPING)	30 PSF
FLOORS (NON-SLEEPING)	40 PSF

### WIND DESIGN DATA (BASED ON ASCE7-10 SIMPLIFIED METHOD):

BASIC WIND SPEED:	120 MPH (3-SECOND GUST)
WIND IMPORTANCE FACTOR:	I = 1.0
WIND EXPOSURE:	B
ADJUSTMENT FACTOR	$\lambda = 1.0$
TOPOGRAPHICAL FACTOR	Kzt = 1.0

### EARTHQUAKE DESIGN DATA (BASED ON ASCE7-10 EQUIVALENT FORCE METHOD):

SEISMIC IMPORTANCE FACTOR	I = 1.0
SPECTRAL RESPONSE ACCELERATIONS	Ss = 0.971 & S1 = 0.423
SEISMIC SITE CLASS	D1
SEISMIC FORCE RESISTING SYSTEM	BEARING WALL SYSTEM
RESPONSE MODIFICATION FACTOR	R = 6.5
DESIGN BASE SHEAR	Cs = 0.111W

## GEOTECHNICAL INFORMATION

- EARTHWORK AND FOUNDATIONS ARE TO BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. ALL FOUNDATIONS ARE TO BE FOUNDED ON COMPETENT NATIVE MATERIAL OR BY OTHER MEANS AS DEFINED BY A LICENSED GEOTECHNICAL ENGINEER.
- CONVENTIONAL FOUNDATIONS HAVE BEEN DESIGNED WITH THE FOLLOWING PARAMETERS:
 

ALLOWABLE BEARING PRESSURE	1500 PSF
ACTIVE EARTH PRESSURE (YIELDING)	45 PSF/FT
ACTIVE EARTH PRESSURE (AT-REST)	60 PSF/FT
PASSIVE EARTH PRESSURE	100 PSF/FT
COEFFICIENT OF FRICTION	0.35
SOIL SITE CLASS	D

## SHOP DRAWING SUBMITTAL PROCESS

- SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION. IF SHOP DRAWINGS DIFFER FROM THE APPROVED DESIGN DRAWINGS, NEW DESIGN DRAWINGS BEARING THE SEAL AND SIGNATURE OF A LICENSED STATE OF OREGON ENGINEER COMPETENT IN STRUCTURAL DESIGN SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS TO THE APPROPRIATE JURISDICTION FOR APPROVAL PRIOR TO FABRICATION
- SHOP DRAWINGS ARE REQUIRED FOR THE PREFABRICATED WOOD TRUSSES
- CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A LICENSED STATE OF OREGON ENGINEER COMPETENT IN STRUCTURAL DESIGN SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS FOR PREFABRICATED PLATED WOOD TRUSSES

## INSPECTIONS AND SPECIAL INSPECTIONS

- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT
- SPECIAL INSPECTIONS ARE NOT REQUIRED FOR R-3 OCCUPANCIES UNLESS OTHERWISE REQUIRED BY THE BUILDING OFFICIAL

## SITE CONSTRUCTION

- ALL SITE CONSTRUCTION SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS AS NOTED IN THE GEOTECHNICAL ENGINEERING REPORT AND IN SUBSEQUENT DIRECTIVES

## EXCAVATION SUPPORT AND PROTECTION

- EXCAVATION FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE
- EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOTE BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS
- INSTALLATION OF CONSTRUCTION SHORING, IF REQUIRED, SHALL BE PER THE SHORING DRAWINGS, NOTES, AND SPECIFICATIONS

## BACKFILL AND COMPACTION

- BACKFILL SHALL NOT BE PLACED UNTIL THE REMOVAL OF FORMWORK AND OF ANY DEBRIS. BACKFILL BEHIND ALL WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED. ALL BACKFILL MATERIAL AND PLACEMENT PROCEDURES SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS

## CONCRETE

- CONCRETE CONSTRUCTION SHALL CONFORM TO THE ACI 318-11 STANDARD
- CEMENT AND CONCRETE SHALL CONFORM TO IBC SECTION 1903. ADMIXTURES SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHALL COMPLY WITH ACI 318-11 SECTION 3.6. CONCRETE EXPOSED TO FREEZING AND THAWING SHALL HAVE AN AIR ENTRAINING ADMIXTURE CONFORMING TO IBC SECTION 1904.2. THE USE OF WATER SOLUBLE CHLORIDE ION SHALL NOT BE USED.
- CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS:

28-DAY STRENGTH (PSI)	MAX. W/C RATIO	MAX. SLUMP (INCHES)	AIR ENTR. (PERCENT)	SPECIAL INSP. REQUIRED?	LOCATION/ APPLICATION
2500	0.45	4 +/- 1	0 +/- 1	NO	FOOTINGS
3000	0.45	4 +/- 1	5 +/- 1	NO	FOUNDATION & STEM WALLS
3000	0.45	4 +/- 1	5 +/- 1	NO	EXT SLAB ON GRADE, DRIVEWAY, CURBS, WALKWAYS, PATIOS, PORCHES, STEPS EXPOSED TO WEATHER, GARAGE FLOORS

2500	0.50	5 +/- 1	0 +/- 1	NO	ALL OTHER CONCRETE
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- RESHORING, WHERE REQUIRED, SHALL CONFORM TO ACI 301 SECTION 4.6. SUBMIT PROPOSED RESHORING PLANS TO THE ENGINEER OF RECORD FOR REVIEW.
- CHAMFER ALL EXPOSED CORNERS PER THE ARCHITECTURAL PLANS OR 1/4 INCH IF NOT SPECIFIED BY THE ARCHITECT

## REINFORCING STEEL

- REINFORCING STEEL DETAILING, FABRICATION, AND PLACEMENT SHALL BE PER ACI 318-11.
- #3 AND #4 BARS SHALL BE ASTM A615 DEFORMED BARS, MINIMUM GRADE 40
- #5 BARS AND LARGER SHALL BE ASTM A615 DEFORMED BARS, MINIMUM GRADE 60
- REINFORCING FOR SLABS ON GRADE SHALL BE 6x6 W1.4xW1.4 W.W.F., UNLESS NOTED OTHERWISE.
- ALL #3 BARS SHALL HAVE CLASS B SPLICES A MINIMUM 21" IN LENGTH
- ALL #4 BARS SHALL HAVE CLASS B SPLICES A MINIMUM 28" IN LENGTH
- REINFORCING STEEL COVER SHALL BE AS FOLLOWS:
 

CAST AGAINST EARTH:	3"
FORMED SURFACE EXPOSED TO EARTH OR WEATHER:	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:	1"

## TREATED WOOD

TREATED WOOD SHALL BE REQUIRED FOR:

- ALL WOOD THAT FORMS THE STRUCTURAL SUPPORT OF THE BUILDING, BALCONIES, PORCHES, OR SIMILAR PERMANENT BUILDING APPURTENANCES THAT ARE EXPOSED TO THE WEATHER WITHOUT ADEQUATE PROTECTION FROM A ROOF, EAVE, OVERHANG, OR OTHER COVERING TO PREVENT MOISTURE OR WATER ACCUMULATION AT THE SURFACE OR AT JOINTS BETWEEN MEMBERS
- ALL WOOD INSTALLED ABOVE GROUND AND RESTING ON AN EXTERIOR CONCRETE OR MASONRY FOUNDATION WALL LESS THAN EIGHT INCHES FROM EXPOSED EARTH.
- POSTS OR COLUMNS SUPPORTING PERMANENT STRUCTURES AND SUPPORTED BY A CONCRETE SLAB OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, EXCEPT:
  - IF LOCATED IN BASEMENTS ON A CONCRETE PIER OR METAL PEDESTAL ONE INCH ABOVE THE SLAB AND SEPARATED BY AN IMPERVIOUS MOISTURE BARRIER
- IF IN AN ENCLOSED CRAWL SPACE OR AN UNEXCAVATED AREA WITHIN THE BUILDING PERIPHERY AND SUPPORTED BY A CONCRETE PIER OR PEDESTAL MORE THAN 8 INCHES FROM EXPOSED GROUND AND SEPARATED BY AN IMPERVIOUS MOISTURE BARRIER
- SLEEPERS AND SILLS ON A CONCRETE SLAB ON GRADE THAT DOES NOT HAVE AN IMPERVIOUS MOISTURE BARRIER SEPARATION WITH EXPOSED EARTH
- LEDGERS AND FURRING ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR CONCRETE OR MASONRY WALLS BELOW GRADE
- PRESERVATIVE TREATMENT SHALL BE PER AWPA SPECIFICATION C2 AND C3, OR APPLICABLE STANDARDS
- ALL FASTENERS IN CONTACT WITH TREATED LUMBER SHALL BE CORROSION RESISTANCE G-185 HOT-DIPPED GALVANIZED PER ASTM A153, OR STAINLESS STEEL

## ROUGH FRAMING

- SAWN LUMBER SHALL CONFORM TO WCLIB GRADING AND DRESSING RULES NO. 17, LATEST EDITION. SAWN LUMBER SHALL BE S4S AND SURFACE DRIED, 19% MAX. MOISTURE CONTENT. PROTECT LUMBER FROM WEATHER AND PROVIDE FURTHER DRYING OF ASSEMBLED FRAMING TO MINIMIZE WOOD SHRINKAGE POTENTIAL. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED U.N.O. PER PLAN. LUMBER SPECIES, GRAD, AND PROPERTIES FOR EACH USE/LOCATION SHALL BE AS FOLLOWS, U.N.O. PER PLANS/SCHEDULE:

USE/LOCATION	SPECIES	GRADE	Fb (PSI)	Fv (PSI)	Fcp (PSI)	Fc (PSI)	E
WALL STUDS/BLOCKING 2x, 3x, 4" WIDE	HEM-FIR	STUD	675	150	405	800	1,2E6
2x, 3x, 6" & WIDER	HEM-FIR	#2	850	150	405	1300	1,3E6
WALL PLATES 2x4, 3x4	HEM-FIR	STUD	675	150	405	800	1,2E6
2x6, 3x6	HEM-FIR	#2	850	150	405	1300	1,3E6
JOISTS 2x, 3x	HEM-FIR	#2	850	150	405	1300	1,3E6
LEDGERS 2x, 3x	D-F-L	#2	900	180	625	1350	1,6E6
4x	D-F-L	#1	1000	180	625	1500	1,7E6
BEAMS AND POSTS 4x	D-F-L	#2	900	180	625	1350	1,6E6
6x	D-F-L	#1	1200	170	625	1000	1,6E6

## STRUCTURAL FINGER JOINTED LUMBER

- STRUCTURAL FINGER JOINTED LUMBER SHALL BE PERMITTED TO BE USED INTERCHANGEABLY WITH SAWN LUMBER MEMBERS OF THE SAME SPECIES AND GRADE. STRUCTURAL FINGER JOINTED LUMBER SHALL BE GRADED UNDER AMERICAN LUMBER STANDARD COMMITTEE PRODUCT STANDARD PS 20-99. LUMBER CLASSIFIED AS STUD USE ONLY SHALL BE LIMITED TO VERTICAL APPLICATIONS ONLY. LUMBER WITH CERTIFIED EXTERIOR JOINTS IS NOT RESTRICTED TO ANY TYPE OF LOADING.

## FRAMING NOTES

- FRAMING CONNECTORS, ACCESSORIES, AD FASTENERS AS NOTED IN THE PLANS AND DETAILS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE. EQUIVALENT HARDWARE BY ANOTHER MANUFACTURER MAY BE USED. INSTALL ALL HARDWARE PER MANUFACTURER'S SPECIFICATIONS. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TYPICAL NAILING NOT SHOWN PER PLAN, DETAIL, OR SCHEDULE SHALL CONFORM TO TABLE ON LEFT SIDE OF THIS SHEET.
- NAILS SHALL BE COMMON UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE PER SHEARWALL SCHEDULE OR PLANS, ANCHOR BOLTS AT SILL PLATES SHALL BE 1/2" DIAMETER WITH 7" MINIMUM EMBEDMENT INTO CONCRETE AND SHALL BE SPACED NOT MORE THAN 4 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER SILL PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" NOR LESS THAN 6" FROM EACH END OF THE PIECE. A 3"x3"x0.228" PLATE WASHER SHALL BE PROVIDED FOR ALL ANCHOR BOLTS (DO NOT COUNTER-SINK PLATE WASHERS). A 1/4" x 1 1/4" DIAGONAL SLOTTED HOLE IN THE 3" x 3" PLATE WASHER IS ALLOWED WITH A STANDARD CUT WASHER.

## JOIST AND BEAM HANGERS

- JOIST AND BEAM HANGERS AS NOTED IN THE PLANS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE OR ANOTHER MANUFACTURER WHOSE JOIST HANGERS ARE ICC-APPROVED. JOIST AND BEAM HANGERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE PER PLANS OR DETAILS:

MEMBER SIZE	HANGER
SAWN LUMBER	LUS SERIES TO MATCH LUMBER SIZE
3/2"-WIDE GLULAM BEAM	HGUS410
5/2"-WIDE GLULAM BEAM	HGUS5.50/10
MANUFACTURED WOOD I-JOIST	IUS SERIES TO MATCH I-JOIST SIZE
1 1/2"-WIDE PSL OR LVL BEAM	LBV SERIES TO MATCH DEPTH
3/2"-WIDE PSL OR LVL BEAM	GLTV SERIES TO MATCH DEPTH
5/2"-WIDE PSL OR LVL BEAM	GLTV SERIES TO MATCH DEPTH

## SHRINKAGE OF WOOD FRAMING

- SHRINKAGE IN WOOD FRAMING IS DUE TO LOSS OF MOISTURE CONTENT AND TO COMPRESSION OF ASSEMBLIES OF WOOD COMPONENTS. PLUMBING, ELECTRICAL, AND MECHANICAL SYSTEMS AS WELL AS EXTERIOR FINISHES SHALL BE DESIGNED AND BUILT TO ACCOMMODATE 1/4" PER FLOOR OF WOOD SHRINKAGE. THE USE OF KILN-DRIED LUMBER AND PROVIDING A DRYING PROCESS TO THE FRAMING MEMBERS PRIOR TO APPLICATION OF FINISHES WILL HELP CONTROL BUT WILL NOT ELIMINATE SHRINKAGE.

## WOOD SHEATHING

- STRUCTURAL WOOD SHEATHING PANELS SHALL HAVE APA-GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. WOOD SHEATHING PANELS SHALL BE C-D INT APA WITH EXTERIOR GLUE (CDX). ORIENTED STRAND BOARD (OSB) PANELS SHALL BE EXPOSURE 1. PANELS SHALL HAVE THE FOLLOWING THICKNESS, SPAN RATING, AND FASTENING UNLESS NOTED OTHERWISE PER PLAN:

	EDGE NAILS	FIELD NAILS
ROOF: 3/8" 40/20 C-D APA CDX T&G	8d @ 6" O.C.	8d @ 12" O.C.
FLOOR: 3/4" APA-RATED STURD-I-FLOOR OSB 40/20 T&G	10d @ 6" O.C.	10d @ 12" O.C.
SHEARWALL: 3/8" C-D WITH EXTERIOR GLUE	SEE SCHEDULE	

- ALL ROOF AND FLOOR SHEATHING PANELS SHALL BE INSTALLED FACE GRAIN PERPENDICULAR TO SUPPORTS AND IN A STAGGERED PATTERN UNLESS NOTED OTHERWISE PER PLAN. BLOCKING AT INTERMEDIATE FLOOR AND ROOF SHEATHING JOINTS SHALL NOT BE REQUIRED UNLESS NOTED OTHERWISE PER PLAN. SHEARWALL SHEATHING SHALL BE BLOCKED AT ALL EDGES WITH 2x OR 3x FRAMING PER SHEARWALL SCHEDULE

## METAL PLATE CONNECTED WOOD TRUSSES

- PRE-MANUFACTURED PLATED WOOD TRUSSES SHALL BE MANUFACTURER-DESIGNED AND SHALL COMPLY WITH THE TRUSS PLATE INSTITUTE (ANSI/TPI 1-2007, NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION) AND IBC SECTION 2303.4. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED PER THE REQUIREMENTS OF THE PREVIOUSLY MENTIONED "SHOP DRAWING SUBMITTAL PROCESS". DESIGN FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS, PREVIOUSLY MENTIONED LOADS, AND THE FOLLOWING:

TOP CHORD LIVE LOAD:	25 PSF
TOP CHORD DEAD LOAD:	10 PSF
TOP CHORD DRAG LOAD:	SEE PLAN
TOP CHORD NET WIND UPLIFT:	7 PSF (NET)
BOTTOM CHORD DEAD LOAD:	5 PSF
HVAC:	SEE MECHANICAL
LIVE LOAD DEFLECTION:	L/360

## STRUCTURAL GLUED LAMINATED TIMBER

- GLUE-LAMINATED MEMBERS SHALL HAVE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) IDENTIFICATION MARK. EXPOSED MEMBERS SHALL RECEIVE ONE COAT OF END SEALER APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD. DESIGN MATERIAL PROPERTIES SHALL BE AS FOLLOWS:

COMBINATION SYMBOL	SPECIES	CAMBER
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- 24F-V4 DFDF STANDARD
- UNEXPOSED GLUE-LAMINATED TIMBER SHALL BE INDUSTRIAL GRADE, UNLESS NOTED OTHERWISE. EXPOSED GLUE-LAMINATED TIMBER SHALL BE APPEARANCE CLASS PER ARCHITECT.

## MANUFACTURED WOOD BEAMS

- MANUFACTURED/ENGINEERED WOOD BEAMS SHALL BE THE SIZE AND TYPE SHOWN ON THE DRAWINGS AS MANUFACTURED BY WEYERHAEUSER OR APPROVED EQUAL. STORAGE, ERECTION, AND INSTALLATION SHALL BE PER MANUFACTURER SPECIFICATIONS. MICROLAM AND PARALLAM MEMBERS SHALL NOT HAVE NOTCHES OR DRILLED HOLES WITHOUT PRIOR ENGINEER OF RECORD APPROVAL. DESIGN MATERIAL PROPERTIES SHALL BE AS FOLLOWS:

MEMBER	E (PSI)	Fb (PSI)	Fc (PSI)	Fv (PSI)
LVL (MICROLAM)	1.9 E6	2600	750	285
PSL (PARALLAM)	2.0 E6	2900	650	290
LSL (1 1/2" TIMBERSTRAND)	1.55 E6	2250	750	400

## BEARING WALL STUD SCHEDULE

WALL TYPE	LOCATION	PLATE SIZE	STUD SIZE AND SPACING
EXTERIOR	TYPICAL, U.N.O. PER PLAN	2x6	2x6's @ 16" O.C.
CRAWL SPACE	TYPICAL	2x4 (e)	2x4's @ 16" O.C.
INTERIOR	TYPICAL, U.N.O. PER PLAN	2x4	2x4's @ 16" O.C.

