

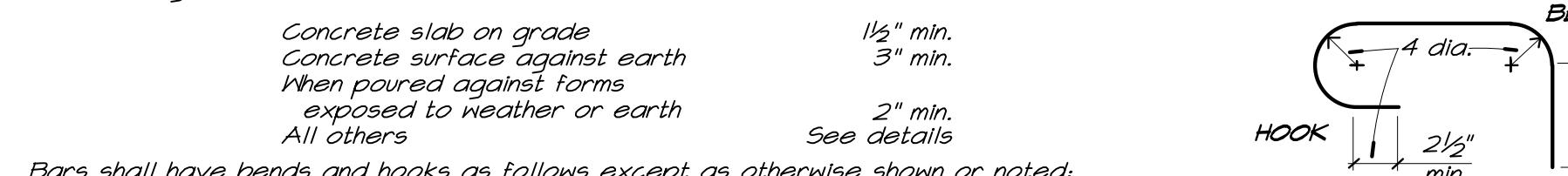
## GENERAL NOTES

**Site Condition:** The Contractor shall examine and check all existing conditions, dimensions, levels and material and notify the Architect of discrepancies.

**Footings:** Footings shall extend a minimum of 24" into engineered fill or below finished grade, whichever is lower. Footings are proportioned for an allowable soil pressure of 2000 psf for dead plus live loads. See Rock Solid Engineering, Inc. geotechnical investigation dated 8 February 2022.

**Concrete:** Concrete shall be proportioned to give a 28 day compressive strength of at least 2500 psi for slabs and foundations. The Portland Cement shall be Type 2 per ASTM C150. The slump shall be the minimum consistent with the condition of placing but in general shall not exceed 4 inches. All concrete construction shall be in accordance with Chapter 19 of the California Building Code, 2019 Edition.

**Reinforcing bars:** Reinforcing bars shall be deformed bars conforming to ASTM Standard Specification A615 Grade 40 for #4 bars and smaller and Grade 60 for #5 bars and larger. Reinforcing shall be placed in as long lengths as possible. Bars shall lap 60 dia. in concrete at splices unless otherwise shown or noted on the plans, using the diameter of the larger bar in case of difference in size. Splices shall be staggered and bars may be wired together at splices. Bend steel around corners 12" minimum. All reinforcing steel shall be in accordance with Chapter 19 of the California Building Code, 2019 Edition. Bar coverage (face of bar to face of concrete) shall be as follows unless noted otherwise.



**Concrete slab on grade:** Concrete surface against earth when poured against forms exposed to weather or earth. All others.

**Structural and Miscellaneous Steel:** Wide flange steel beams shall conform to ASTM A992, Grade 50 plates shall conform to ASTM A572, Grade 50 and other structural and miscellaneous steel shall conform to ASTM A36. Structural steel tubes shall conform to ASTM A500, Grade B. Fabrication, erection, welding and painting shall be in accordance with the latest edition of the American Institute of Steel Construction Specifications. All steel exposed to weather shall be galvanized.

**Glulaminated Beams:** Glulaminated beams shall be Douglas Fir, 1/2" laminations, combination 24F-V4 for simple span beams and 24F-V8 for multi-span or cantilever beams, with exterior glue. Fabricate in accordance with ANSI/AITC A40.1-12 Standards for wood products - glued laminated timber. All beams shall be Architectural appearance grade, where exposed to view and industrial appearance grade elsewhere, unless noted otherwise. Submit Certificate of Inspection by an approved agency certifying that the beams were manufactured in accordance with the drawings and specifications.

**Lumber:** Lumber shall be Douglas Fir No. 2 S4S or better for 4x and smaller and Douglas Fir No. 1 for 6x and larger unless otherwise shown. Pieces with serious defects shall be discarded. All joists and beams shall be yard seasoned and the maximum moisture content at time of installation shall be 18% or less. Plywood shall be APA CDX or Strick I in accordance with U.S. Commercial Standard PS1.

**Truss Joist:** Truss joists shall be designed for the following loads. Submit shop drawings and calculations for the review of the Architect and Building Dept.

Roof: Dead load = 20 psf	Floor: Dead load = 40 psf
Live load = 20 psf	Partition = 20 psf
Total load = 40 psf	Total load = 100 psf

**Nailing:** Nailing shall be common wire nails, galvanized when exposed to the exterior. Subdrill where there is danger of splitting. Size and spacing shall be as follows:

- Plywood
- All others

See Plywood Shear Schedule  
See Table 2304.10.1 California Building Code, 2019 Edition and NDS Chapter 7: Mechanical Fasteners

**Bolts:** Bolt holes in wood shall be 1/16 inch oversize. Washers shall be used on all bearings of heads and nuts against wood. Washers shall be standard plain washers except as otherwise noted. Bolts shall conform to ASTM A-307. Bolts, nuts and washers shall be galvanized where exposed to the weather.

**Hedge Anchors (In concrete):** All concrete anchor bolts of the expansion type (loaded in either pullout or shear), shall be proof tested in tension to twice the allowable tension load. Hedge anchors to be Hilti Kwik-Bolt T22 per IBC Report No. ESR-4266 issued 12/2020 or equal.

Size	Direct Pull-Out Tension	Torque Wrench-Torque	Embedments
3/8" dia.	1800#	30 ft-lb	3/16"
1/2" dia.	3800#	40 ft-lb	3/4"
5/8" dia.	5300#	60 ft-lb	4"
3/4" dia.	6800#	125 ft-lb	4 1/4"

**Bolt Tightening:** All nuts shall be tightened when placed and retightened at completion of project or immediately before finishing construction work which will make them inaccessible.

**Wood Sills:** Wood sills resting on concrete shall be pressure preservative treated Douglas Fir. Unless otherwise noted, anchor bolts shall be 5/8 inch diameter by 12 inches spaced no greater than 4'-0" o.c. with at least two bolts per piece of sill. All sills shall have plate washers 3"x3"x1/4". All connectors (nails, bolts, washers, framing anchors, etc.) in contact with preservation treated sills shall be hot dipped galvanized.

**Holes:** Holes in wood sills or plates of shear and bearing walls shall be placed neatly in the center of piece and shall be no larger in diameter than one-third the width of sill or plate. Notching will not be allowed. Holes larger than noted above may be bored in the sills providing the sill is considered cut in two and anchor bolts placed accordingly.

**Stud Walls:** Horizontal bridging shall be installed in all walls and partitions where studs are greater than 8' in height. Stud walls supporting beams shall have posts under bearing unless otherwise noted. All posts or stud walls intersecting with concrete (or masonry) shall have the end stud or post bolted with 1/2 inch diameter bolts at 4'-0" o.c.

**Double Plates:** Double plates shall lap a minimum of four feet at splices and be nailed with no less than 10-16d nails except as otherwise noted or shown. All cuts in plates shall occur over a bearing.

**Lintels:** Lintels over opening shall consist of a solid member the width of the studs and a nominal depth as given on framing plans or detail 3/SI.1.

**Cutting:** Cutting of joists and beams for pipes shall not be permitted without the approval of the Engineer.

**Framing Anchors:** Joist hangers, sheet metal framing clips and angles shall be as manufactured by Simpson Company or equal.

**Special Inspections:** The following special inspections, as required by Section 1705 of the California Building Code, 2019 Edition, shall be provided during construction on the following types of work. The Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner. The Owner shall bear costs of the test and/or inspections.

A. Structural Welding, per Section 1705.2 and AISC 360;

B. Wood shear walls and diaphragms with fastener spacing of 4 inches on center or less.

**General Design Criteria:**

**Sismic:**

Risk Category = I; I = 1.0	
Sismic Design Category = "D", Site Class "C"	
$S_0 = 1.612 g$	$S_1 = 0.61g$
$F_a = 1.2$	$F_v = 1.4$
$S_m = F_a S_0 = 1.934g$	
$S_m = F_v S_1 = 0.854g$	
$S_d = \frac{2}{3} g S_m = 1.289$	
$S_d = \frac{2}{3} g S_m = 0.57$	
$R = 6.5$ (shear wall), $R = 8$ (moment frame)	
$V = S_d W = 0.20W$ Shear Wall (Strength Design)	
$R/V = 0.16W$ Moment Frame (Strength Design)	

**Wind:**

Wind Exposure "C"
91 mph wind speed

**Live Loads:**

Root Live Load = 20 psf
Floor Live Load = 40 psf
Corridor/Deck Live Load = 100 psf

**Lateral Force-Resisting System:**

Wood Plywood Shear Walls typical  
Steel Moment Frame (where specified)

**Longitude & Latitude:**

Long: -122.0578

Lat: 36.9587

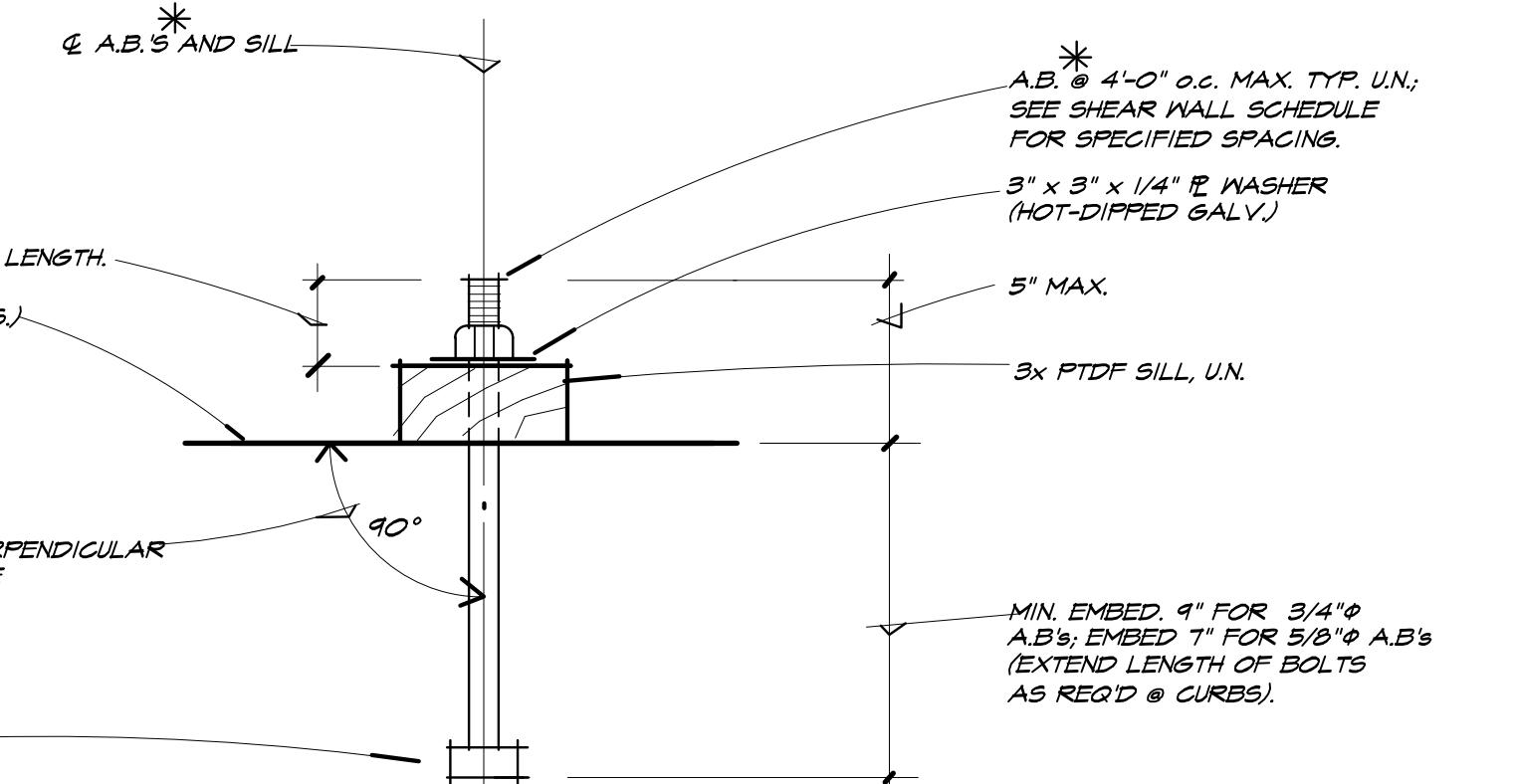
**Structural Observation:** During the construction the owner shall employ the structural engineer responsible for the structural design to make visits to the site to observe general compliance with the approved structural plans, specifications and change orders. The engineer shall submit a statement in writing to the building official stating the site visits have been made and that any deficiencies noted have been corrected.

**Note:** All construction not specifically detailed shall be built to conform with similar construction shown and the requirements of the California Building Code, 2019 Edition.

ABREVIATIONS

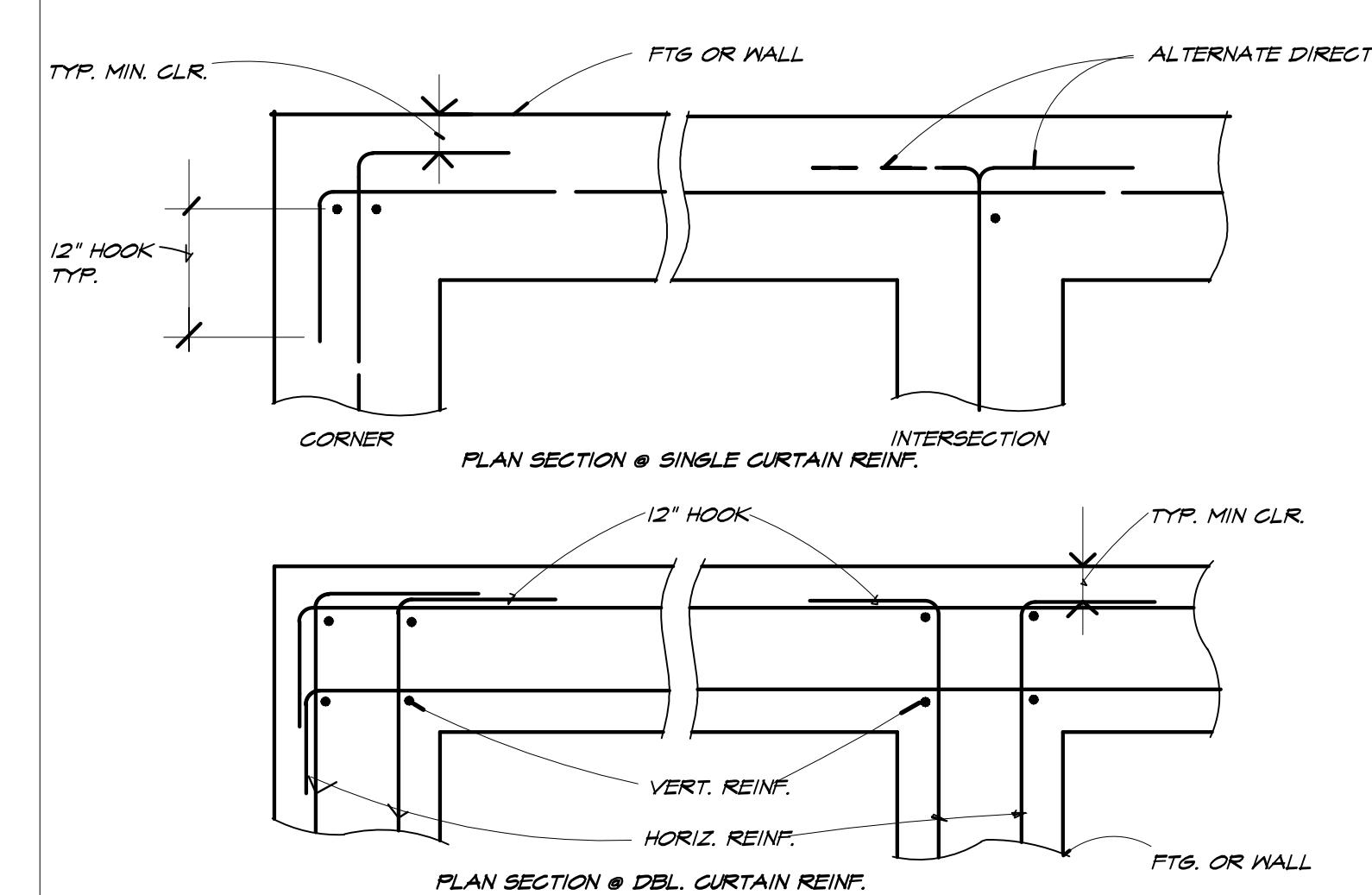
A.B.	= Anchor Bolt	Frmg.	= Framing	Perf.	= Performed
Arch. Drgs.	= Architectural Drawings	Ftmg.	= Foot Feet	Ply.	= Plywood
Blk.	= Block	Ft.	= Foot	Pl.	= Plate
Bkg.	= Blocking	Ga.	= Gauge	Reinf.	= Reinforcing
Bm.	= Beam	Galv.	= Galvanized	Ret.	= Retaining
Bott.	= Bottom	GL.	= Gilgal beam	Req.	= Requirements
Cant.	= Cantilever	GSM	= Galvanized Sheet Metal	Rf.	= Roof
Cl.	= Center Line	Hdr.	= Header	Rm.	= Room
Col.	= Clear	Ht.	= Height	Rdw.	= Redwood
Compl. Pen.	= Column	Horiz.	= Horizontal	S.B.	= Solid Blocking
Conc.	= Concrete	Jst.	= Joist	Shtg.	= Sheathing
Cont.	= Continuous	Max.	= Maximum	Sim.	= Similar
Dbl.	= Double	M.B.	= Machine Bolt	Sq.	= Square
D.F.	= Douglas Fir	M.B.M.	= Metal Bldg Manufacturer Std.	Std.	= Standard
Dia.	= Diameter	Mech.	= Mechanical	T.E.N.	= Typical Edge Nailing
(E)	= Existing	Min.	= Minimum	T&G	= Tongue and Groove
Eq.	= Equal	IN.	= Never	TS	= Structural Steel Tube
F.	= Floor	N.T.S.	= Not to Scale	Tgt.	= Tilt
Fnd.	= Foundation	O.C.	= On Center	U.N.	= Unless Noted
F.O.C.	= Face of Concrete	O.H.	= Opposite Hand	Vert.	= Vertical
F.O.S.	= Face of Studs	P.M.P.	= Perforated Metal Pipe	W.H.F.	= Welded Wire Fabric
		P.T.D.F.	= Pressure Treated	W.	= Steel Beam
		Douglas Fir		W.A.	= Wedge Anchor

21 OCT 2022 13:30 KM



## ANCHOR BOLTS in CONCRETE

(SEE 5/SI.3 FOR HOLDDOWN BOLTS)



## TYP. WALL &amp; FTG. REINF. @ CORNERS

and INTERSECTIONS (CONCRETE AND MASONRY)

5 SI.1

## TYPICAL NON-BEARING PARTITIONS

6 SI.1

## REINF. LAP SCHEDULE

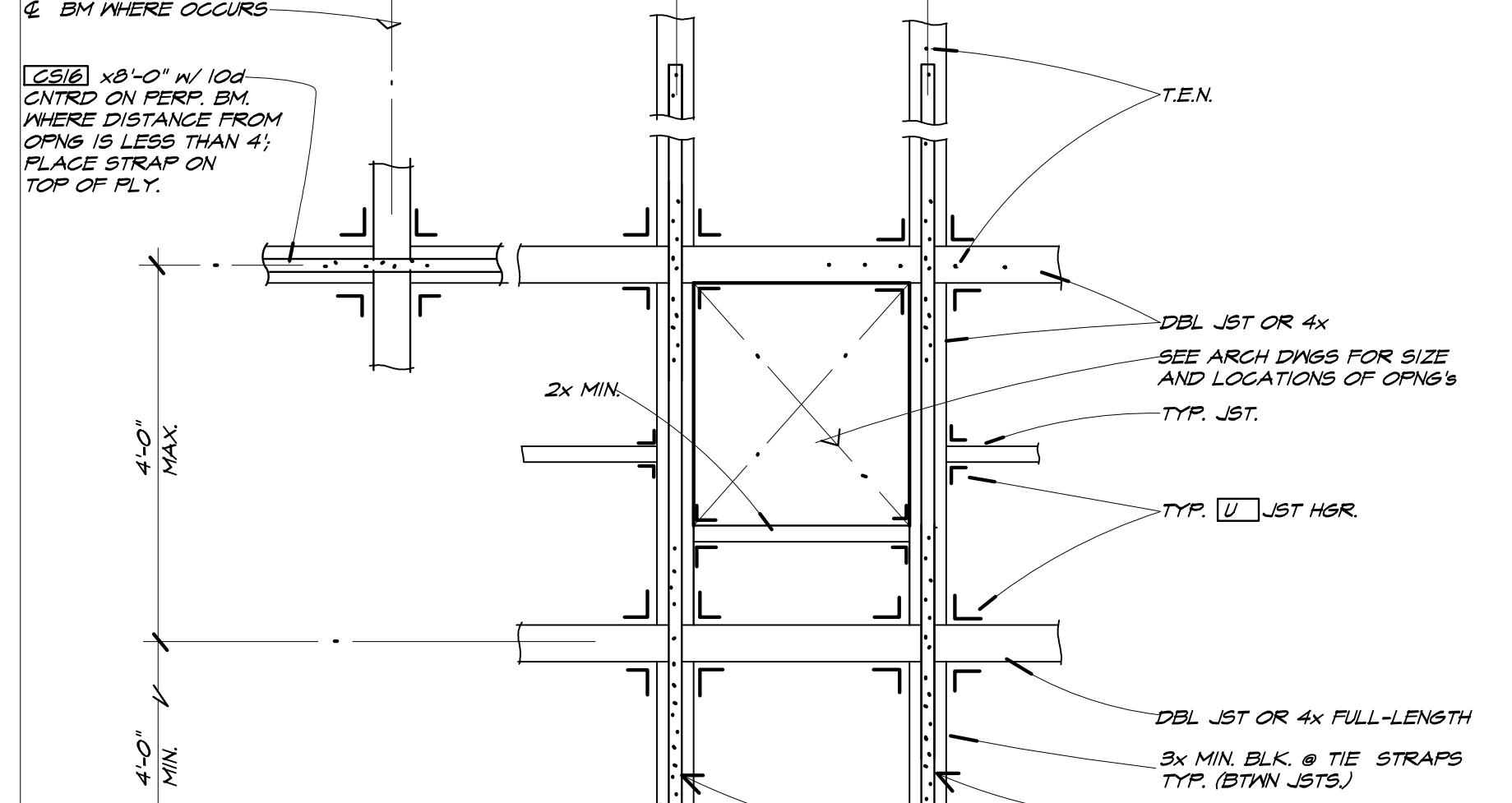
	CONCRETE $F_C = 3000$ psi	
	BOTT. AND OTHER BARS	TOP BARS (2)
#3	1'-11"	2'-4"
#4	2'-6"	3'-2"
#5	3'-0"	4'-0"
#6	3'-7"	4'-8"
#7	5'-3"	6'-9"

## NOTES:

1. LAPS ARE TYPE B.
2. TOP REINFORCING IS HORIZ. REINFORCING THAT HAS MORE THAN 12" OF CONCRETE BELOW

## REINF. LAP SCHED.

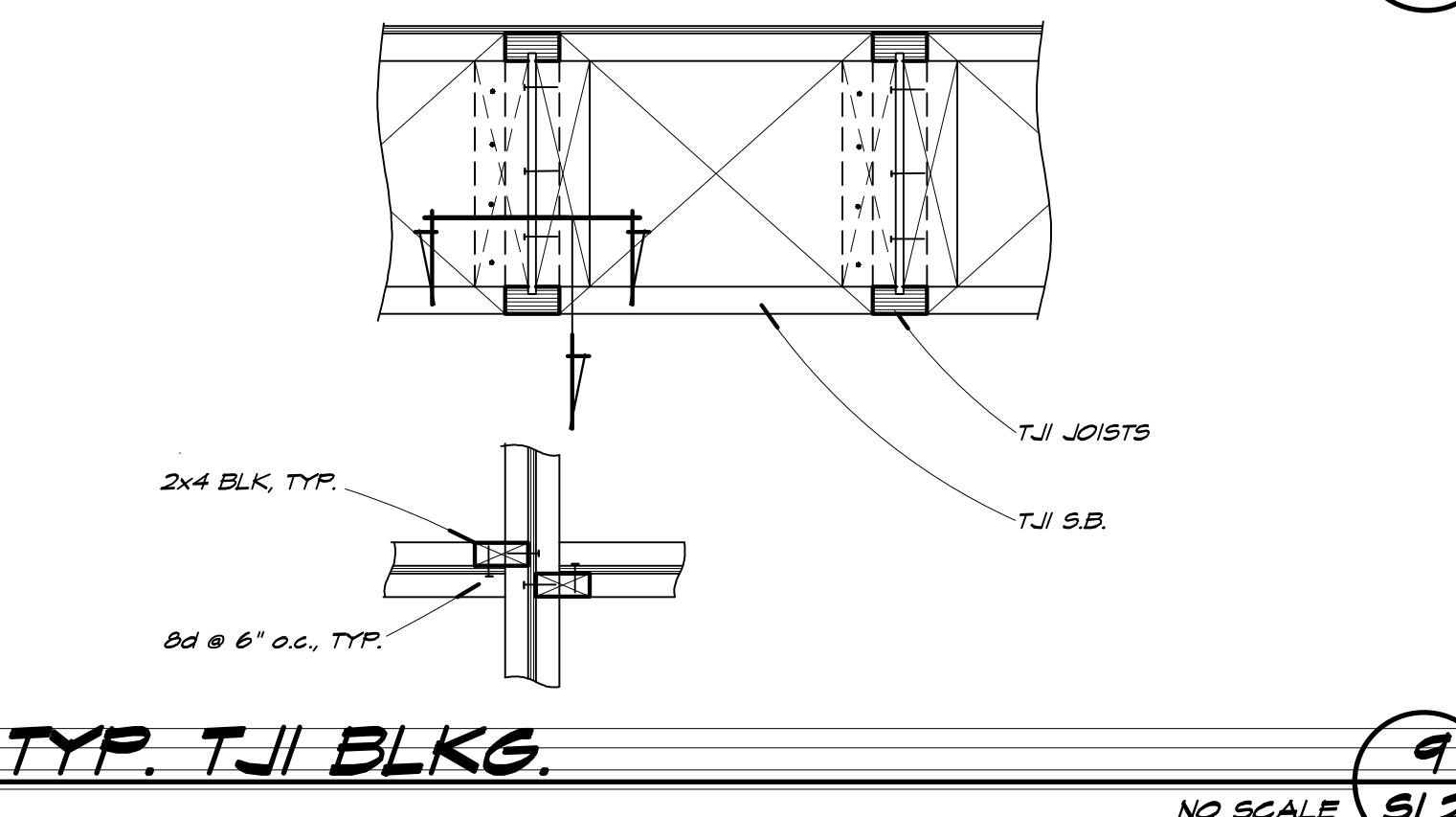
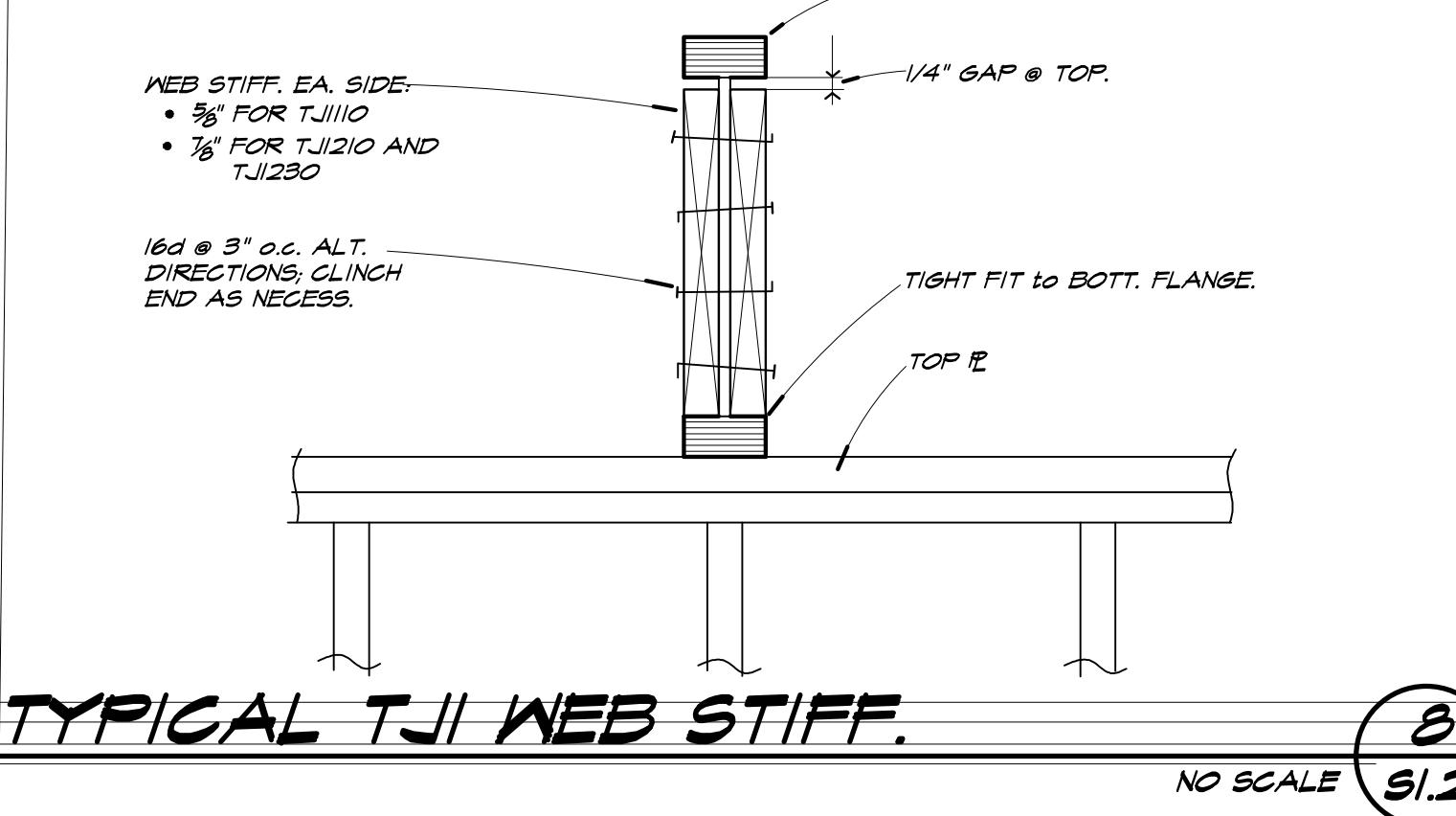
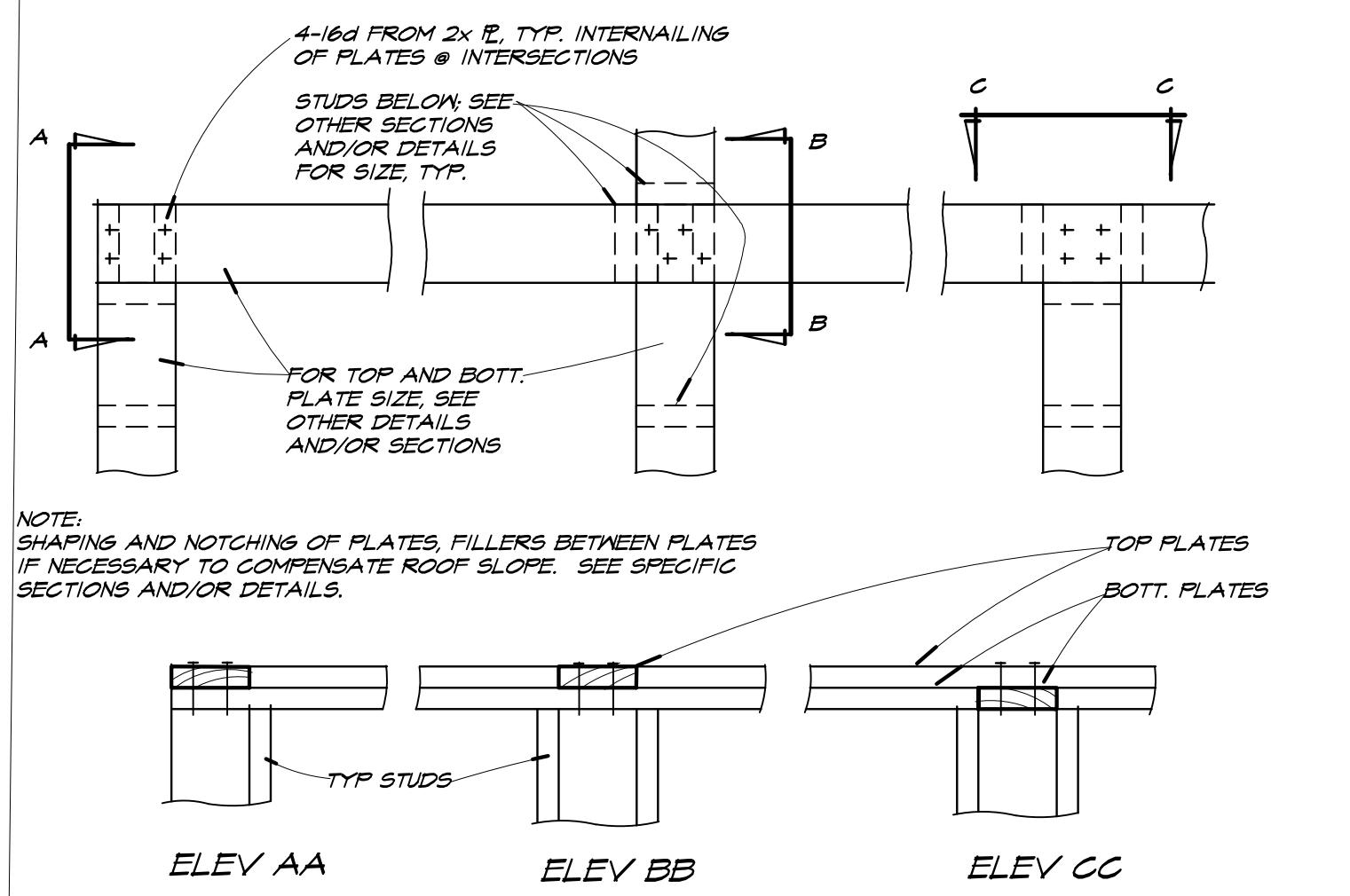
7 SI.1



