

FOUNDATION NOTES:

- ALL DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTS DRAWINGS ANY DISCREPANCIES SHALL BE RESOLVED PRIOR TO COMMENCING OF WORK.
- D.F.P.T. PLATE TO BE SECURED WITH 1/2" DIA BY 10" LONG ANCHOR BOLTS WITH A STANDARD CUT WASHER EMBEDDED AT LEAST 7" INTO CONCRETE WITH A MAXIMUM SPACING OF 72" O.C. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE OF FOUNDATION PLATE WITH ONE BOLT LOCATED WITHIN 12" MAX. & 4-1/2" MIN. OF EA. END OF EA. PIECE. **AT SHEAR WALLS** A PROPERLY SIZED NUT AND 3"x3"x.229" THICK WASHER SHALL BE TIGHTENED ON EA. BOLT TO THE PLATE. HOLE IN PLATE WASHER CAN BE DIAGONALLY SLOTTED W/ A WIDTH OF UP TO 3/16" LARGER THAN BOLT DIAMETER & A SLOT LENGTH NOT TO EXCEED 1 3/4". PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER & THE NUT. U.N.O. BY SUB LETTER 'C' WHEN A CUT WASHER IS OKAY.
 - ALL INTERIOR NON-SHEAR WALLS ARE TO BE SECURED WITH SHOT PINS INSTALLED PER MANUFACTURERS RECOMMENDATIONS, U.N.O. STRUCTURAL ENGINEERS CALCULATIONS GOVERN IN ALL CASES.
 - INSTALL ALL SIMPSON (OR APPROVED EQUAL) FOUNDATION HARDWARE PER MANUFACTURERS RECOMMENDATIONS. DEEPEN FOOTING WHERE NECESSARY TO PROVIDE ANCHOR EMBEDMENT AT HOLDOWN LOCATIONS.

NOTE:

WHEN REQUIRED BY LOCAL BUILDING DEPARTMENT ALL ANCHOR BOLTS AND HOLDOWN BOLTS TO BE SET IN PLACE PRIOR TO CITY FOUNDATION INSPECTION

FOUNDATION INFORMATION:

- FOUNDATION SIZES, DEPTHS, AND REINFORCEMENT ARE AS RECOMMENDED WITHIN THE OWNER/DEVELOPER'S SOILS ENGINEERS REPORT. SOILS ENGINEER TO PROVIDE FOUNDATION INSPECTION AS OUTLINED IN LATEST SOIL REPORT.
- OWNER/DEVELOPER AND SUBCONTRACTORS ARE TO REVIEW THE SOILS REPORT PRIOR TO COMMENCING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE OWNER, DEVELOPER AND SUBCONTRACTOR TO VERIFY THAT THE REPORT IS CURRENT AND PLAN REQUIREMENTS ARE CONSISTENT WITH ANY UPDATED SOIL REPORTS. ESI/FME IS TO BE SUPPLIED WITH ALL UPDATED REPORTS.

ANCHOR BOLT LEGEND:

- * AB32 : 1/2" DIA. X 10" ANCHOR BOLTS AT 32" O.C.
- AB24 : 1/2" DIA. X 10" ANCHOR BOLTS AT 24" O.C.
- AB# : 1/2" DIA. X 10" ANCHOR BOLTS AT #" O.C.
- 2AB : (2) 1/2" DIA X 10" ANCHOR BOLTS.
- 3AB : (3) 1/2" DIA X 10" ANCHOR BOLTS.
- #AB : (#) 1/2" DIA X 10" ANCHOR BOLTS.
- #ABc : c DENOTES STANDARD CUT WASHERS OKAY IN LIEU OF " SD. ONLY REQUIRED.
- 2-#4 : PROVIDE A TOTAL OF 2 #4 AT TOP AND 2 #4 AT BOTTOM OF FOOTING, 4" PAST POSTS.
- 3-#4 : PROVIDE A TOTAL OF 3 #4 AT TOP AND 3 #4 AT BOTTOM OF FOOTING, 4" PAST POSTS.
- 2-#5 : PROVIDE A TOTAL OF 2-#5 AT TOP AND 2-#5 AT BOTTOM OF FOOTING, 6" PAST POSTS.
- HDU2 : (1) SIMPSON HDU2 PER POST.
- HDU# : (1) SIMPSON HDU# PER POST.
- HTT4 : (1) SIMPSON HTT4 PER POST.
- HTT5 : (1) SIMPSON HTT5 PER POST.
- PHD6 : (1) SIMPSON PHD6 PER POST.
- HD8A : (1) SIMPSON HD8A PER POST.
- HD10A : (1) SIMPSON HD10A PER POST.
- HD14A : (1) SIMPSON HD14A PER POST.
- HDQ8 : (1) SIMPSON HDQ8-SDS3 PER POST.
- HHQ11 : (1) SIMPSON HHQ11-SDS2.5 PER POST.
- HHQ14 : (1) SIMPSON HHQ14-SDS2.5 PER POST.