### BEARING WALL NOTES:

- SEE SHEARWALL SCHEDULE FOR WALL SHEATHING, BLOCKING, AND PLATE NAILING
- SEE SAWN LUMBER STRUCTURAL NOTES ON THIS SHEET FOR SPECIES AND GRADE OF WALL PLATES AND STUDS
- SECURE SILL PLATES TO CONCRETE WITH ANCHOR BOLTS AS PREVIOUSLY DESCRIBED ON THIS SHEET. REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL INFORMATION
- EXTERIOR WALLS AT VAULTED AREAS SHALL BE BALLOON-FRAMED
- FOUNDATION CRIPPLE WALLS SHALL BE FRAMED OF STUDS OF SAME SIZE AS STUDS ABOVE. WHERE HEIGHT OF STUD EXCEEDS 4 FEET, CONTACT ENGINEER FOR PROPER STUD SIZE AND SPACING. PROVIDE SHEATHING, NAILING, AND MUDDL ANCHORAGE AS SPECIFIED FOR WALL ABOVE.

ROUGH FRAMING NAILING SCHEDULE (IN LIEU OF IBC TABLE 2304.9.1)	
CONNECTION	FASTENING
JOIST TO SILL OR GIRDER	(3) 0.131" x 3" TOENAILS
BRIDGING TO JOIST	(3) 0.131" x 3" TOENAILS EA. END
1x6 OR LESS SUBFLOOR TO JST.	(2) 0.131" x 2 1/2" FACE NAIL
WIDER THAN 1x6 SUBFLOOR TO JST	(3) 0.131" x 2 1/2" FACE NAIL
2" SUBFLOOR TO JST/GIRDER	(2) 0.161" x 3 1/2" BLIND & FACE NAIL
SOLE PLATE TO JST OR BLKG	0.131" x 3" AT 8" O.C.TYP. FACE NAIL
SOLE PLATE AT BRACED WALL PANEL	(4) 0.131" x 3" AT 16" O.C. FACE NAIL
TOP PLATE TO STUD	(3) 0.131" x 3" END NAIL
STUD TO SOLE PLATE	(4) 0.131" x 3" TOENAIL
(OR) STUD TO SOLE PLATE (ALTERNATE)	(3) 0.131" x 3" END NAIL
DOUBLE STUDS	0.131" x 3" AT 8" O.C. FACE NAIL
DOUBLE TOP PLATES	0.131" x 3" AT 8" O.C.TYP. FACE NAIL
DOUBLE TOP PLATE LAP SPLICE	SEE DETAIL 10/S.1
JOIST/RAFTER BLKG. TO PLATE	(3) 0.131" x 3" TOENAILS
RIM JOIST TO TOP PLATE	0.131" x 3" AT 6" O.C. TOENAIL
TOP PLATE LAP INTERSECTIONS	(3) 0.131" x 3" FACE NAIL
DOUBLE 2x JOIST/HEADER	0.131" x 3" AT 12" FACE NAIL EA. EDGE
CEILING JOISTS TO PLATE	(5) 0.131" x 3" TOENAILS
CONTINUOUS HEADER TO STUD	(4) 0.131" x 3" TOENAILS
CLG. JOIST LAP AT PARTITIONS	(4) 0.131" x 3" FACE NAIL
CLG JST TO PARALLEL RAFTER	(4) 0.131" x 3" FACE NAIL
RAFRTER TO PLATE	(3) 0.131" x 3" TOENAIL
1x BRACE TO EACH STUD & PLATE	(2) 0.131" x 3" FACE NAIL
1x8 OR LESS SHTG. TO EACH BRG.	(2) 0.131" x 3" FACE NAIL
WIDER THAN 1x8 SHTG. TO BRG.	(3) 0.131" x 3" FACE NAIL
BUILT-UP CORNER STUDS	(3) 0.131" x 3" AT 16" O.C. FACE NAIL
BUILT-UP GIRDERS AND BEAMS	0.131" x 3" AT 12" EA. EDGE STAGGERED

- IF INFORMATION LISTED ON PLAN SHEETS CONTRADICTS INFORMATION IN THIS TABLE, INFORMATION ON PLANS TAKES PRECEDENCE OVER INFORMATION LISTED IN THIS TABLE.



CLIENT: NEW LEGACY CONSTRUCTION, LLC

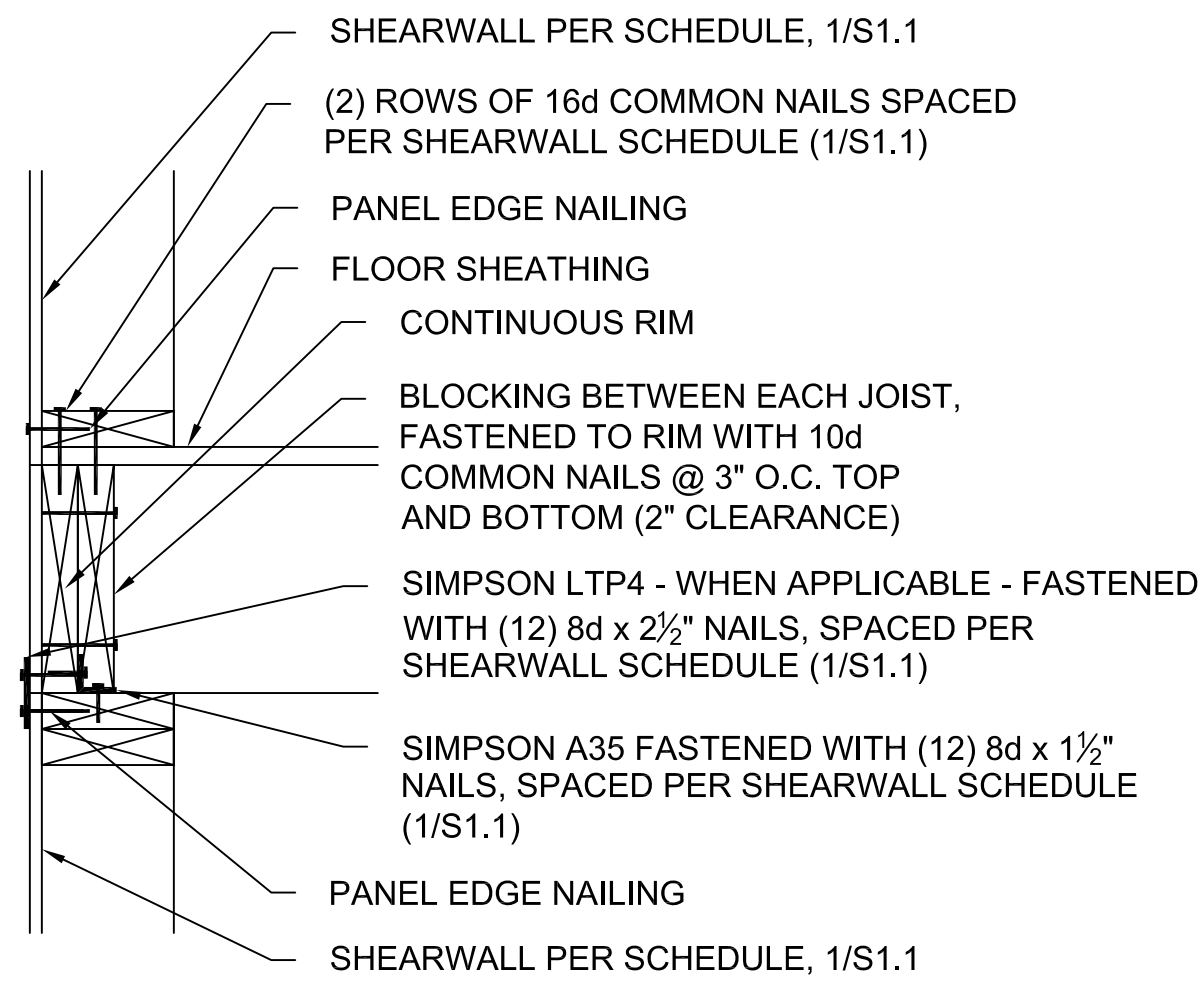
JOB TITLE: SHIMELEV RESIDENCE  
5907 SE LAMBERT STREET  
LOCATION: PORTLAND, OREGON 97206



NO.	DATE	REVISION	BY
DRAWING TITLE			
<b>STRUCTURAL NOTES</b>			
ENGINEER: DMH	CHECKED BY: DMH		
JOB NO. 1539	DRAWN BY: DMH		
DATE: 2-1-17	SHEET NUMBER		
<b>S1.0</b>			

SHEARWALL SCHEDULE												
LABEL	FACES OF WALL TO BE SHEATHED (a, b)	EDGE NAILING	FIELD NAILING	FRAMING AT PANEL EDGES	BOTTOM PLATE NAILING (0.131" x 3") (e)	A35 OR LTP4 SPACING	CORRESPONDING CONNECTION DETAIL	MAX. 5/8" Ø ANCHOR BOLT SPACING	MAX. 3/4" Ø TITEN HD ANCHOR W/ 4" EMBED SPACING (g)	SILL PLATE AT FOUNDATION	SESMIC CAPACITY	WIND CAPACITY
S-GEN	1	6" O.C.	12" O.C.	2x	8" O.C.	N/A	2/S1.1	6'-0" O.C.	6'-0" O.C.	2x	N/A	N/A
S6	1	6" O.C.	12" O.C.	2x	7" O.C.	1'-10" O.C.	3/S1.1	4'-0" O.C.	4'-0" O.C.	2x	260#/FT	365#/FT
S4	1	4" O.C.	12" O.C.	(2) 2x OR 3x	5" O.C.	1'-4" O.C.	3/S1.1	3'-6" O.C.	2'-9" O.C.	(2) 2x OR 3x	380#/FT	530#/FT
S3	1	3" O.C.	12" O.C.	(2) 2x OR 3x	4" O.C.	1'-0" O.C.	3/S1.1	2'-9" O.C.	2'-2" O.C.	(2) 2x OR 3x	490#/FT	685#/FT
S2	1	2" O.C.	12" O.C.	(2) 2x OR 3x	3" O.C.	9" O.C.	3/S1.1	2'-0" O.C.	1'-8" O.C.	(2) 2x OR 3x	640#/FT	895#/FT
S4-2	2	4" O.C.	12" O.C.	(2) 2x OR 3x	(2) ROWS, 5" O.C.	8" O.C.	4/S1.1	1'-9" O.C.	1'-4" O.C.	(2) 2x OR 3x	760#/FT	1065#/FT
S3-2	2	3" O.C.	12" O.C.	(2) 2x OR 3x	(2) ROWS, 4" O.C.	1'-0" O.C. (f)	4/S1.1	1'-4" O.C.	1'-1" O.C.	(2) 2x OR 3x	980#/FT	1370#/FT
S2-2	2	2" O.C.	12" O.C.	(2) 2x OR 3x	(2) ROWS, 3" O.C.	8" O.C. (f)	4/S1.1	1'-0" O.C.	10" O.C.	(2) 2x OR 3x	1280#/FT	1790#/FT

- NOTES:
- STUDS SHALL BE SPACED AT A MAXIMUM OF 16" O.C.
  - PANELS MAY BE INSTALLED WITH THE LONG DIMENSION HORIZONTALLY OR VERTICALLY. ALL PANEL EDGES TERMINATING AT A LOCATION OTHER THAN MIN. 2x FRAMING SHALL BE BLOCKED
  - WHERE TWO PANELS MEET AT ONE FRAMING MEMBER WITH NAIL SPACING OF 4" OR LESS, NAILING AT ADJOINING PANEL EDGES SHALL BE STAGGERED
  - EDGE AND FIELD NAILING SHALL BE 9d COMMON NAILS (0.131" x 2 1/2")
  - FLOOR DIAPHRAGM NAILING IS IN ADDITION TO BOTTOM PLATE NAILING.
  - IN ADDITION TO SIMPSON A35 AT THIS SPACING, INSTALL SIMPSON LTP4's ON OPPOSITE FACE OF RIM AT SAME SPACING, STAGGERED FROM LOCATION OF A35's
  - AT EXISTING FOUNDATION - SPECIAL INSPECTION REQUIRED



NOTE: WHERE JOISTS ARE FRAMED PARALLEL TO SHEAR WALLS, ADD FULL-HEIGHT BLOCKING IN FIRST BAY AT 48" O.C.

**4 SHEARWALL CONNECTION**  
**S1.1 DETAIL (S4-2, S3-2, S2-2)**

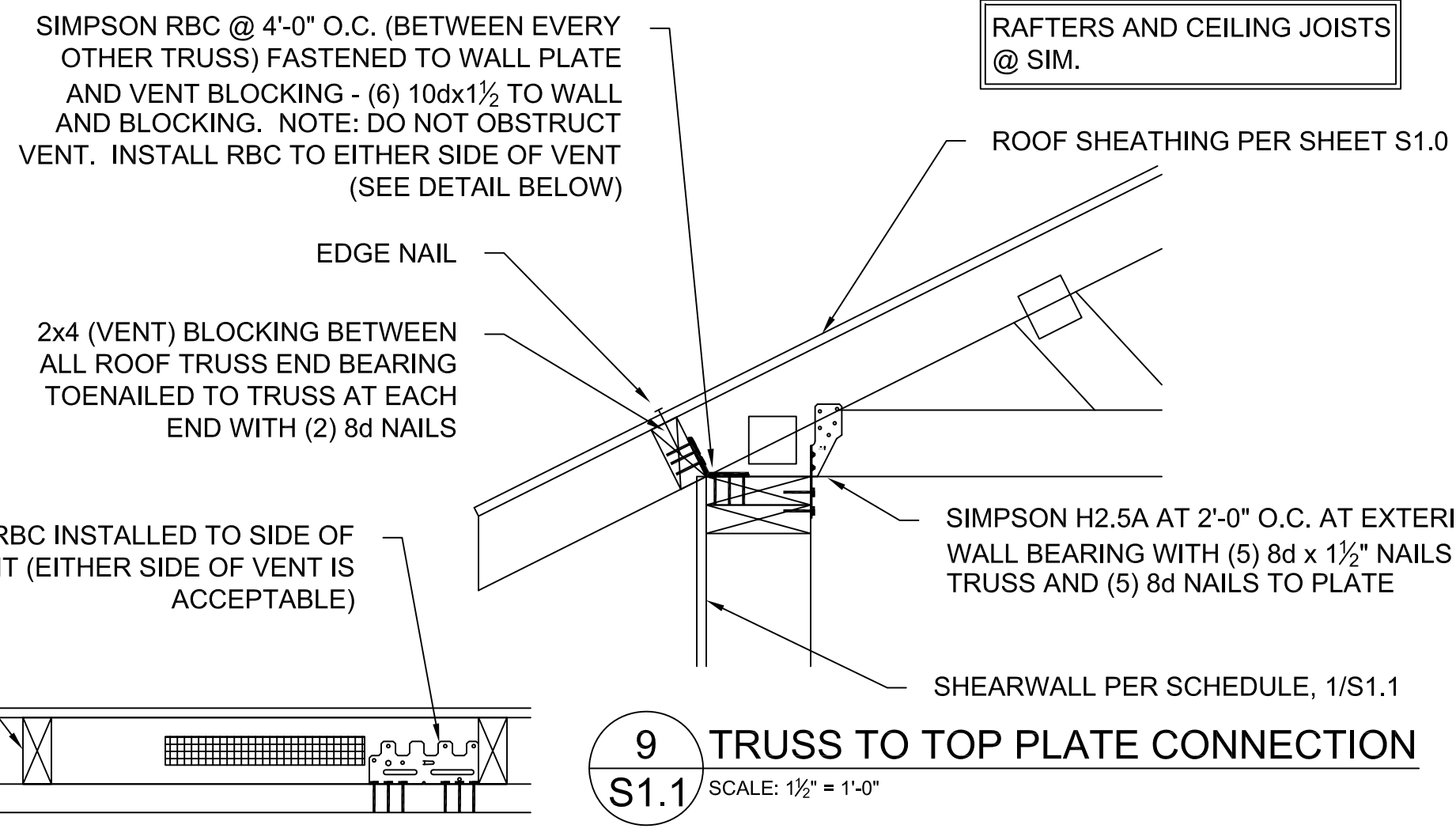
SCALE: 1/2" = 1'-0"

FLOOR-TO-FLOOR STRAP SCHEDULE			
LABEL	SIMPSON STRAP	END LENGTH REQUIRED	SIZE AND NO. OF NAILS (a) IN EACH END LENGTH
FF-CS22	CS22	0'-6"	(6) 8d OR (5) 10d
FF-CS20	CS20	0'-9"	(7) 8d OR (6) 10d
FF-CS18	CS18	0'-11"	(9) 8d OR (8) 10d
FF-CS16	CS16	1'-1"	(11) 8d OR (10) 10d
FF-CS14	CS14	1'-4"	(15) 8d OR (13) 10d
FF-CMSTC16	CMSTC16	1'-8"	(25) 16d SINKER
FF-CMST14	CMST14	2'-6"	(33) 10d OR (28) 16d
FF-CMST12	CMST12	3'-3"	(43) 10d OR (37) 16d

- a. NAILS: 16d=0.162"x3 1/2"; 16d SINKER=0.148"x3 1/4"; 10d=0.148"x3"; 8d=0.131"x2 1/2"