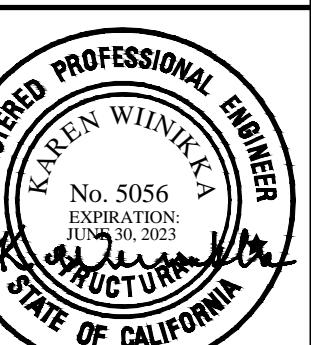
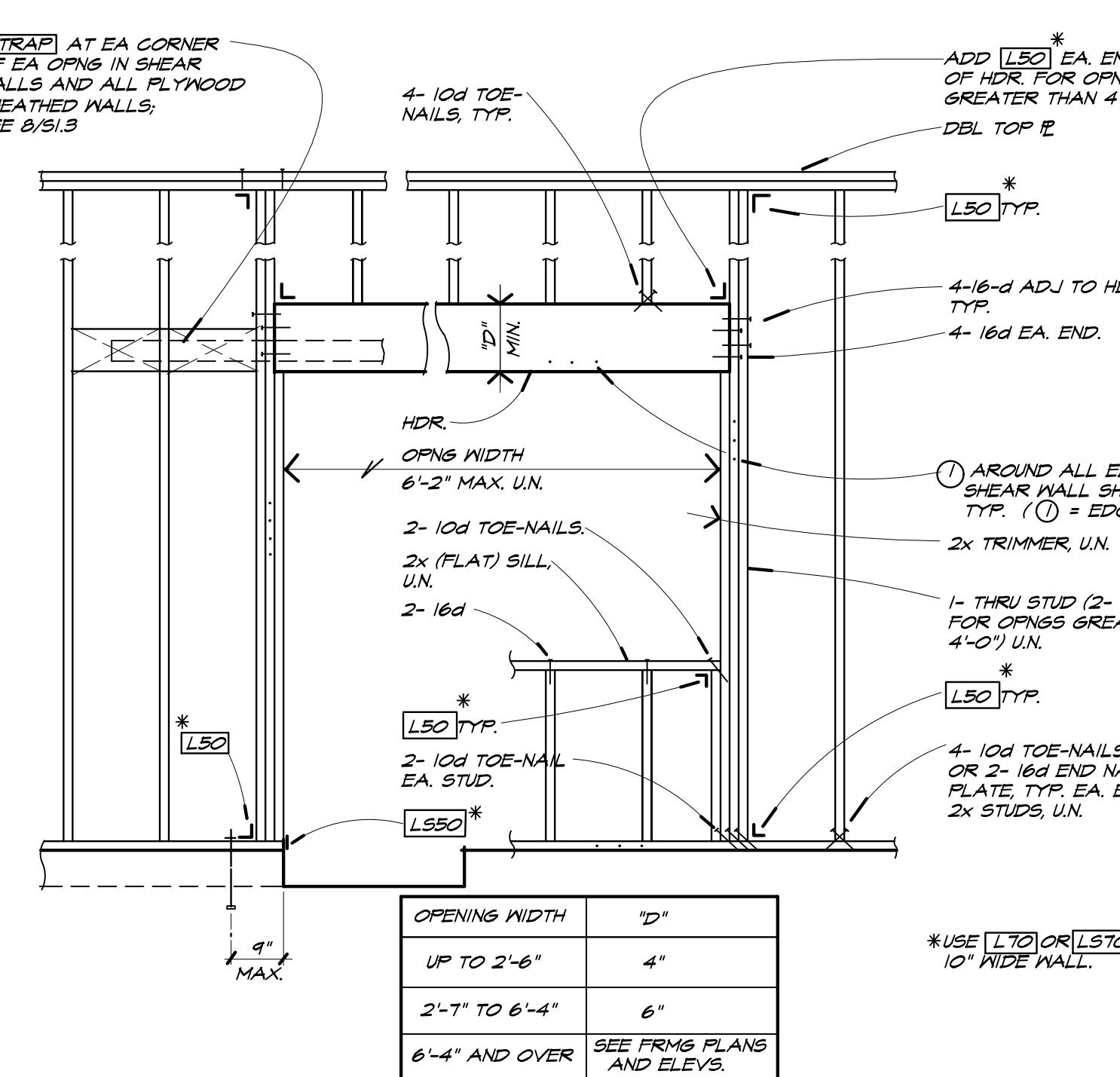
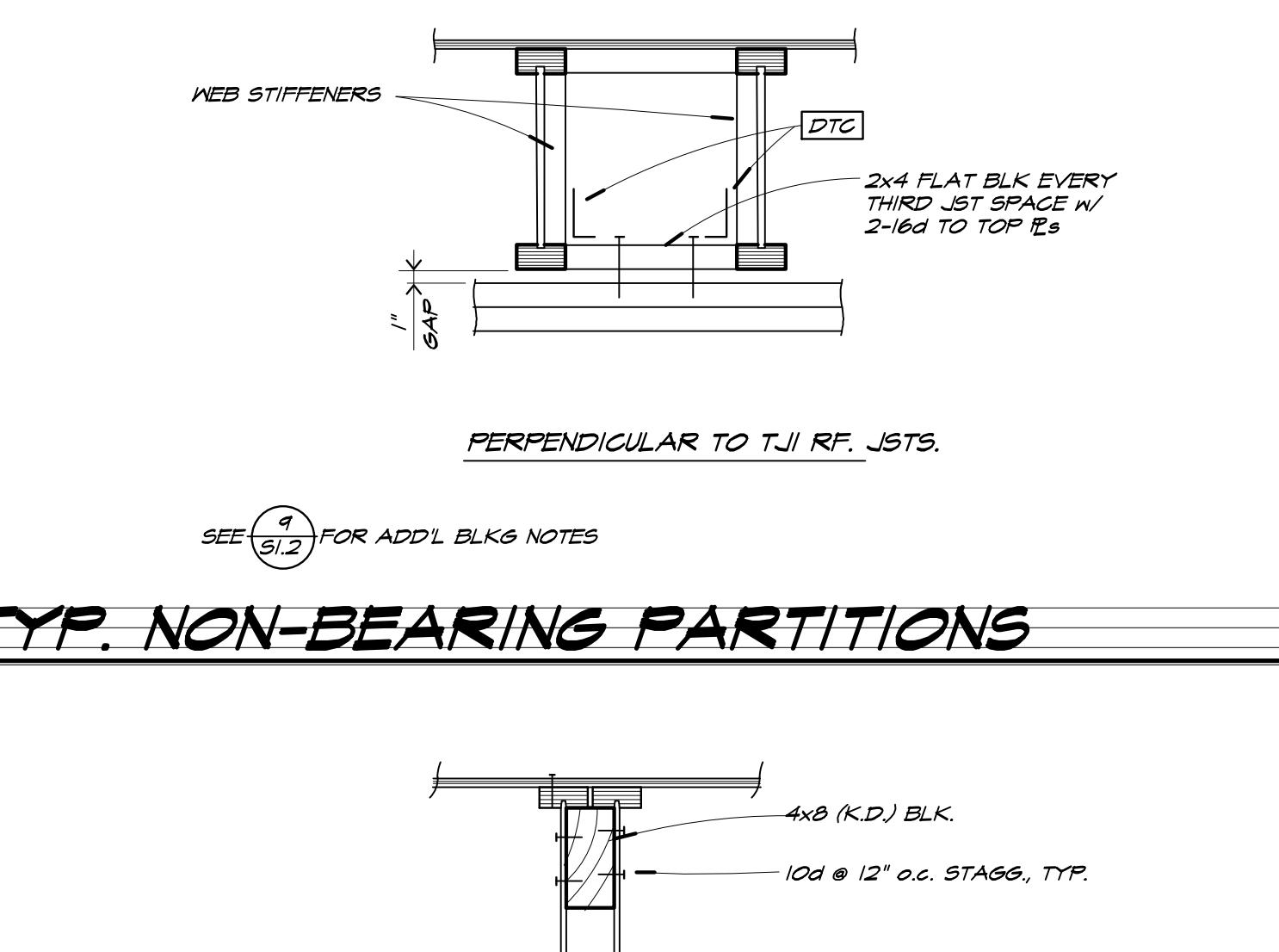
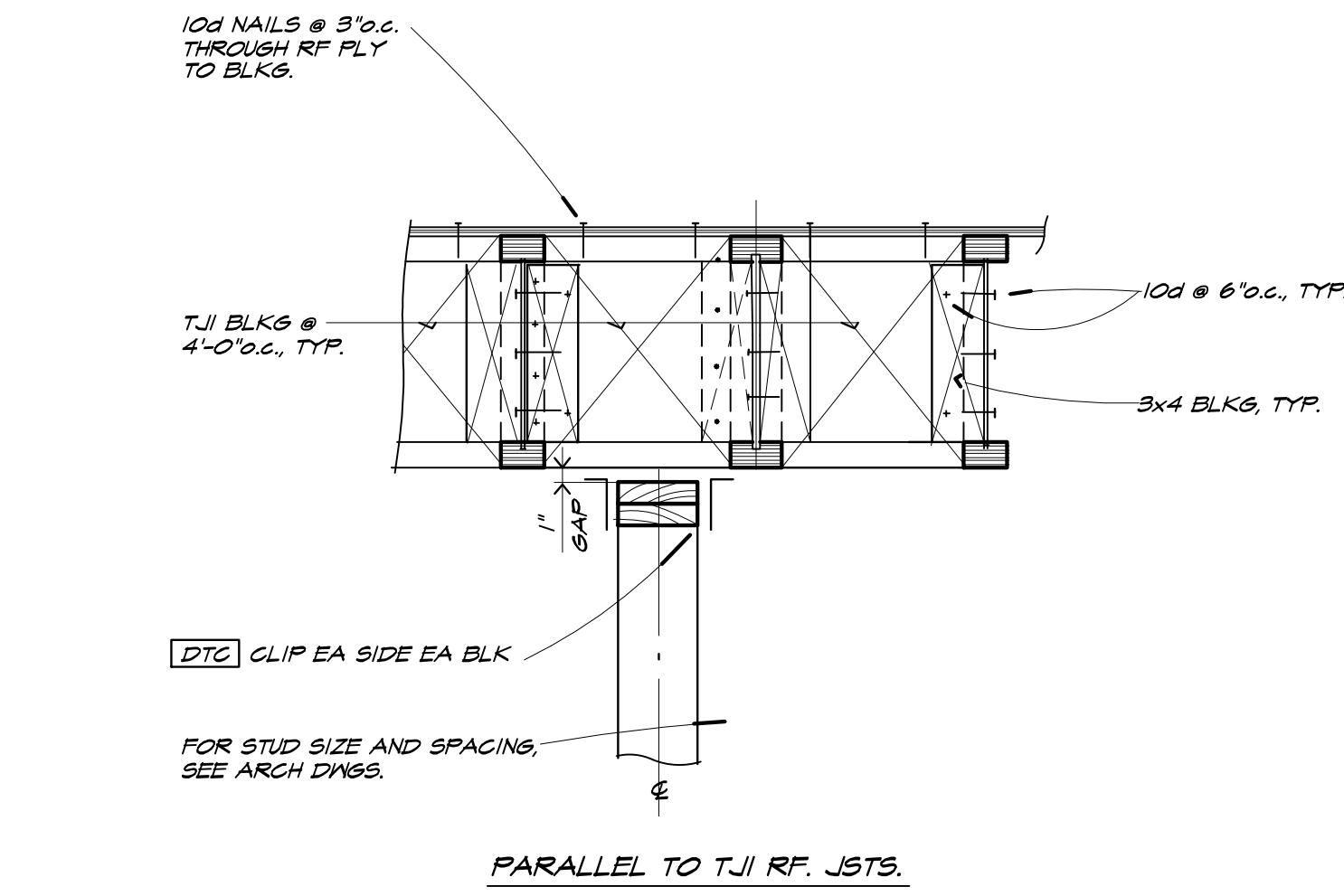
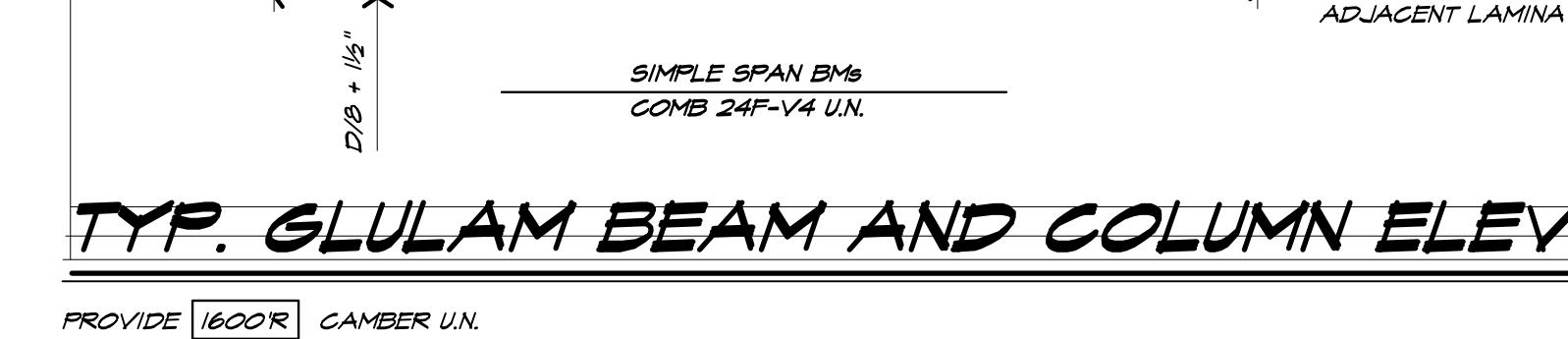
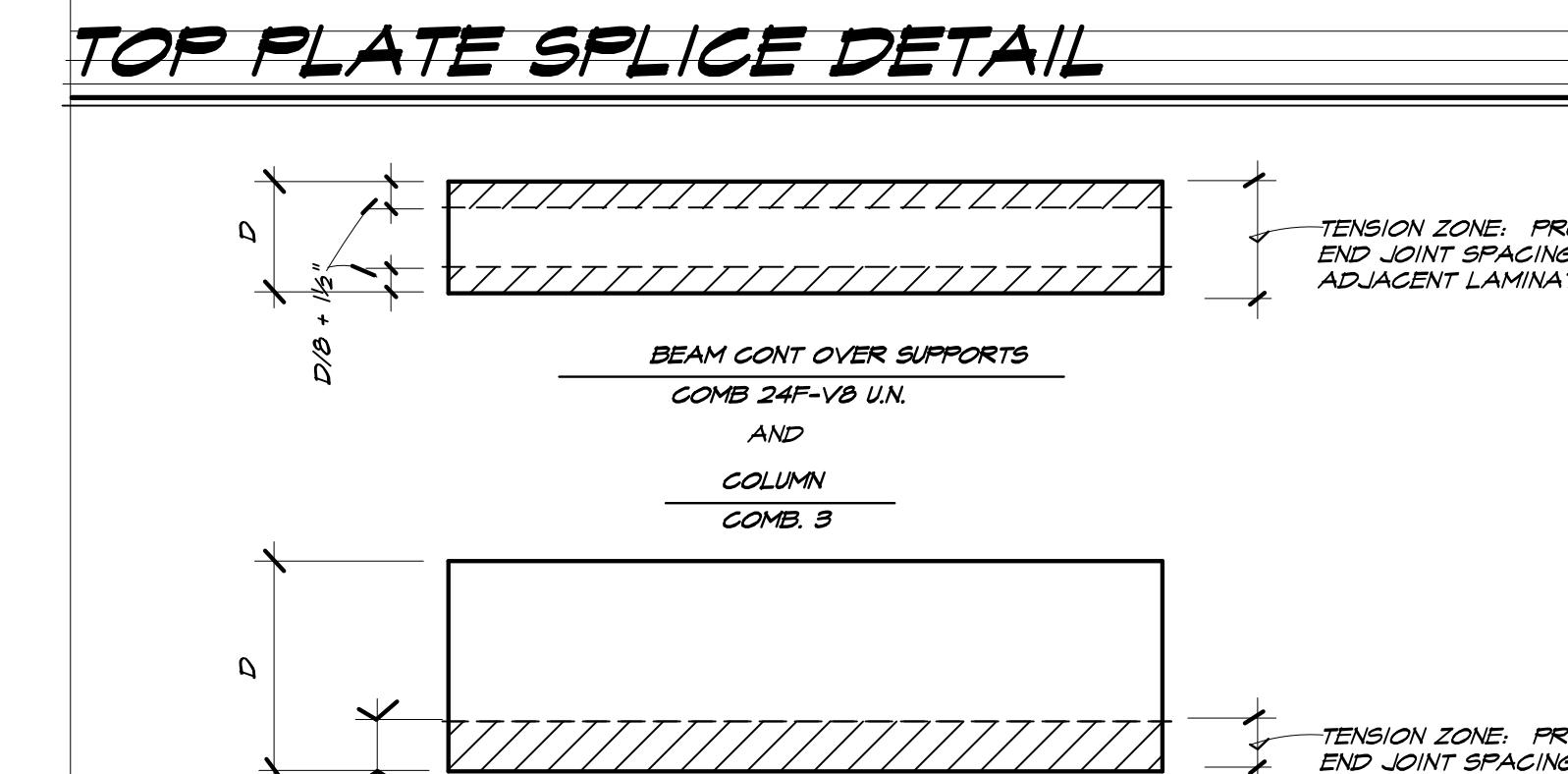
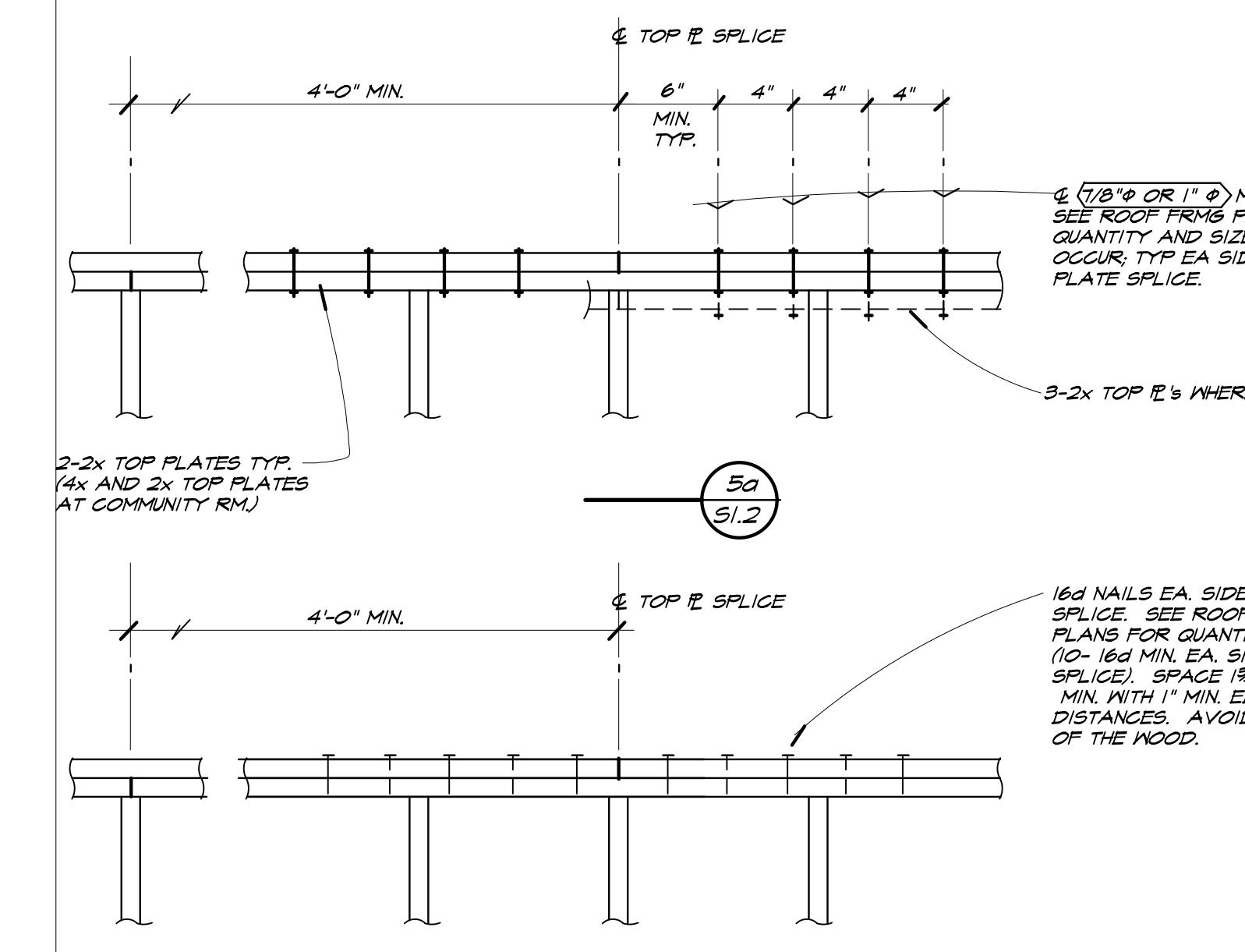
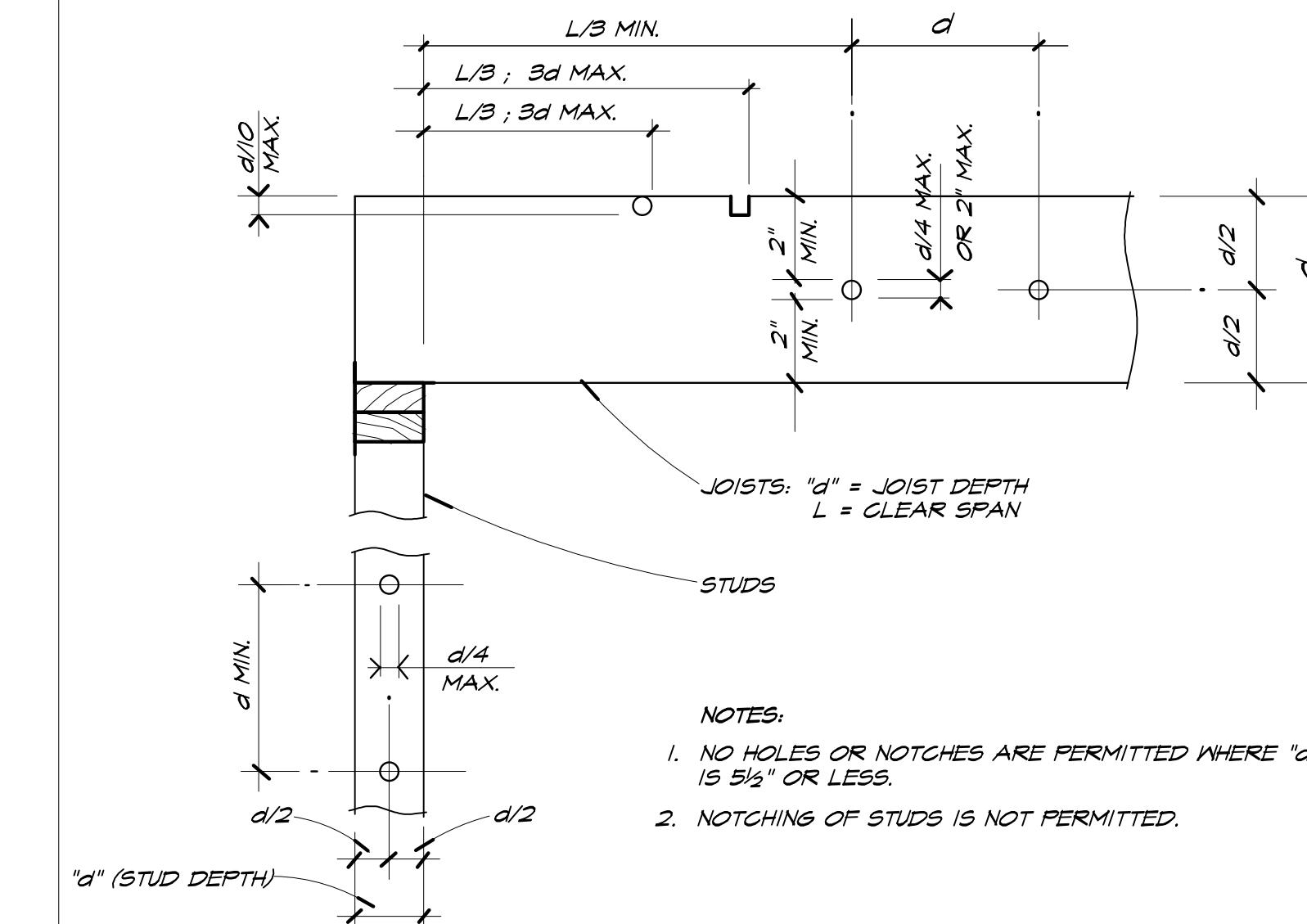
## TYPICAL ROOF AND FLOOR OPN'S

8 SI.1





CONNECTION	NAILING SCHEDULE, U.N. (IRC TABLE 2304.10.1)	COMMON WIRE NAILS
<b>Joists or rafters to sides of studs:</b> Eight (8) inch joists or less: For each additional four (4) inches in depth of joist		
	3- 16d	1- 16d
Joists or rafters at all bearings:	2- 16d*	2- 16d*
Toe nails, each side	3- 16d	3- 16d
Ceiling joists, laps over partitions, face nail	3- 16d	3- 16d
Ceiling joists to parallel rafters, face nail	3- 16d	3- 16d
Ceiling joists to top plate, toe nail		
Blocking between joists or rafters:	2- 16d toe nails - toe nail each side each end	2- 16d toe nails - toe nail each side each end
To joist or rafters - toe nails, each side		
To top plate, toe nail		
Blocking between studs, each end		
Bridging to joist, toe nail, each end	2- 16d toe nails	2- 16d toe nails
Sole plate to joist or blocking, face nail	2- 16d	2- 16d
Top plate to studs, end nail	16d @ 16" O.C.	
2x8 Studs and Smaller		
2x8 Studs and Larger		
Stud to sole plate		
2x6 Studs and Smaller		
2x6 Studs and Larger		
Doubled studs, face nail	16d @ 24" O.C.	
Top plates laps and intersections, face nail	2-16d	
Double top plates, face nail	16d @ 16" O.C. unless noted	
Built-up corner studs	16d @ 24" O.C.	
Rim joist to top plate, Toe nail	8d @ 16" O.C.	
Continuous header to stud, toe nail	4-16d	
Built-up girder and beams		
NOTES: *When possible, nails driven perpendicular to the grain shall be used instead of toe nails.		



DATE 8/01/22  
SCALE AS NOTED  
DRAWN BE.  
JOB  
SHEET

S1.2

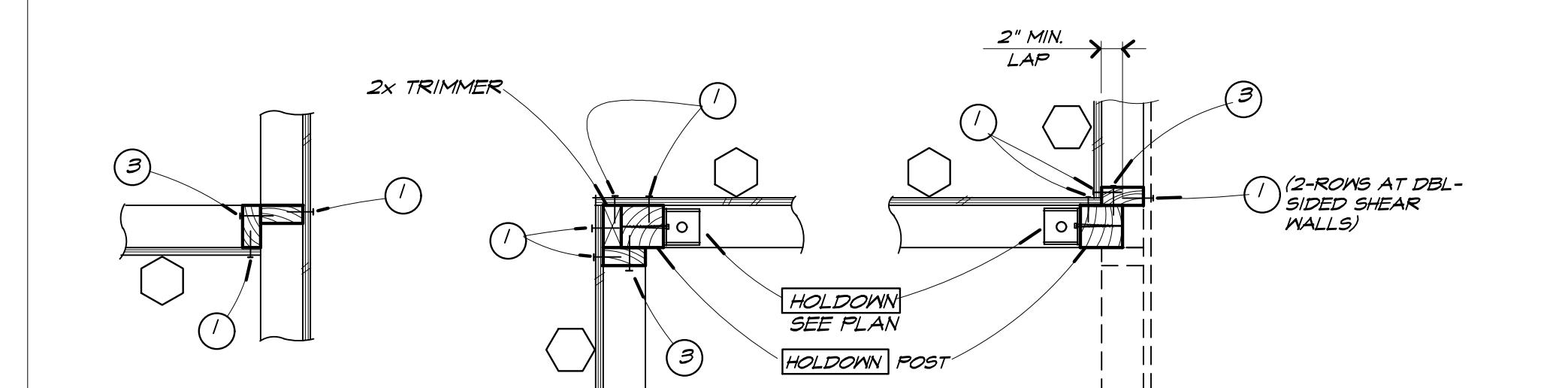


DATE 8/01/22  
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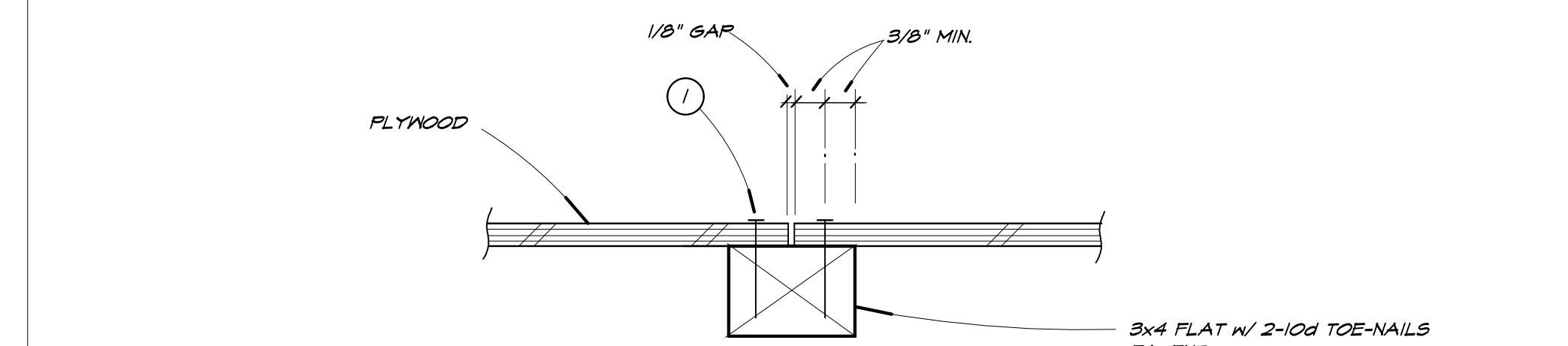
SYM-BOL	MATERIAL	BLKG	(1) (2) (3) (1), (2), (10)	DIAPH. (12) BOUNDARIES CHORDS, COLLECTORS & CONT. PANEL EDGES (T.E.N.) (1), (2), (10)	(2) INTERMED. NAILING (1), (10), (13)	(3) SILL & BLOCK NAILING (11), (12), (10)	(4) SILL BOLTS (10)	(5) SILL SCREWS	REMARKS
(1)	5/8" CDX	NO	10d @ 6	10d @ 6	10d @ 12	10d @ 6			ROOF SHEATHING
(2)	3/4" CDX T & G	NO	10d @ 6	10d @ 6	10d @ 10	10d @ 6			FLR SHEATHING (GLUE TO FLR FRMS)
(20)	3/4" STRUCT I	YES	10d @ 2	10d @ 2	10d @ 8	10d @ 2			
(3)	1/2" STRUCT I	YES	10d @ 6	10d @ 6	10d @ 12	10d @ 6	3/4" O. @ 48° O.C. SDS 1/4-6 @ 12" O.C.		
(4)	1/2" STRUCT I	YES	10d @ 4	10d @ 4	10d @ 12	10d @ 4	3/4" O. @ 32" O.C. SDS 1/4-6 @ 8" O.C.	(4)	
(5)	1/2" STRUCT I	YES	10d @ 3	10d @ 3	10d @ 12	10d @ 3	3/4" O. @ 32" O.C. SDS 1/4-6 @ 6" O.C.	(4)	
(6)	1/2" STRUCT I	YES	10d @ 2	10d @ 2	10d @ 12	10d @ 2	3/4" O. @ 16" O.C. SDS 1/4-6 @ 4" O.C.	(4)	
(7)	1/2" STRUCT I EA. SIDE	YES	10d @ 2	10d @ 2	10d @ 12	10d @ 2	#12 W.S. @ 16" O.C. 3/4" O. @ 16" O.C.	(14) (15)	

- NOTES:**
- (1) USE COMMON NAILS UNLESS NOTED.
  - (2) 3x4 @ FLAT BLOCKING @ UNSUPPORTED EDGES, U.N.
  - (3) (3) ETC., INDICATES NAILING, SILL BOLTING ETC., AS INDICATED ON DETAILS
  - (4) FRAMING @ ADJOINING PANEL EDGES SHALL BE 3 INCH NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED.
  - (5) FOR TYPICAL SHEAR WALL DETAILS, SEE SHEET S1.3
  - (6) FOR TYPICAL BLOCKING DETAIL, SEE S1.3
  - (7) DO NOT USE PANELS LESS THAN 12" WIDE FOR VERTICAL DIAPHRAGMS AND 24" WIDE FOR HORIZONTAL DIAPHRAGMS.
  - (8) MACHINE APPLIED NAILING, USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR EA. PROJECT AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE OFFICE OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. IF NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MIN. ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE SHALL BE DEEMED UNSATISFACTORY. HAND-NAIL SECOND LAYER OF PLY WHERE PLYWOOD OCCURS BOTH SIDES OF WALL FRAMING.
  - (9) SEE 4/ S1.3 FOR PLYWOOD BOUNDARIES, CHORDS, COLLECTORS, CONTINUOUS PANEL EDGE NAILING VS. SHEET EDGE NAILING.
  - (10) SEE 6/S1.1 FOR MINIMUM BOLT EMBEDMENT.
  - (11) USE P. 1/4 x 3 x 0.3" WASHERS AT ALL SILL BOLTS (HOT-DIPPED GALV).
  - (12) ALL FASTENERS AND HARDWARE IN CONTACT W/ PTDF LUMBER (E.G. NAILS, CLIPS, A.B.'S) TO BE HOT-DIPPED GALV.
  - (13) USE 2OD WHERE FASTENING THRU PLYWOOD. PRE-DRILL FOR NAILS.
  - (14) USE 4x P.T.D.F. SILL
  - (15) USE 4x STUDS AT ADJOINING PANEL EDGES.