REFER TO ARCHITECTURAL PLANS FOR ALL DIMENSIONS

* ALT. TO 1/2" ANCHOR BOLTS SIMPSON MASA AT A 1-1 RATIO

ALL GRADE BEAMS 8"x22 1/2" THICK W/ 2-#5 TOP & BOTTOM, U.N.O. W/ #3 TIES @ 12" O.C., U.N.O.

ALL PIERS TYPE [A] UNLESS NOTED OTHERWISE (U.N.O.)

PIER SCHEDULE			SEE (31) FOR TYP. CON.
TYPE	DEPTH INTO BEDROCK	CAPACITY	VERT. REINF.
A	1'-0"	11,175 *	(5) #6
B	10'-0"	18,840 *	(10) #6
C	20'-0"	43,000 *	-

5" MIN. INTO BEDROCK

f=500 pcf

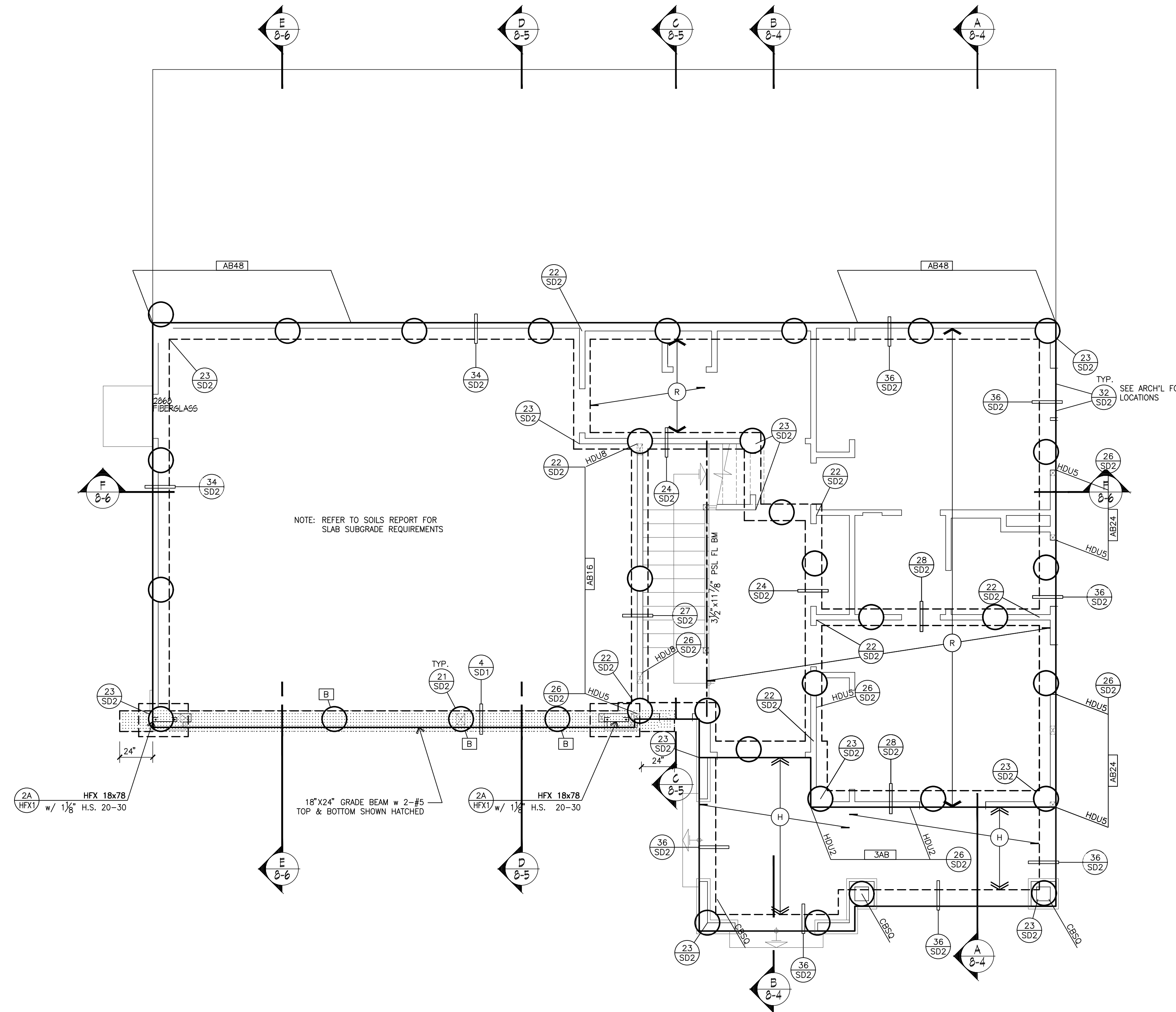
UPPER STRATA

BEDROCK

- ALL PIERS TO BE INTERCONNECTED WITH GRADE BEAMS

PIERS: #6 # PIER W/ #3 TIES AT 12" o/c PIERS SHALL PENETRATE AT LEAST 5'-0" INTO BEDROCK & A MIN. OF 10' BELOW THE LOWEST ADJACENT GRADE AS IDENTIFIED BY THE SOILS ENGINEER DURING CONSTRUCTION (SEE SOILS REPORT FOR MORE RECOMMENDATIONS.)

THE EXCAVATION OF ALL DRILLED SHAFTS SHOULD BE OBSERVED BY A CORNERSTONE REPRESENTATIVE TO CONFIRM THE SOIL PROFILE, VERIFY THAT THE PIERS EXTEND THE MINIMUM DEPTH INTO SUITABLE MATERIALS AND THAT THE PIERS ARE CONSTRUCTED IN ACCORDANCE WITH OUR RECOMMENDATIONS AND PROJECT REQUIREMENTS. THE DRILLED SHAFTS SHOULD BE STRAIGHT, DRY AND RELATIVELY FREE OF LOOSE MATERIAL BEFORE REINFORCING STEEL IS INSTALLED AND CONCRETE IS PLACED. IF GROUND WATER CANNOT BE REMOVED FROM THE EXCAVATIONS PRIOR TO CONCRETE PLACEMENT, DRILLING SLURRY OR CASING MAY BE REQUIRED TO STABILIZE THE SHAFT AND THE CONCRETE SHOULD BE PLACED USING A TREMIE PIPE, KEEPING THE TREMIE PIPE BELOW THE SURFACE OF THE CONCRETE TO AVOID ENTRAPMENT OF WATER OR DRILLING SLURRY IN THE CONCRETE.