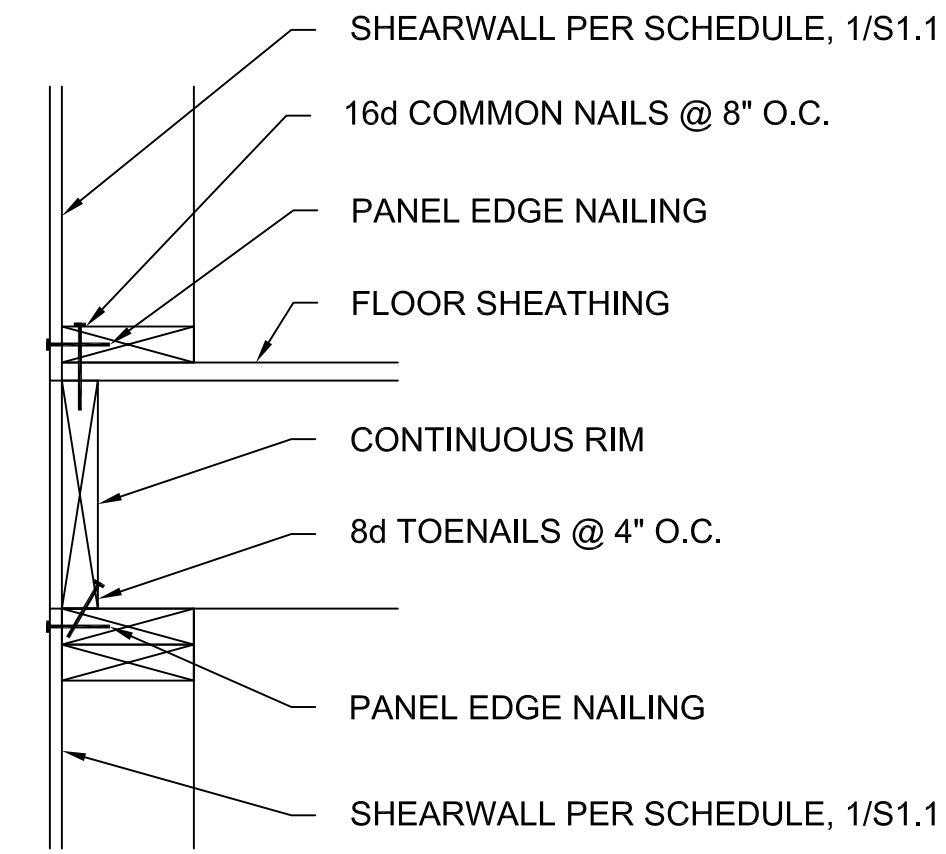
**5 FLOOR-TO-FLOOR STRAP**  
**S1.1 INSTALLATION INFORMATION**

SCALE: 1/2" = 1'-0"



**9 TRUSS TO TOP PLATE CONNECTION**  
**S1.1**

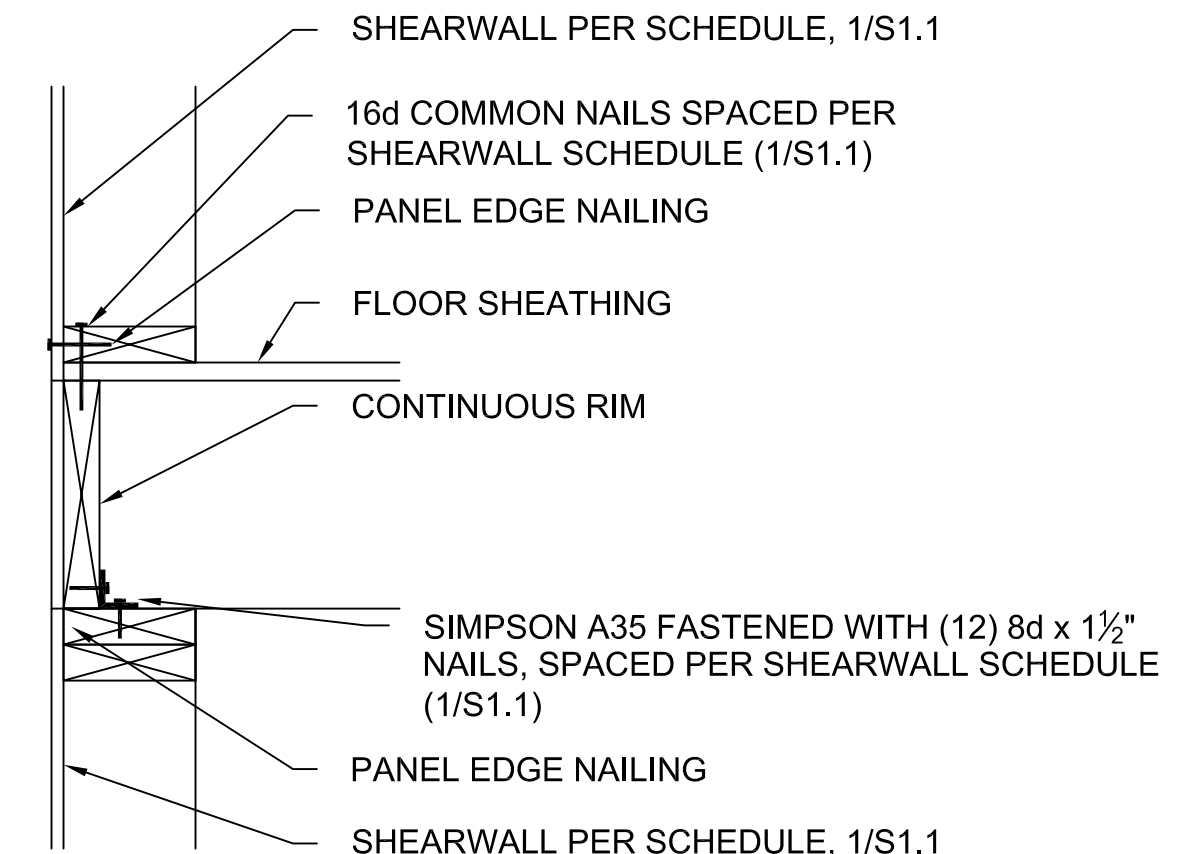
SCALE: 1/2" = 1'-0"



NOTE: WHERE JOISTS ARE FRAMED PARALLEL TO SHEAR WALLS, ADD FULL-HEIGHT BLOCKING IN FIRST BAY AT 48" O.C.

**2 SHEARWALL CONNECTION**  
**S1.1 DETAIL (S-GEN)**

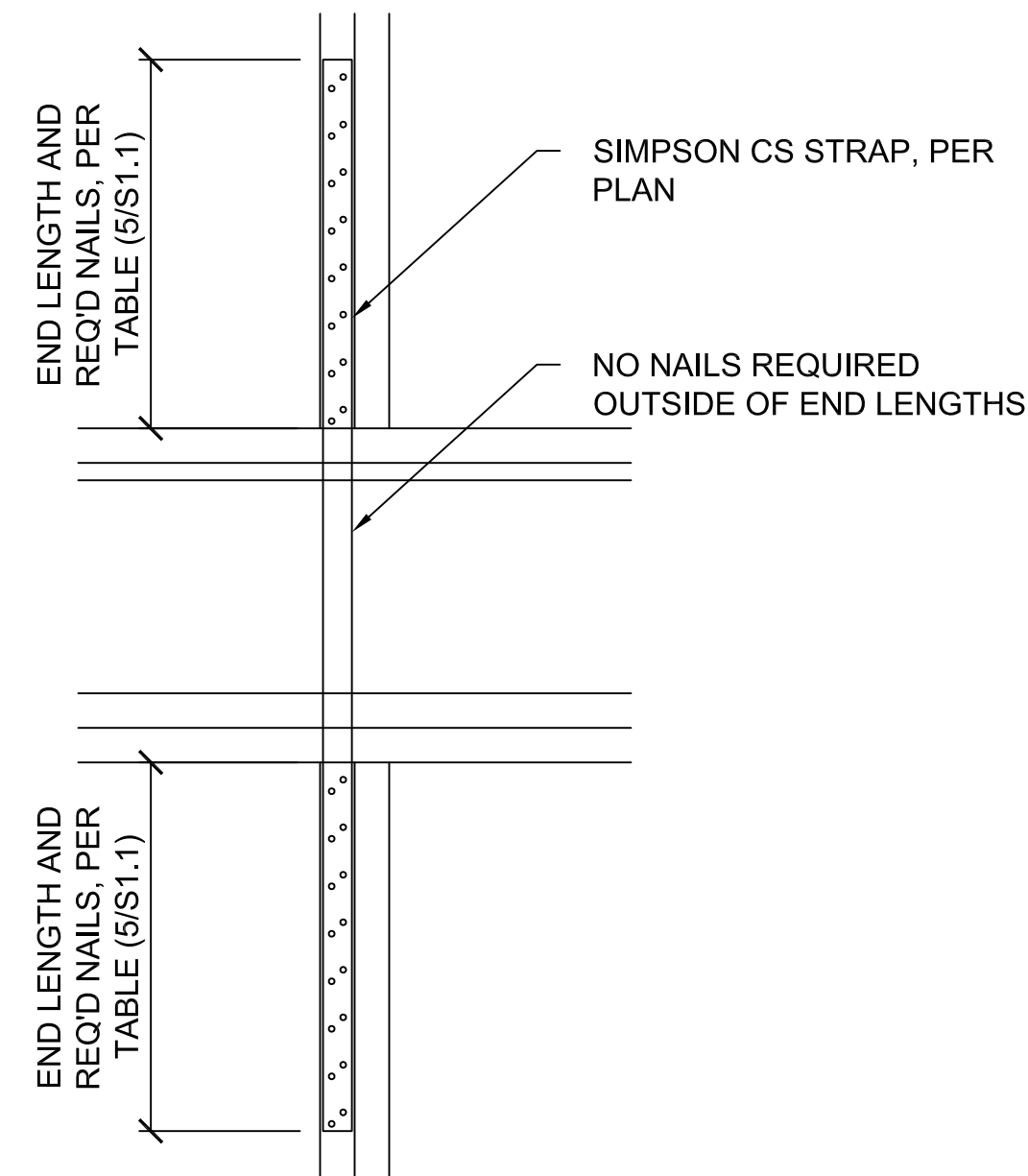
SCALE: 1/2" = 1'-0"



NOTE: WHERE JOISTS ARE FRAMED PARALLEL TO SHEAR WALLS, ADD FULL-HEIGHT BLOCKING IN FIRST BAY AT 48" O.C.

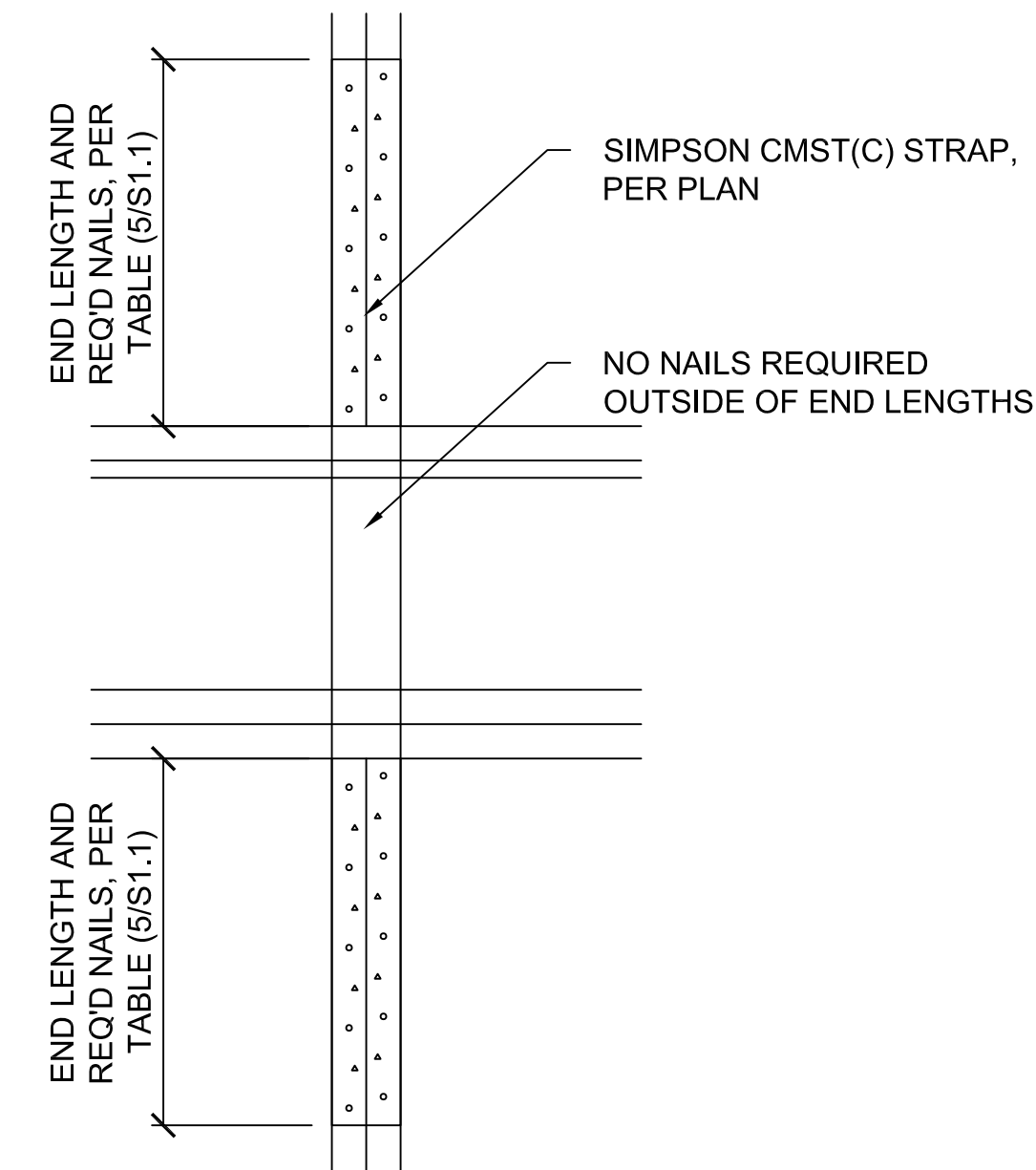
**3 SHEARWALL CONNECTION**  
**S1.1 DETAIL (S6, S4, S3, S2)**

SCALE: 1/2" = 1'-0"



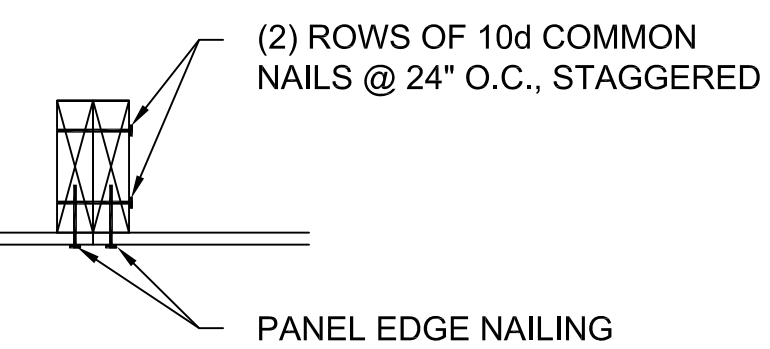
**6 SIMPSON CS FLOOR-TO-FLOOR STRAP**  
**S1.1**

SCALE: 1/2" = 1'-0"



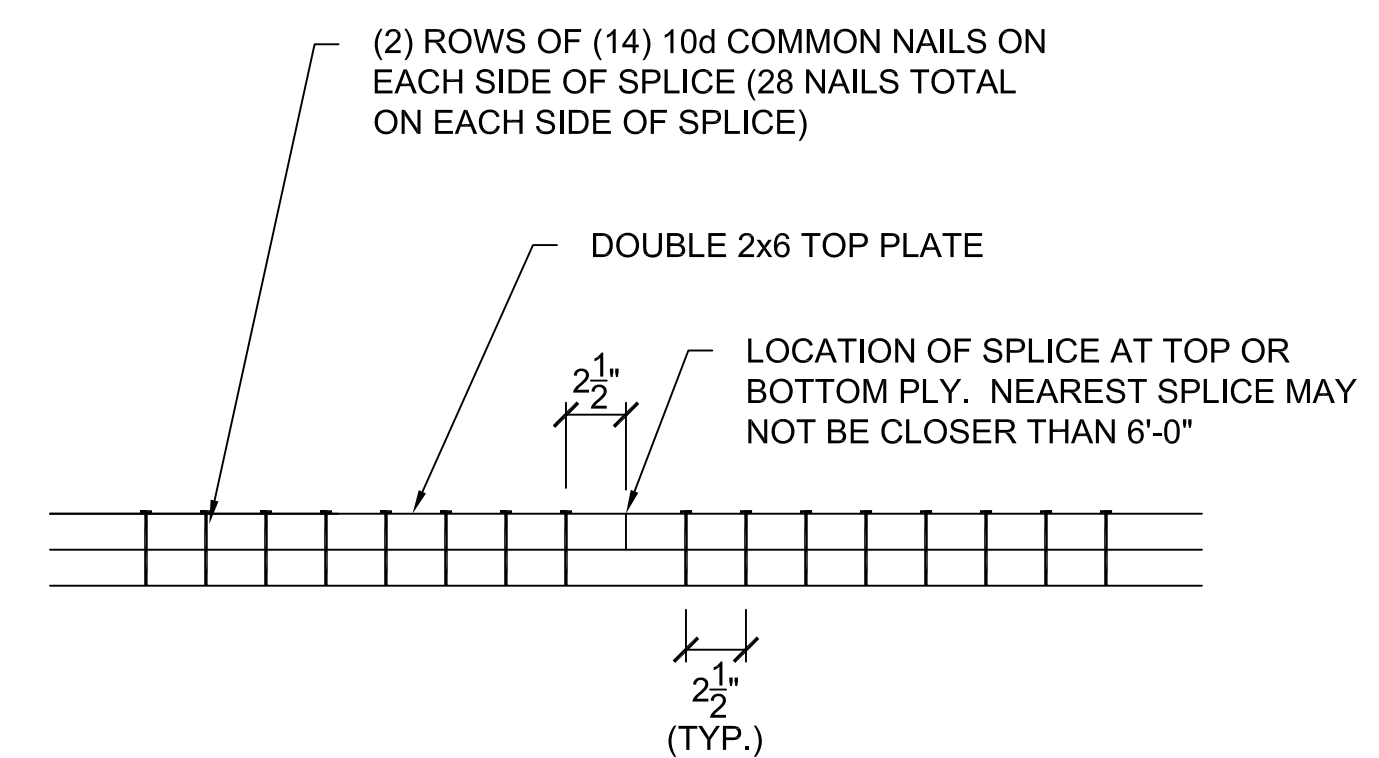
**7 SIMPSON CMST(C) FLOOR-TO-FLOOR STRAP**  
**S1.1**

SCALE: 1/2" = 1'-0"



**8 BUILT-UP WALL STUD**  
**S1.1**

SCALE: 1/2" = 1'-0"