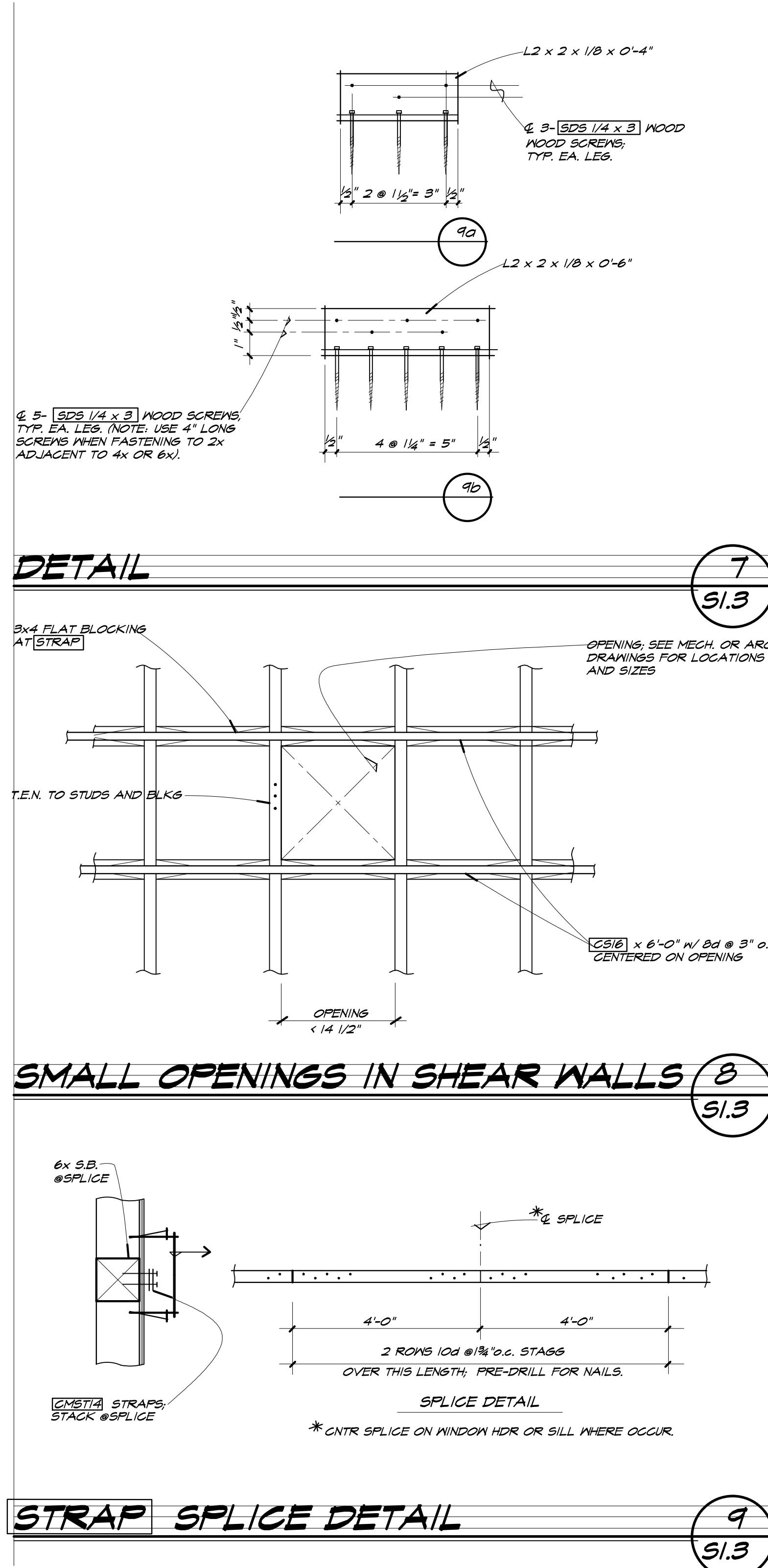
## PLYWOOD SHEAR SCHEDULE & DETAILS

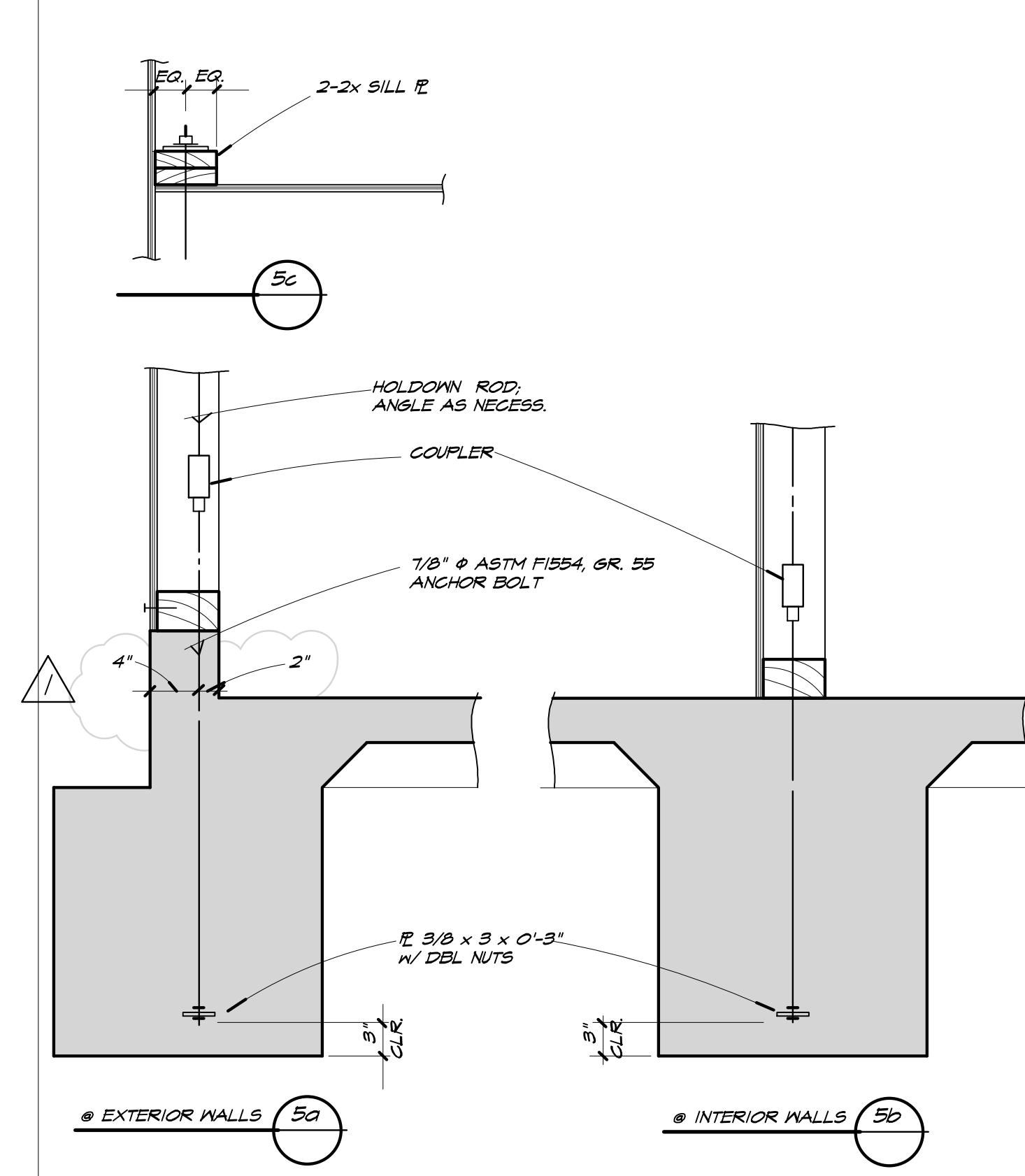


## INTERSECTING SHEAR WALL and HOLDOWN PLAN DETAIL

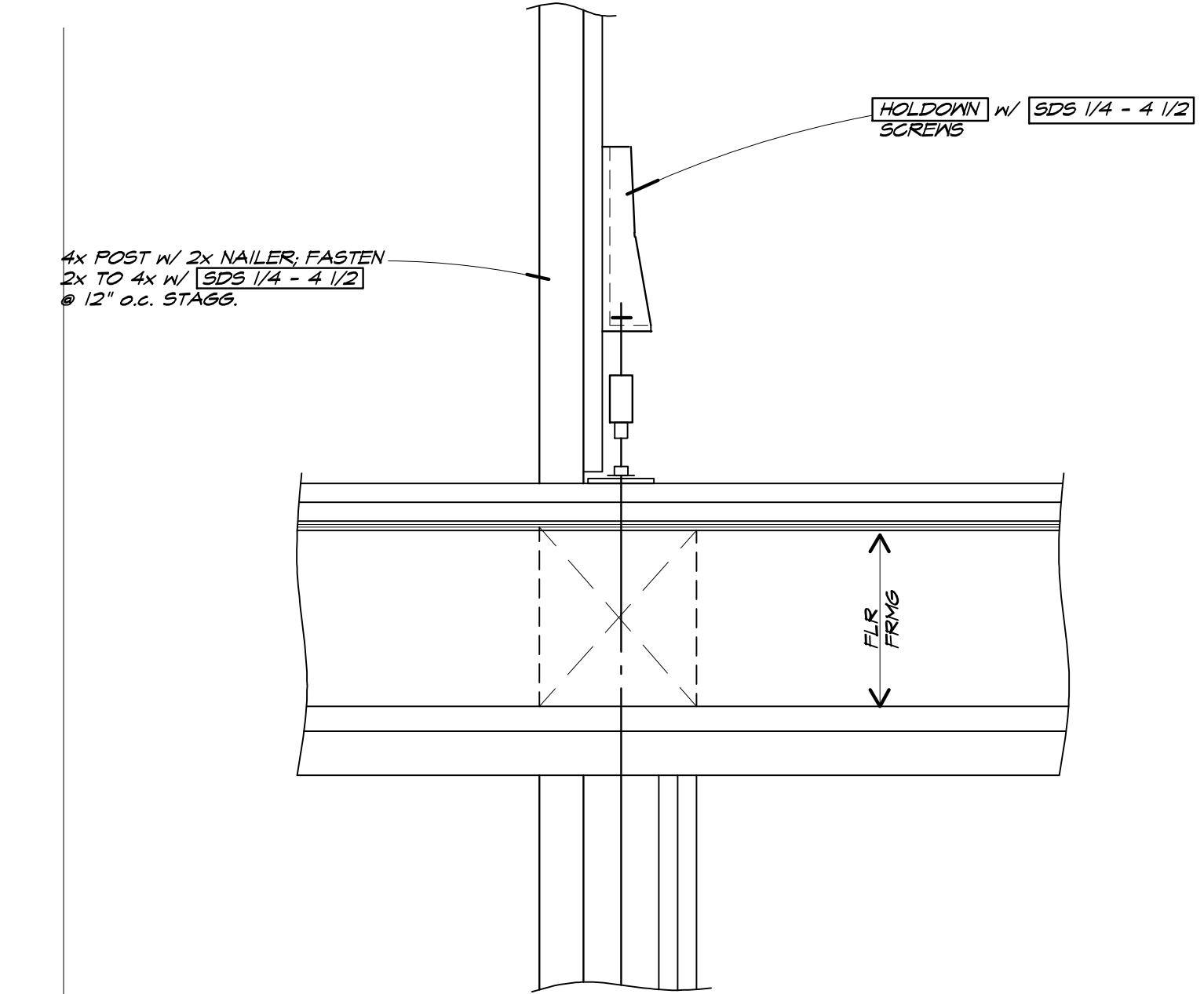
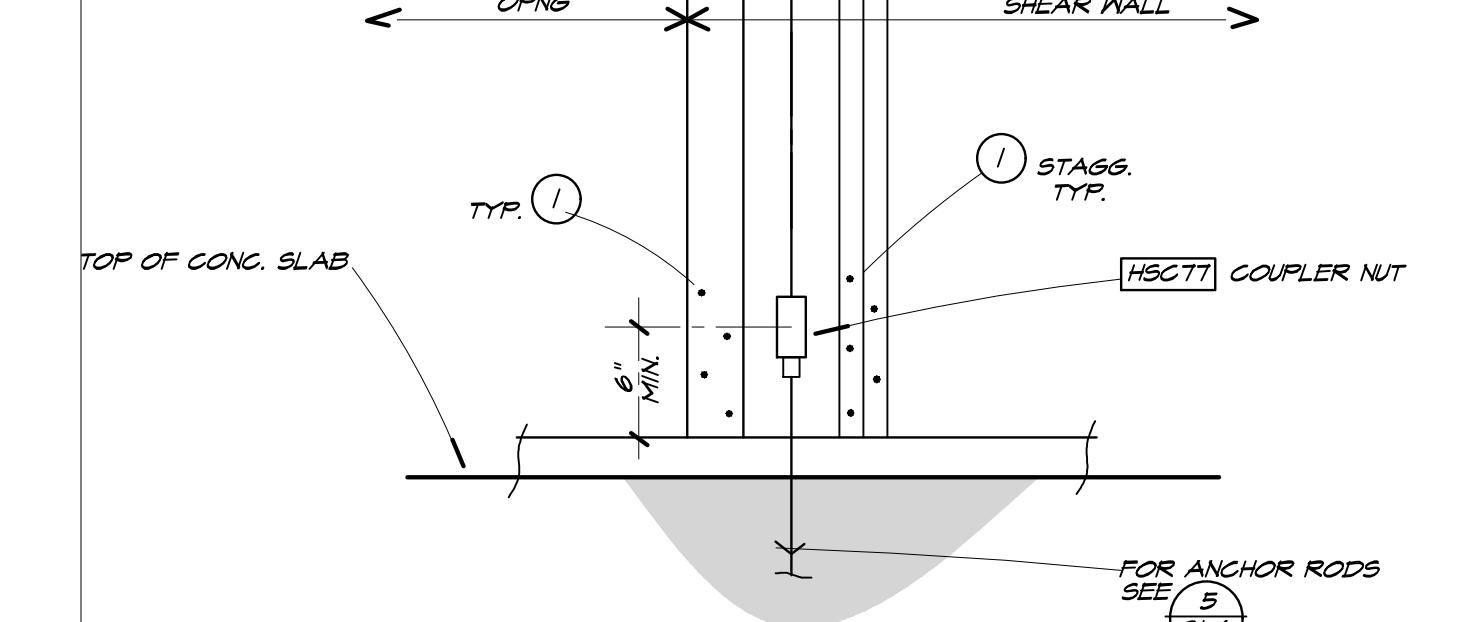
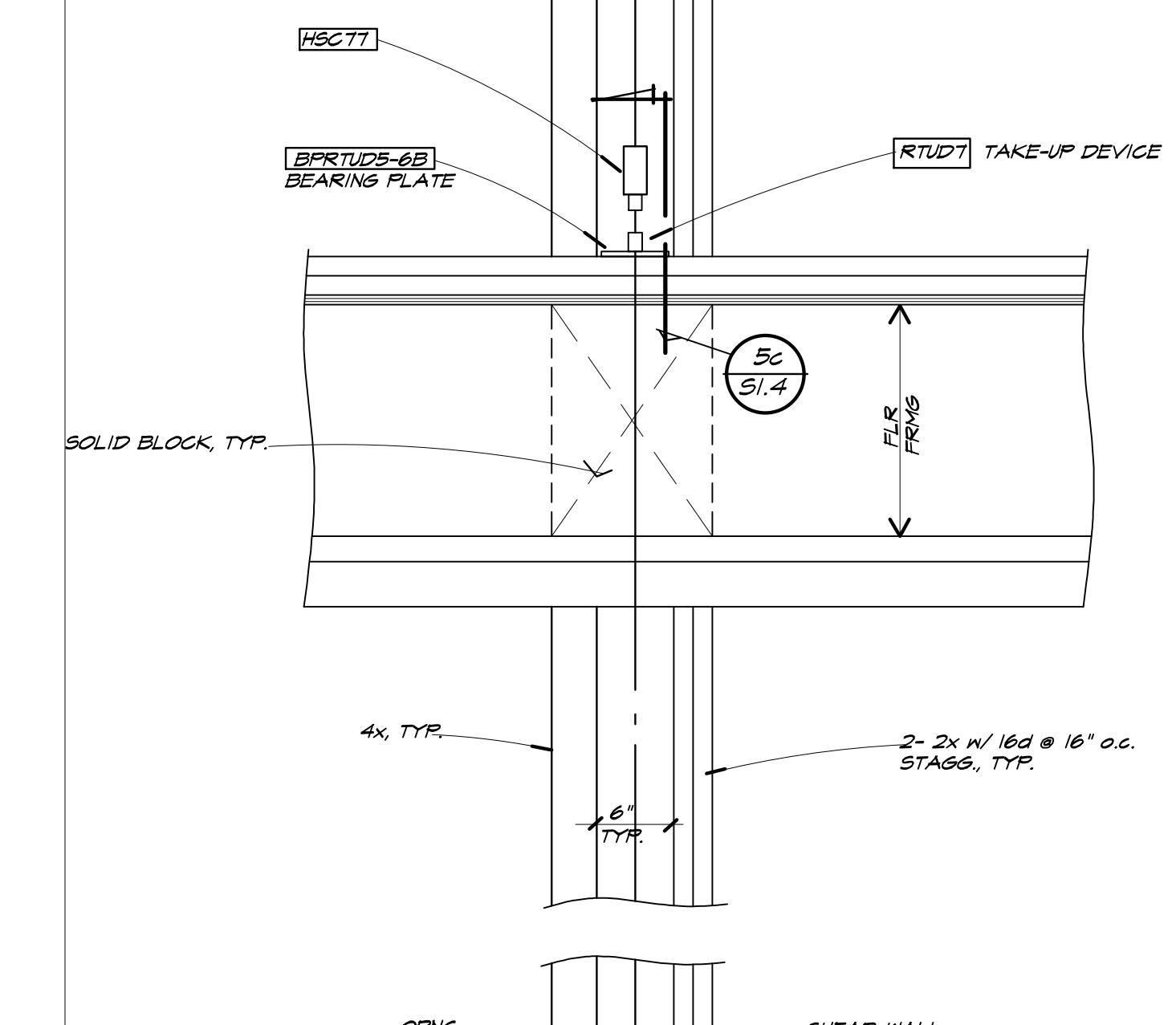


## TYP. BLKG for PLYWOOD WHERE OCCURS

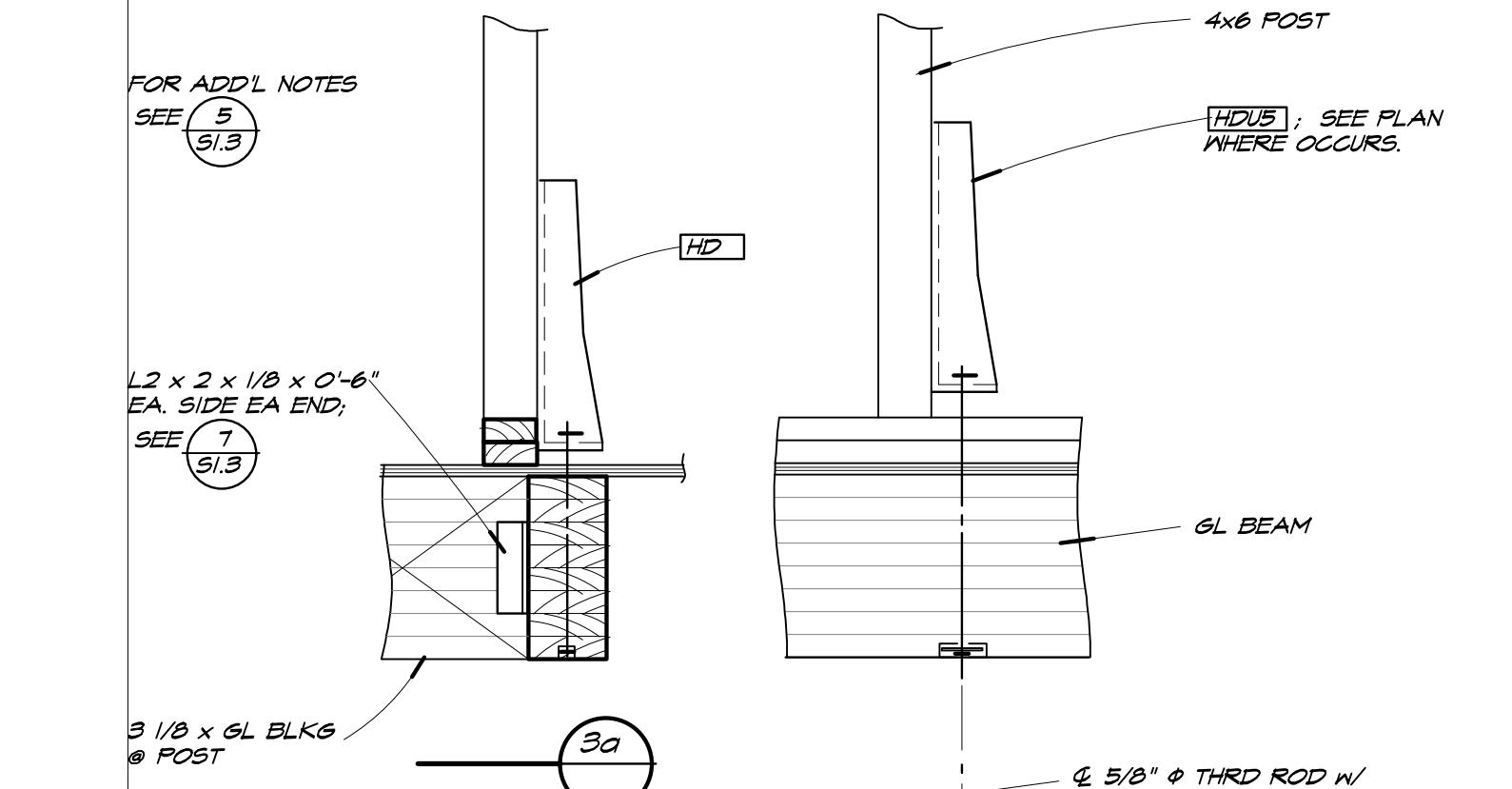




STACKED HOLDOWN RODS

5  
SI.4TYPICAL HOLDOWN (HD)  
ABOVE AND BELOW FLR FRMG.1  
SI.4

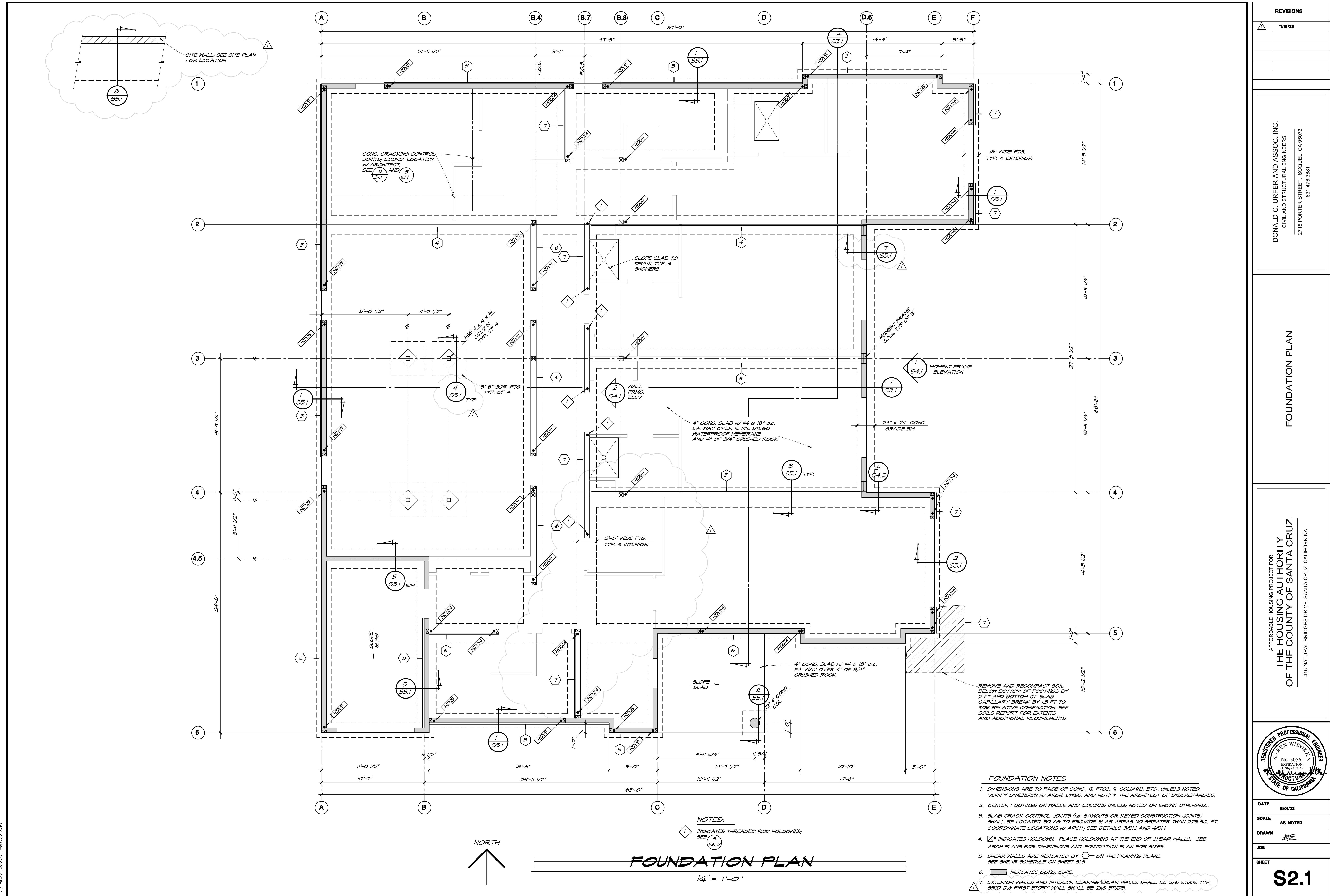
STACKED HOLDOWN ANCHORS

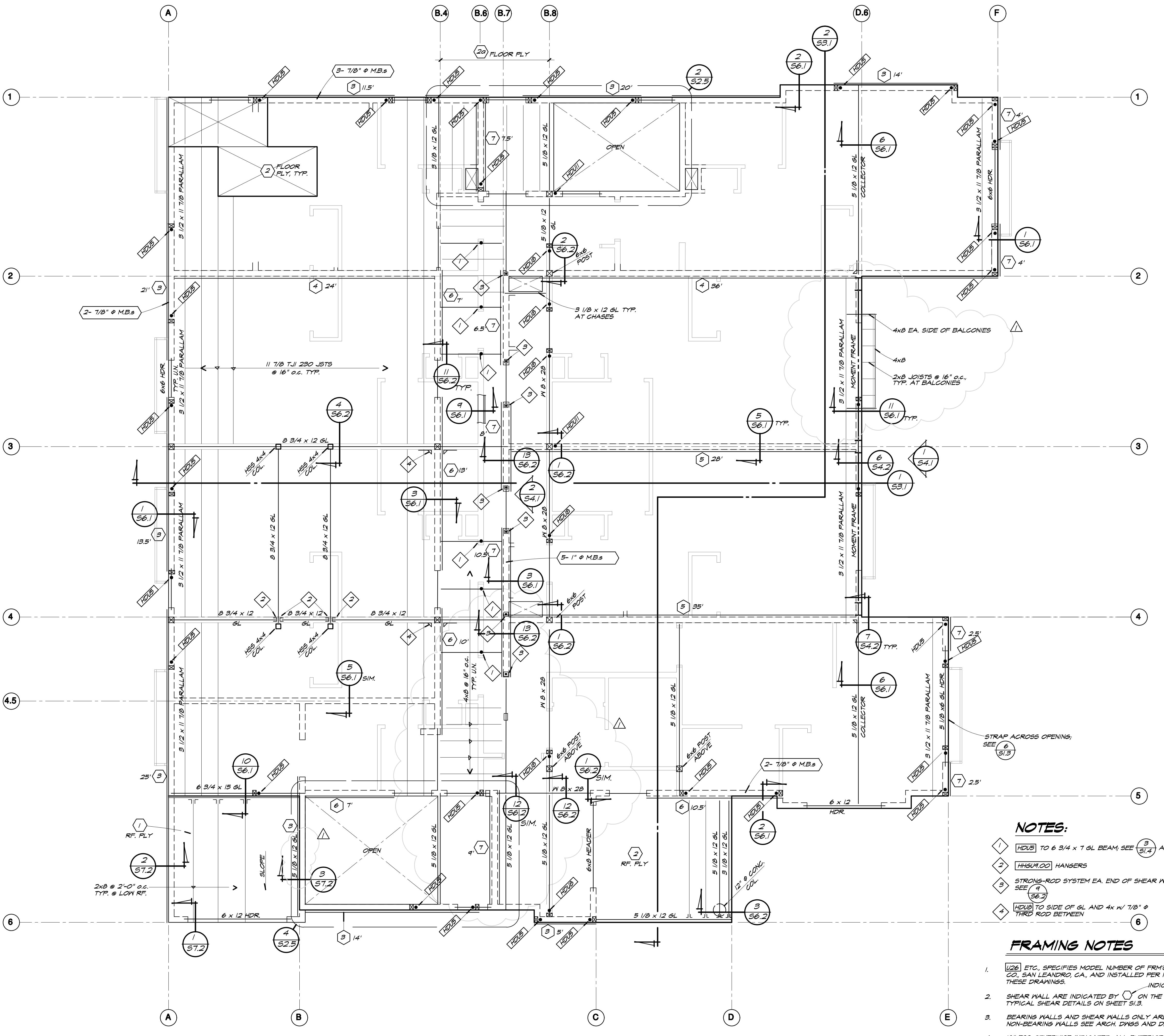
4  
SI.4TYPICAL HOLDOWN (HD)  
@ GL BEAM3  
SI.4

AFFORDABLE HOUSING PROJECT FOR  
THE HOUSING AUTHORITY  
OF THE COUNTY OF SANTA CRUZ  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA



DATE 01/01/22  
SCALE AS NOTED  
DRAWN BE  
JOB  
SHEET  
**S1.4**





- NOTES:**
- 1. ETC. SPECIFIES MODEL NUMBER OF FRM'S CONNECTORS MANUFACTURED BY SIMPSON CO., SAN LEANDRO, CA, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND THESE DRAWINGS.
  - 2. SHEAR WALL ARE INDICATED BY ON THE FRAMING PLANS. SEE SHEAR SCHEDULE AND TYPICAL SHEAR DETAILS ON SHEET 91.3.
  - 3. BEARING WALLS AND SHEAR WALLS ONLY ARE SHOWN ON THE FRAMING PLANS. FOR NON-BEARING WALLS SEE ARCH. DWGS AND DETAILS 6/91.1 AND 1/91.2.
  - 4. UNLESS OTHERWISE INDICATED, ALL EXTERIOR WALLS AND INTERIOR PLY SHEAR WALL SHALL BE .
  - 5. SEE 9/91.2 FOR TYPICAL FRAMING AROUND DOOR AND WINDOW OPENINGS, UN.
  - 6. INDICATES GULAN CAMBER. CAMBER GL BMS W/ 600' RADIUS UNLESS OTHERWISE INDICATED. PROVIDE MINIMUM TENSION ZONE DEPTH OF BEAM DEPTH/8 + 1 1/4" UN.
  - 7. ETC. INDICATES FASTENERS AT CHORD AND COLLECTOR SPLICES.

#### FRAMING NOTES

1. ETC. SPECIFIES MODEL NUMBER OF FRM'S CONNECTORS MANUFACTURED BY SIMPSON CO., SAN LEANDRO, CA, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND THESE DRAWINGS.
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7. ETC. INDICATES FASTENERS AT CHORD AND COLLECTOR SPLICES.



DATE

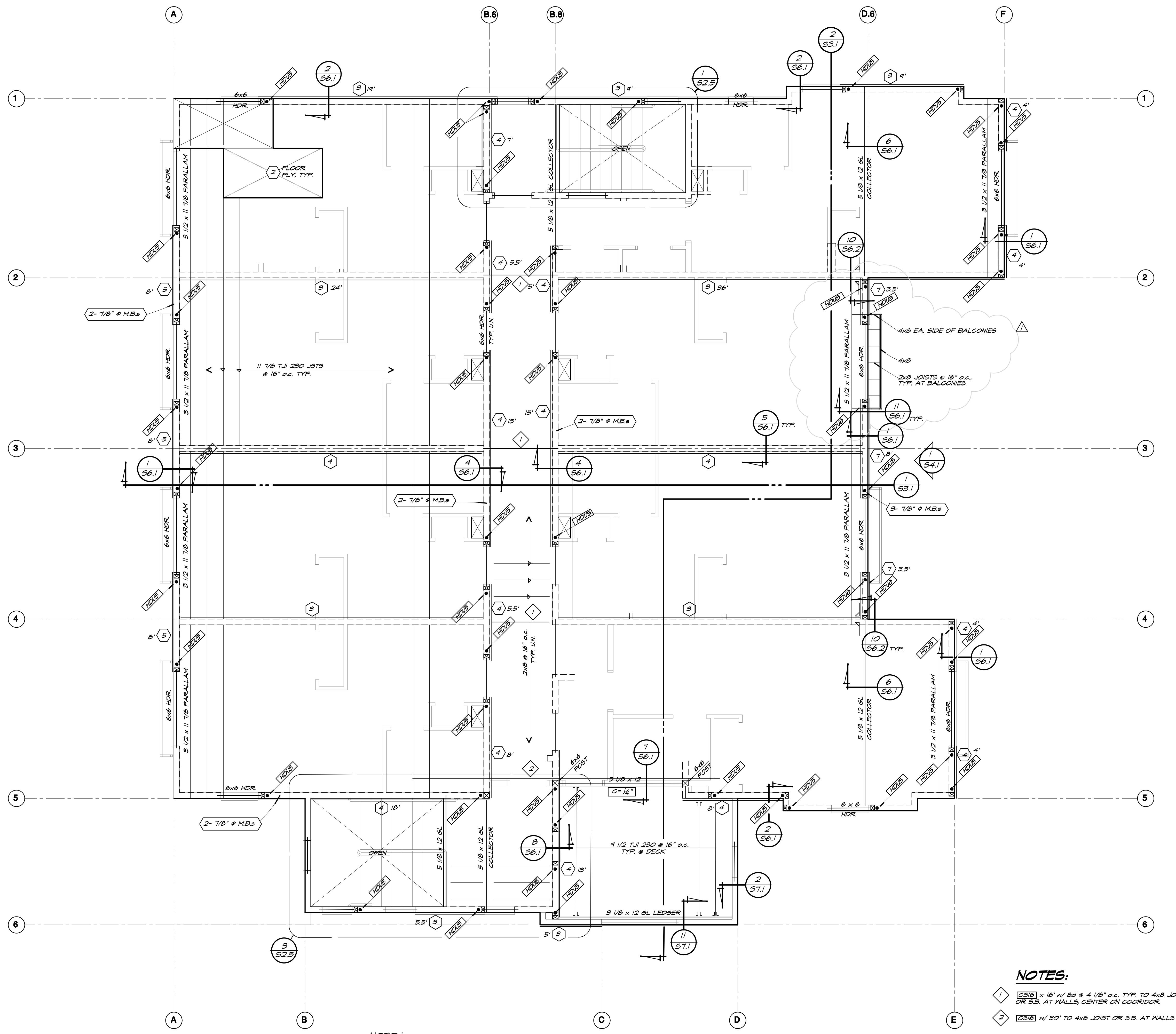
SCALE

DRAWN

JOB

SHEET

**S2.2**



### THIRD FLOOR FRAMING PLAN

$\frac{1}{4}'' = 1'-0''$

SEE SHEET 52.2 FOR TYPICAL FRAMING NOTES

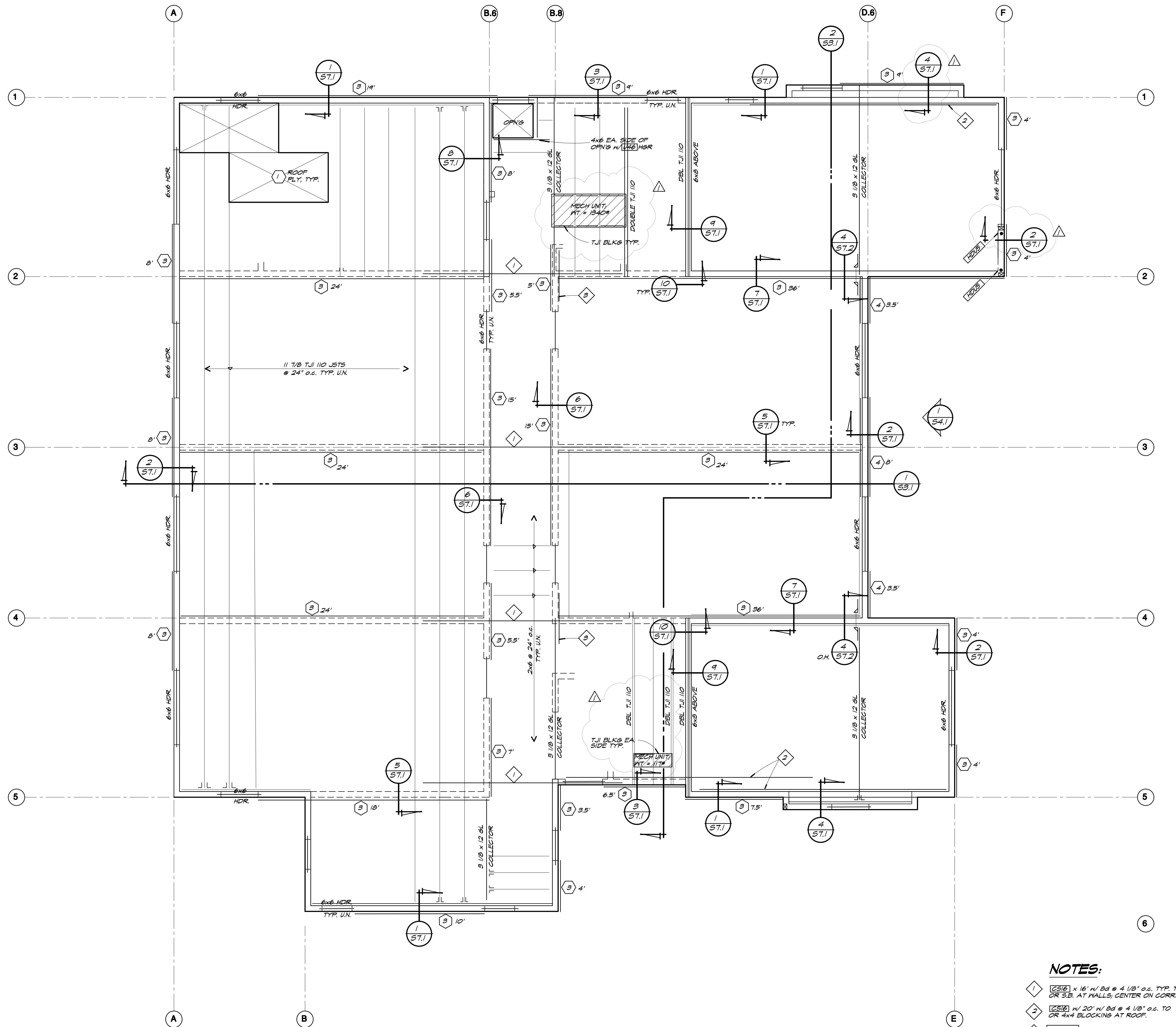
AFFORDABLE HOUSING PROJECT FOR  
THE HOUSING AUTHORITY  
OF THE COUNTY OF SANTA CRUZ  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA



REGISTERED PROFESSIONAL ENGINEER  
KAREN WINNER  
No. 5056  
EXPIRATION 2023

DATE 8/01/22  
SCALE  
DRAWN  
JOB  
SHEET

S2.3

**NOTES:**

- 1)  $2 \times 6$  x 16' w/ 2d @ 4 1/8" o.c. TYP. TO 4x6 JOIST OR S.B. AT WALLS; CENTER ON CORRIDOR.
- 2)  $2 \times 6$  w/ 20' w/ 2d @ 4 1/8" o.c. TO LEDGER/RIM OR 4x4 BLOCKING AT ROOF.
- 3)  $16 \times 44$  STRAP TO COLLECTOR OR S.B. AT WALL; CENTER ON END OF GL.