FOUNDATION PLAN 8A

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

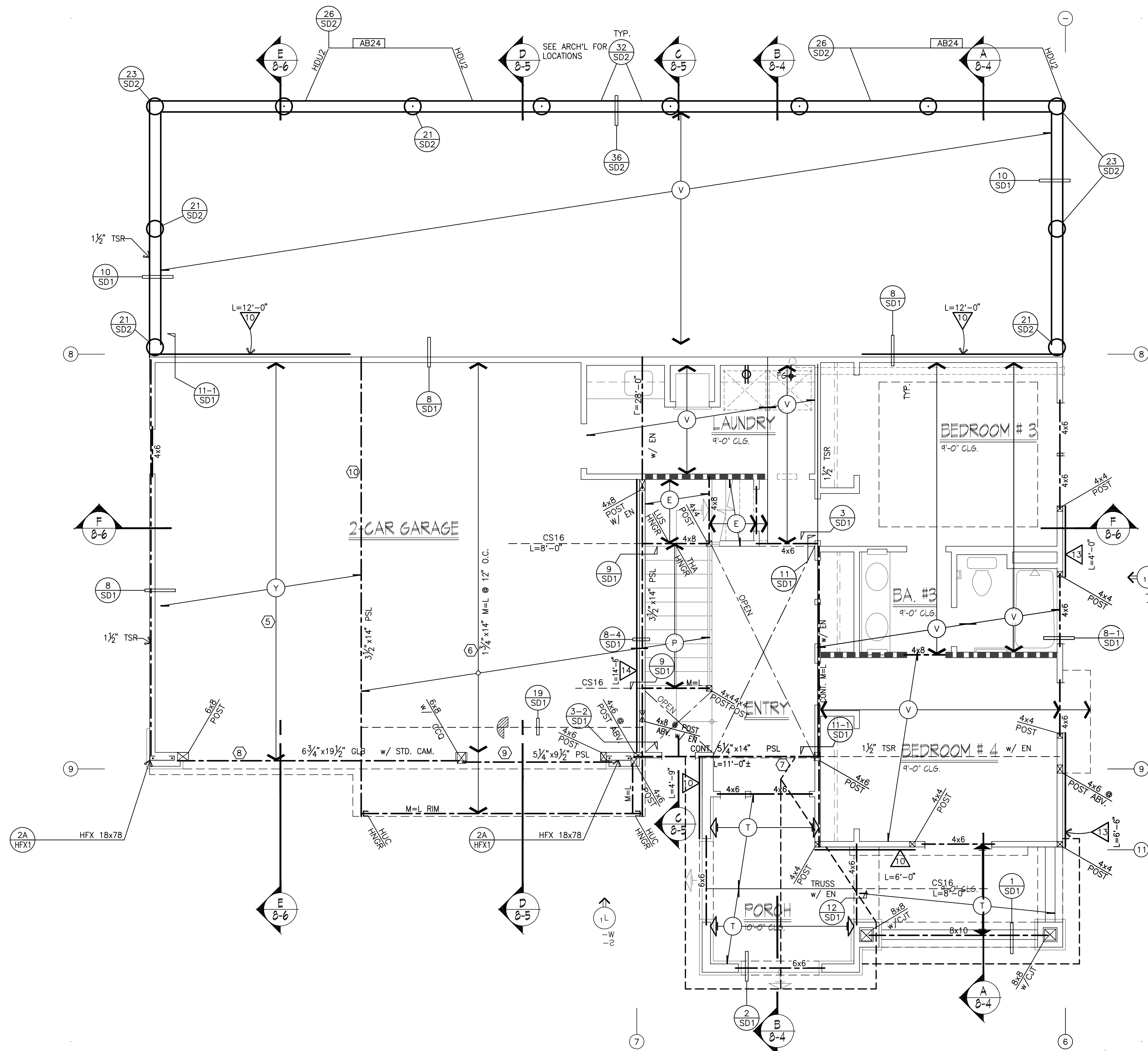
FOUNDATION PLAN

HIGHLAND ESTATES
LOT 8: 2141 TICONDEROGA DR.
SAN MATEO, CA
THE CHAMERLAIN GROUP



DRAWN -
CHECKED -
PLOT DATE 05/23/2017
JOB NO. E776
SHEET

S8-1



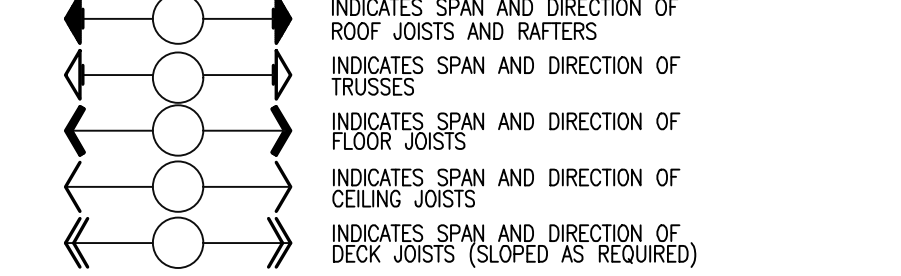
LATERAL SHEAR NOTES:

(2013 CBC, SDPWS-2008 ; SEISMIC DESIGN CATEGORY D & E) FRAMING MEMBERS DOUGLAS FIR-LARCH AT 16" O.C

- 10. 3/8" WOOD STRUCTURAL PANEL WITH 8d COMMON NAILS AT 6" O.C AT EDGES AND 12" O.C AT FIELD 260 PLF
 - 11. 3/8" WOOD STRUCTURAL PANEL WITH 8d COMMON NAILS AT 4" O.C AT EDGES AND 12" O.C AT FIELD 350 PLF
 - 12. 3/8" WOOD STRUCTURAL PANEL WITH 8d COMMON NAILS AT 3" O.C AT EDGES AND 12" O.C AT FIELD 490 PLF
 - 13. 3/8" WOOD STRUCTURAL PANEL WITH 8d COMMON NAILS AT 2" O.C AT EDGES AND 12" O.C AT FIELD 640 PLF