**10 WALL TOP PLATE SPLICE CONNECTION**  
**S1.1**

SCALE: 1/2" = 1'-0"



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LOCATION: PORTLAND, OREGON 97206



NO.	DATE	REVISION	BY

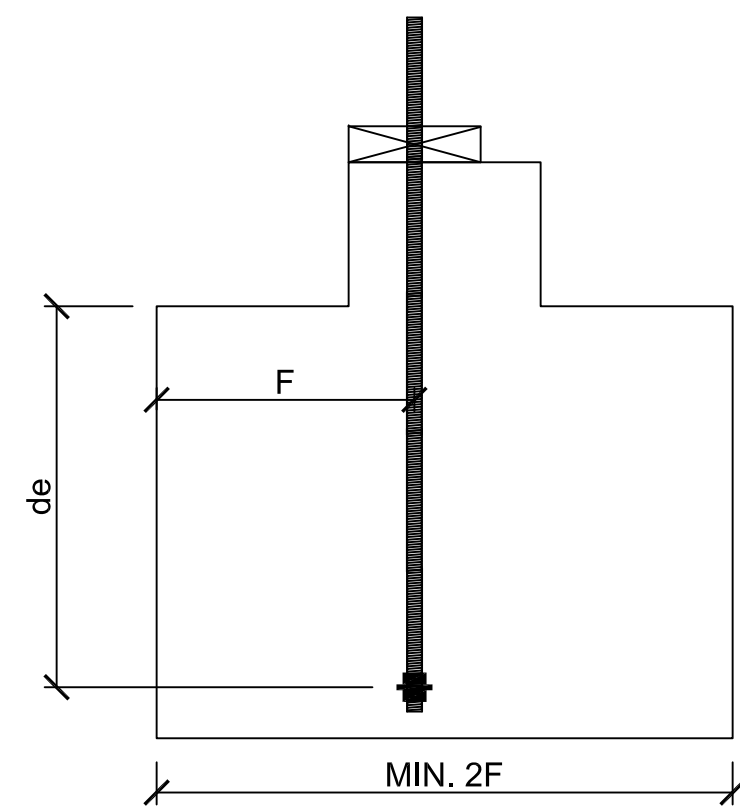
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**STRUCTURAL DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
JOB NO. 1539 DRAWN BY: DMH  
DATE: 2-1-17 SHEET NUMBER

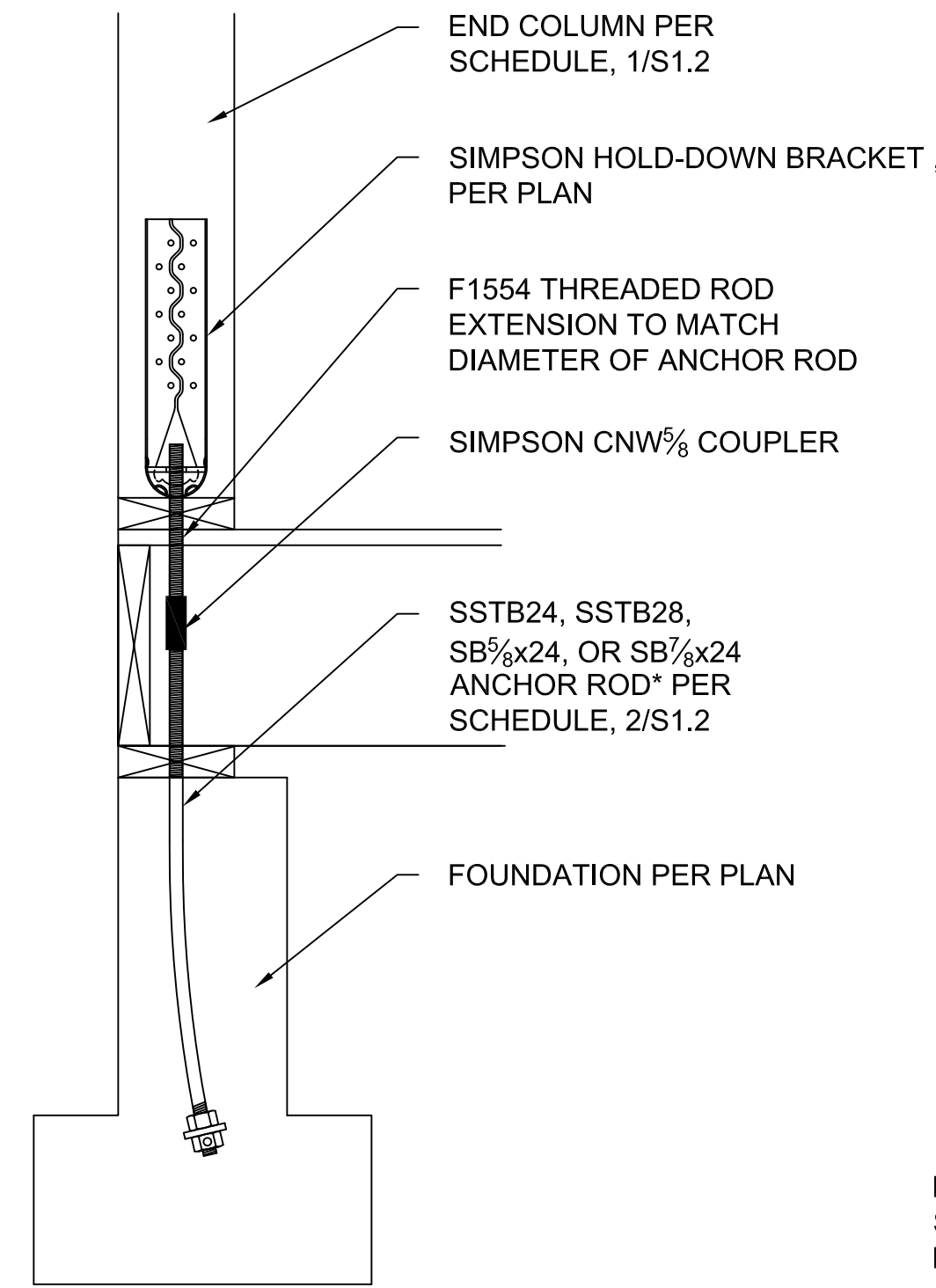
**S1.1**

HOLD-DOWN ANCHOR AND BRACKET SCHEDULE						
PLAN MARK	SIMPSON HOLD DOWN BRACKET	FOUNDATION ANCHOR (d)	SDS SCREWS (c)	END COLUMN IN 2x4 WALL	END COLUMN IN 2x6 WALL	CAPACITY (POUNDS)
HD-HDU2	HDU2-SDS2.5	SSTB24 OR SB $\frac{5}{8}$ x24	(6) $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "	(2) 2x4	(2) 2x6	3075
HD-HDU4	HDU4-SDS2.5	SB $\frac{5}{8}$ x24	(10) $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "	(2) 2x4	(2) 2x6	4565
HD-HDU5	HDU5-SDS2.5	SB $\frac{5}{8}$ x24	(14) $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "	(3) 2x4	(2) 2x6	5645
HD-HDU8	HDU8-SDS2.5	SB $\frac{7}{8}$ x24	(20) $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "	(3) 2x4	(3) 2x6	7315
HD-HDQ8	HDQ8-SDS3	PAB7 (a)	(20) $\frac{1}{4}$ " x 3"	4x6	(3) 2x6	9230
HD-HDQ11	HDQ11-SDS2.5	PAB8 (b)	(24) $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "	4x8	6x6	11,810
HD-HDU14	HDU14-SDS2.5	PAB8 (b)	(36) $\frac{1}{4}$ " x 2 $\frac{1}{2}$ "	4x10	6x6	14,445

- a.  $d_e = 8\frac{1}{2}$ ",  $F = 13$ ", PER DETAIL 2/S1.2  
b.  $d_e = 10\frac{1}{2}$ ",  $F = 16$ ", PER DETAIL 2/S1.2  
c. IF INSTALLING A HOLD-DOWN BRACKET FROM ANOTHER MANUFACTURER, INSTALL FASTENERS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS  
d. LOCATE CRAWL SPACE VENTS A MINIMUM OF 24" AWAY FROM HOLD-DOWN ANCHORS

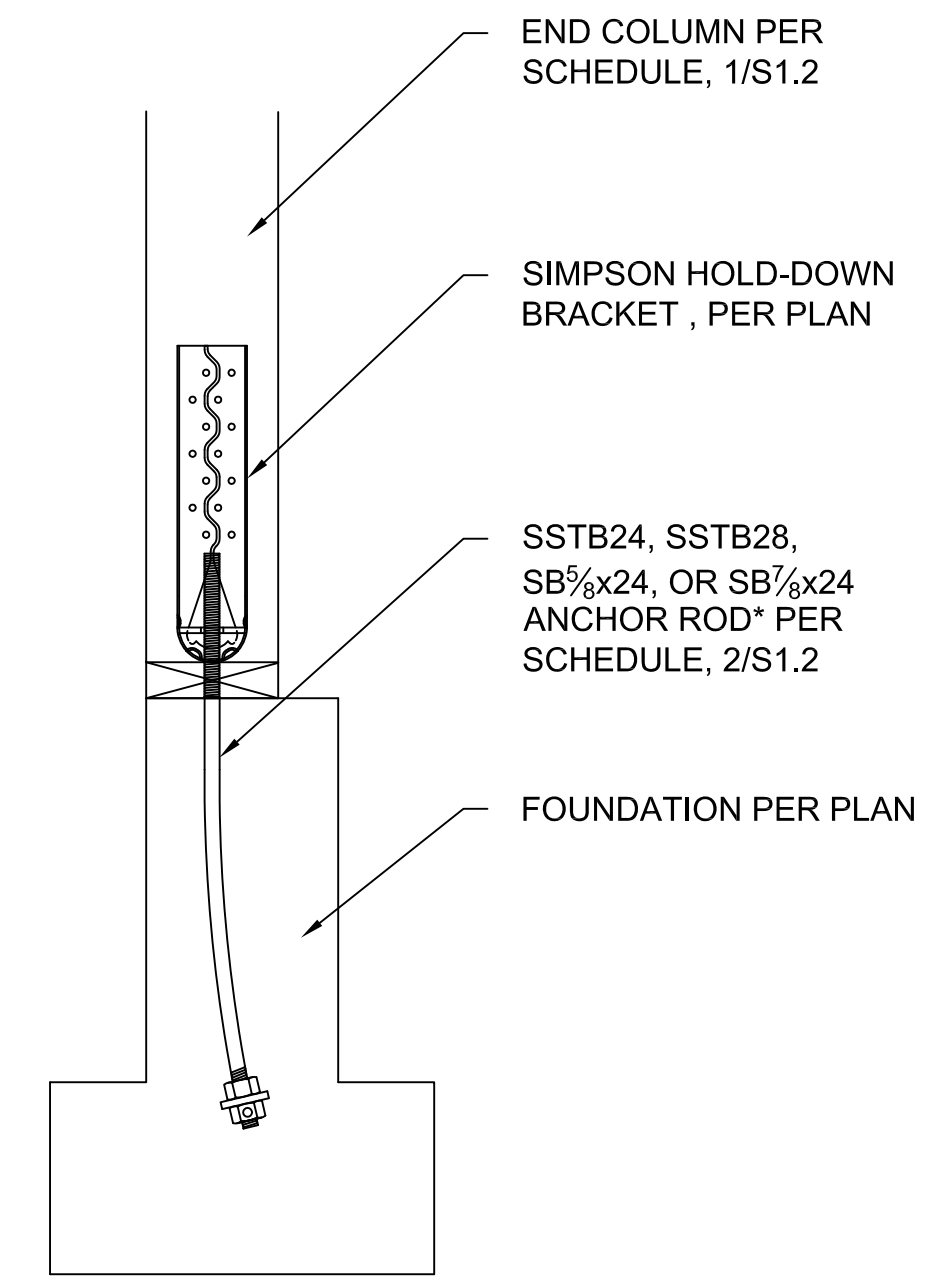


**2** PAB ANCHOR ROD  
**S1.2** CONCRETE COVERAGES  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



NOTE: THIS DETAIL APPLIES FOR INSTALLATION OF SIMPSON HOLD-DOWN BRACKETS HDU2-SDS2.5, HDU4-SDS2.5, HDU5-SDS2.5, AND HDU8-SDS2.5

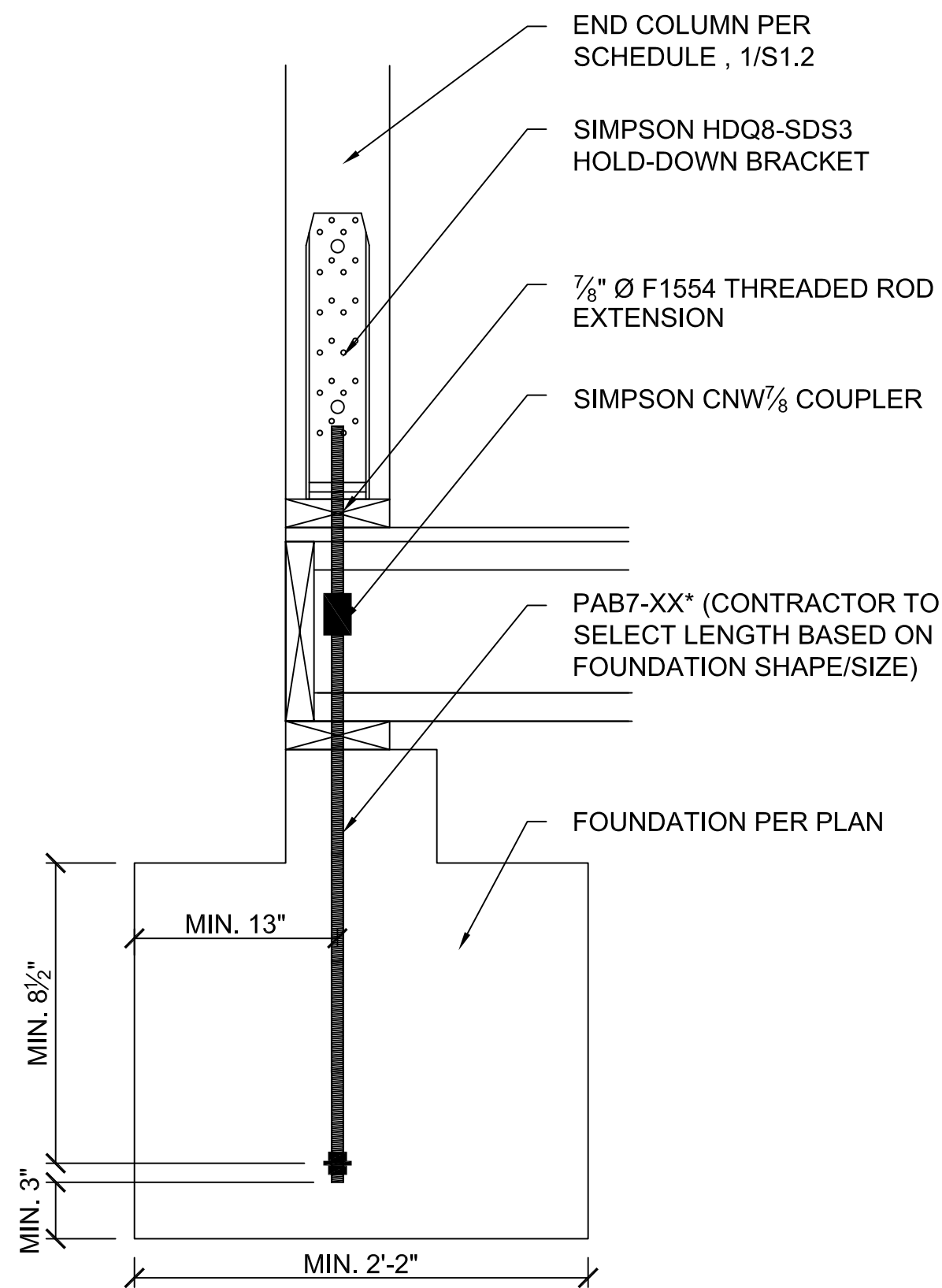
**3** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR INSTALLATION  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



NOTE: THIS DETAIL APPLIES FOR INSTALLATION OF SIMPSON HOLD-DOWN BRACKETS HDU2-SDS2.5, HDU4-SDS2.5, HDU5-SDS2.5, AND HDU8-SDS2.5

**4** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR INSTALLATION  
SCALE:  $1\frac{1}{2}$ " = 1'-0"

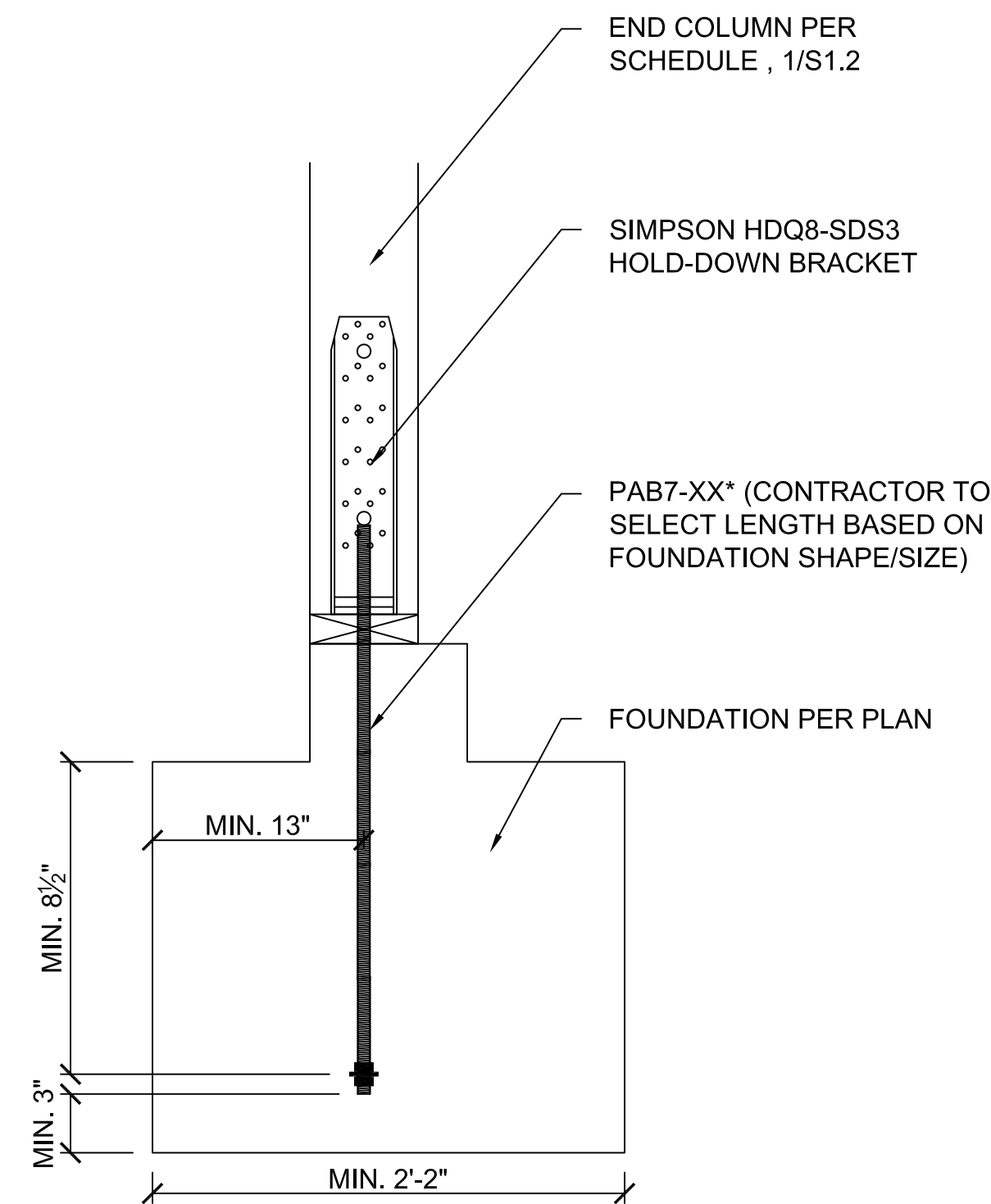
**1** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR SCHEDULE  
SCALE: N/A