REGISTERED PROFESSIONAL ENGINEER  
KAREN WINNER  
STATE OF CALIFORNIA  
No. 5056  
EXPIRATION 2023

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DRAWN  
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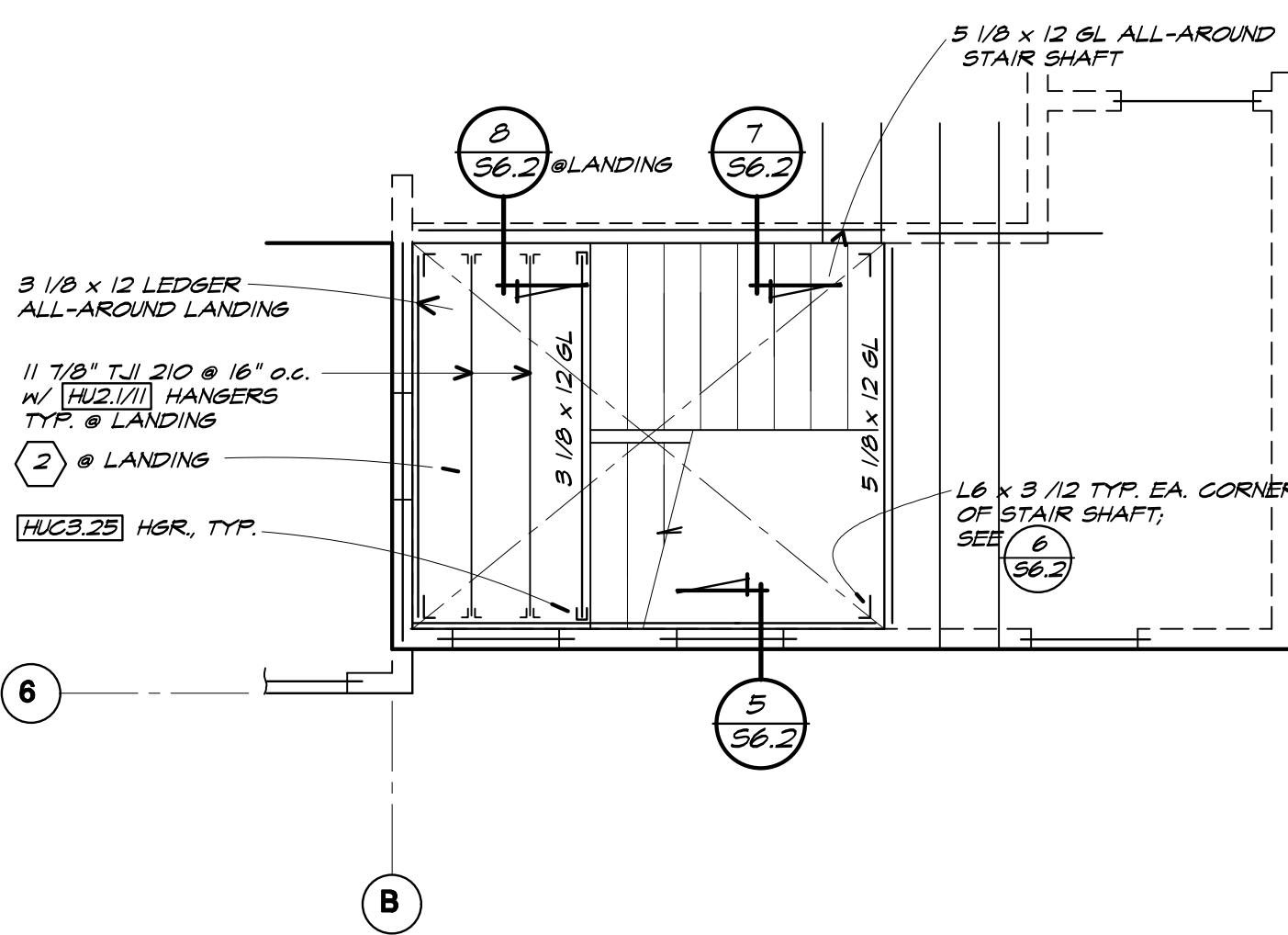
SHEET S2.4

**ROOF FRAMING PLAN**

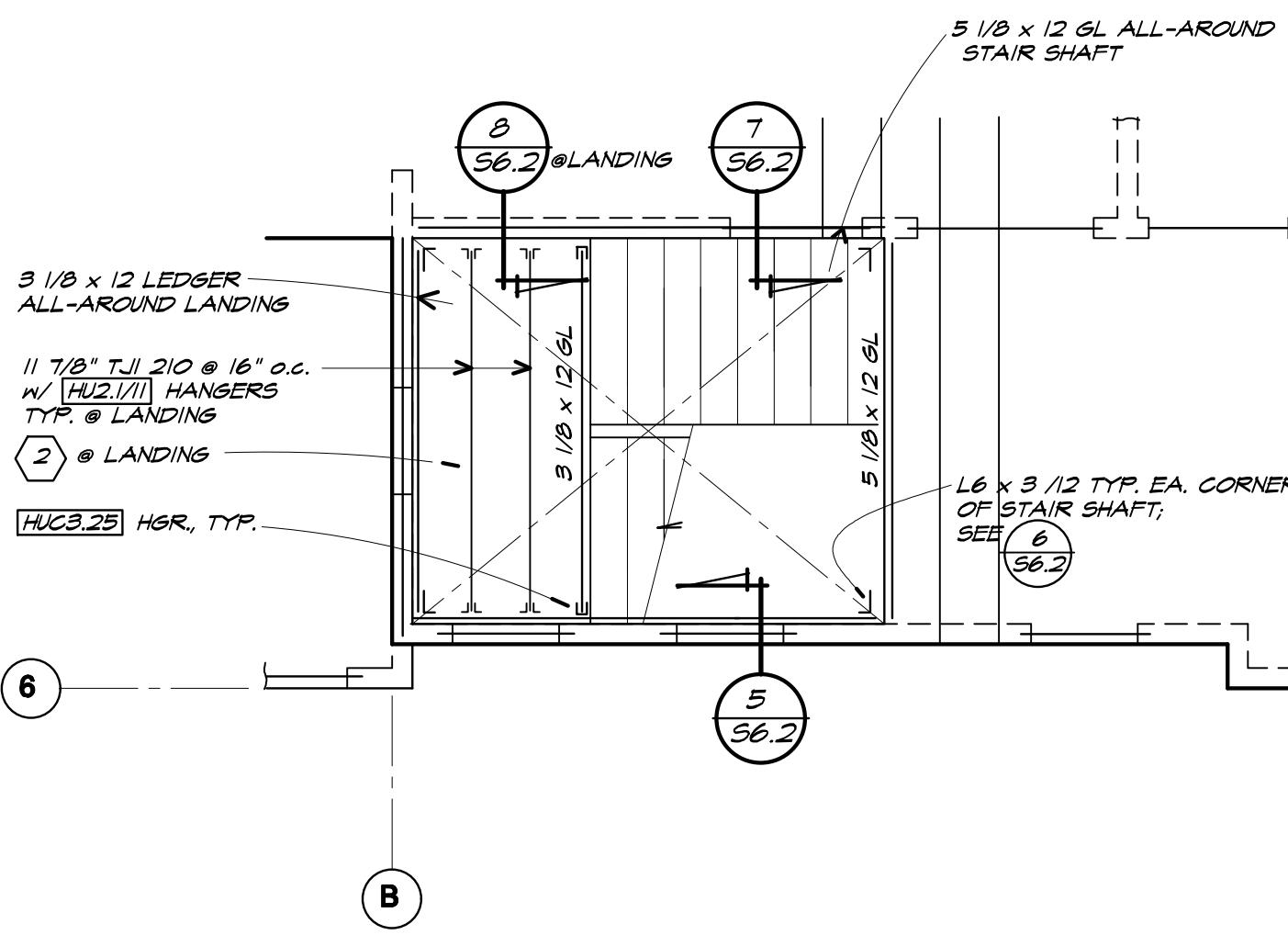
AFFORDABLE HOUSING PROJECT FOR  
**THE HOUSING AUTHORITY  
OF THE COUNTY OF SANTA CRUZ**  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA

DONALD C. URFER AND ASSOC., INC.  
CIVIL AND STRUCTURAL ENGINEERS  
2715 PORTER STREET, SOQUEL, CA 95073  
831.476.3681

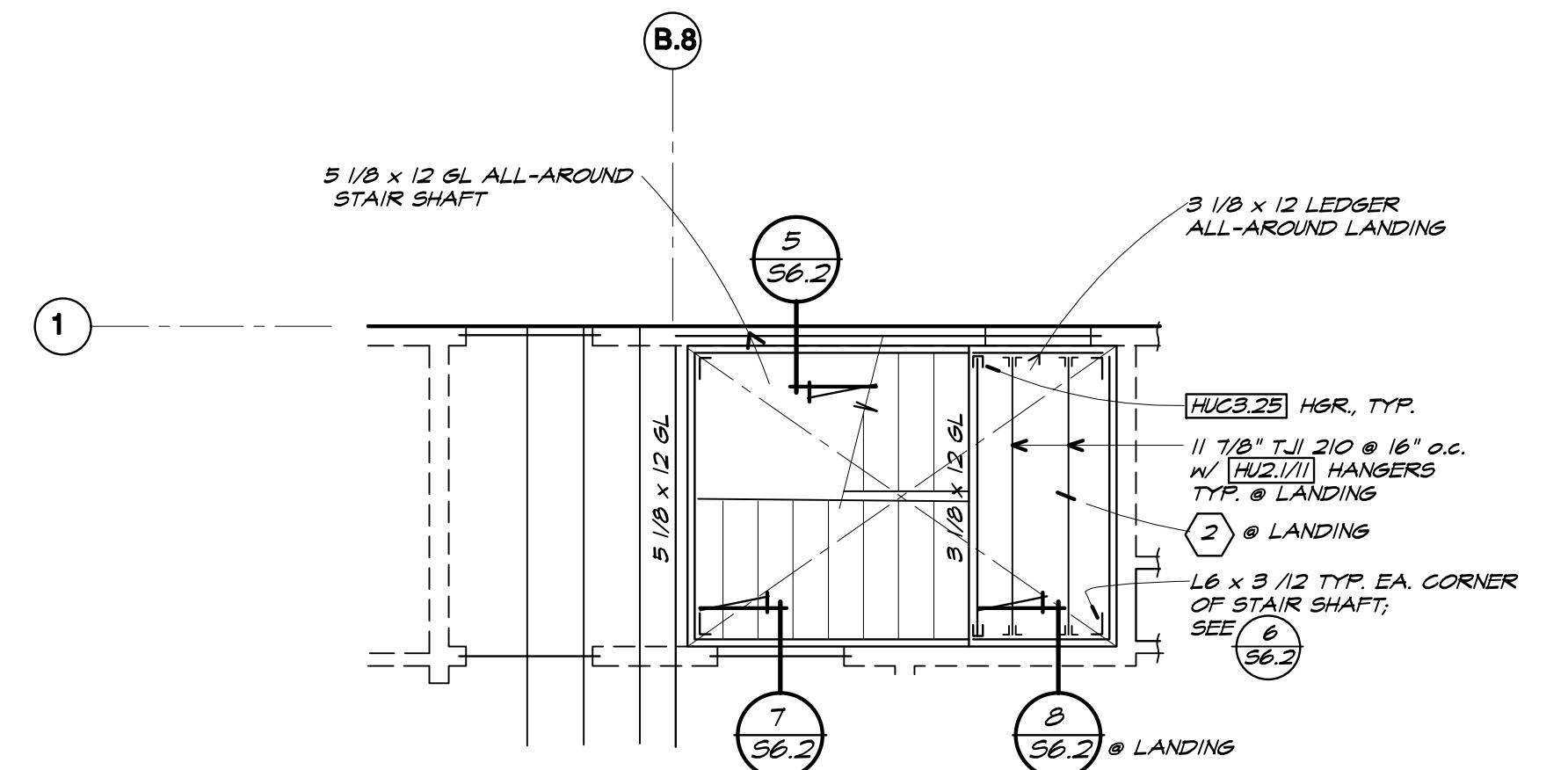
REVISIONS	
11/18/22	



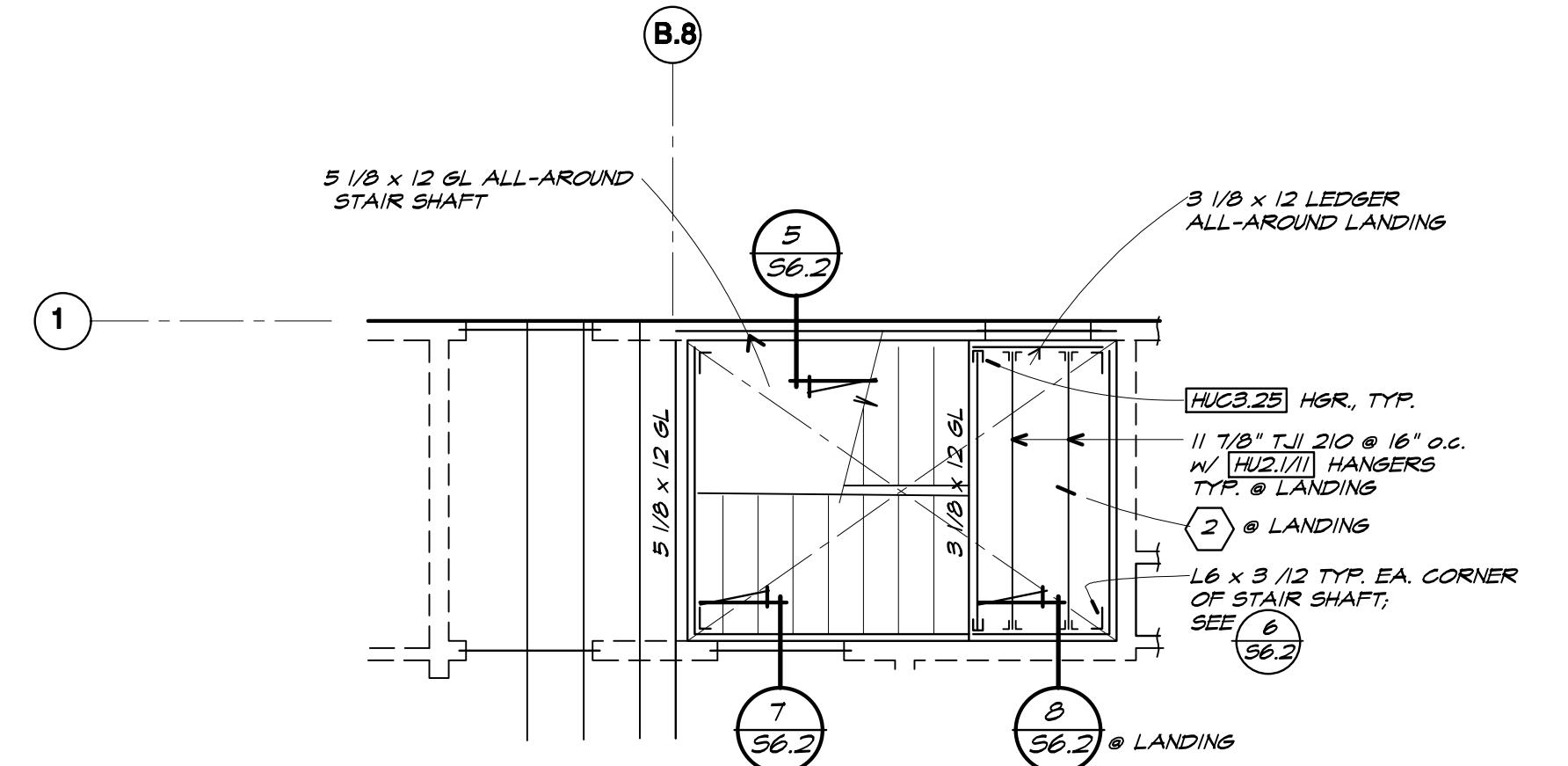
**SOUTH STAIR AT THIRD FLOOR** 3 52.5



**SOUTH STAIR AT SECOND FLOOR** 4 52.5



**NORTH STAIR AT THIRD FLOOR** 1 52.5



**NORTH STAIR AT SECOND FLOOR** 2 52.5

#### NOTES:

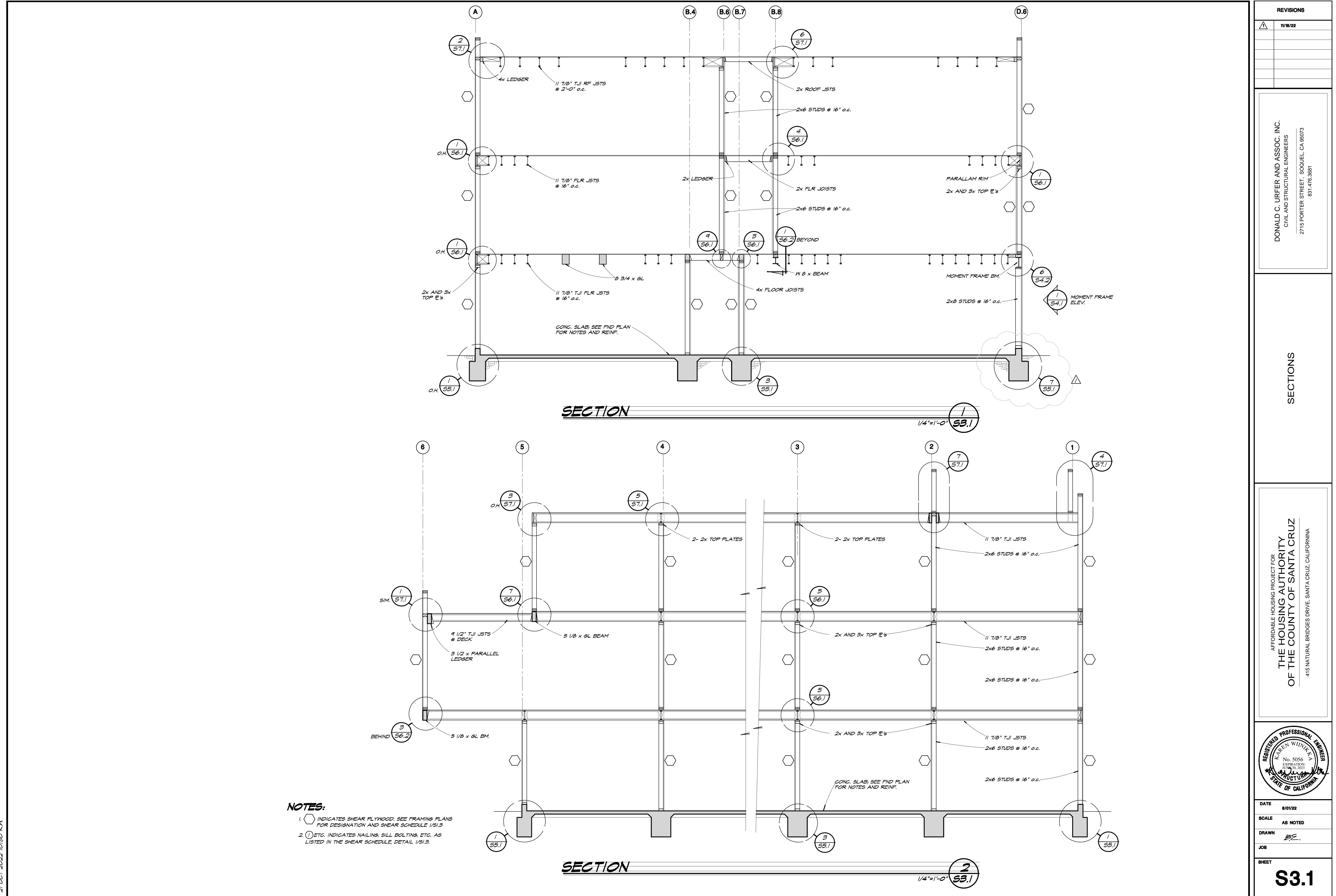
1. INDICATES SHEAR PLYWOOD. SEE FRAMING PLANS FOR DESIGNATION AND SHEAR SCHEDULE 1/S1.3
2. ETC. INDICATES NAILING, SILL BOLTING, ETC. AS LISTED IN THE SHEAR SCHEDULE, DETAIL 1/S1.3.

AFFORDABLE HOUSING PROJECT FOR  
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415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA

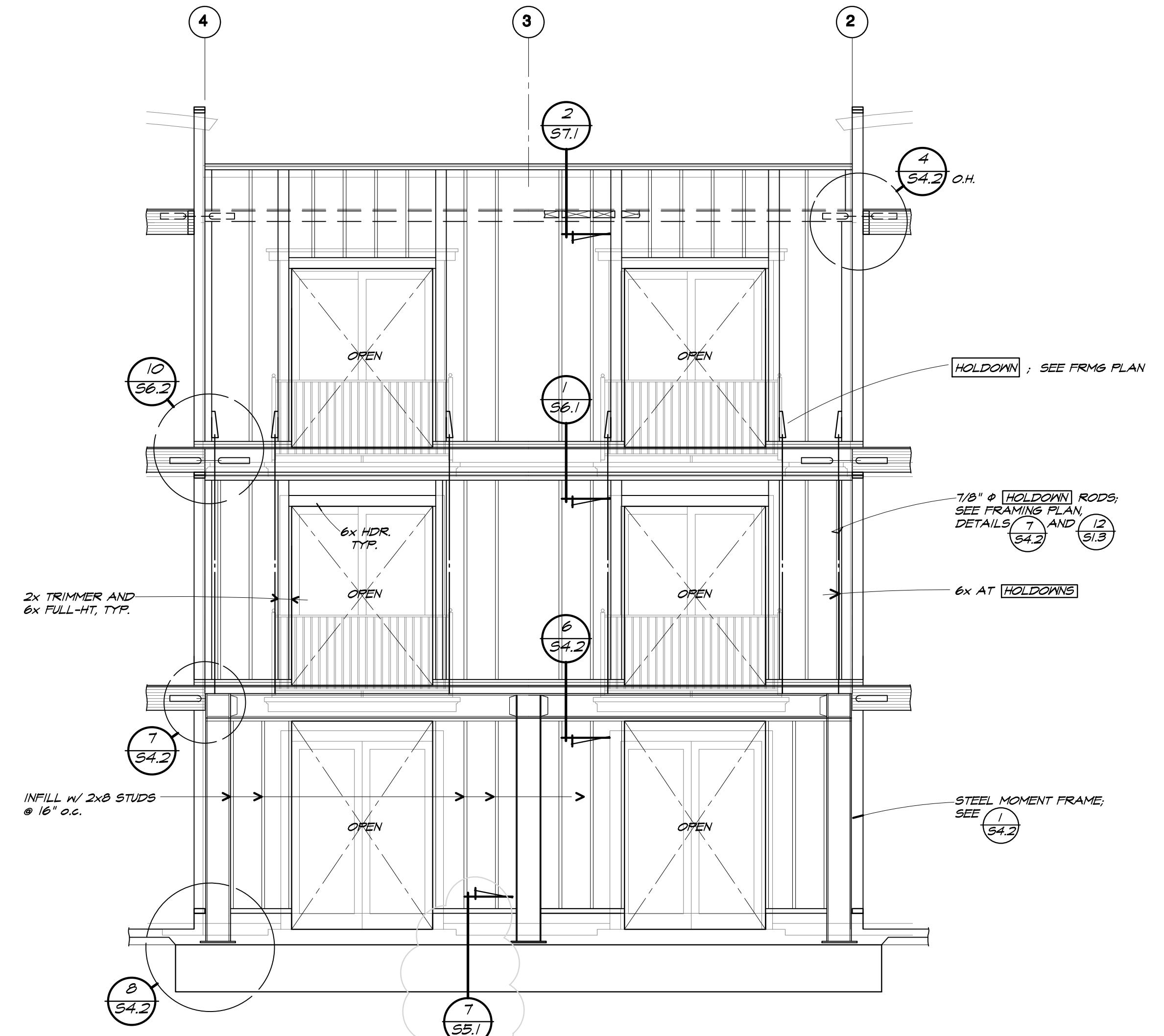


DATE 08/01/22  
SCALE  
DRAWN   
JOB  
SHEET

**S2.5**

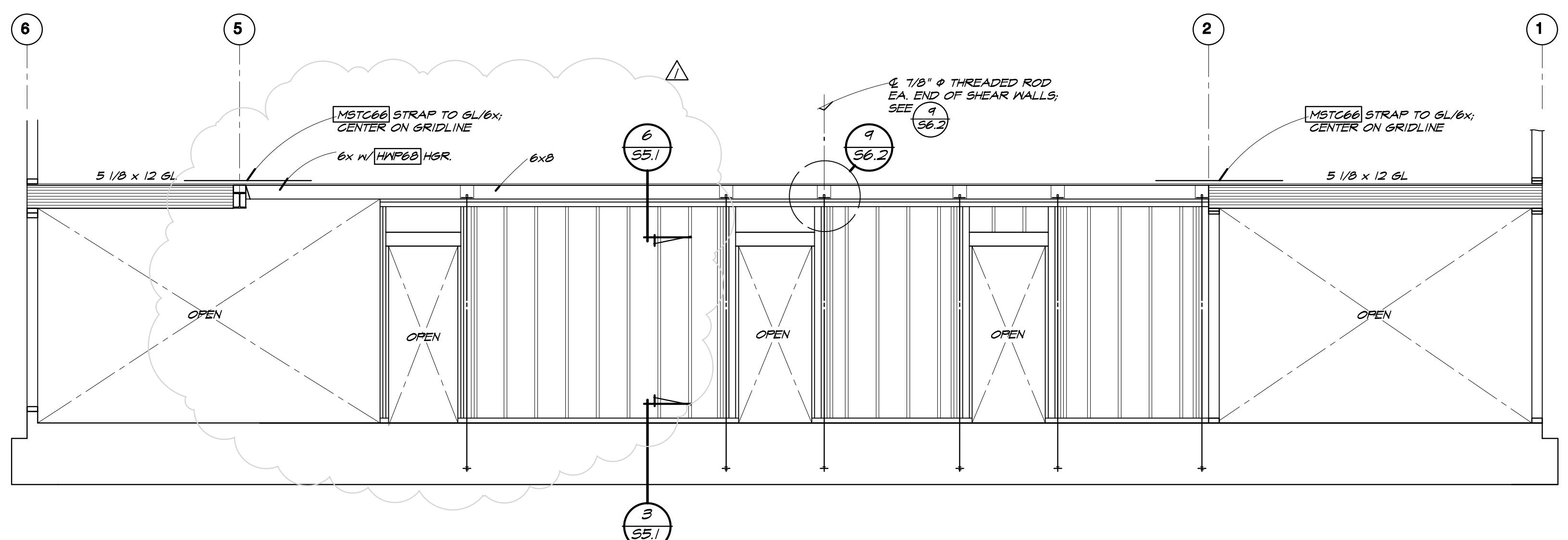


## WALL FRAMING ELEVATIONS



WALL FRAMING ELEVATION - LINE D.6

1/4"=1'-0" S4.1



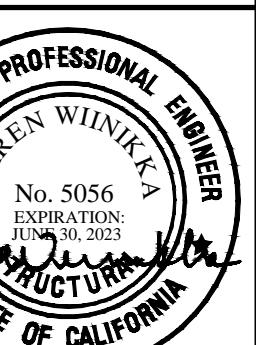
WALL FRAMING ELEVATION - LINE B.7

1/4"=1'-0" S4.1

## NOTES:

1. INDICATES SHEAR PLYWOOD. SEE FRAMING PLANS FOR DESIGNATION AND SHEAR SCHEDULE 1/S1.3
2. (1) ETC. INDICATES NAILING, SILL BOLTING ETC. AS LISTED IN THE SHEAR SCHEDULE, DETAIL 1/S1.3.

AFFORDABLE HOUSING PROJECT FOR  
THE HOUSING AUTHORITY  
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415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA



DATE 8/01/22

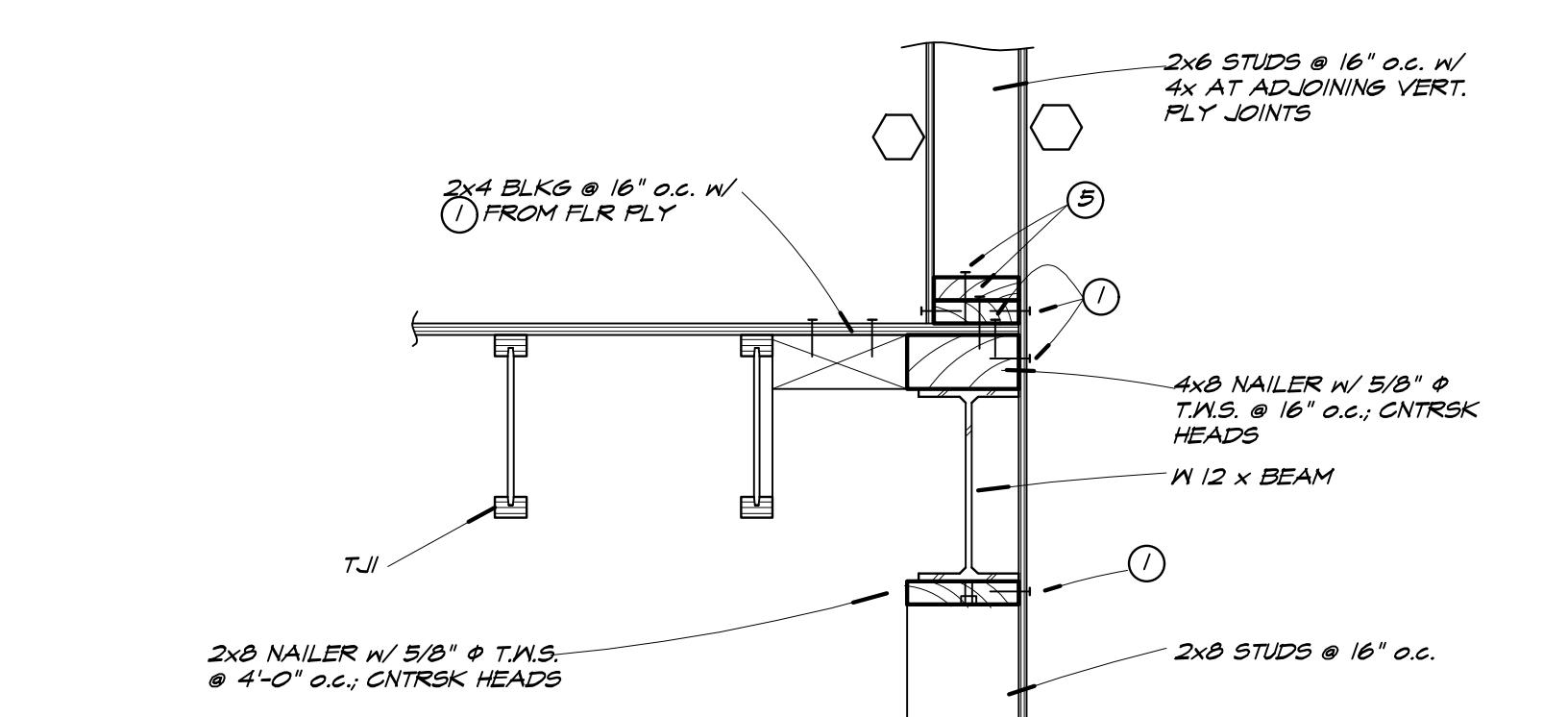
SCALE AS NOTED

DRAWN BE

JOB

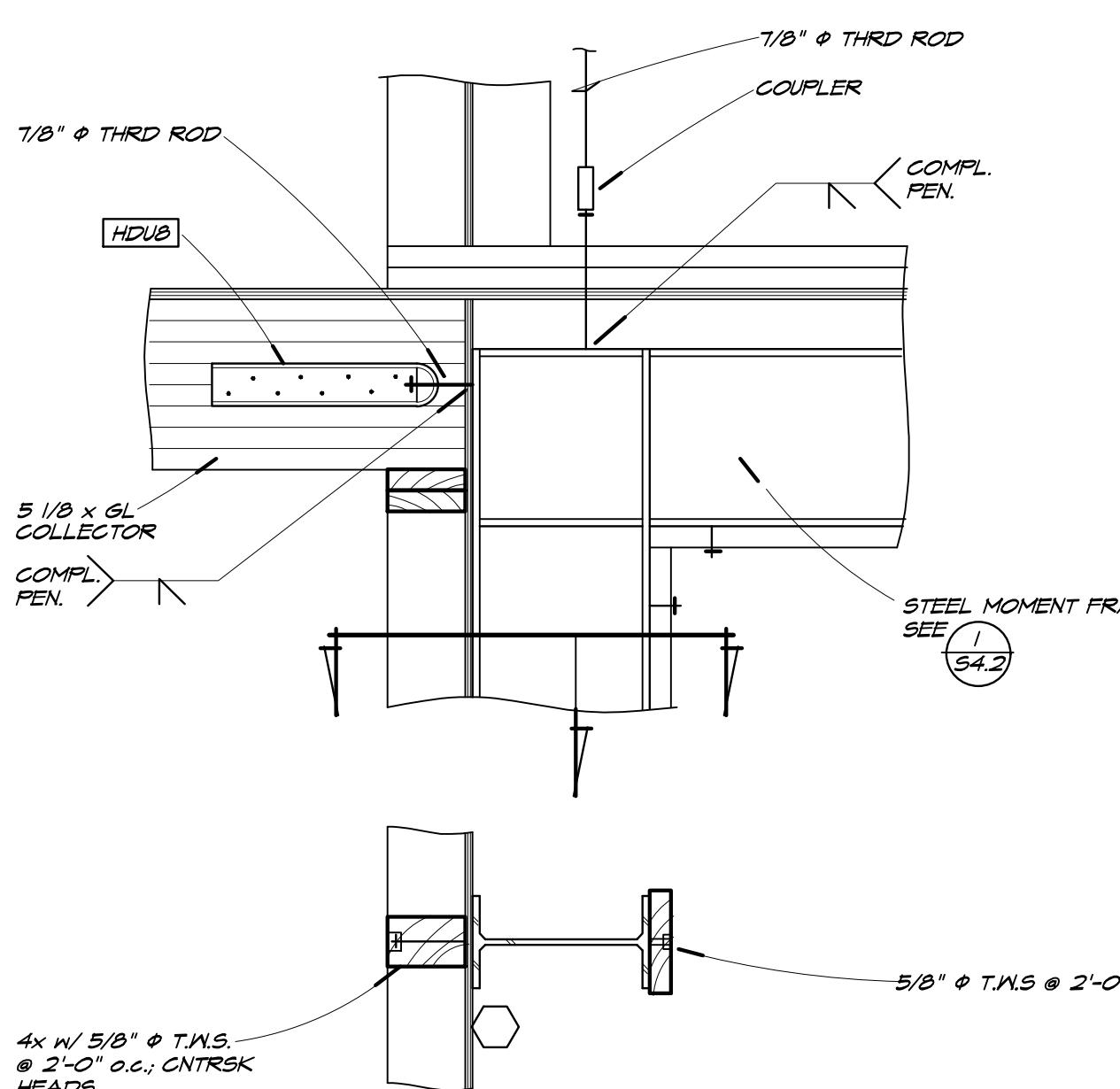
SHEET

S4.1



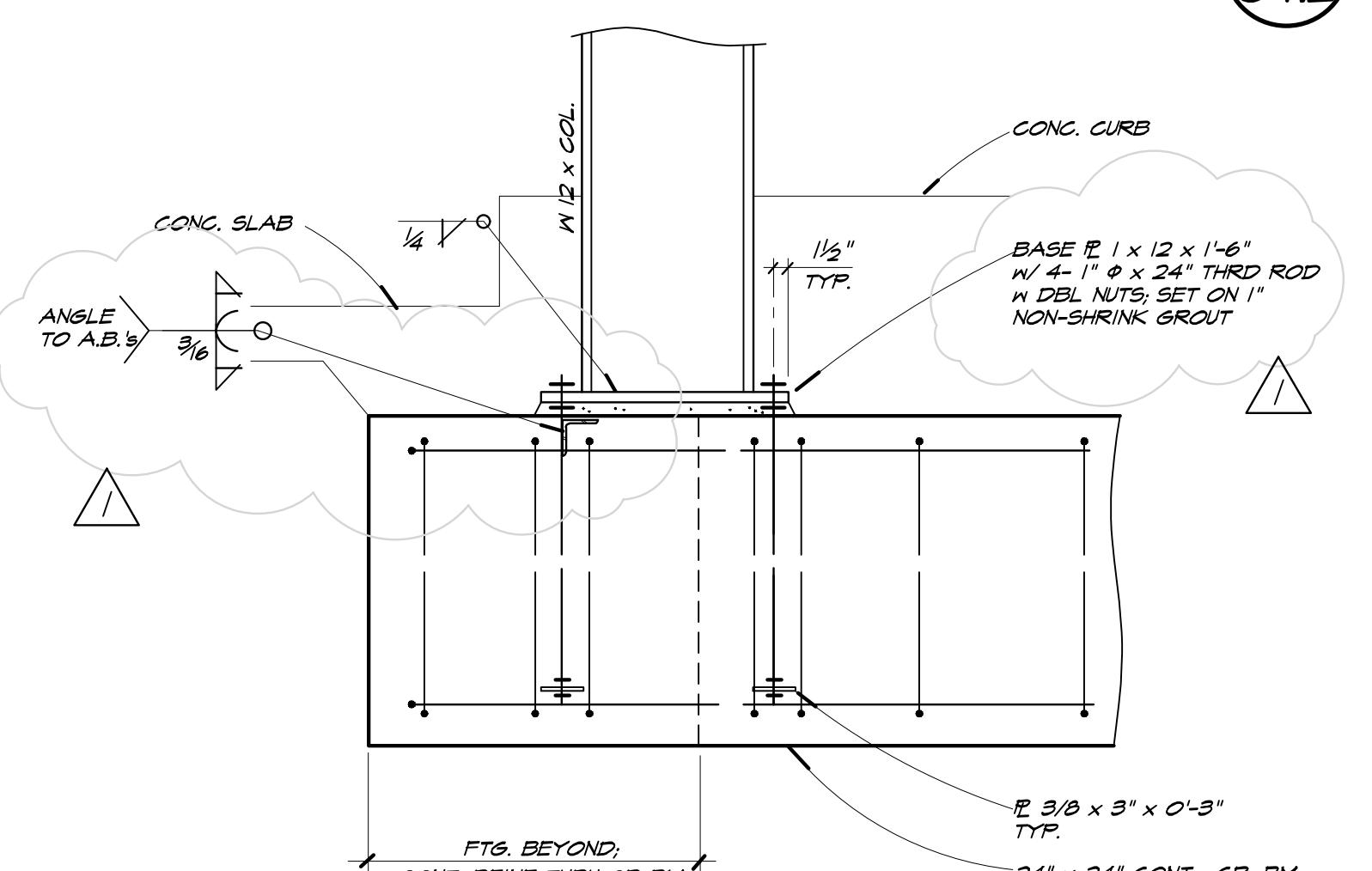
DETAIL

NO SCALE S4.2



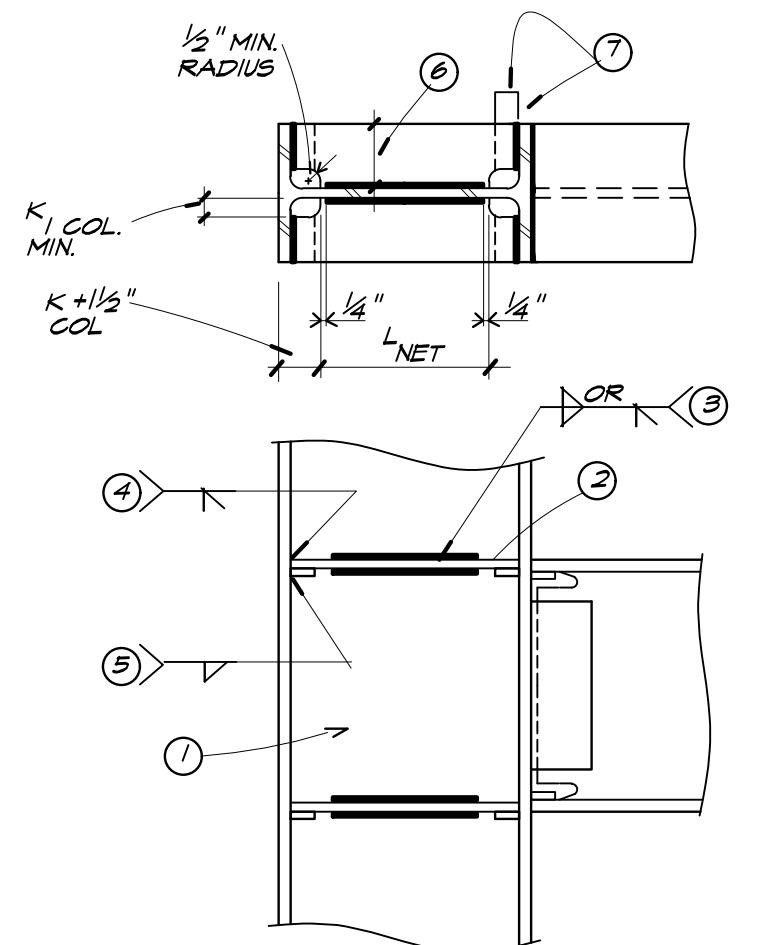
DETAIL

NO SCALE S4.2



DETAIL

NO SCALE S4.2

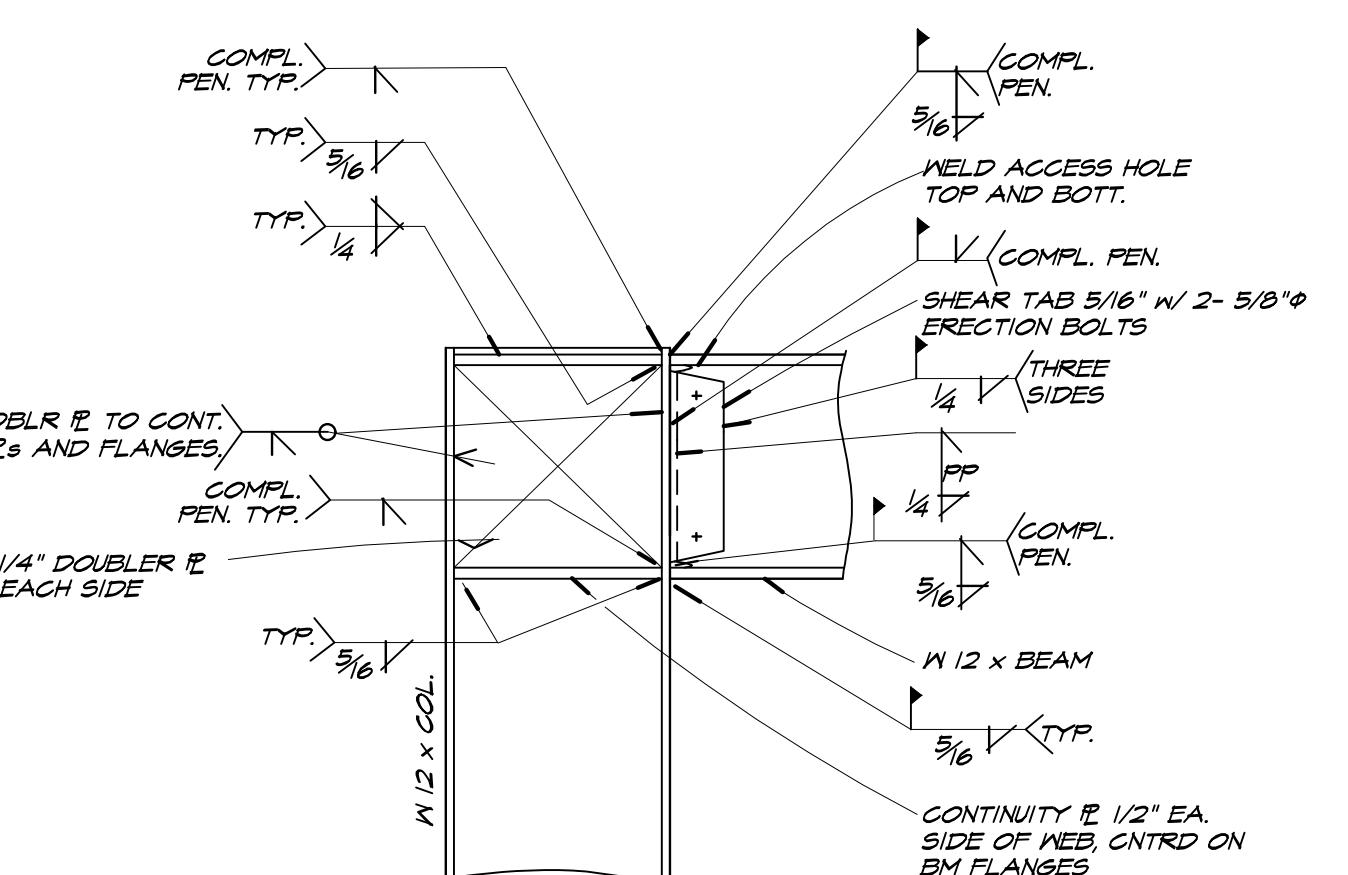


NOTES:

1. WEB DOUBLER PLATE
2. CONTINUITY PLATE
3. REQUIRED TOTAL WELD STRENGTH =  $0.6t_{pl}(L_{net})F_y$  pl. OC/CA CATEGORY B/L.
4. CUP TYPICAL. OC/CA CATEGORY BMT. FOR EXTERIOR BEAM-COLUMN CONNECTIONS (BEAM ONE SIDE ONLY), WELD OF CONTINUITY PLATE TO COLUMN FLANGE AT REE SIDE MAY BE FILLET WELDS AT TOP AND BOTTOM FACE OF PLATE.
5. AISC MINIMUM CONTINUOUS FILLET WELD UNDER BACKING.
6. MINIMUM WIDTH TO MATCH BEAM FLANGE. PREFERRED ALTERNATIVE: EXTEND PLATE FLUSH WITH COLUMN FLANGES.
7. REMOVE WELD TABS TO 1/4" MAXIMUM FROM EDGE OF CONTINUITY PLATE, GRIND END OF WELD SMOOTH (500/U-IN). NOT FLUSH. DO NOT GOUGE COLUMN FLANGE.

DETAIL

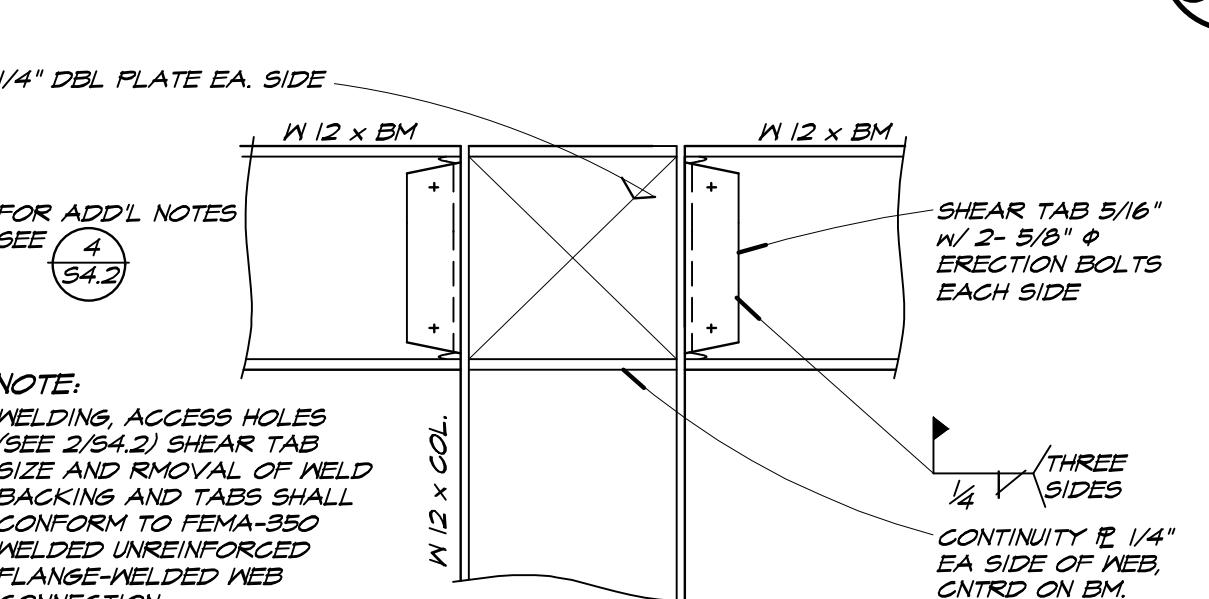
NO SCALE S4.2



NOTE:  
WELDING, ACCESS HOLES (SEE 2/S4.2) SHEAR TAB SIZE AND REMOVAL OF MOLD BACKING AND TABS SHALL CONFORM TO FEMA-350 WELDED UNREINFORCED FLANGE-WELDED WEB CONNECTION.

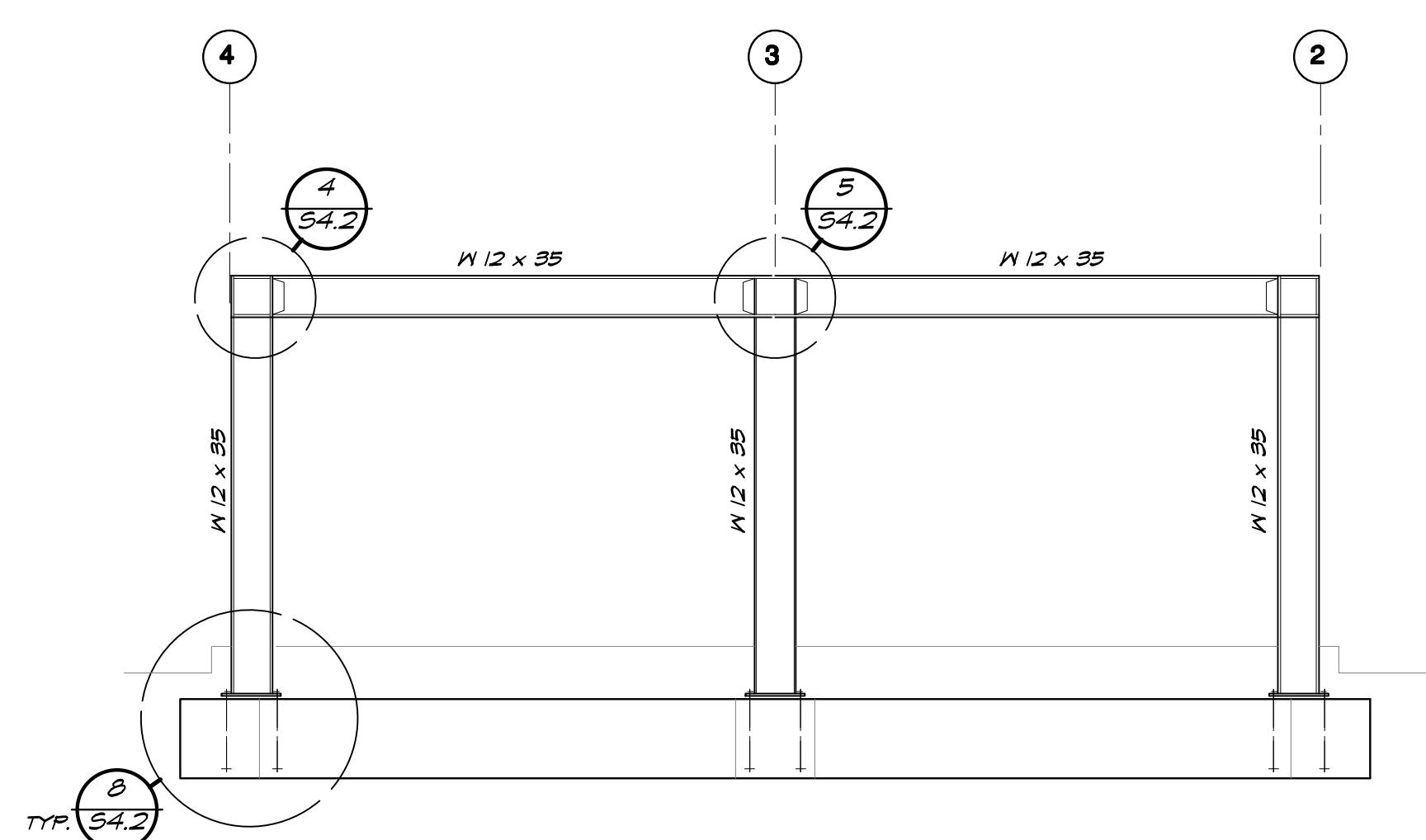
DETAIL

NO SCALE S4.2



DETAIL

NO SCALE S4.2

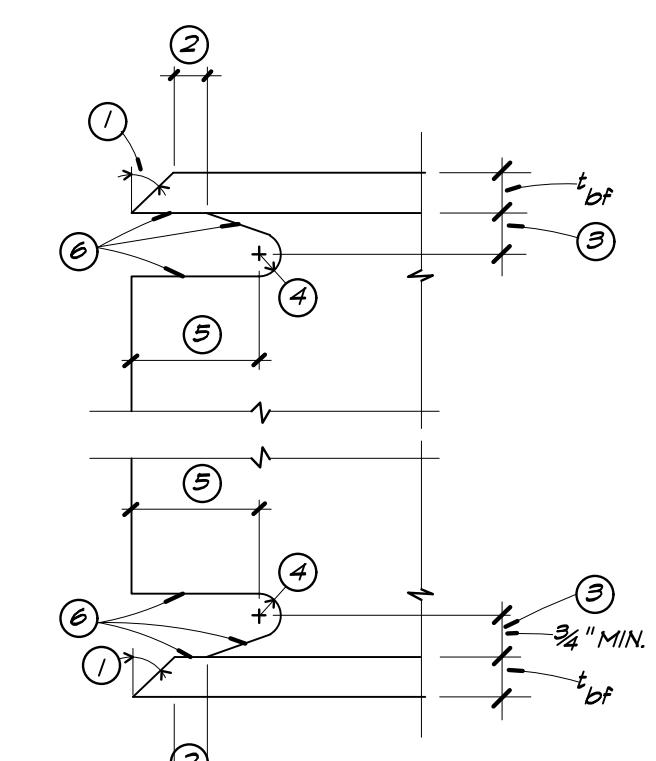


## MOMENT FRAME NOTES:

1. BEAM TO COLUMN CONNECTIONS ARE PRE-QUALIFIED FEMA-350 WELDED UNREINFORCED FLANGE-WELDED WEB CONNECTIONS.
2. FOR WELD ACCESS HOLE REQUIREMENTS SEE DETAIL 2/S4.2
3. WELDING IN THE K-AREA OF THE SECTION SHALL BE AVOIDED.
4. THE FILLER METAL SHALL PROVIDE GVM TOUGHNESS OF 29 FT-LBS AT 0 DEGREES F AND 40 FT-LBS AT 70 DEGREES F AND SHALL MEET THE SUPPLEMENTAL TOUGHNESS REQUIREMENTS FOR WELDING MATERIAL INCLUDED IN FEMA-350.
5. WELDS MUST BE 100% ULTRASONICALLY (UT) INSPECTED PER AWS D1.1 REQUIREMENTS. THE ACCEPTANCE CRITERIA SHOULD BE IN ACCORDANCE WITH AWS D1.1, TABLE 6.3.
6. STRUCTURAL OBSERVATION SHALL BE PROVIDED BY A REGISTERED DESIGN PROFESSIONAL, TYPICALLY THE ENGINEER OF RECORD, FOR THE STEEL MOMENT FRAME FOR SEISMIC ACTIONS. THE STRUCTURAL OBSERVATION SHALL BE COLUMN SPLICES PRIOR TO PLACEMENT OF BEAMS, COVERING BY FIREPROOFING ENGAGEMENT IN CONCRETE OR PLACEMENT OF OTHER FINISHES. FOLLOWING IS THE CHECKLIST OF STRUCTURAL OBSERVATION:
  - a. ORIENTATION AND PLACEMENT OF CONNECTED COMPONENTS.
  - b. REMOVAL OF BACKING BARS, AS REQUIRED.
  - c. PLACEMENT OF REINFORCING FILLETS, AS REQUIRED.
  - d. REMOVAL AND FINISHING OF RUNOFF TABS, AS REQUIRED.
  - e. PRESENCE OF CONTINUITY PLATES, AS REQUIRED.
  - f. CONFIGURATION AND FINISH OF ACCESS HOLES.
  - g. PLACEMENT OF BEAM STIFFENERS, AS REQUIRED.
  - h. CONTOUR AND FINISH OF REB PROFILE, IF APPLICABLE.
  - i. PLACEMENT OF WELDS FOR WEB CONNECTIONS, AS REQUIRED.
  - j. TYPE AND PLACEMENT OF BOLTS.
  - k. INACCESSIBLE CONDITIONS.

## MOMENT FRAME ELEVATION

1/4" = 1'-0" S4.2

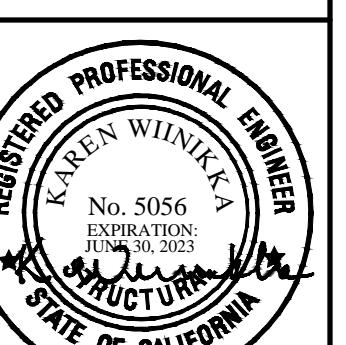


DETAIL

NO SCALE S4.2

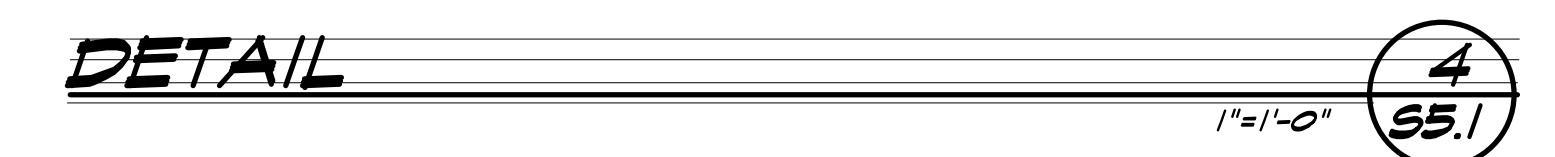
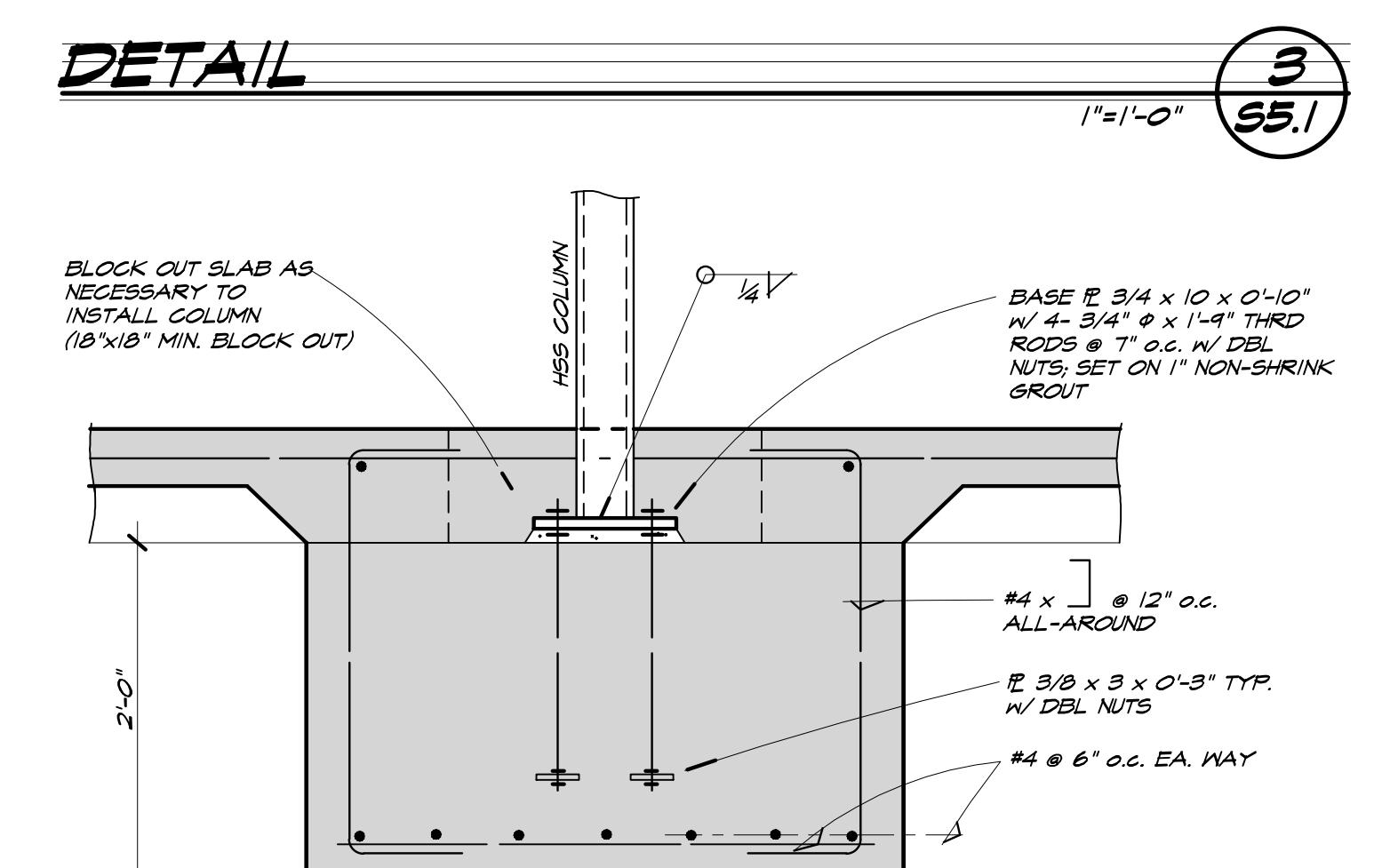
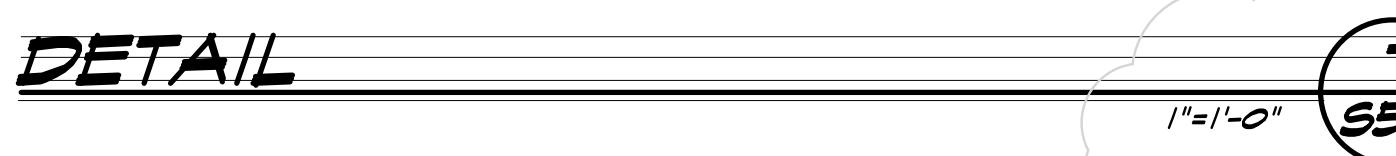
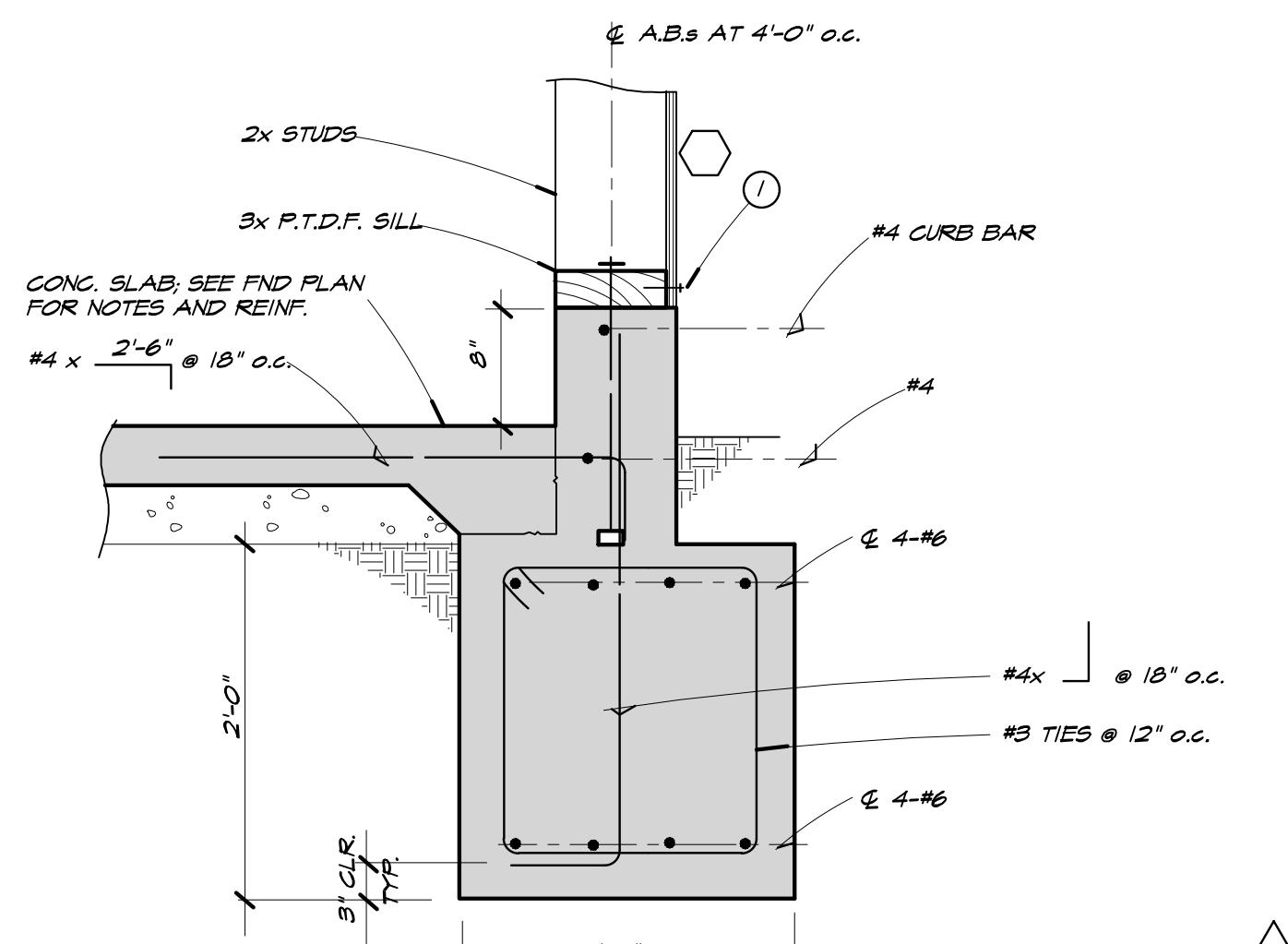
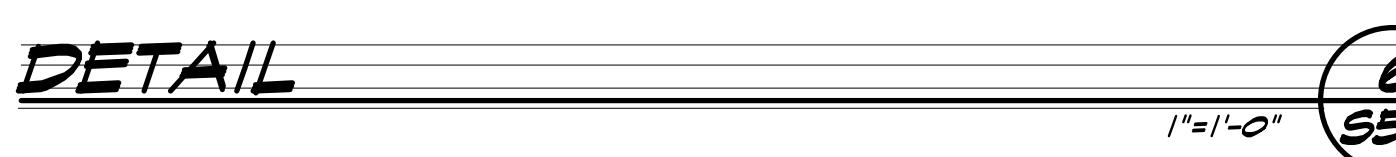
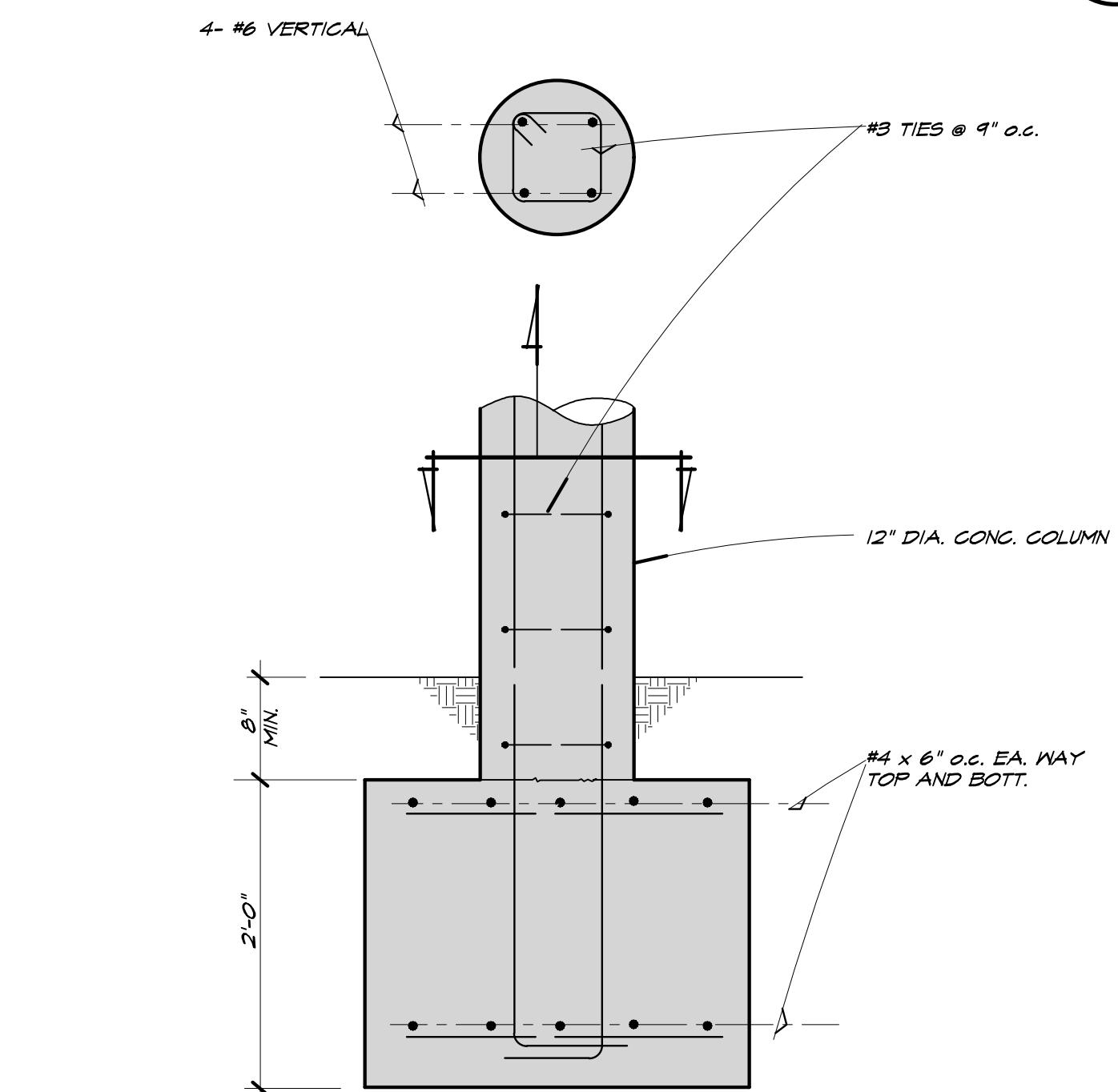
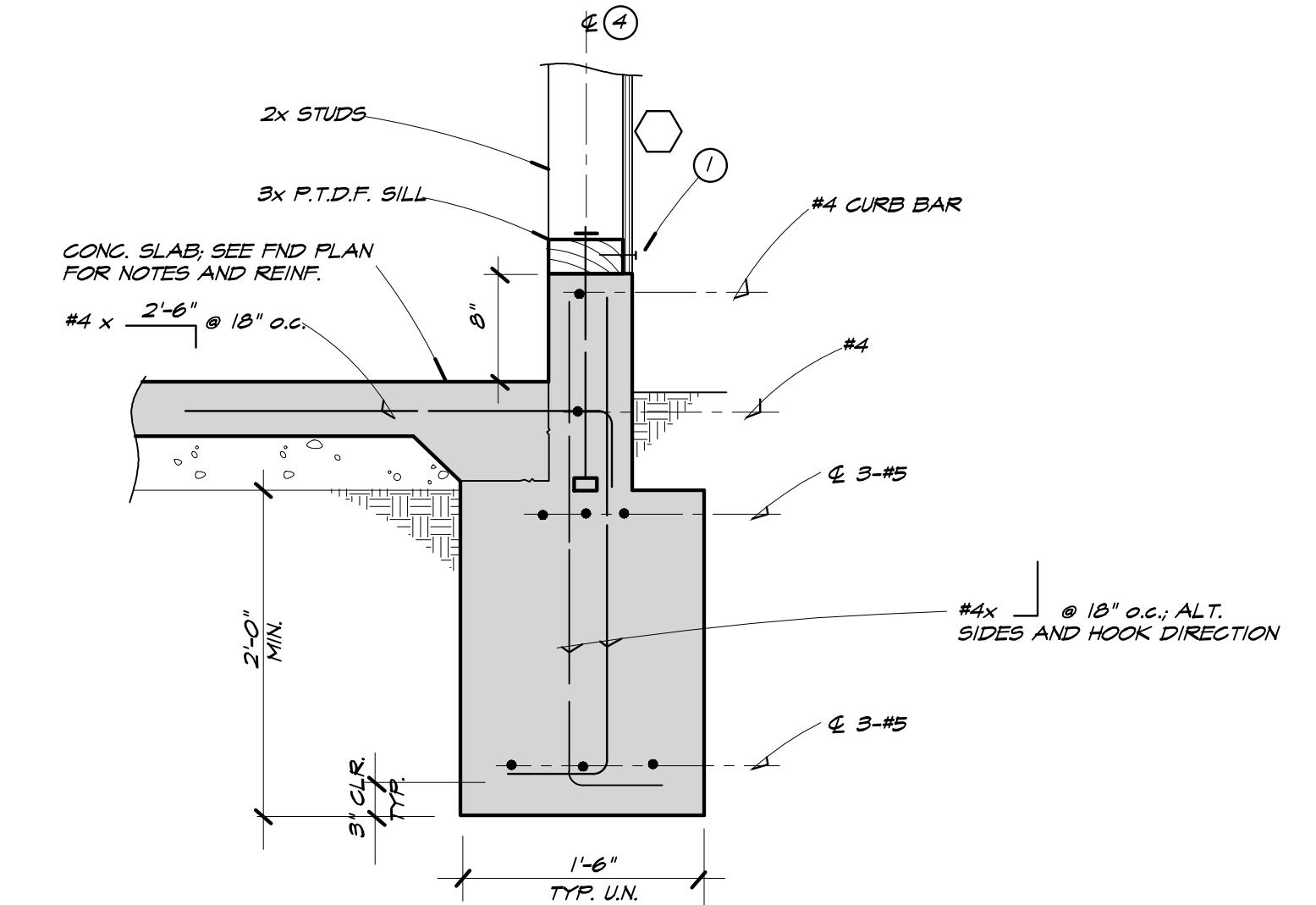
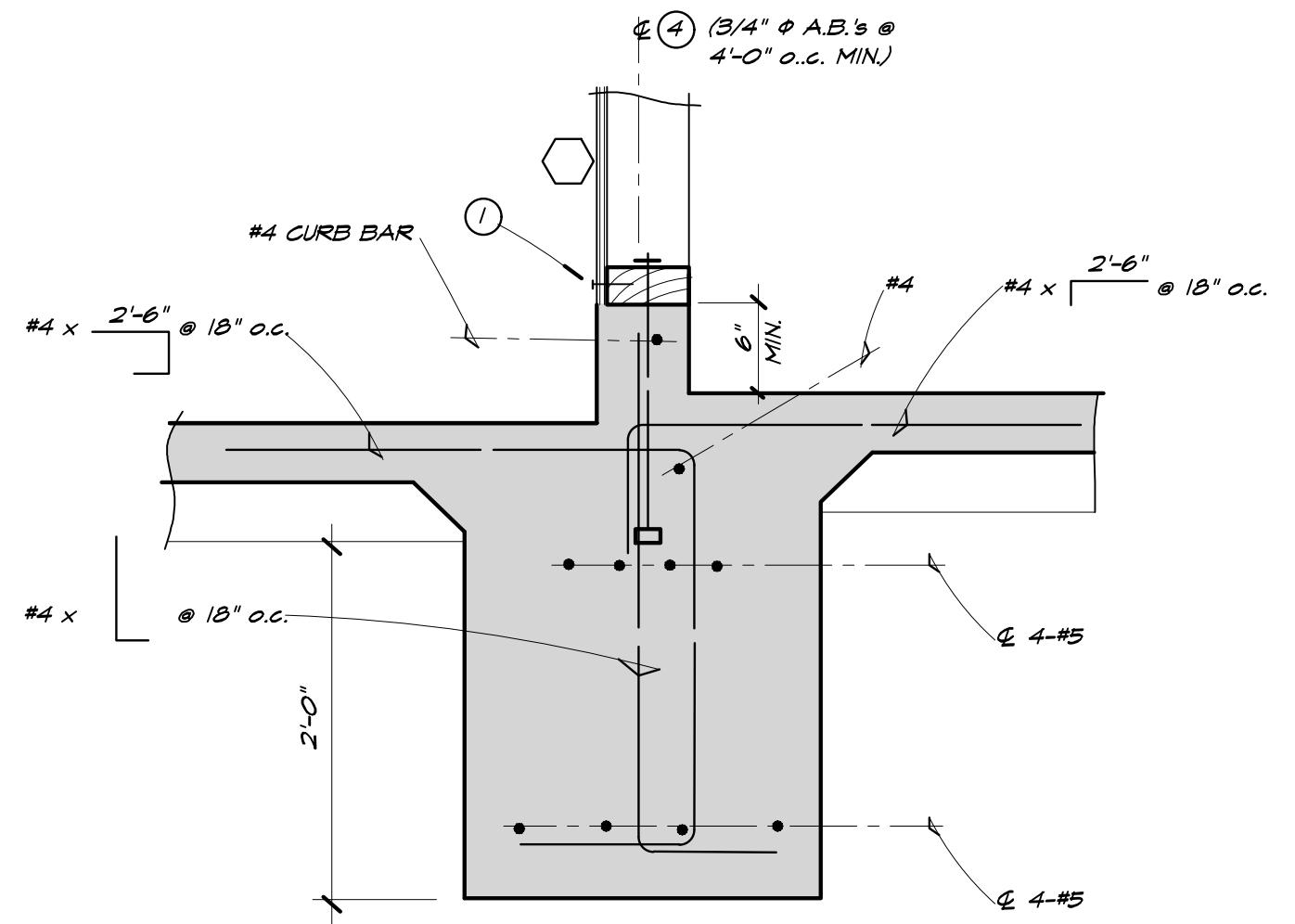
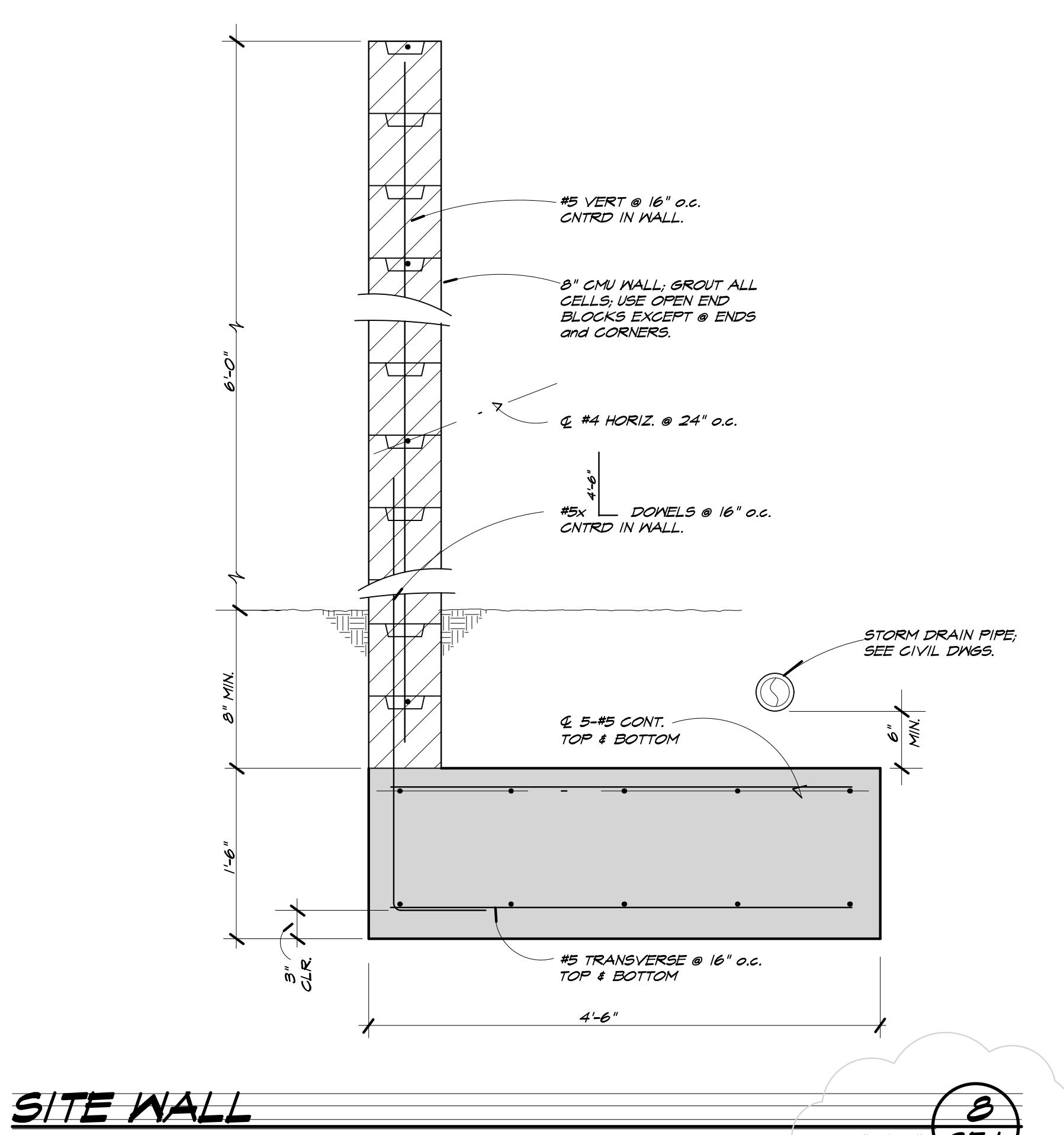
## NOTES:

1. ( ) INDICATES SHEAR PLYWOOD. SEE FRAMING PLANS FOR DESIGNATION AND SHEAR SCHEDULE 1/S1.3
2. ( ) ETC. INDICATES NAILING, SILL BOLTING, ETC. AS LISTED IN THE SHEAR SCHEDULE, DETAIL 1/S1.3.



## FOUNDATION DETAILS

AFFORDABLE HOUSING PROJECT FOR  
THE HOUSING AUTHORITY  
OF THE COUNTY OF SANTA CRUZ  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA



REGISTERED PROFESSIONAL ENGINEER  
KAREN WHITNEY  
No. 5056  
INSTITUTION FOR ENGINEERS  
STATE OF CALIFORNIA  
DATE 8/01/22  
SCALE AS NOTED  
DRAWN BE  
JOB SHEET  
SHEET S5.1

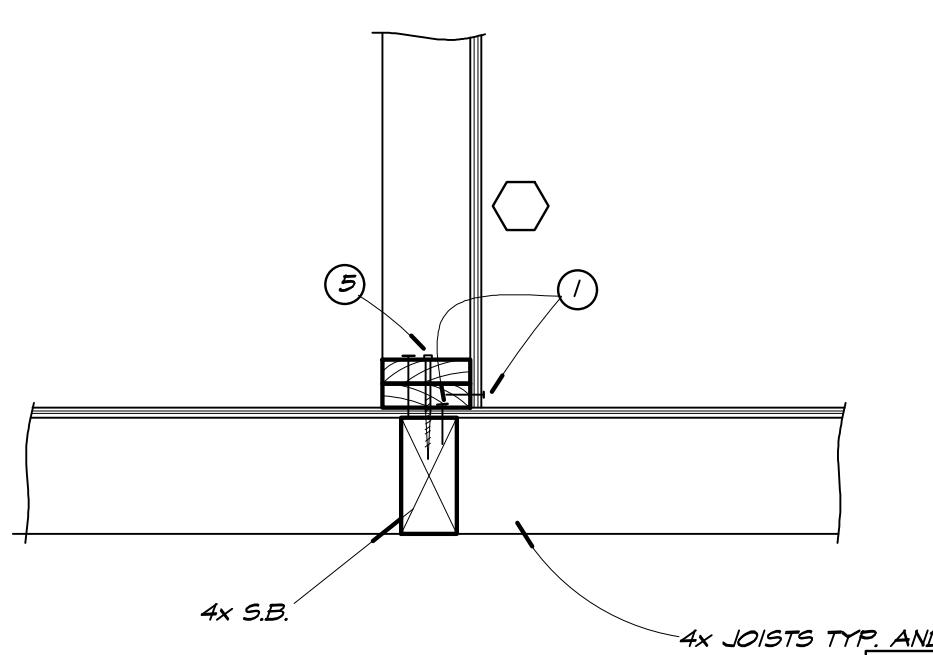
## FLOOR FRAMING DETAILS

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THE HOUSING AUTHORITY  
OF THE COUNTY OF SANTA CRUZ  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA

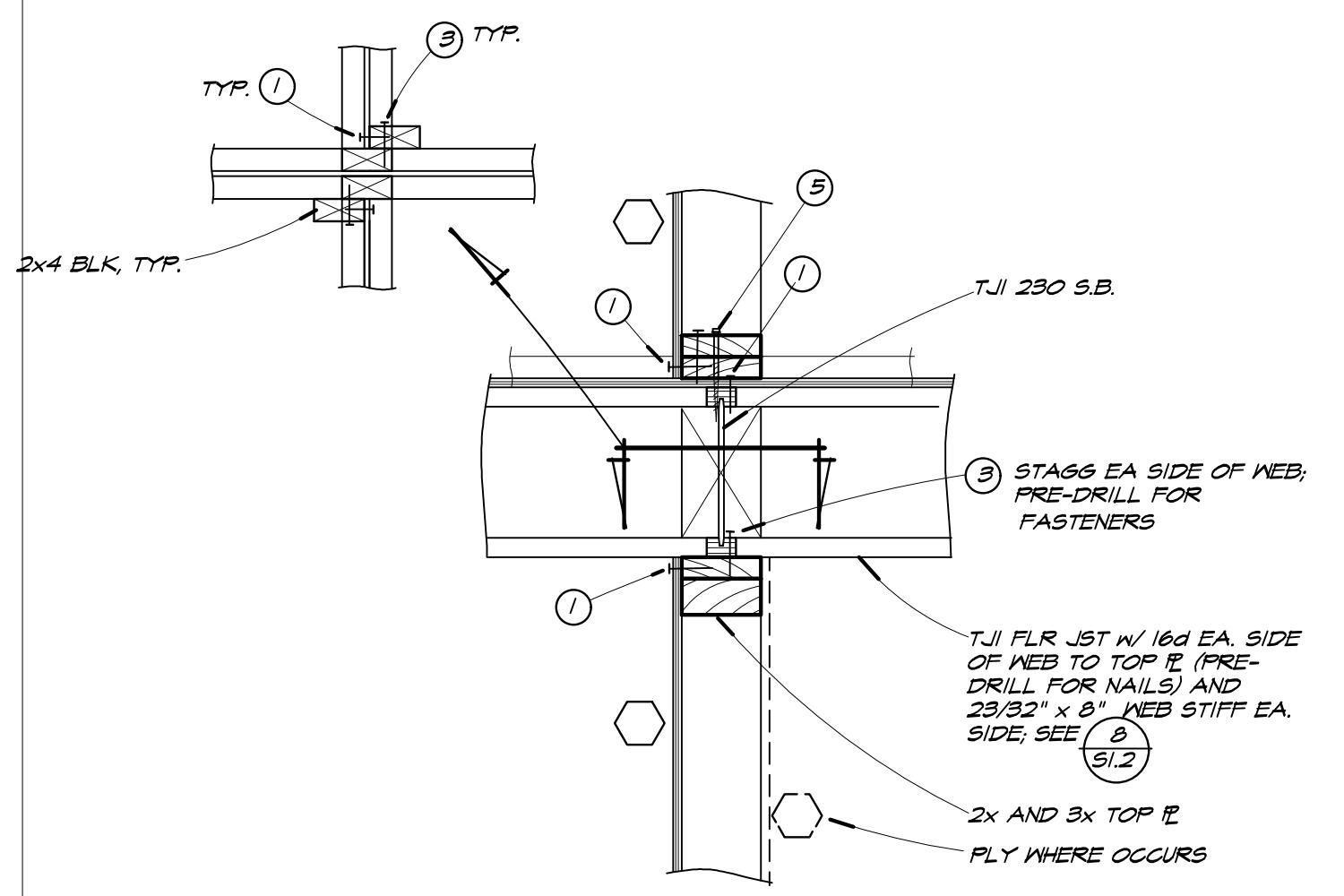


DATE 8/01/22  
SCALE AS NOTED  
DRAWN BE  
JOB  
SHEET

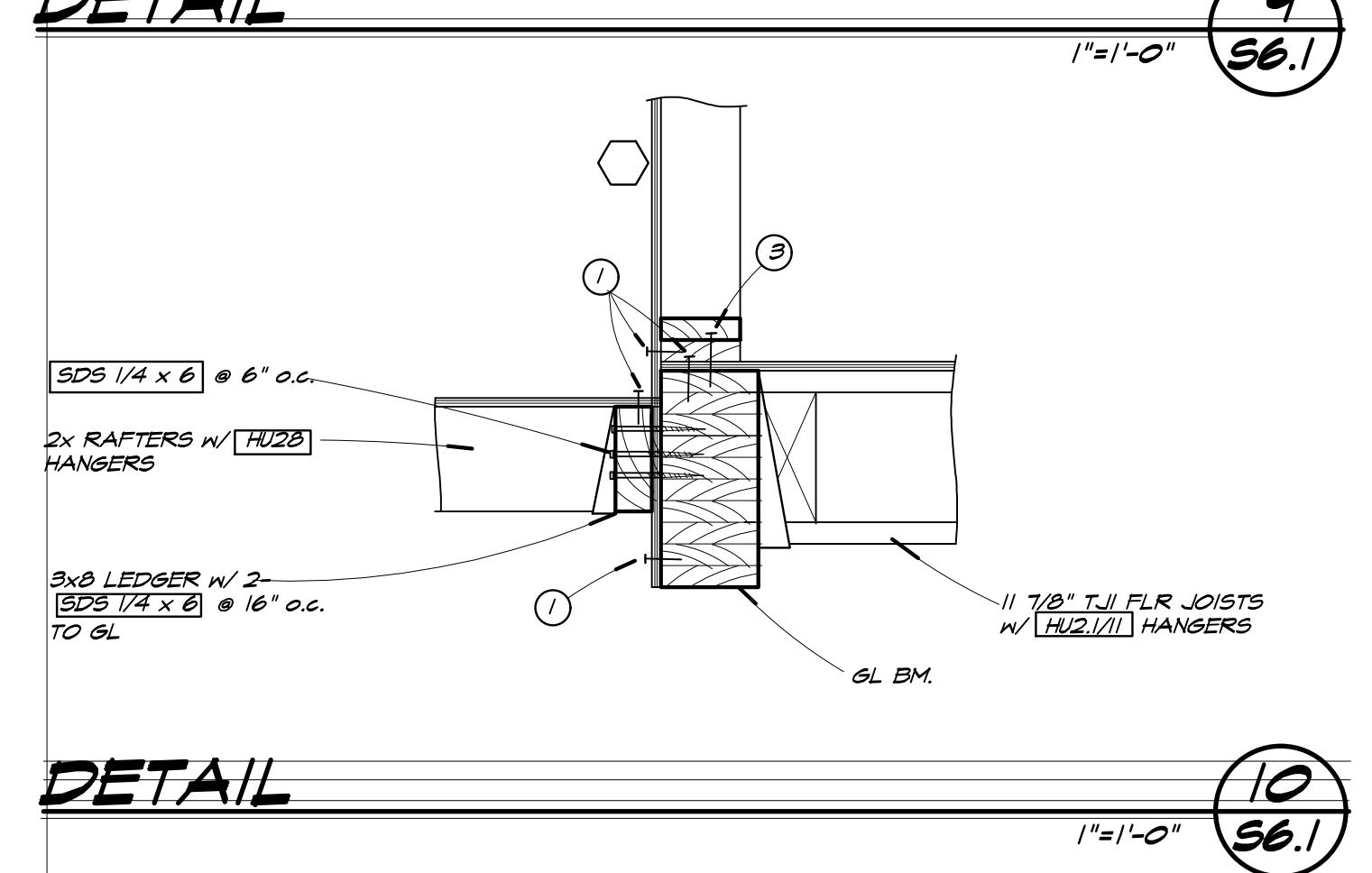
S6.1



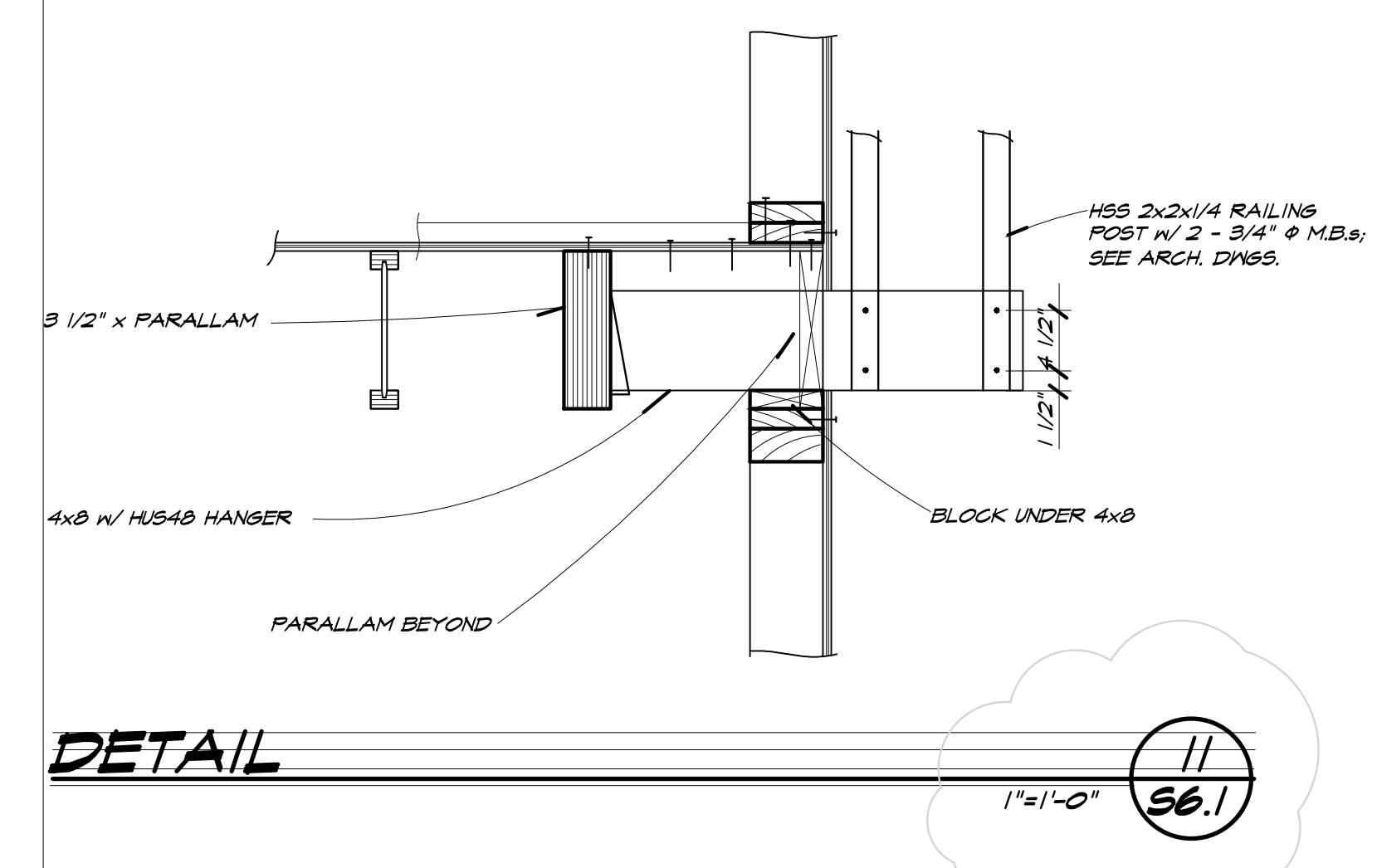
DETAIL



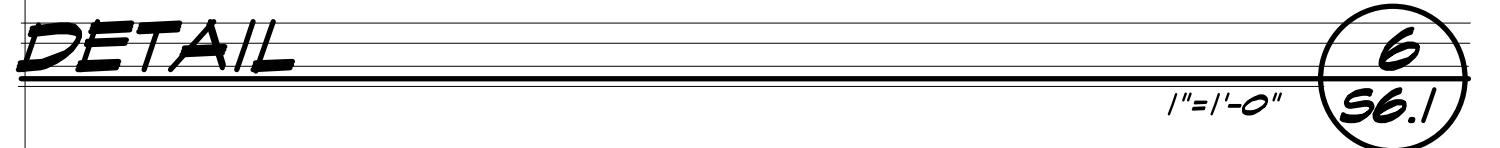
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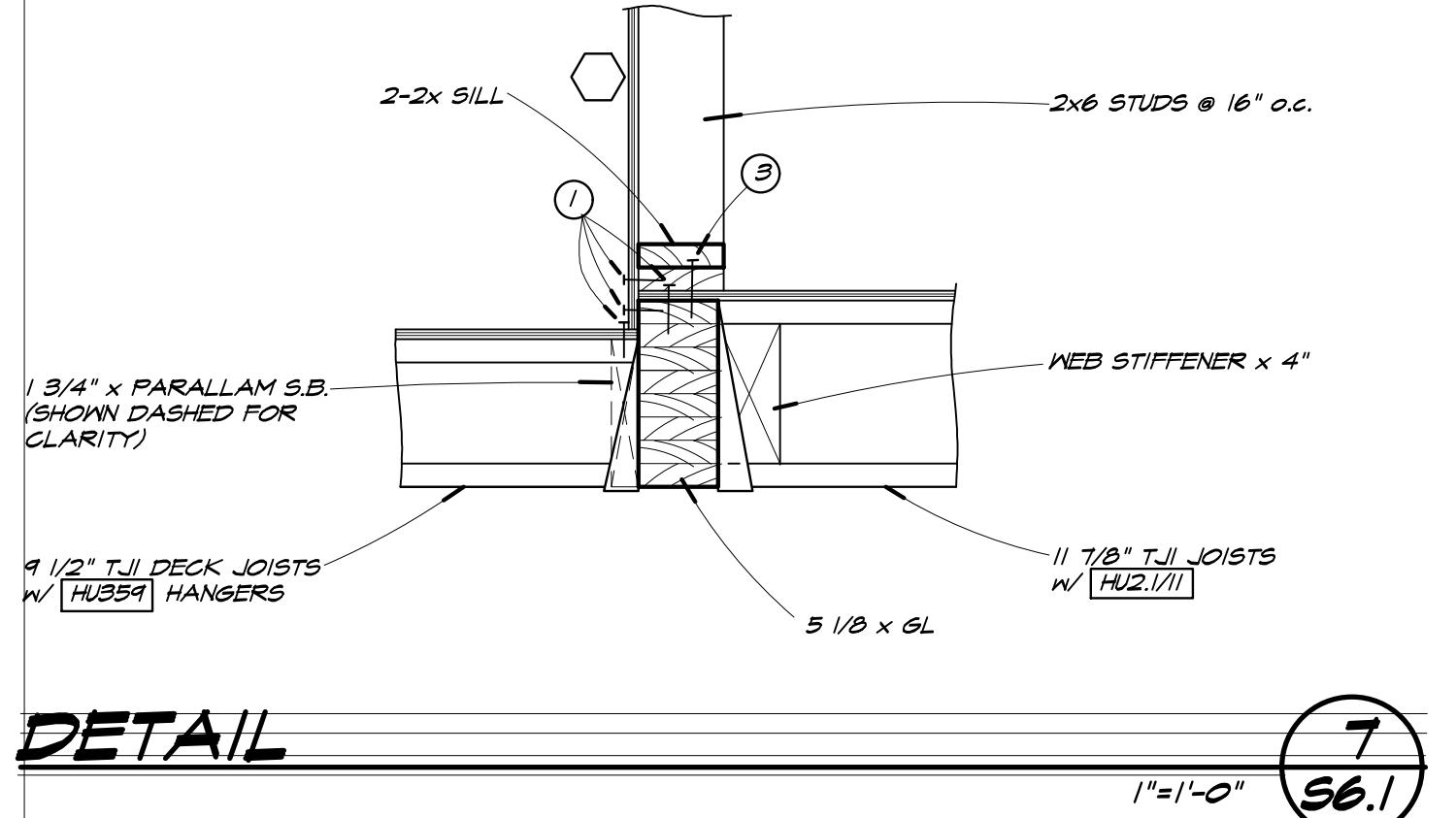
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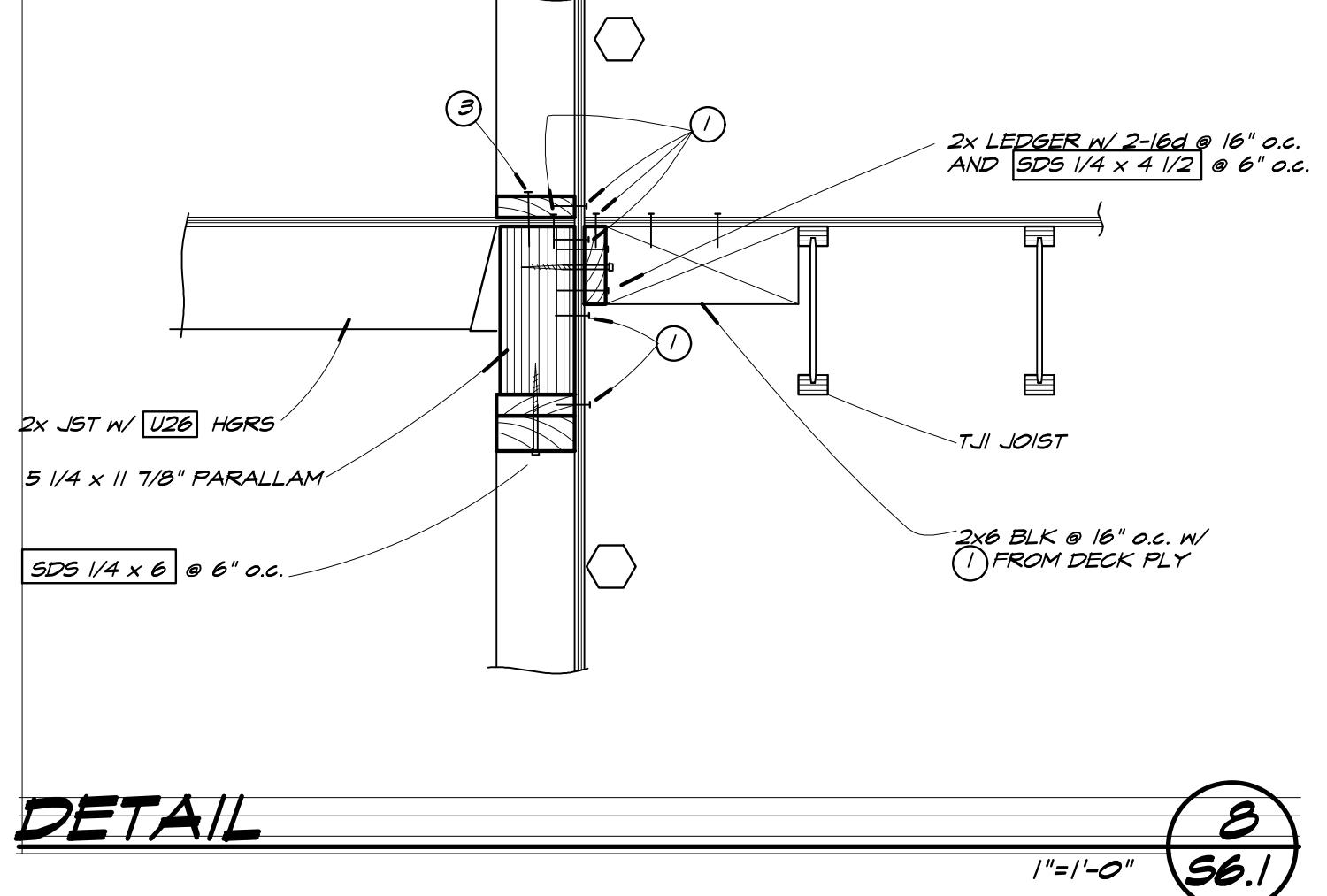
DETAIL