NOTE: THIS DETAIL APPLIES FOR INSTALLATION OF SIMPSON HOLD-DOWN BRACKET HDQ8-SDS3

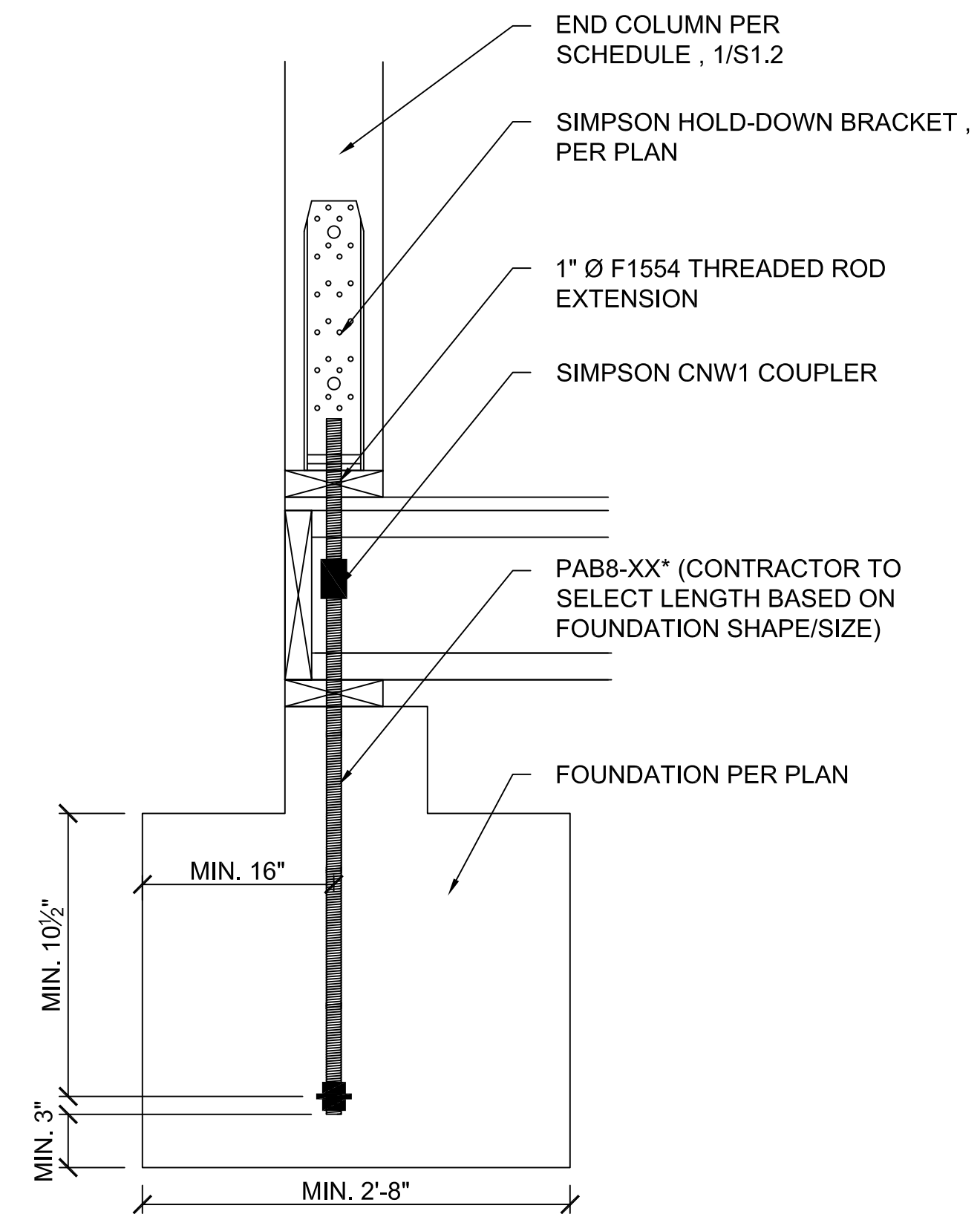
\* FOUNDATION ANCHOR FROM A MANUFACTURER OTHER THAN SIMPSON MAY BE SUBSTITUTED AS LONG AS ANCHOR HAS EQUIVALENT OR GREATER CAPACITY

**5** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR INSTALLATION  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



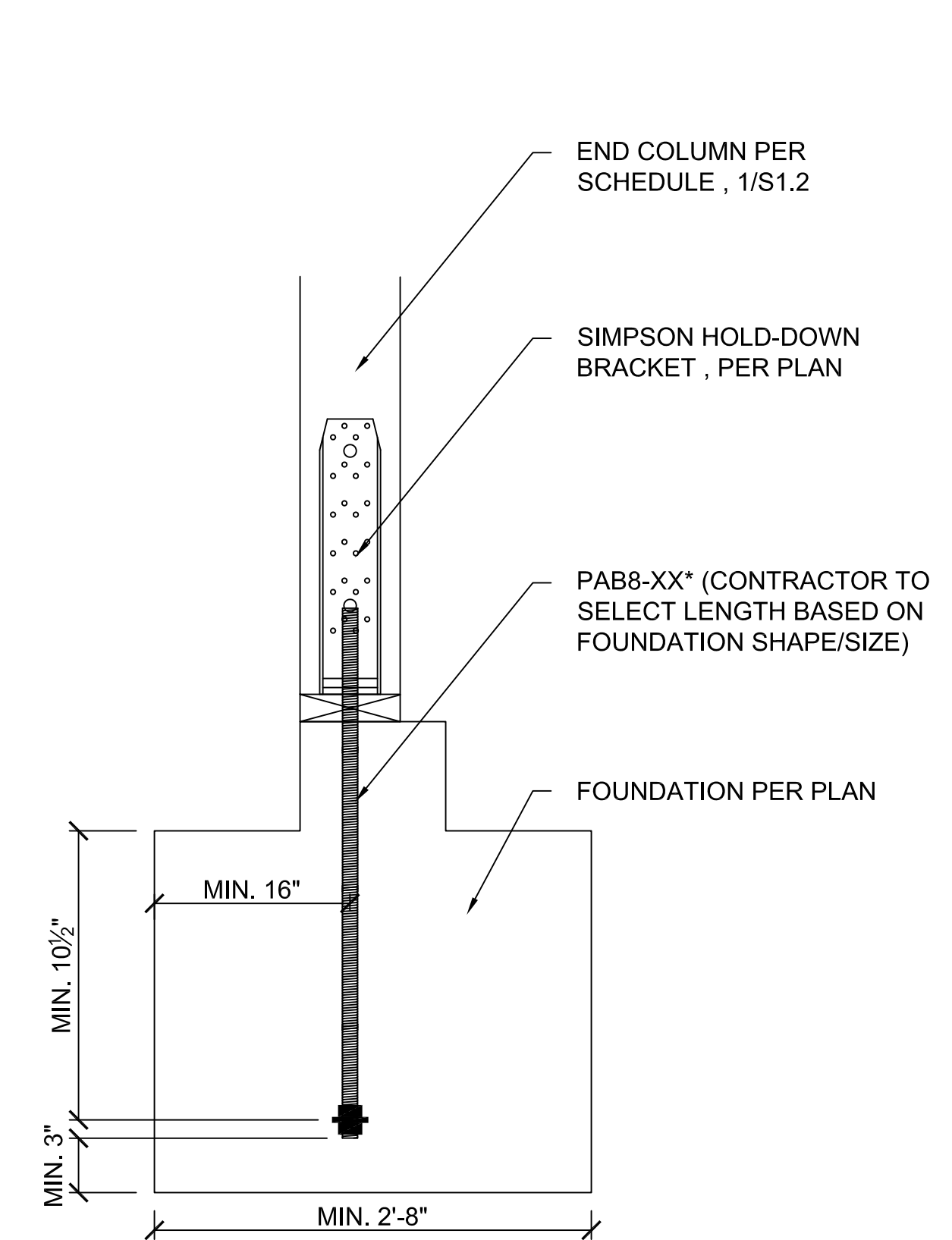
NOTE: THIS DETAIL APPLIES FOR INSTALLATION OF SIMPSON HOLD-DOWN BRACKET HDQ8-SDS3

**6** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR INSTALLATION  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



NOTE: THIS DETAIL APPLIES FOR INSTALLATION OF SIMPSON HOLD-DOWN BRACKETS HDQ11-SDS2.5 AND HDU14-SDS2.5

**7** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR INSTALLATION  
SCALE:  $1\frac{1}{2}$ " = 1'-0"



NOTE: THIS DETAIL APPLIES FOR INSTALLATION OF SIMPSON HOLD-DOWN BRACKETS HDQ11-SDS2.5 AND HDU14-SDS2.5

**8** HOLD-DOWN BRACKET AND  
**S1.2** ANCHOR INSTALLATION  
SCALE:  $1\frac{1}{2}$ " = 1'-0"

**VISTA**  
**STRUCTURAL**  
**ENGINEERING, LLC**

1140 SW QUEEN LANE \* BEAVERTON, OREGON 97008  
OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
\* DENNIS@VISTASTRUCTURAL.COM \* VISTASTRUCTURAL.COM

CLIENT: NEW LEGACY CONSTRUCTION, LLC  
JOB TITLE: SHMELEV RESIDENCE  
5907 SE LAMBERT STREET  
LOCATION: PORTLAND, OREGON 97206

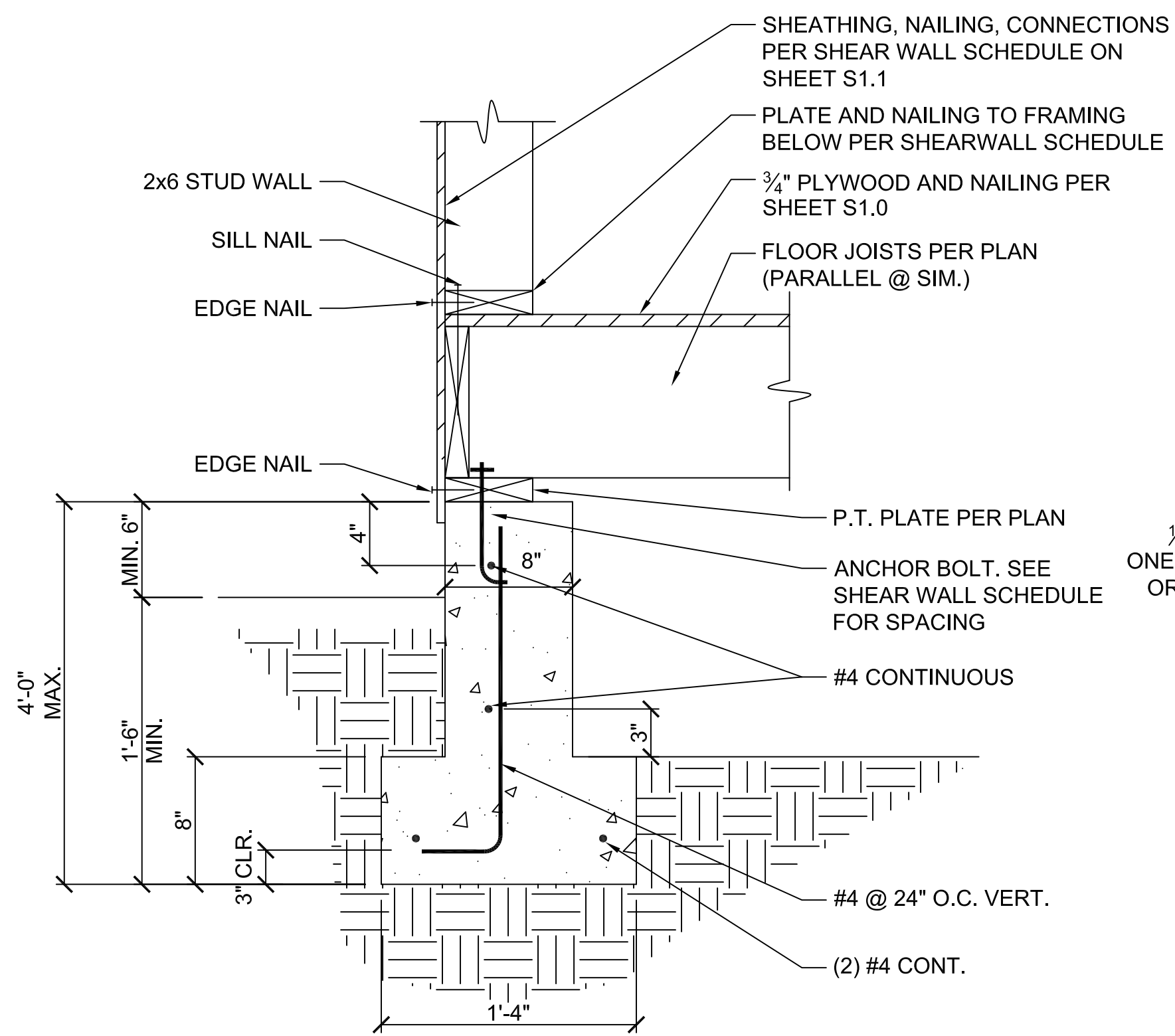
REGISTERED PROFESSIONAL  
ENGINEER  
68275  
OREGON  
JAN. 31, 2011  
DENNIS MICHAEL HEIER  
2-1-2017  
EXPIRES: 6/30/2017

NO.	DATE	REVISION	BY

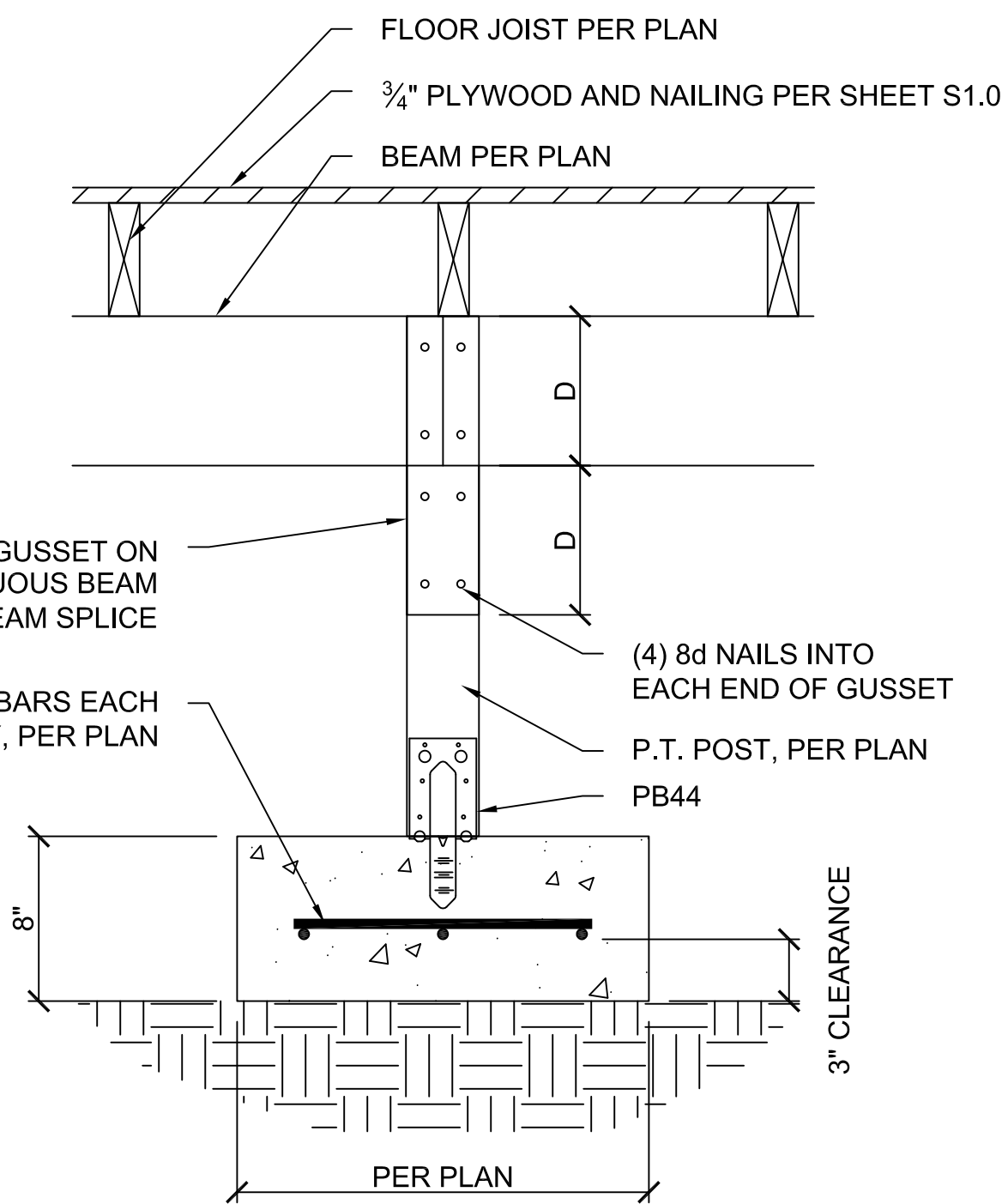
DRAWING TITLE  
**STRUCTURAL  
DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
JOB NO. 1539 DRAWN BY: DMH  
DATE: 2-1-17  
SHEET NUMBER