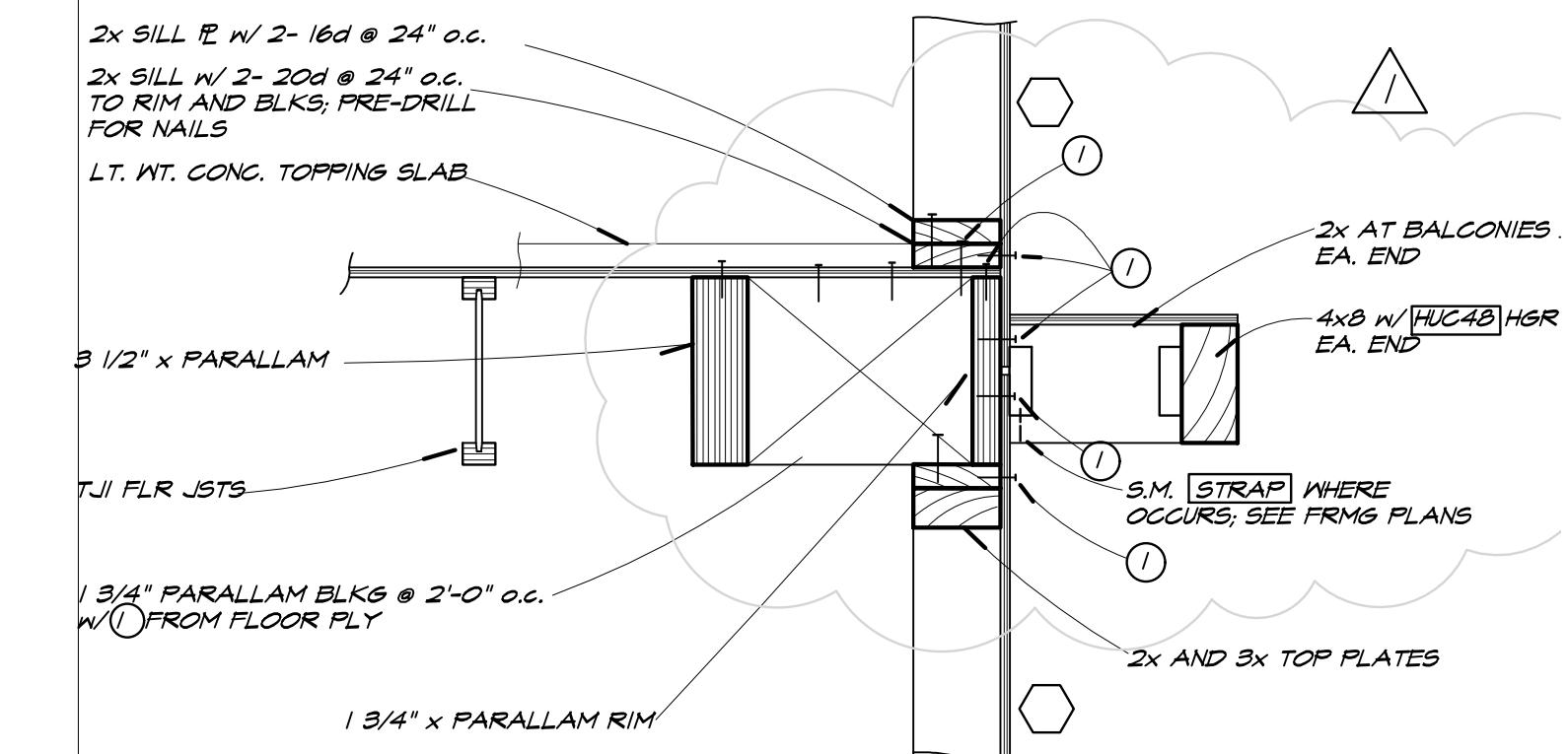
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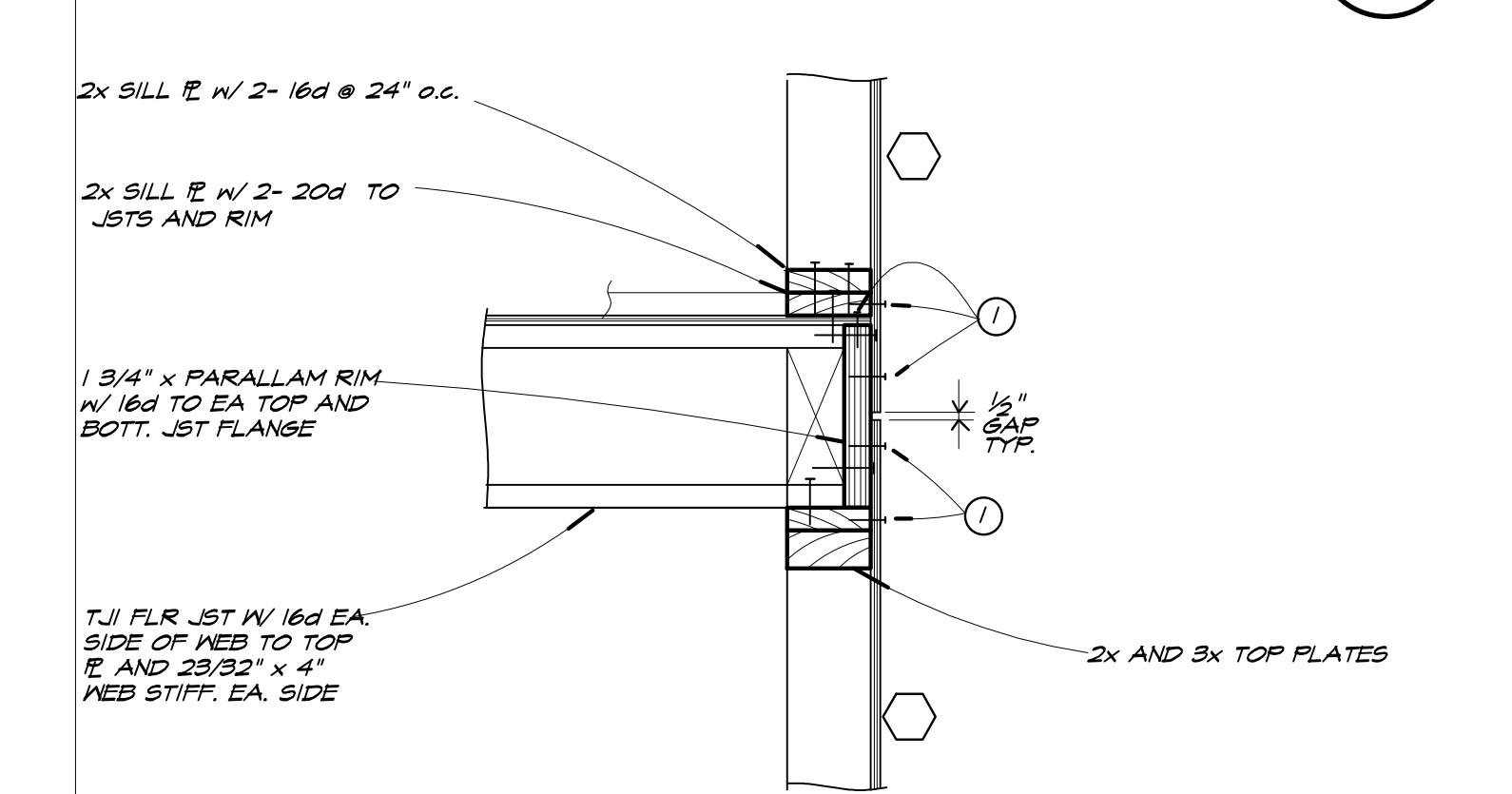
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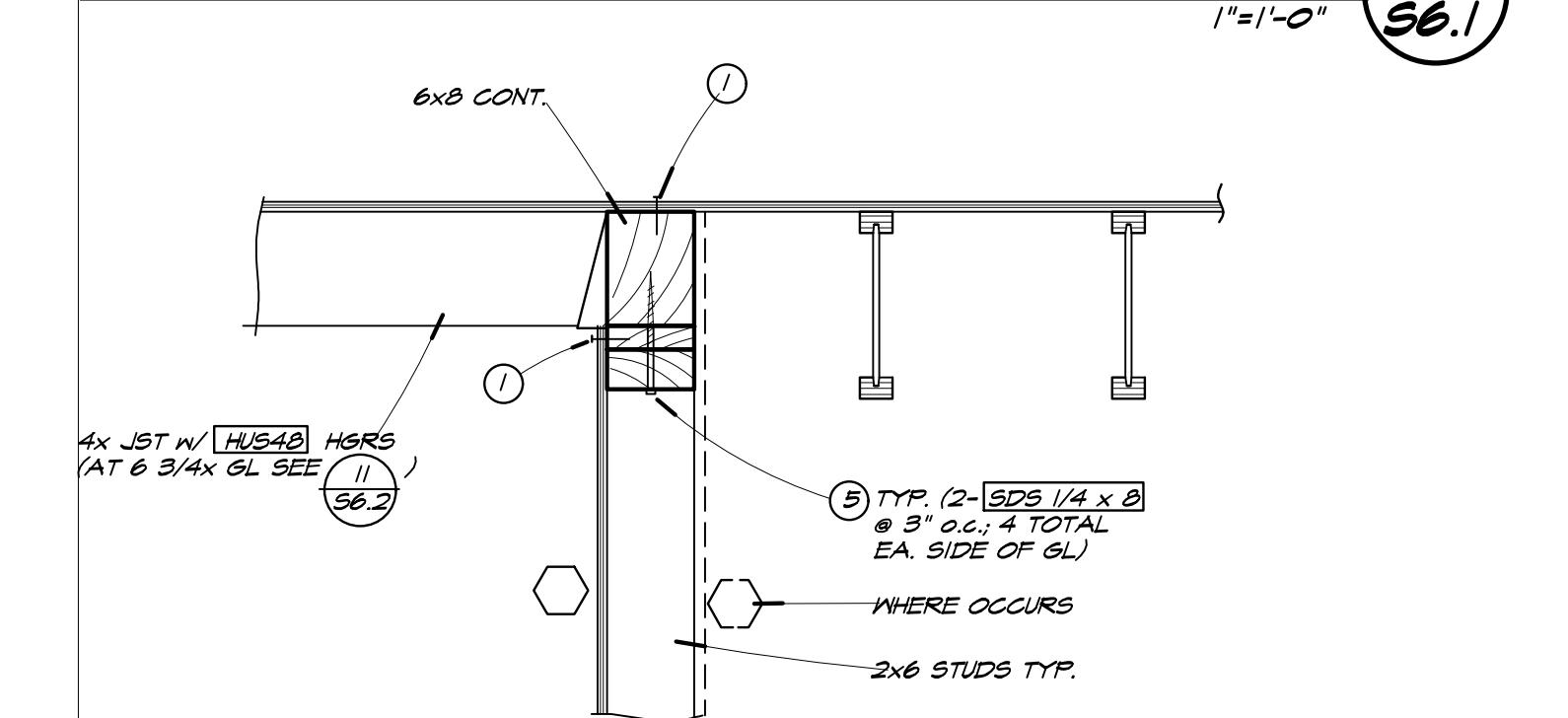
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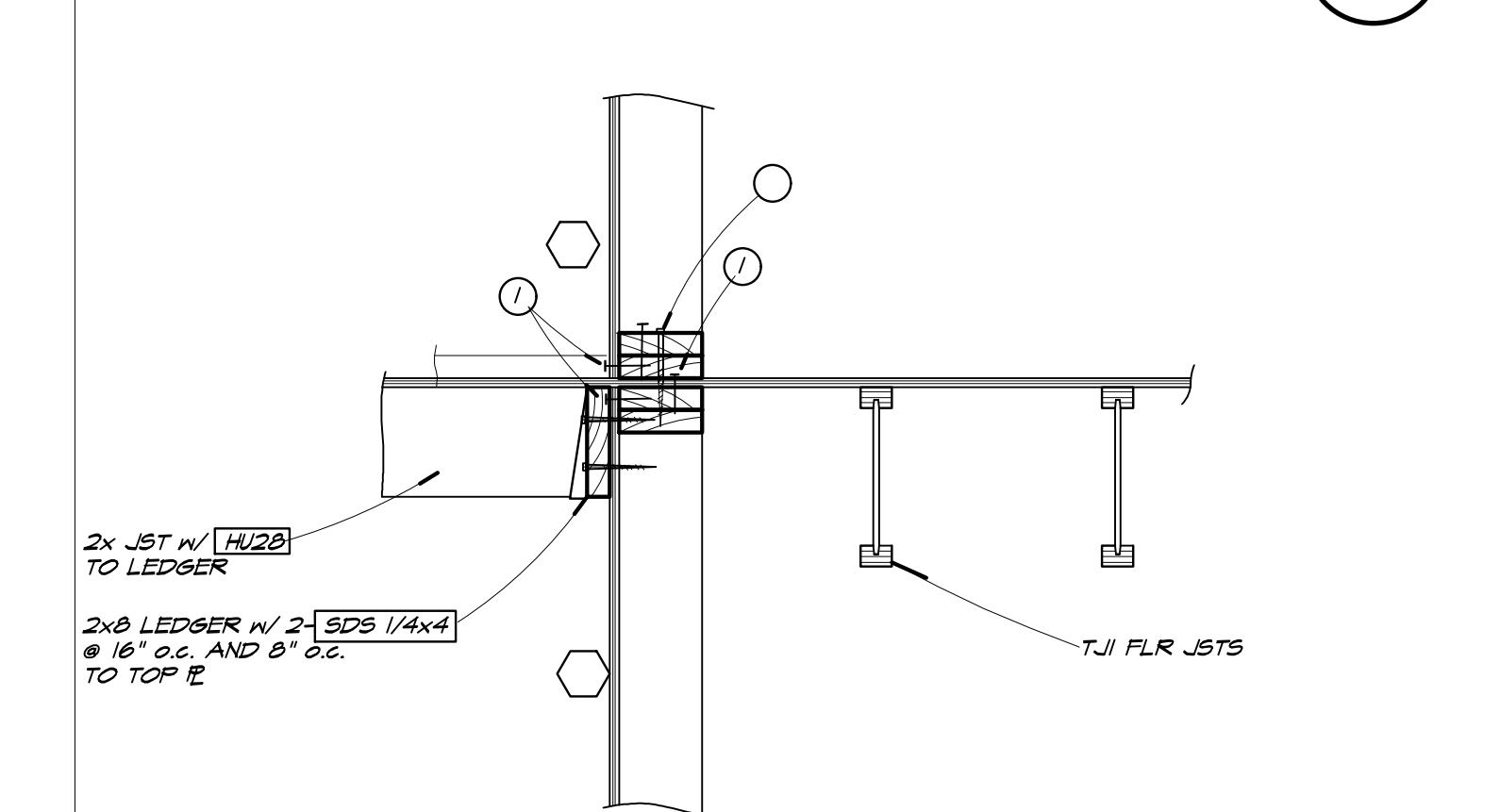
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DETAIL



DETAIL



DETAIL

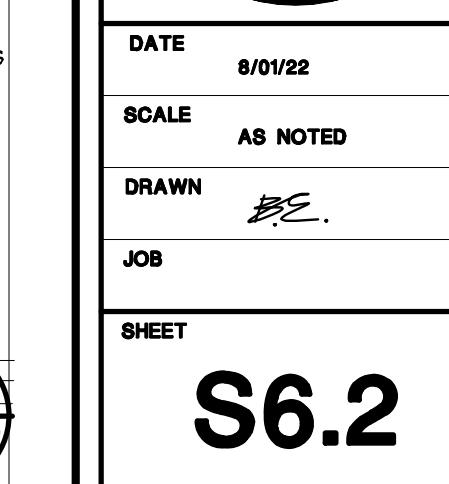
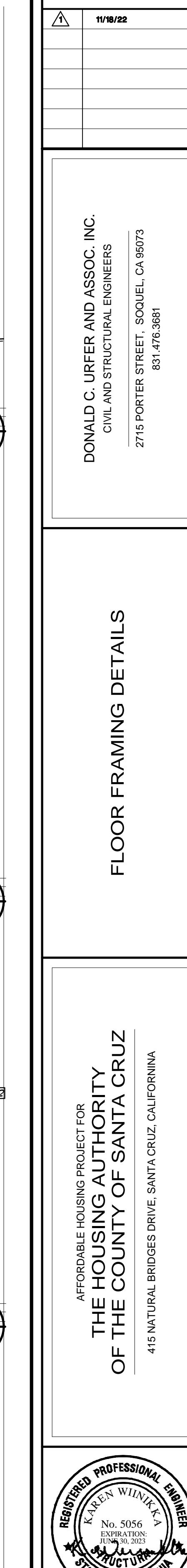
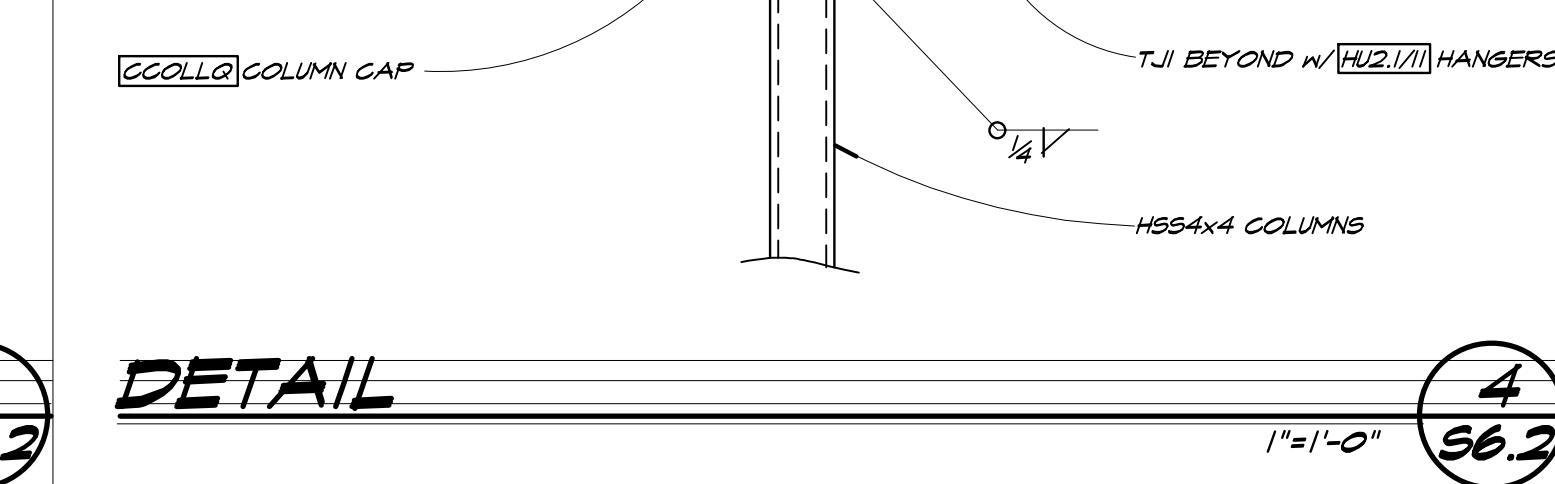
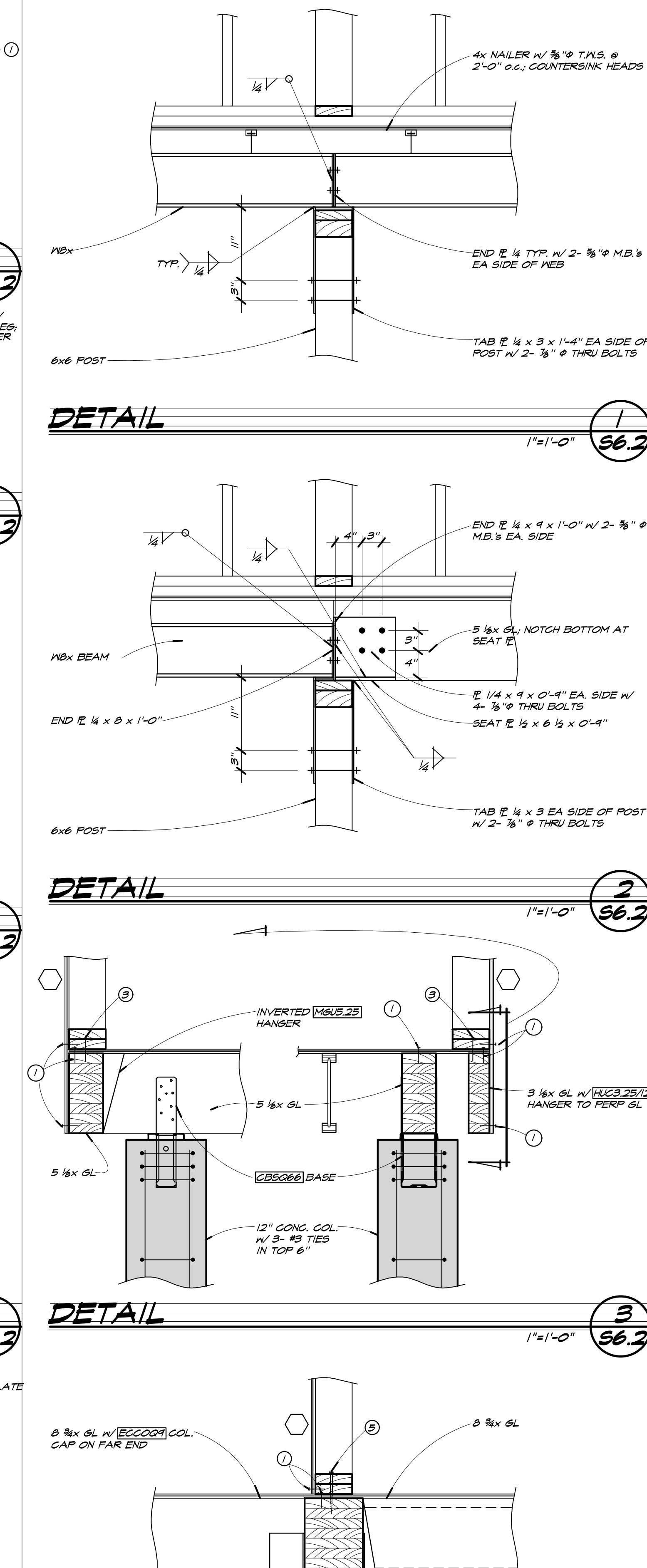
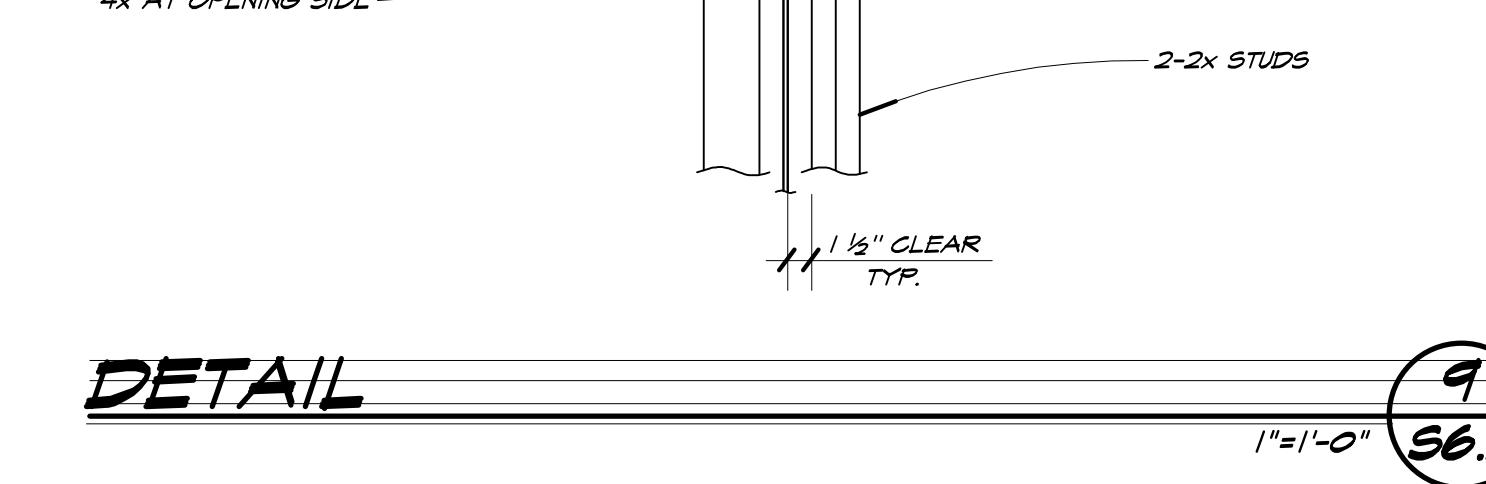
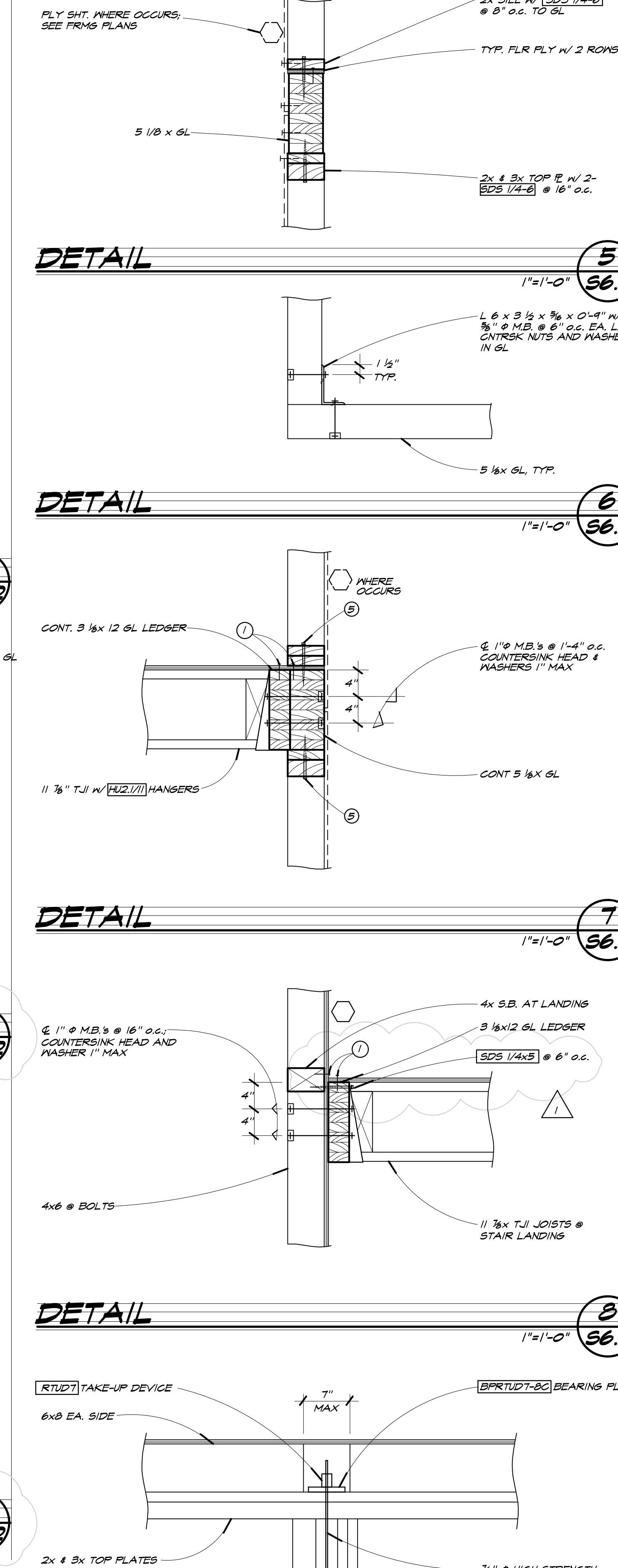
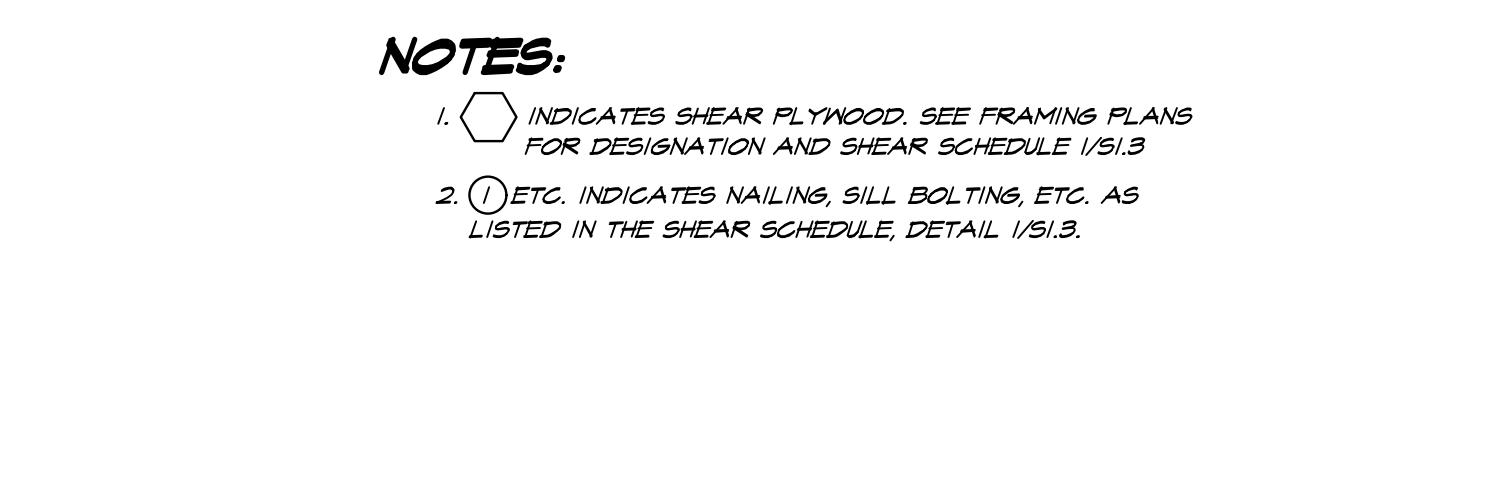
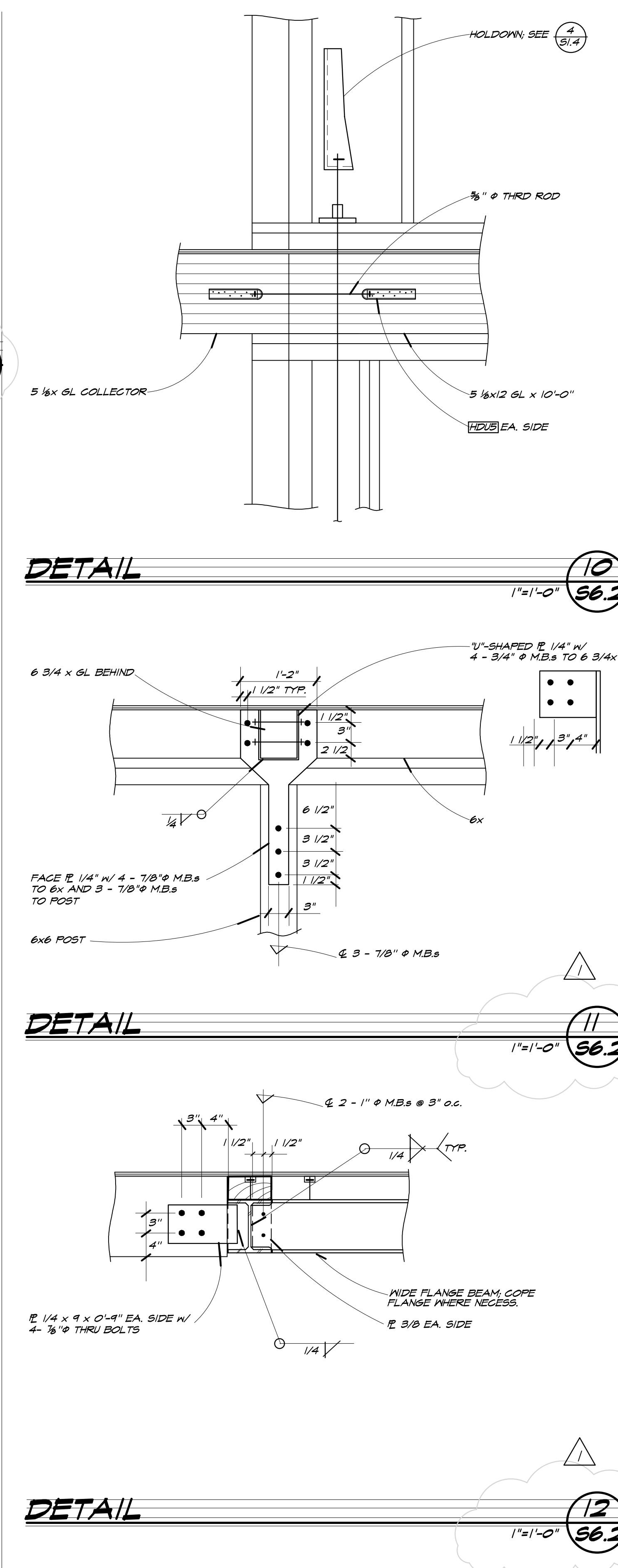
- NOTES:**
1. INDICATES SHEAR PLYWOOD. SEE FRAMING PLANS FOR DESIGNATION AND SHEAR SCHEDULE 1/S1.3
  2. ETC. INDICATES NAILING, SILL BOLTING, ETC. AS LISTED IN THE SHEAR SCHEDULE, DETAIL 1/S1.3.

## FLOOR FRAMING DETAILS

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OF THE COUNTY OF SANTA CRUZ  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA



REGISTERED PROFESSIONAL ENGINEER  
KAREN WHITNEY  
No. 5056  
INSTITUTION FOR PROFESSIONAL ENGINEERS  
STATE OF CALIFORNIA  
DATE 01/01/22  
SCALE AS NOTED  
DRAWN BY  
JOB  
SHEET  
**S6.2**

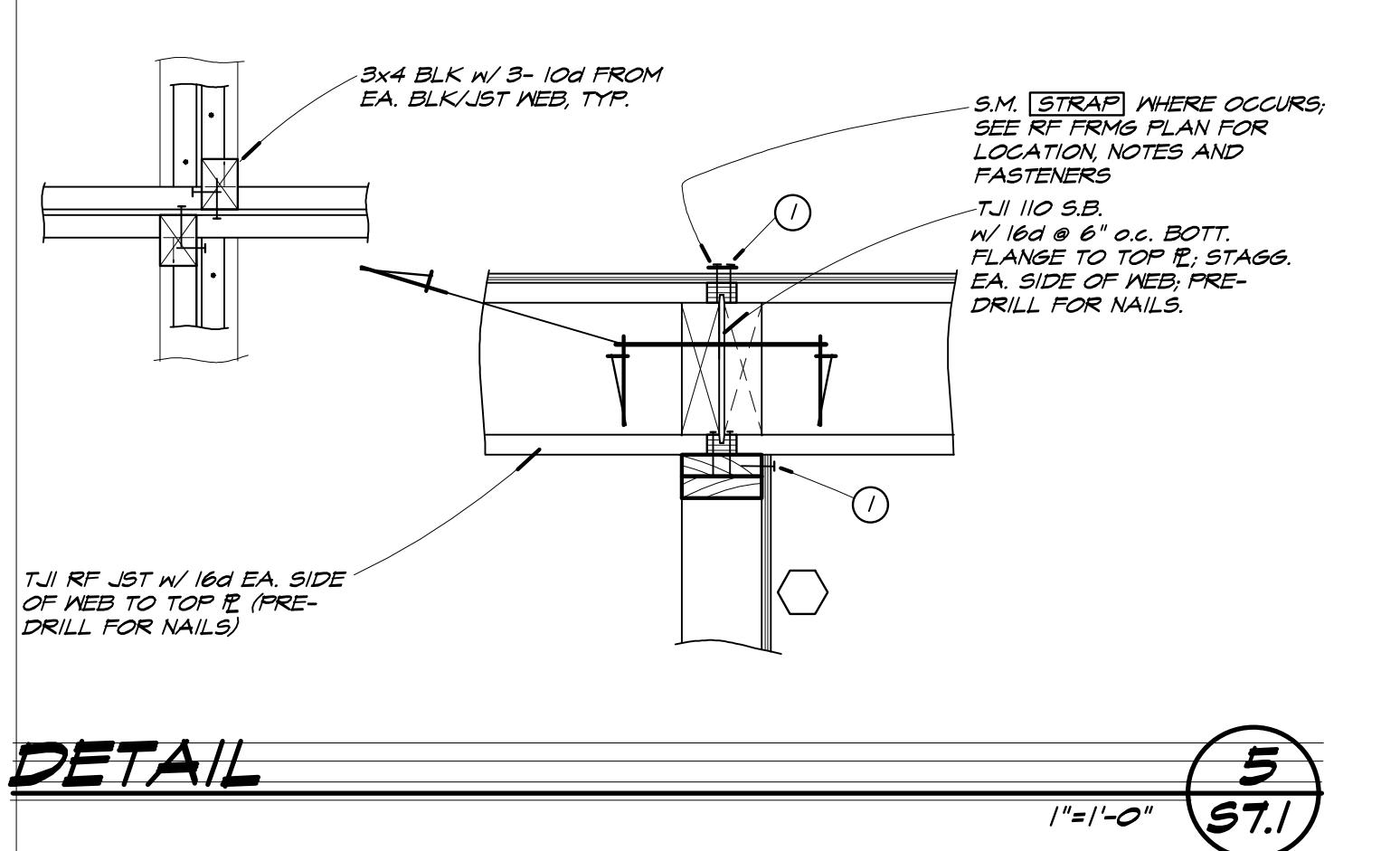
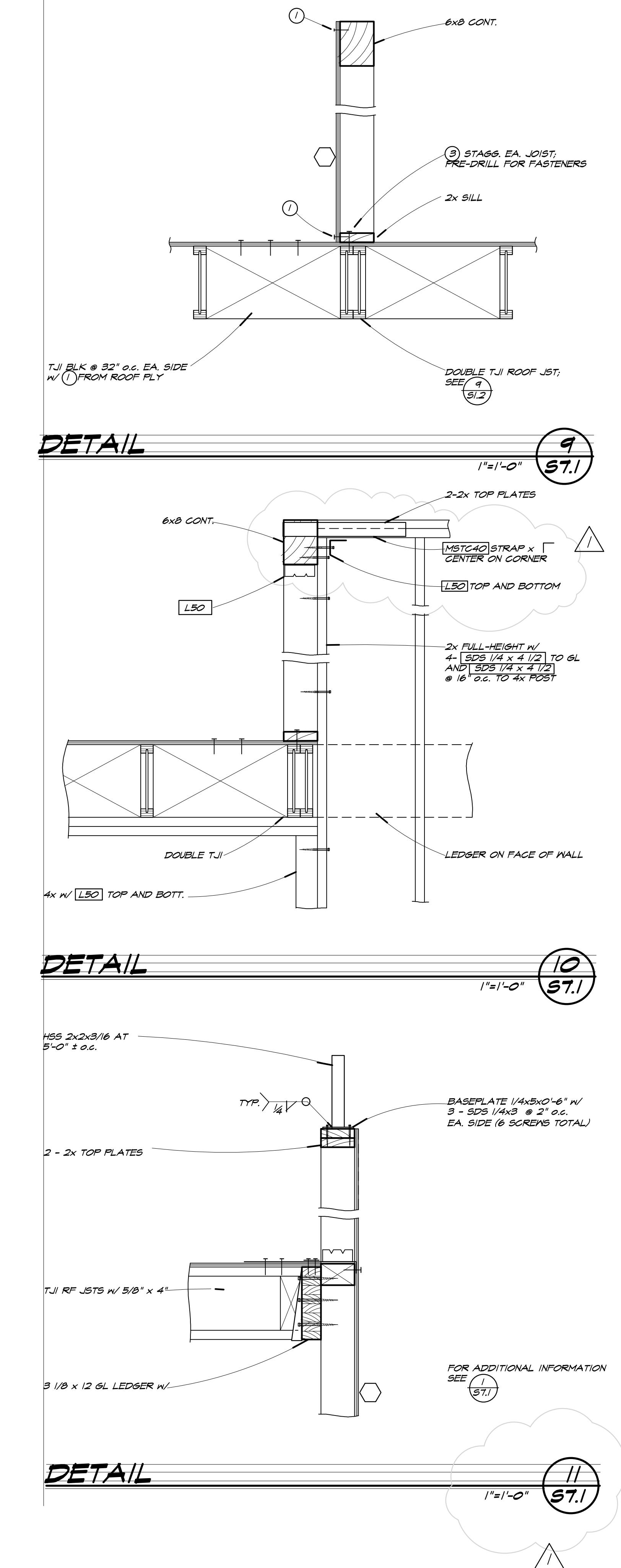


## ROOF FRAMING DETAILS

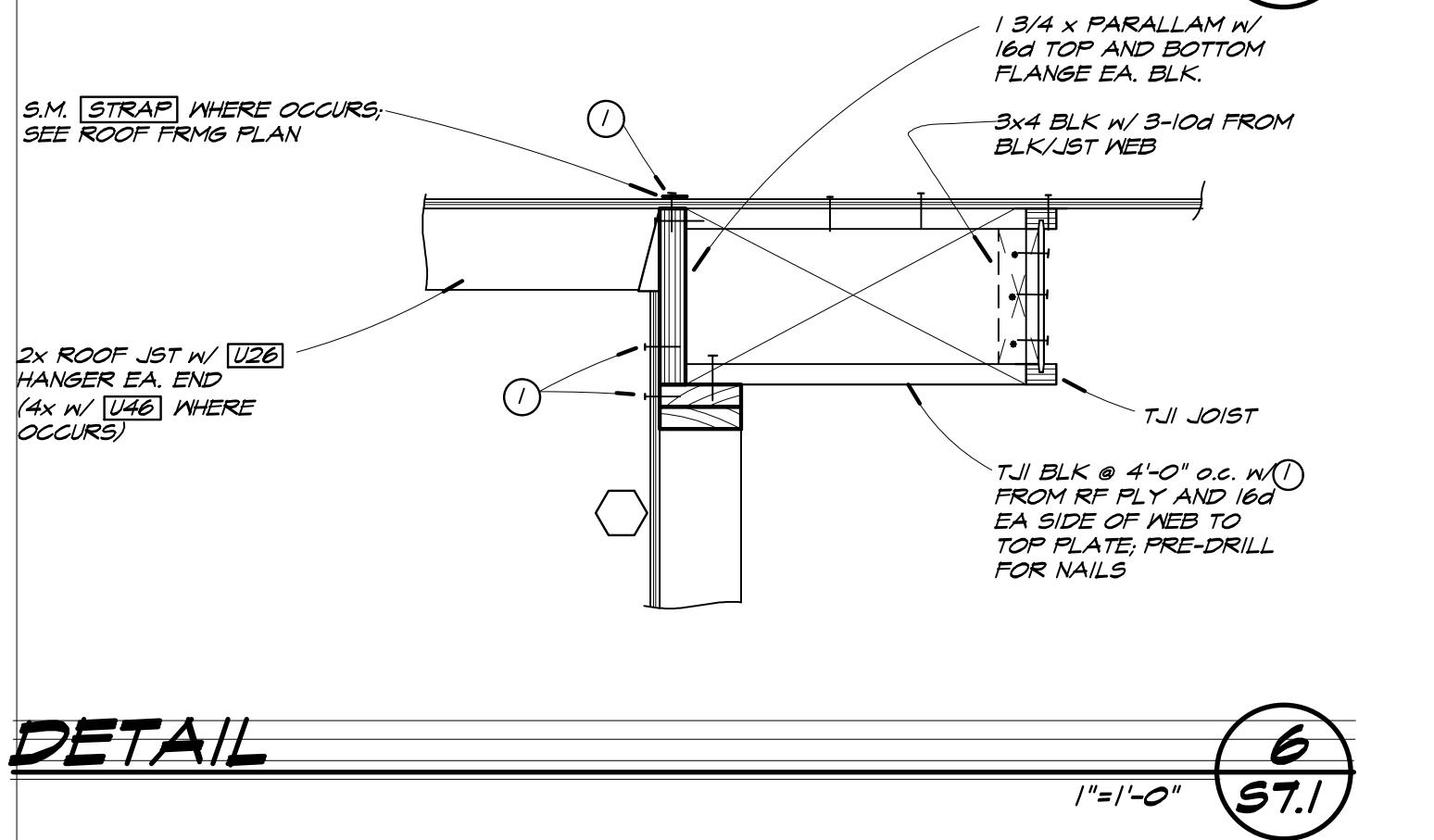
AFFORDABLE HOUSING PROJECT FOR  
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415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA