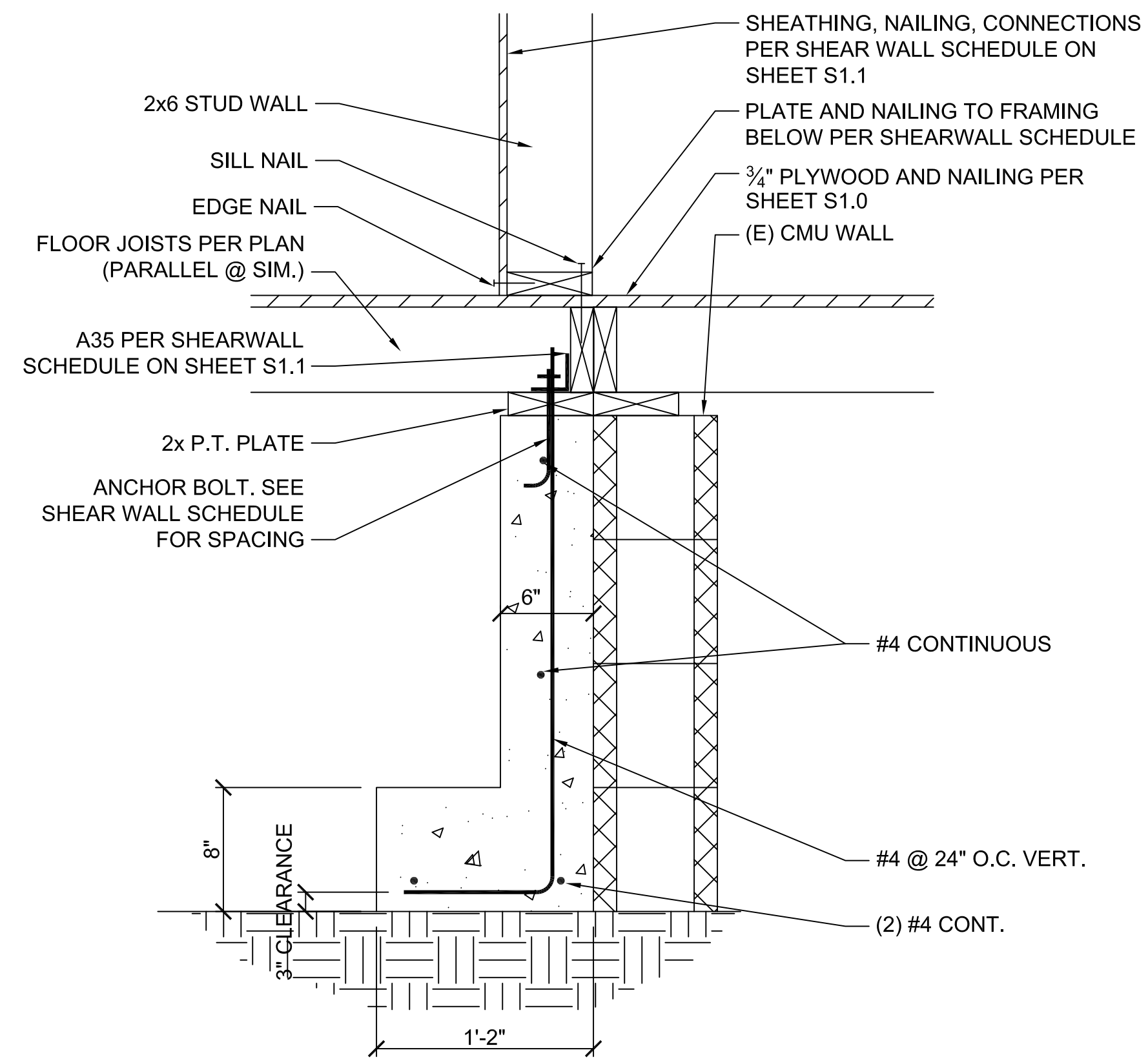
**S1.2**



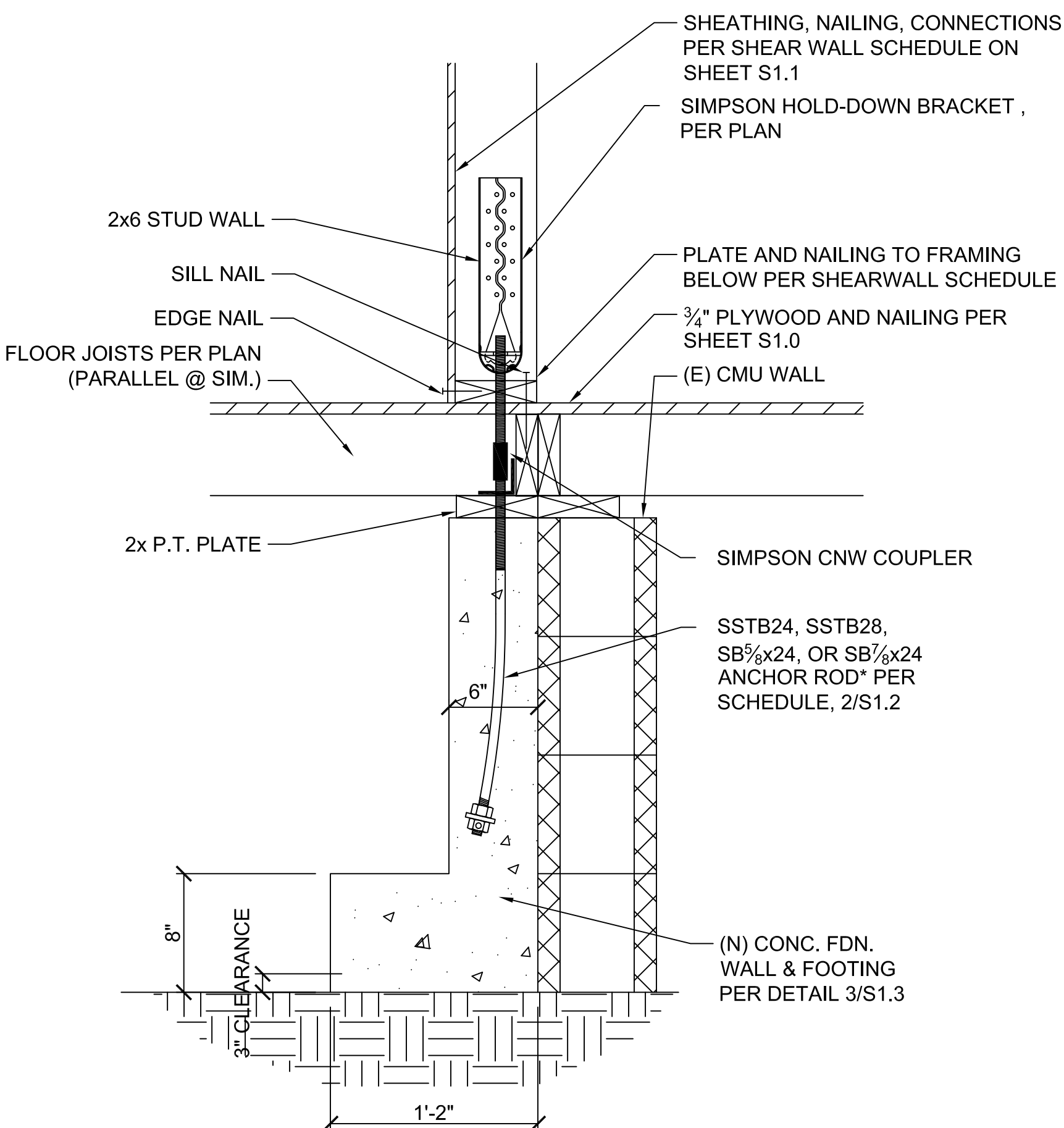
**1 FOUNDATION WALL DETAIL**  
**S1.3 (FRAMING PERP. TO WALL)**  
 SCALE: 1/2" = 1'-0"



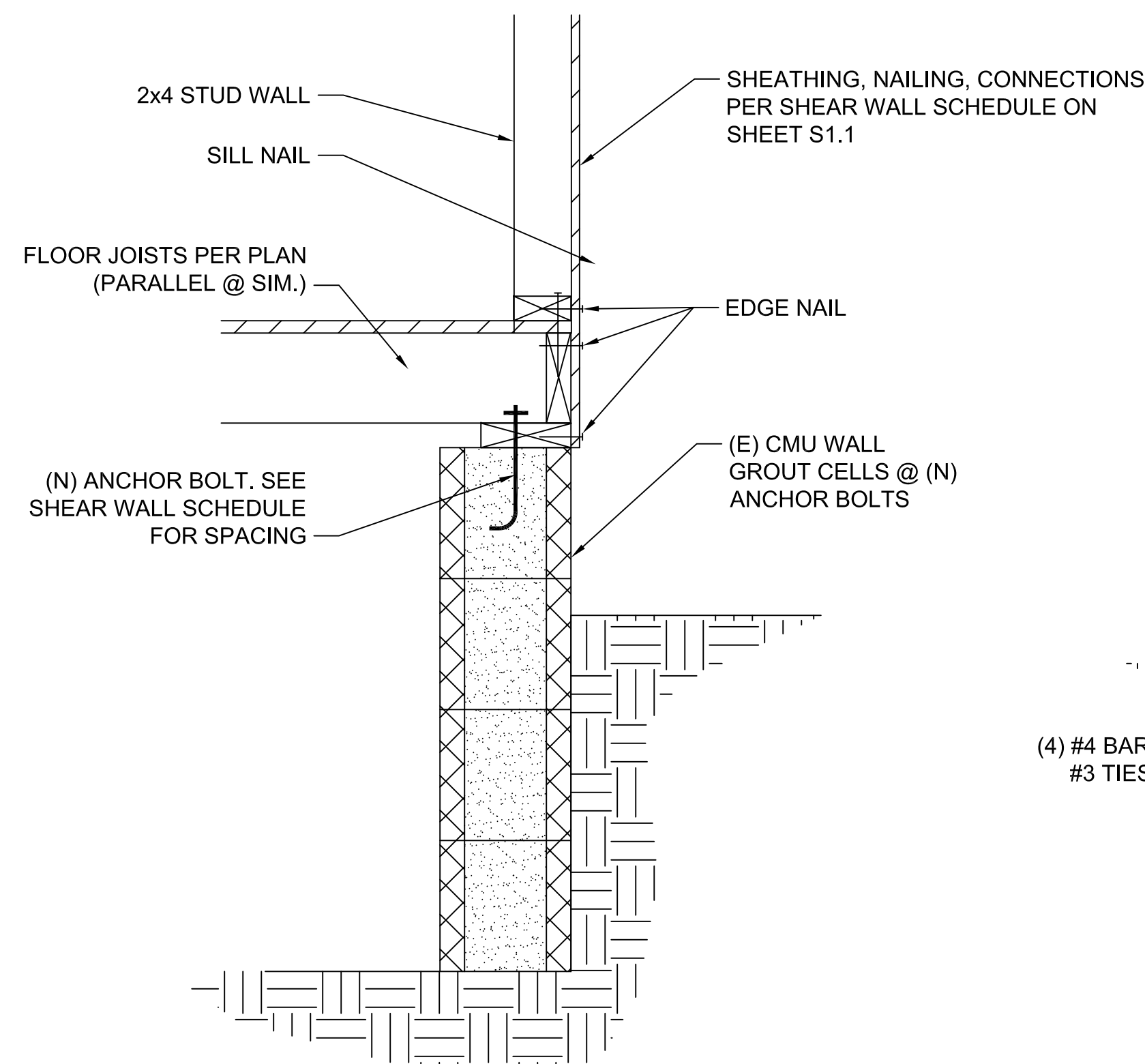
**2 CRAWL SPACE FOOTINGS**  
**S1.3** SCALE: 1/2" = 1'-0"



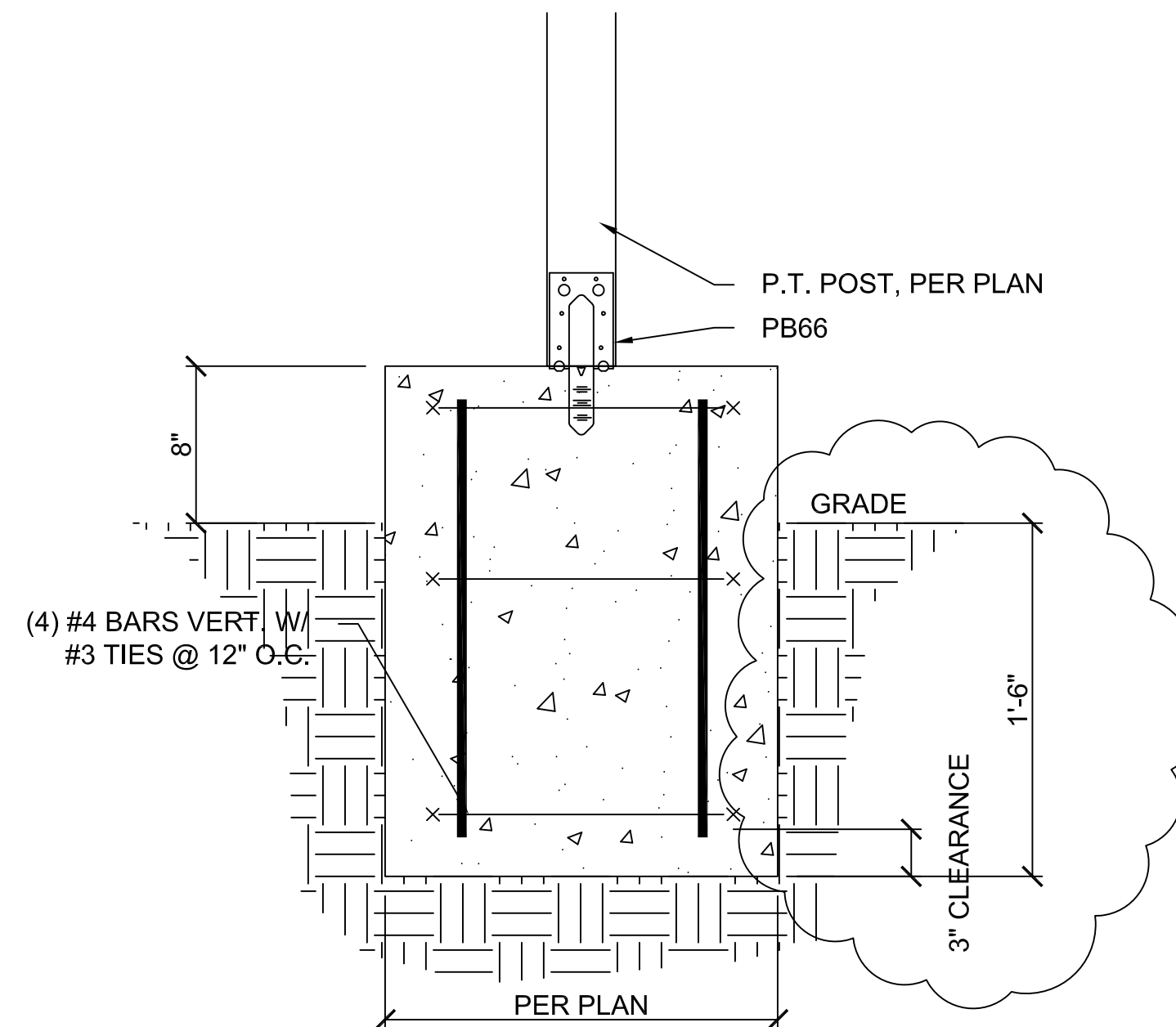
**3 NEW CONCRETE FOUNDATION**  
**@ (E) CMU WALL**  
**S1.3** SCALE: 1/2" = 1'-0"



**4 NEW SHEARWALL HOLDDOWN**  
**@ (E) CMU WALL**  
**S1.3** SCALE: 1/2" = 1'-0"



**5 SHEAR WALL UPGRADE**  
**@ (E) CMU WALL**  
**S1.3** SCALE: 1/2" = 1'-0"



**6 PORCH POST DETAIL**  
**S1.3** SCALE: 1/2" = 1'-0"

**VISTA**  
 STRUCTURAL  
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CLIENT: NEW LEGACY CONSTRUCTION, LLC  
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 5907 SE LAMBERT STREET  
 LOCATION: PORTLAND, OREGON 97206

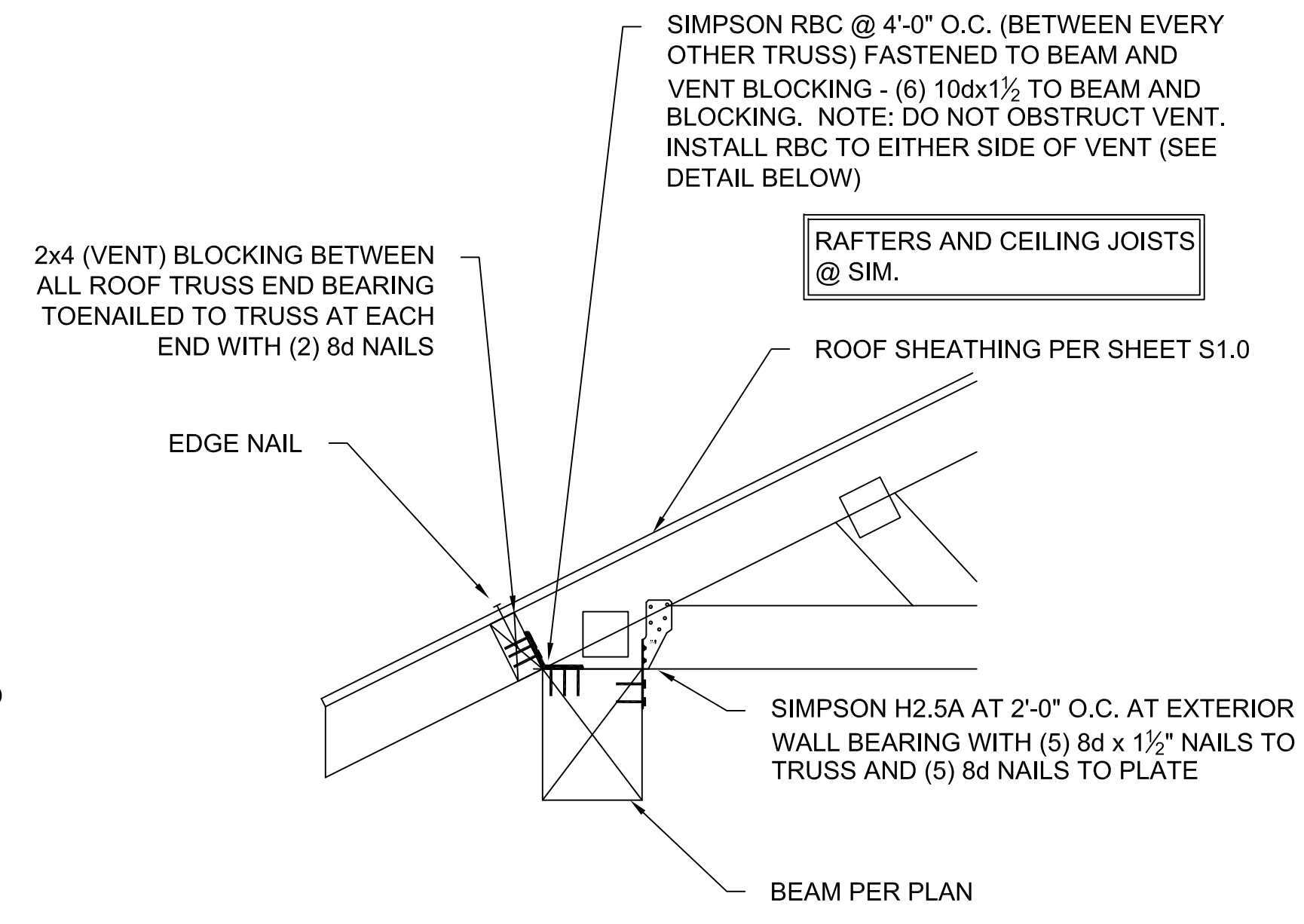
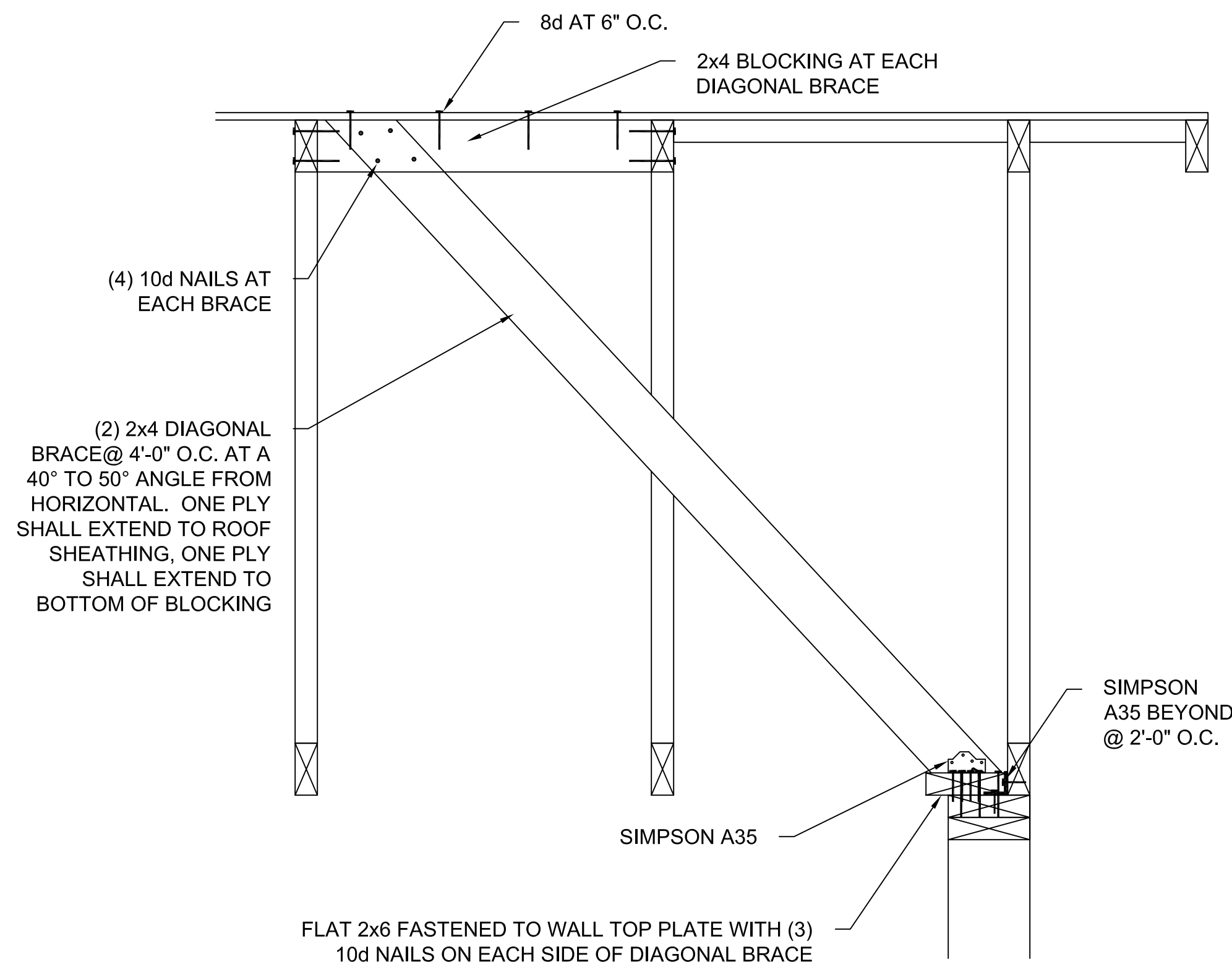
REGISTERED PROFESSIONAL  
 ENGINEER  
 65275  
 OREGON  
 JAN. 31, 2011  
 DENNIS MICHAEL HEER  
 2-1-2017  
 EXPIRES: 6/30/2017

NO.	DATE	REVISION	BY
1	12-19-16	CITY REVIEW	DMH

DRAWING TITLE  
**STRUCTURAL  
 DETAILS**

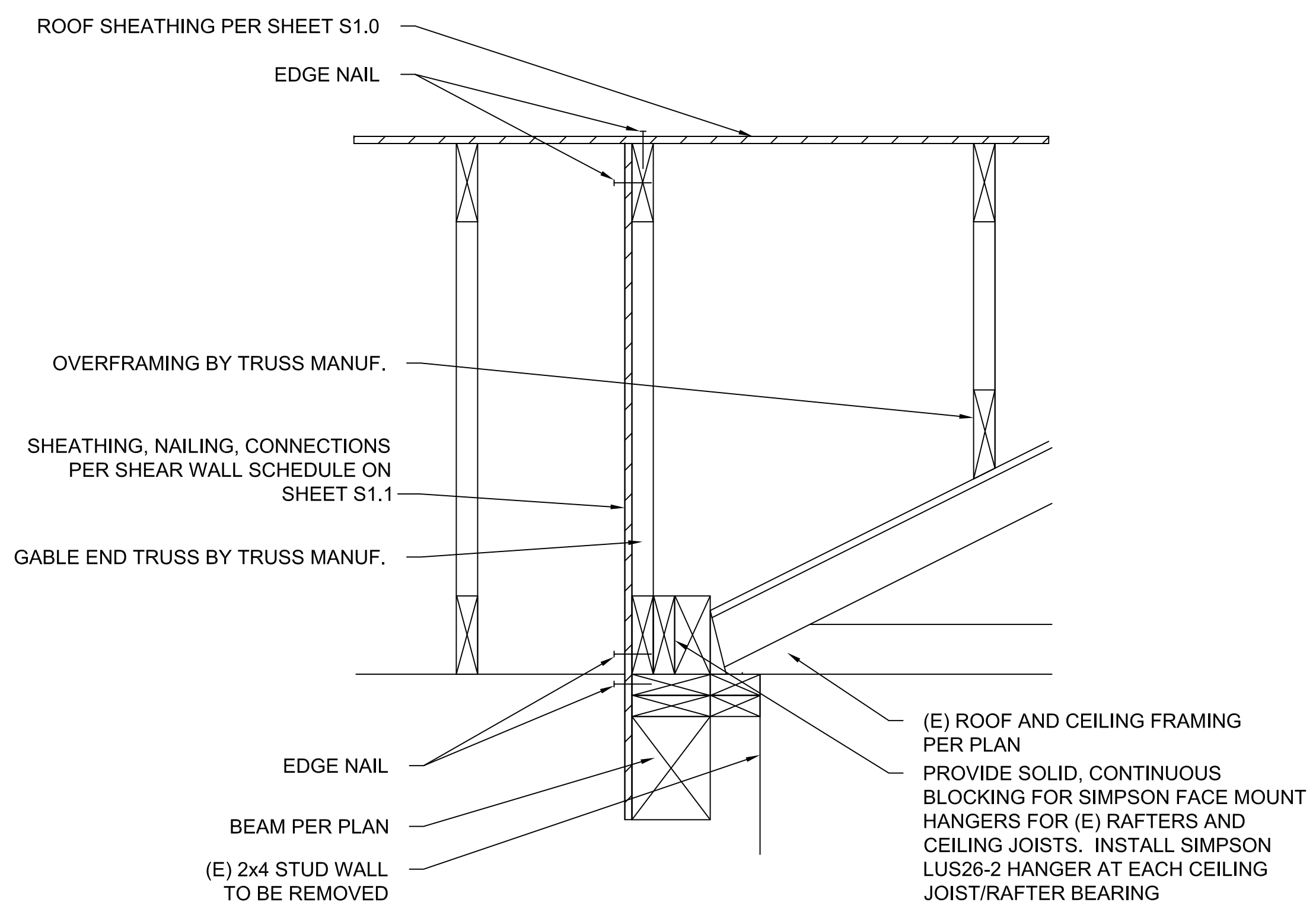
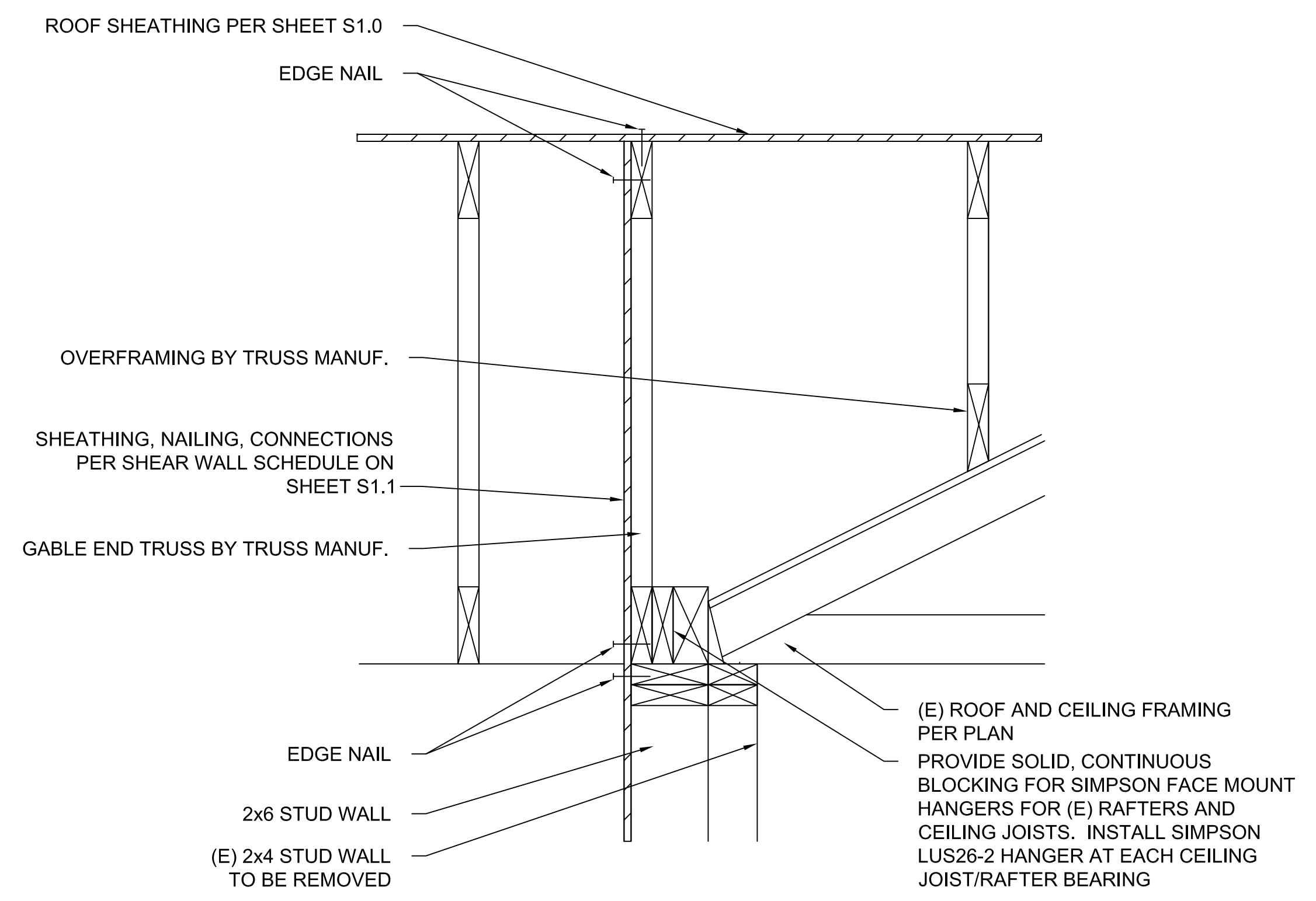
ENGINEER: DMH CHECKED BY: DMH  
 JOB NO. 1539 DRAWN BY: DMH  
 DATE: 2-1-17  
 SHEET NUMBER

**S1.3**



**1** SHEAR TRANSFER @ GABLE END TRUSS  
S1.4 SCALE: 1/2" = 1'-0"

**2** TRUSS TO BEAM CONNECTION  
S1.4 SCALE: 1/2" = 1'-0"



**3** TRUSS TO BEAM CONNECTION  
S1.4 SCALE: 1/2" = 1'-0"

**4** TRUSS TO BEAM CONNECTION  
S1.4 SCALE: 1/2" = 1'-0"

**VISTA**  
STRUCTURAL  
ENGINEERING, LLC

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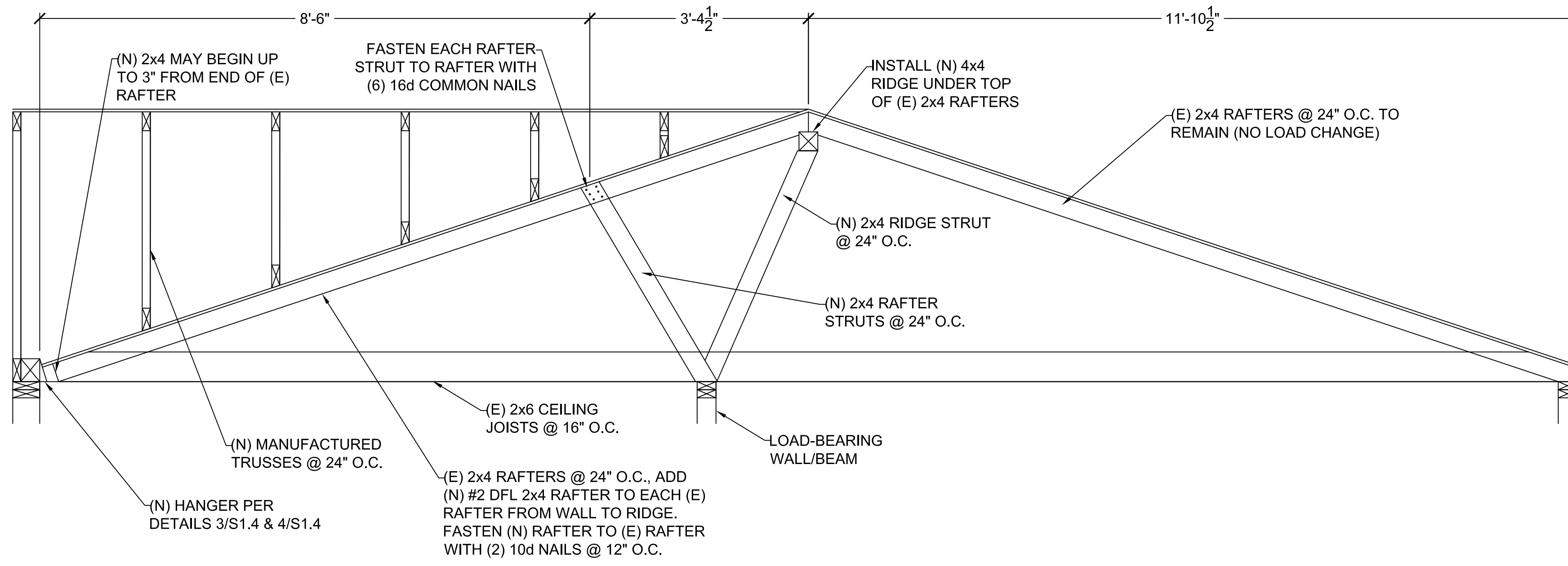
CLIENT: NEW LEGACY CONSTRUCTION, LLC  
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REGISTERED PROFESSIONAL  
ENGINEER  
86275  
OREGON  
JAN. 31, 2011  
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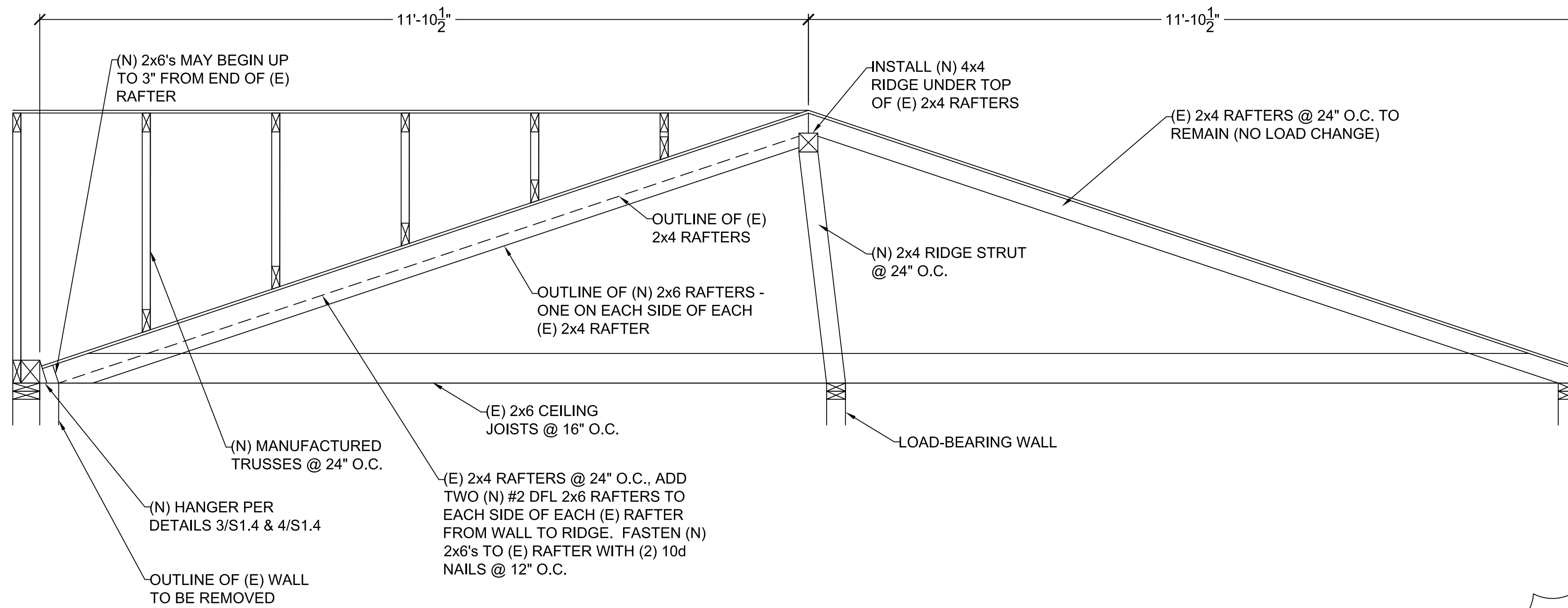
NO.	DATE	REVISION	BY
1	12-19-16	CITY REVIEW	DMH