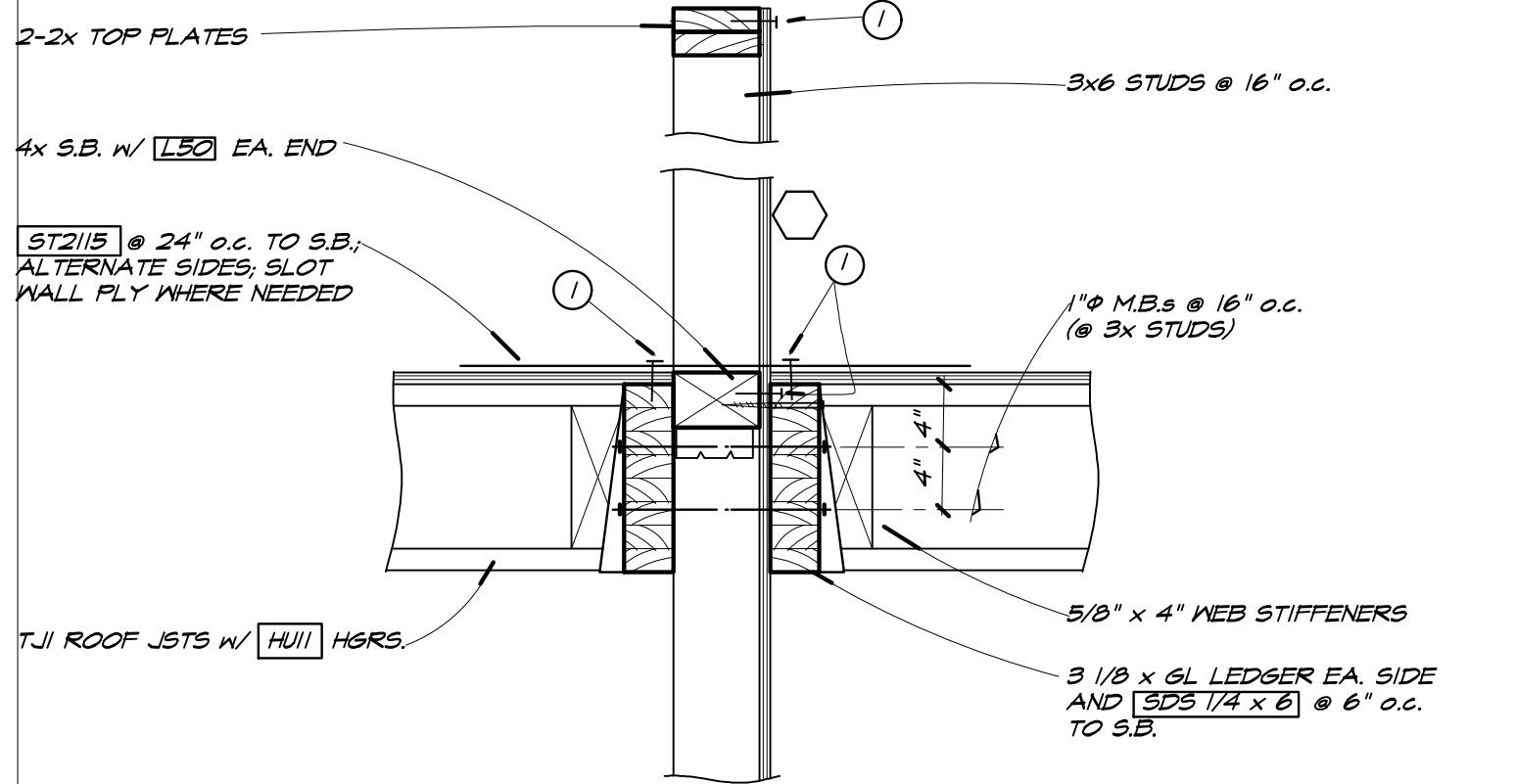
DATE 01/02  
SCALE AS NOTED  
DRAWN BE  
JOB  
SHEET 4  
**S7.1**



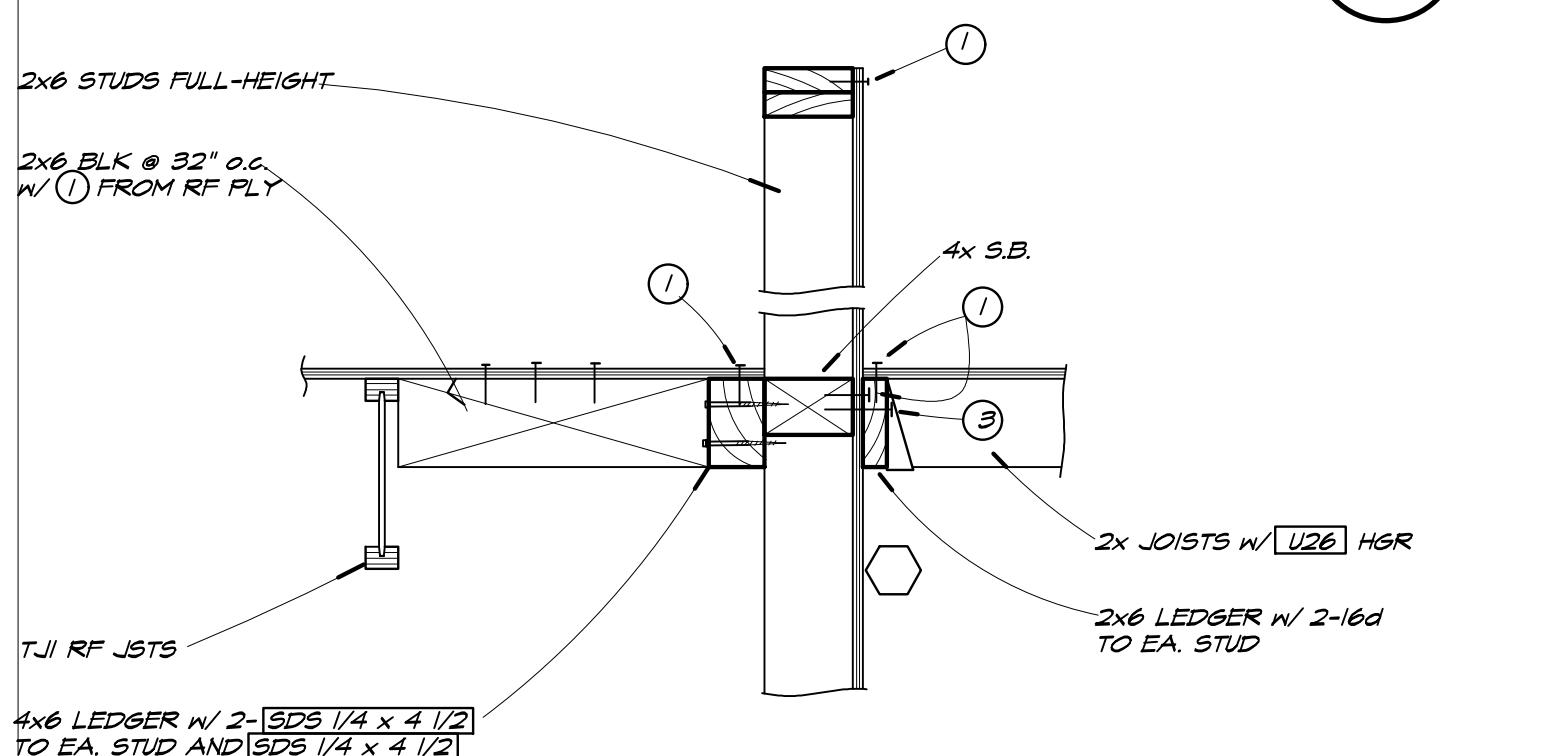
**DETAIL** 5 S7.1 1"=1'-0"



**DETAIL** 6 S7.1 1"=1'-0"



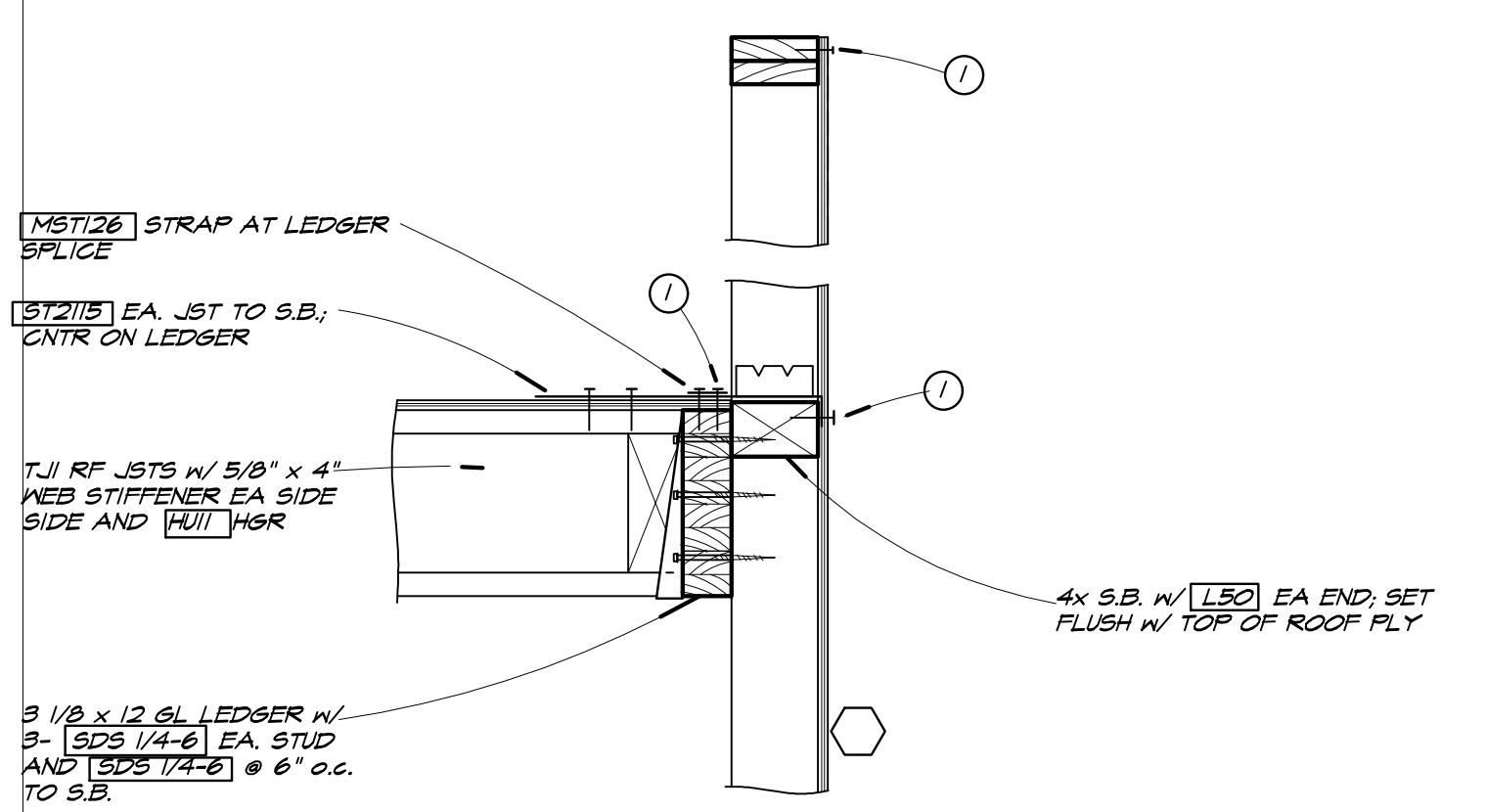
**DETAIL** 7 S7.1 1"=1'-0"



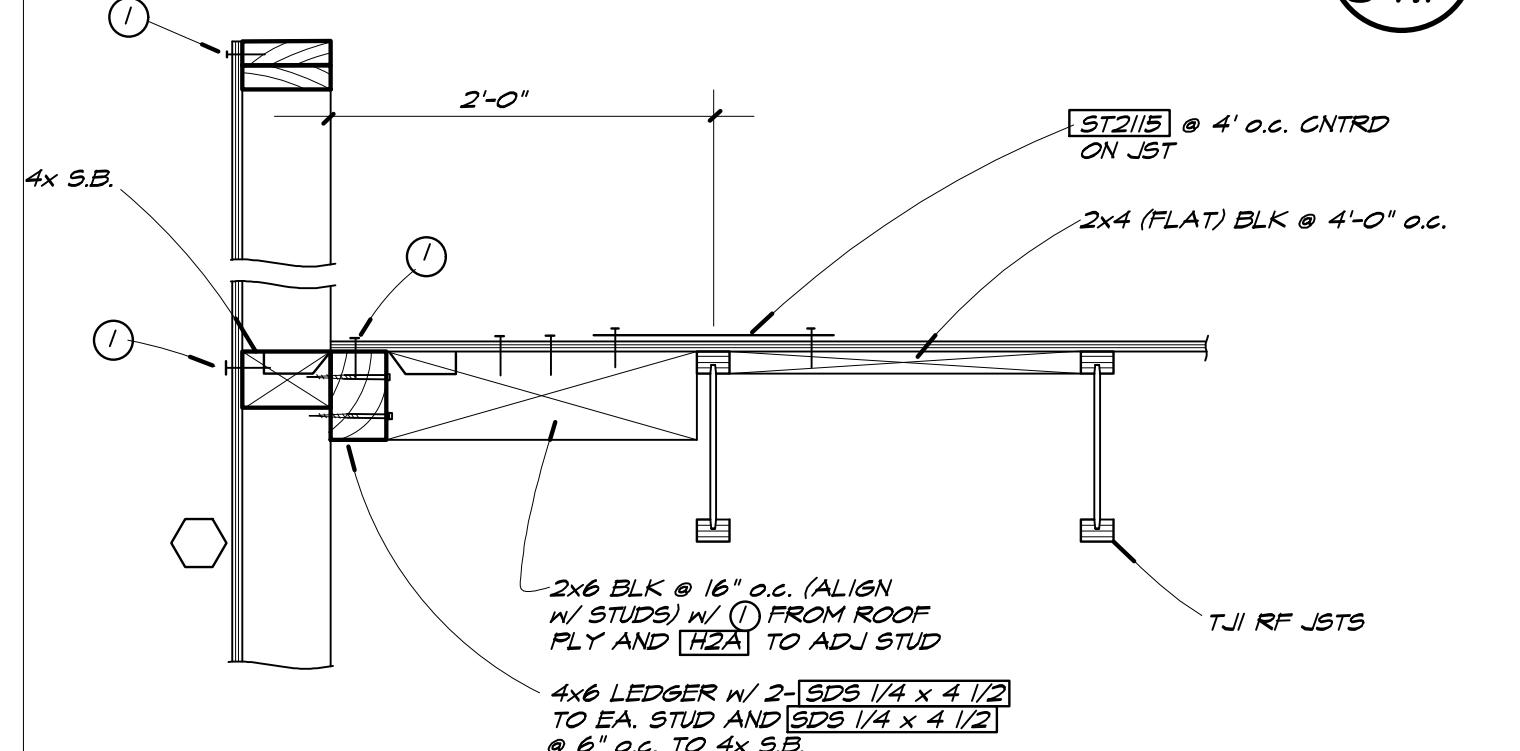
**DETAIL** 8 S7.1 1"=1'-0"

**NOTES:**

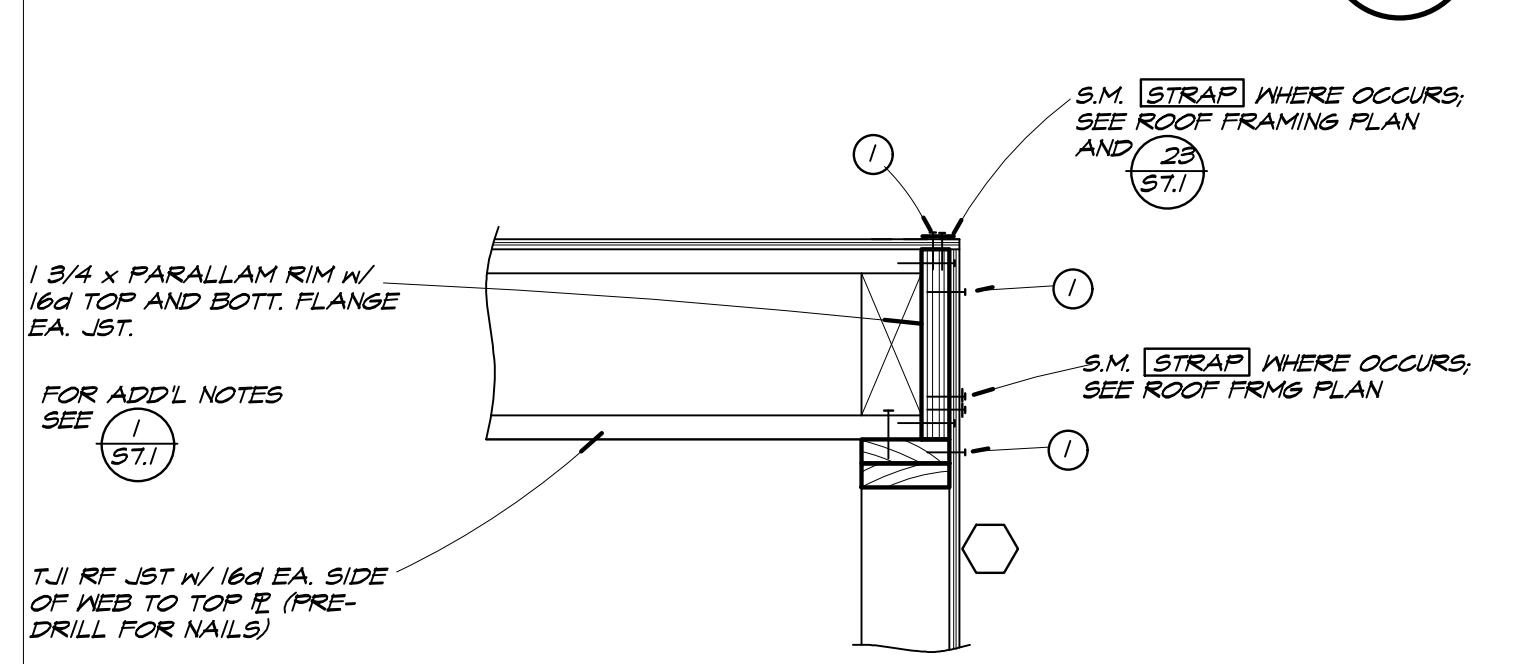
1. INDICATES SHEAR PLYWOOD. SEE FRAMING PLANS FOR DESIGNATION AND SHEAR SCHEDULE 1/S1.3
2. ETC. INDICATES NAILING, SILL BOLTING, ETC. AS LISTED IN THE SHEAR SCHEDULE, DETAIL 1/S1.3.



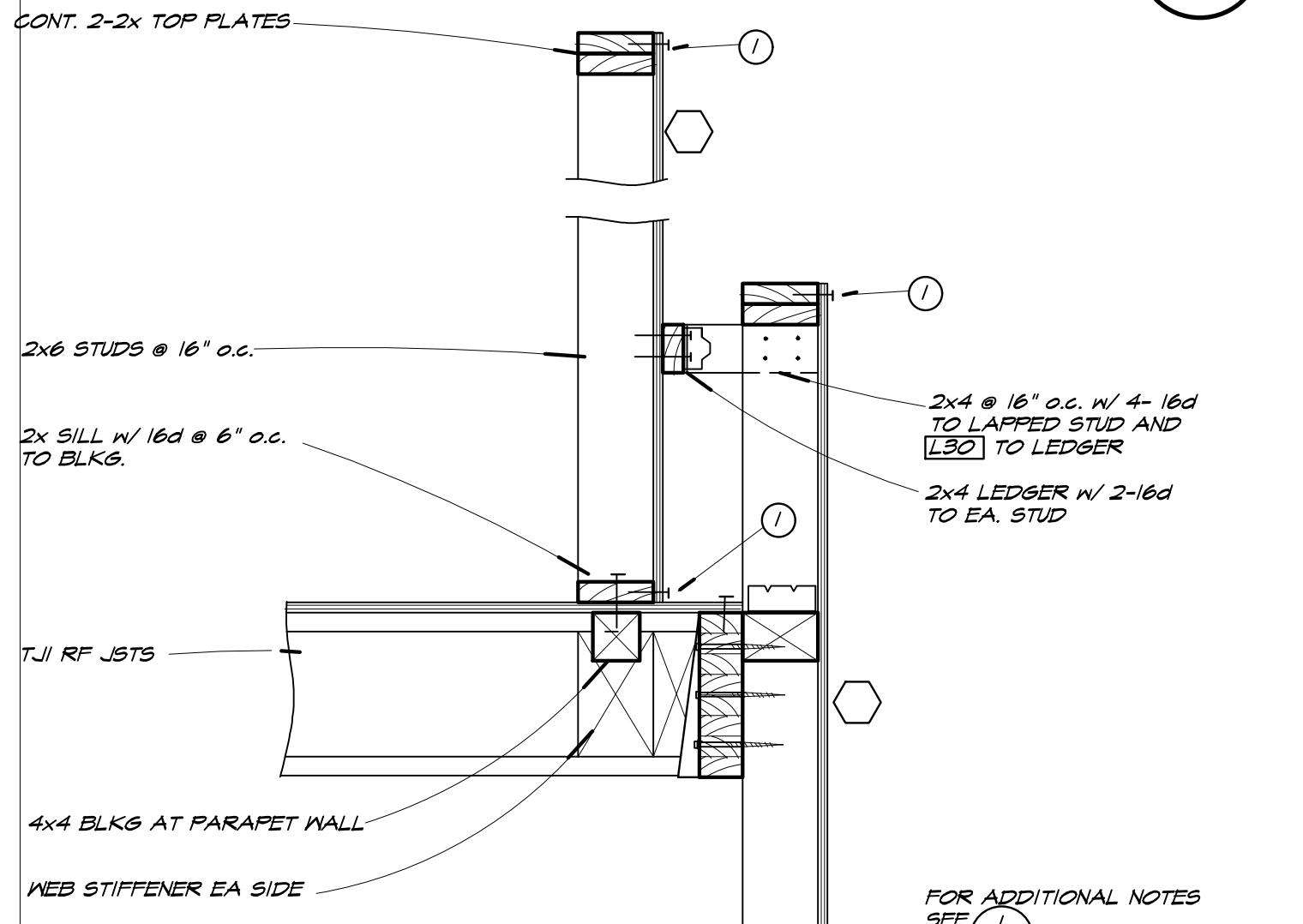
**DETAIL** 1 S7.1 1"=1'-0"



**DETAIL** 2 S7.1 1"=1'-0"



**DETAIL** 3 S7.1 1"=1'-0"



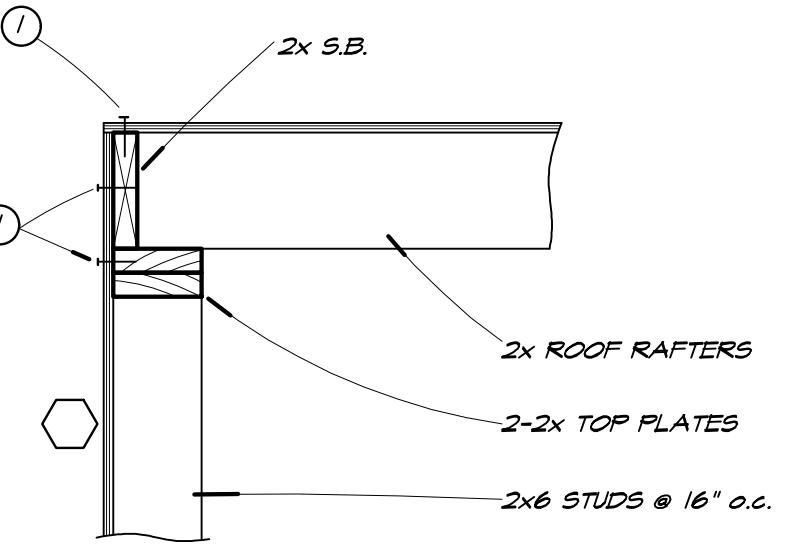
**DETAIL** 4 S7.1 1"=1'-0"

## ROOF FRAMING DETAILS

AFFORDABLE HOUSING PROJECT FOR  
THE HOUSING AUTHORITY  
OF THE COUNTY OF SANTA CRUZ  
415 NATURAL BRIDGES DRIVE, SANTA CRUZ, CALIFORNIA

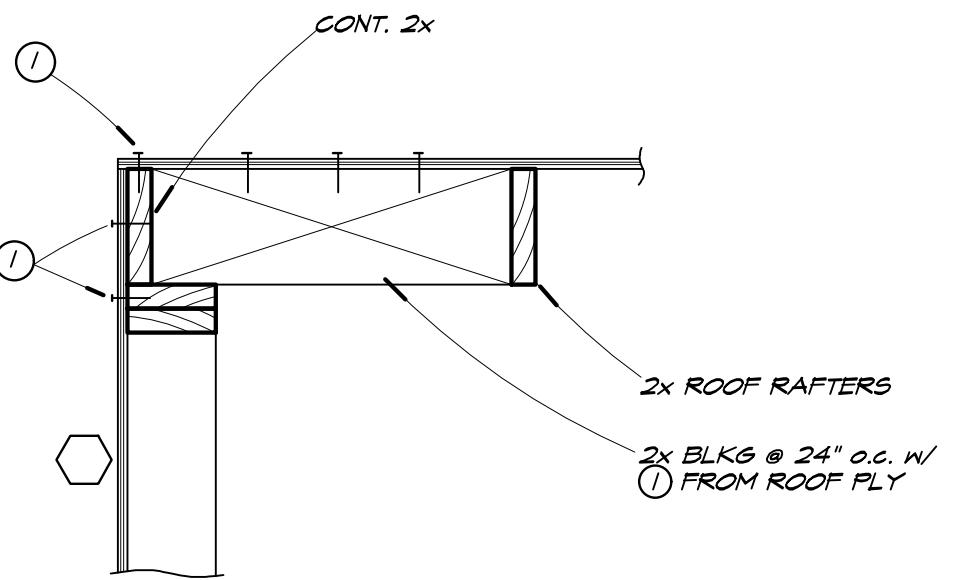


DATE 8/01/22  
SCALE AS NOTED  
DRAWN *[Signature]*  
JOB *[Signature]*  
SHEET S7.2



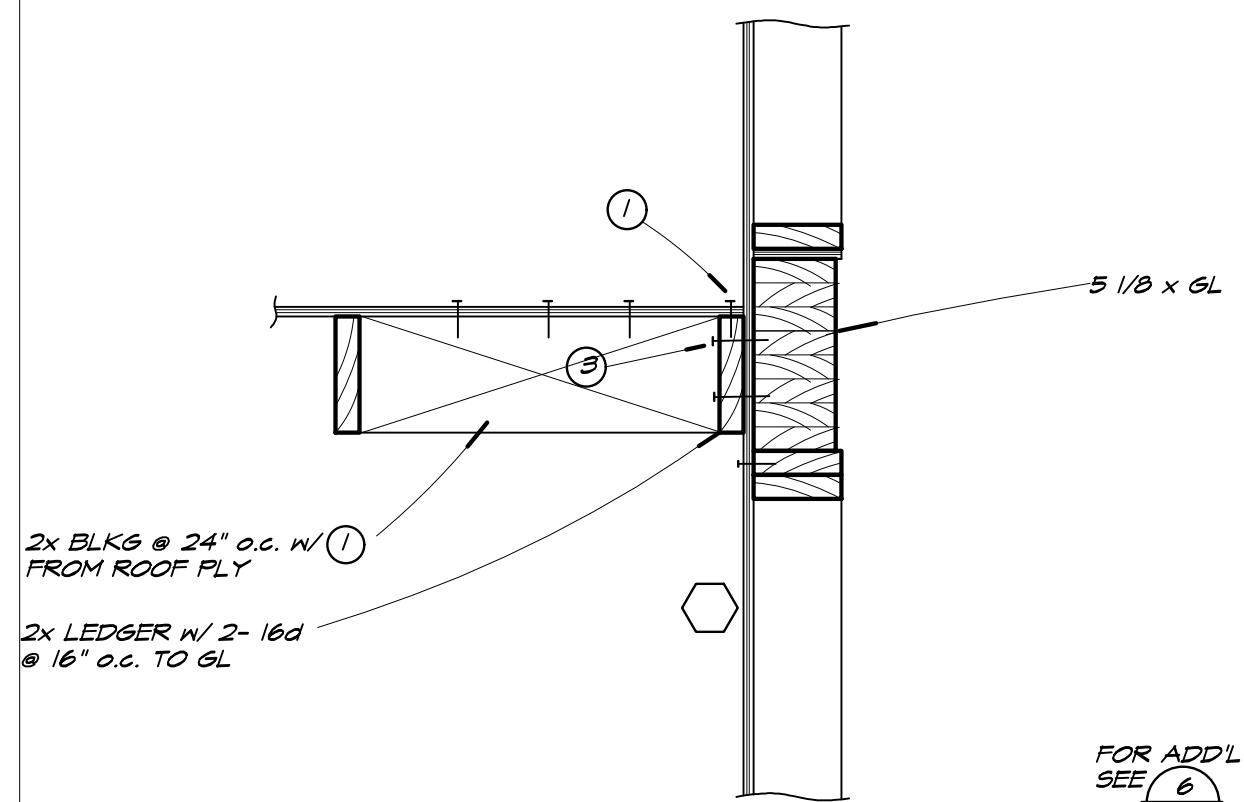
## DETAIL

1



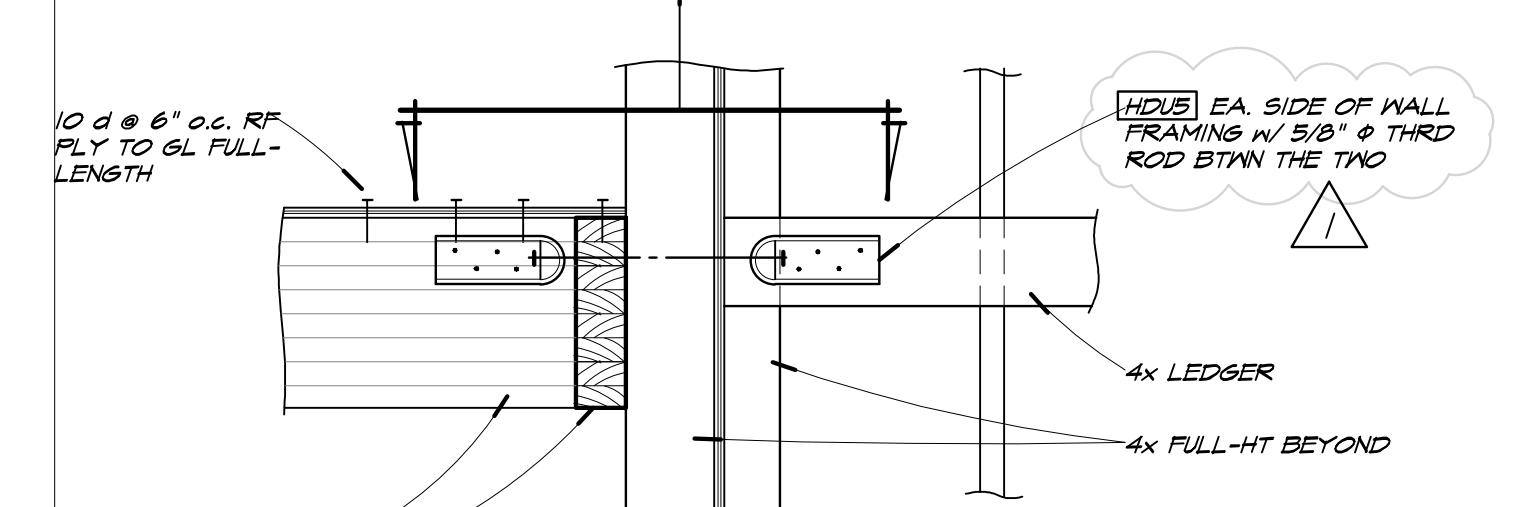
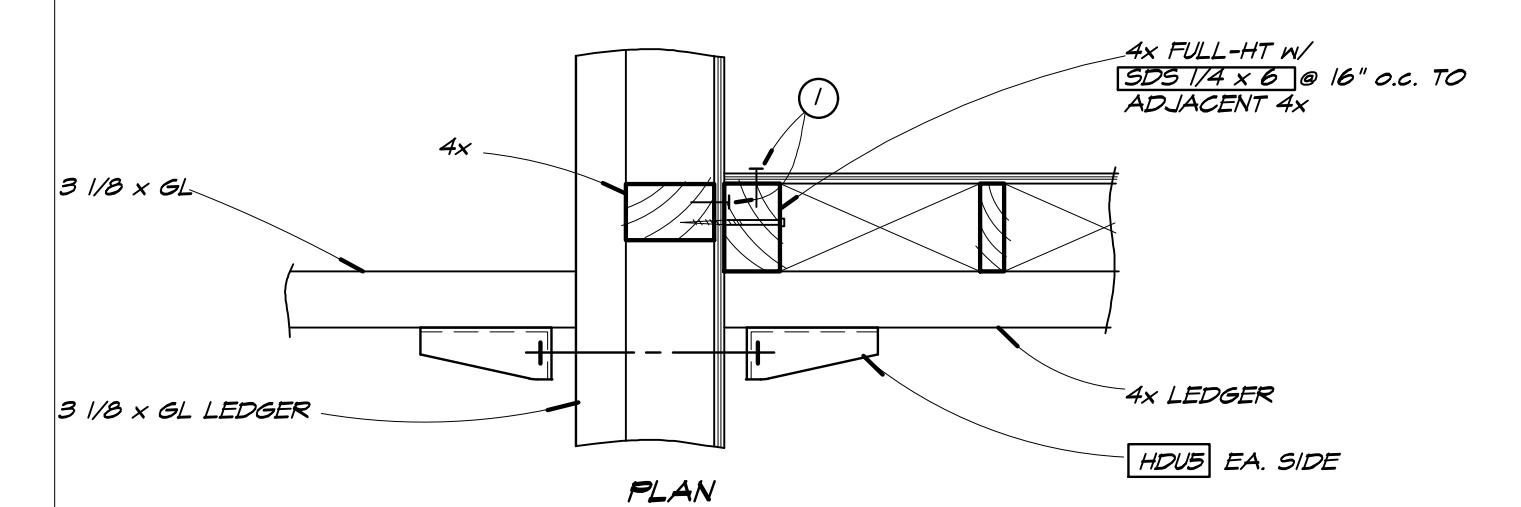
## DETAIL

2



## DETAIL

3



## NOTES:

1. (hexagon symbol) INDICATES SHEAR PLYWOOD. SEE FRAMING PLANS FOR DESIGNATION AND SHEAR SCHEDULE 1/S1.3
2. (circle with dot) ETC. INDICATES NAILING SILL BOLTING ETC. AS LISTED IN THE SHEAR SCHEDULE, DETAIL 1/S1.3.