DRAWING TITLE  
**STRUCTURAL  
DETAILS**

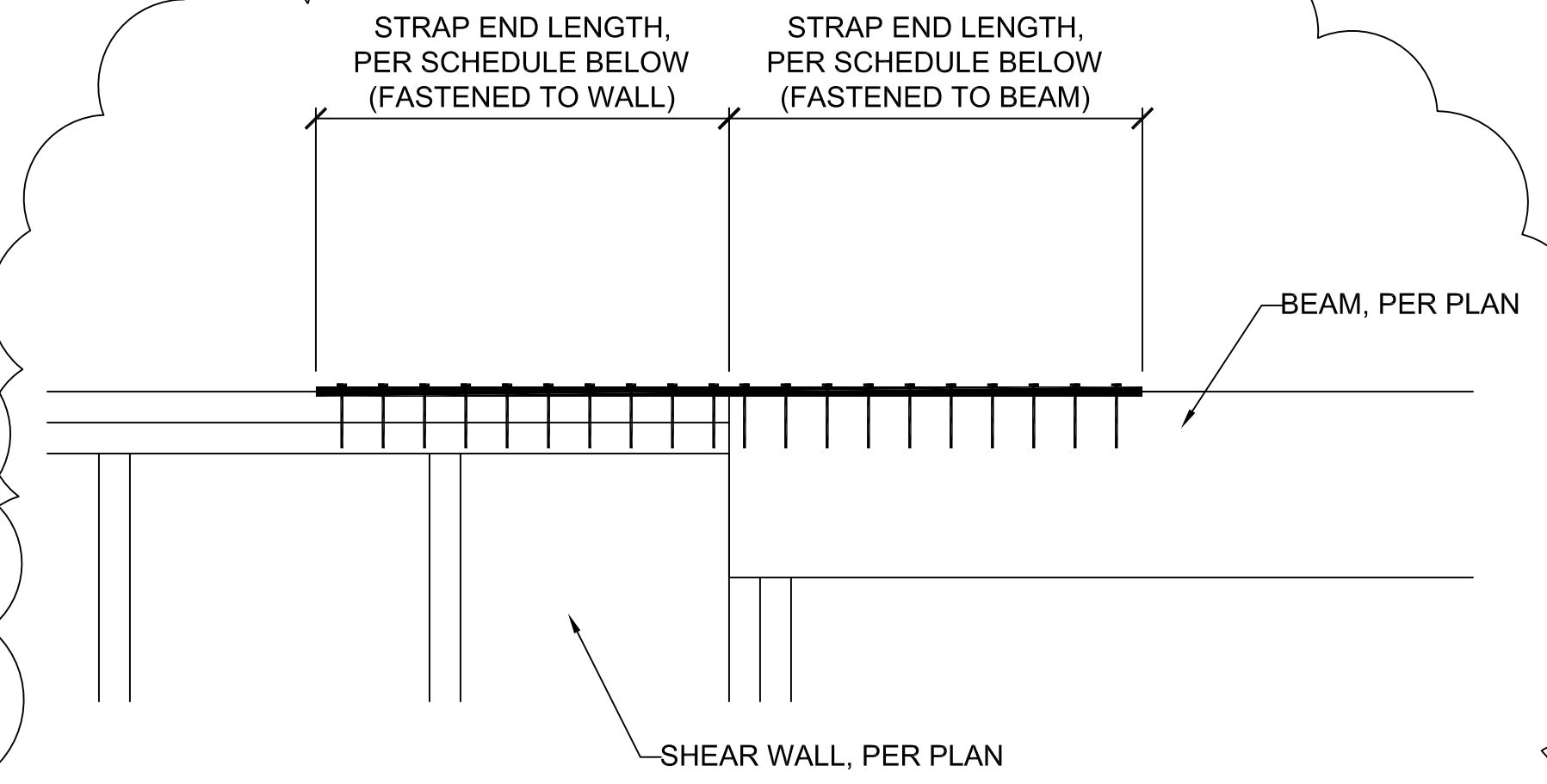
ENGINEER: DMH CHECKED BY: DMH  
JOB NO. 1539 DRAWN BY: DMH  
DATE: 2-1-17  
SHEET NUMBER  
**S1.4**



**1 (E) ROOF WITH OVERFRAME CROSS SECTION**  
**S1.5** SCALE: 3/4" = 1'-0"



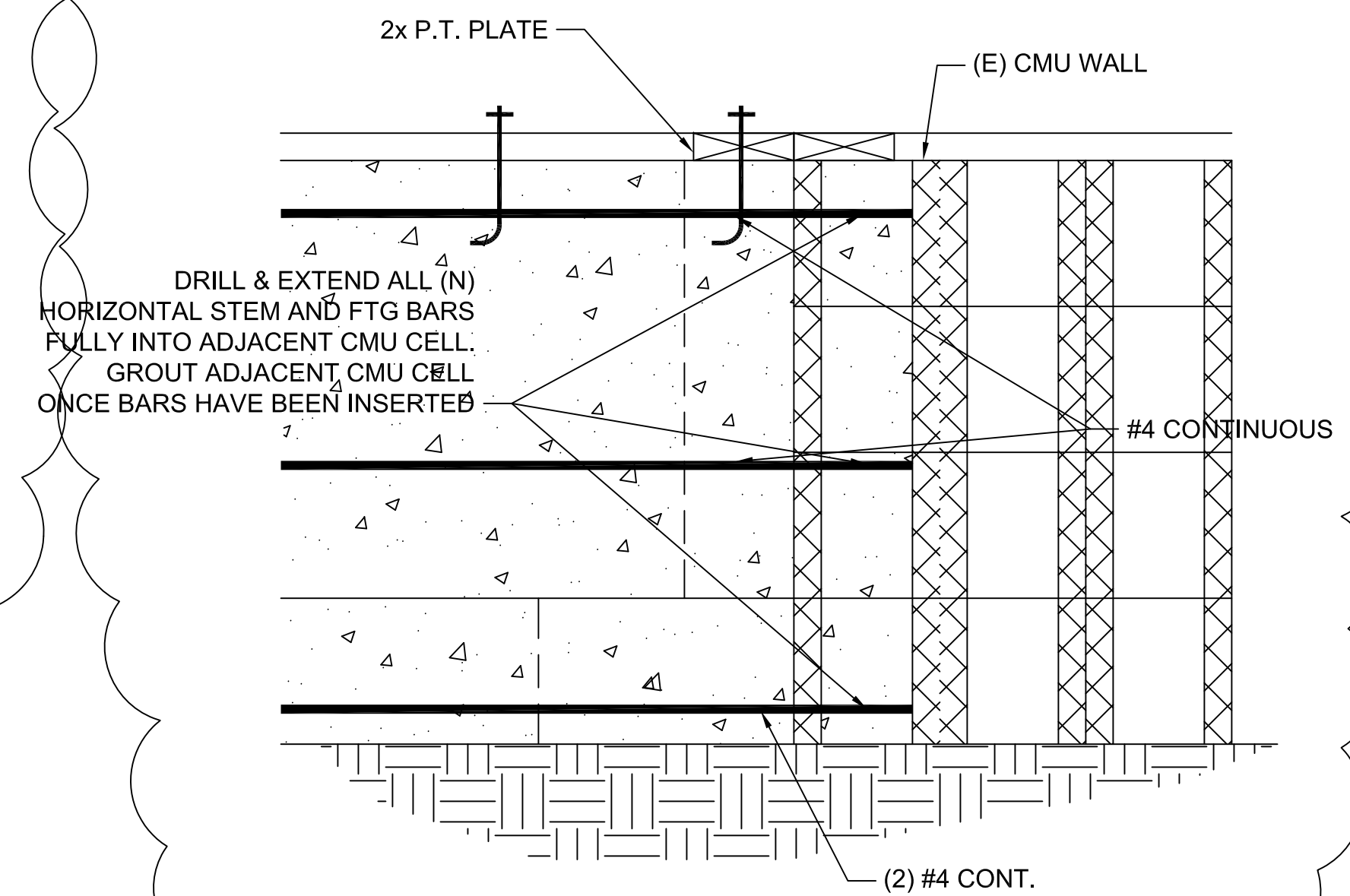
**2 (E) ROOF WITH OVERFRAME CROSS SECTION**  
**S1.5** SCALE: 3/4" = 1'-0"



DRAG STRUT STRAP SCHEDULE			
LABEL	SIMPSON STRAP	END LENGTH REQUIRED	SIZE AND NO. OF NAILS (a) IN EACH END LENGTH
DS-CS22	CS22	0'-6"	(6) 8d OR (5) 10d
DS-CS20	CS20	0'-9"	(7) 8d OR (6) 10d
DS-CS18	CS18	0'-11"	(9) 8d OR (8) 10d
DS-CS16	CS16	1'-1"	(11) 8d OR (10) 10d
DS-CS14	CS14	1'-4"	(15) 8d OR (13) 10d
DS-CMSTC16	CMSTC16	1'-8"	(25) 16d SINKER
DS-CMST14	CMST14	2'-6"	(33) 10d OR (28) 16d
DS-CMST12	CMST12	3'-3"	(43) 10d OR (37) 16d

a. NAILS: 16d=0.162"x3 1/2"; 16d SINKER=0.148"x3 1/4"; 10d=0.148"x3"; 8d=0.131"x2 1/2"

**3 DRAG STRUT STRAPPING SCHEDULE**  
**S1.5** SCALE: 1/2" = 1'-0"



**4 NEW CONCRETE FOUNDATION**  
**S1.5 @ (E) CMU WALL**  
 SCALE: 1/2" = 1'-0"

**VISTA**  
 STRUCTURAL  
 ENGINEERING, LLC

1140 SW QUEEN LANE \* BEAVERTON, OREGON 97008  
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CLIENT: NEW LEGACY CONSTRUCTION, LLC  
 JOB TITLE: SHIMELEV RESIDENCE  
 5907 SE LAMBERT STREET  
 LOCATION: PORTLAND, OREGON 97206

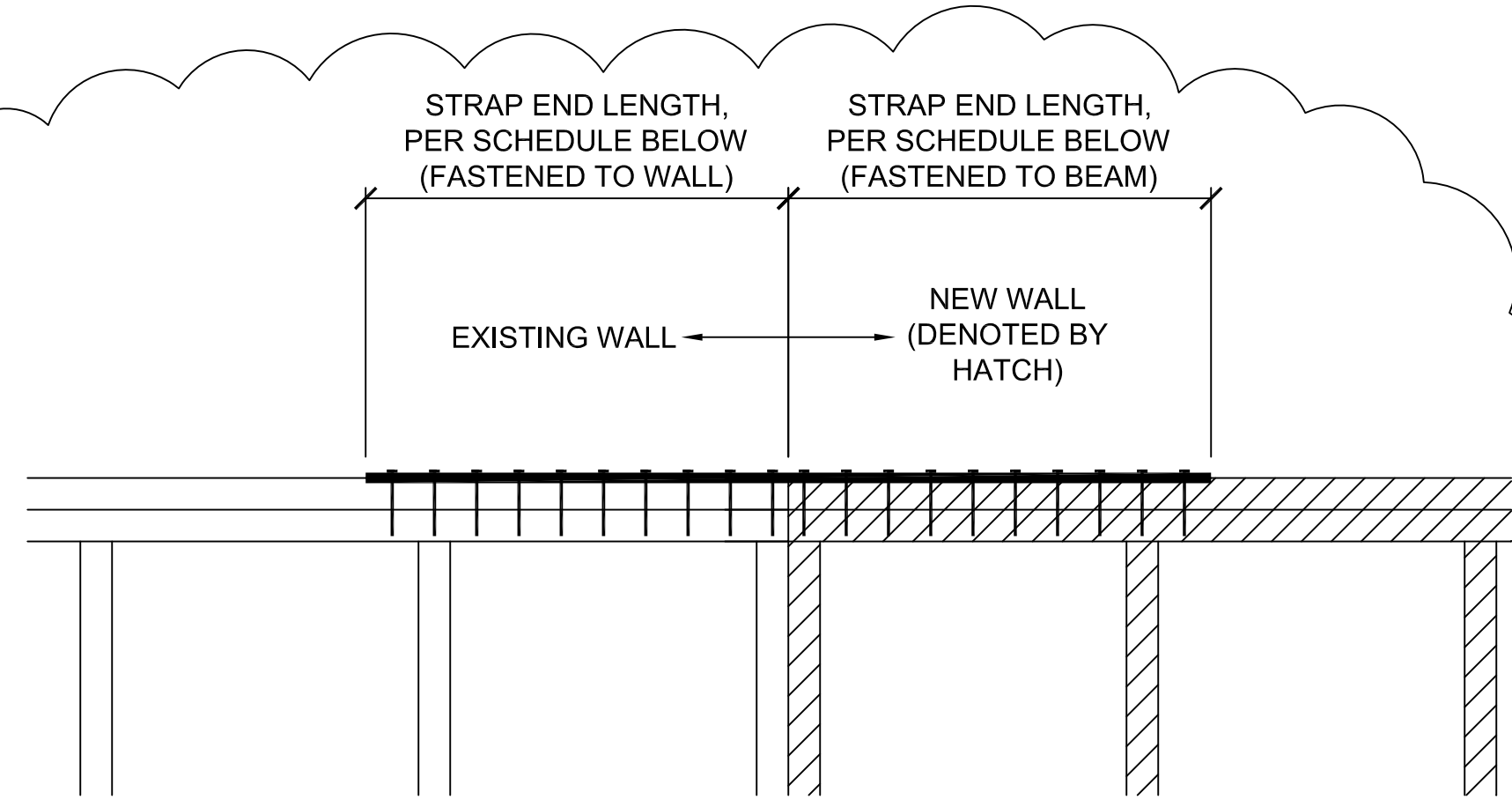
REGISTERED PROFESSIONAL  
 ENGINEER  
*DMH*  
 OREGON  
 JAN. 31, 2011  
 DENNIS MICHAEL HEER  
 2-1-2017  
 EXPIRES: 6/30/2017

NO.	DATE	REVISION	BY
1	12-19-16	CITY REVIEW	DMH

DRAWING TITLE  
**STRUCTURAL  
 DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
 JOB NO. 1539 DRAWN BY: DMH  
 DATE: 2-1-17  
 SHEET NUMBER

**S1.5**



TENSION STRAP SCHEDULE			
LABEL	SIMPSON STRAP	END LENGTH REQUIRED	SIZE AND NO. OF NAILS (a) IN EACH END LENGTH
TS-CS22	CS22	0'-6"	(6) 8d OR (5) 10d
TS-CS20	CS20	0'-9"	(7) 8d OR (6) 10d
TS-CS18	CS18	0'-11"	(9) 8d OR (8) 10d
TS-CS16	CS16	1'-1"	(11) 8d OR (10) 10d
TS-CS14	CS14	1'-4"	(15) 8d OR (13) 10d
TS-CMSTC16	CMSTC16	1'-8"	(25) 16d SINKER
TS-CMST14	CMST14	2'-6"	(33) 10d OR (28) 16d
TS-CMST12	CMST12	3'-3"	(43) 10d OR (37) 16d

a. NAILS: 16d=0.162"x3½"; 16d SINKER=0.148"x3¼"; 10d=0.148"x3"; 8d=0.131"x2½"

**1** TENSION STRAP - NEW WALL TO EXISTING  
**S1.6** SCALE: ¼" = 1'-0"

**VISTA**  
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 ENGINEER  
 86273  
 OREGON  
 JAN. 31, 2011  
 DENNIS MICHAEL HEIER  
 2-1-2017  
 EXPIRES: 6/30/2017

NO.	DATE	REVISION	BY
1	12-19-16	CITY REVIEW	DMH

DRAWING TITLE  
**STRUCTURAL  
 DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
 JOB NO. 1539 DRAWN BY: DMH  
 DATE: 2-1-17  
 SHEET NUMBER  
**S1.6**