 - 14. 1/2"(OR 15/32) WOOD STRUCTURAL PANEL WITH 10d COMMON NAILS AT 2" O.C AT EDGES AND 12" O.C AT FIELD 770 PLF
 - 15. 1/2"(OR 15/32) STRUCT. 1 WOOD PANEL WITH 10d COMMON NAILS AT 2" O.C AT EDGES AND 12" O.C AT FIELD 870 PLF
- FRAMING MEMBERS DOUGLAS FIR-LARCH AT 24" O.C
- 20. BLOCKED PLYWOOD DIAPHRAGM WITH 3/8" WOOD STRUCTURAL PANEL AND 8d COMMON NAILS AT 6" O.C AT BOUNDARIES, 6" O.C. AT EDGES AND 10" O.C AT FIELD 240 PLF
 - 21. BLOCKED PLYWOOD DIAPHRAGM WITH 3/8" WOOD STRUCTURAL PANEL AND 8d COMMON NAILS AT 4" O.C AT BOUNDARIES, 6" O.C. AT EDGES AND 10" O.C AT FIELD 320 PLF
 - 22. BLOCKED PLYWOOD DIAPHRAGM WITH 3/8" WOOD STRUCTURAL PANEL AND 8d COMMON NAILS AT 2.5" O.C STAGG. AT BOUNDARIES, 4" O.C. AT EDGES AND 10" O.C AT FIELD 480 PLF
 - 23. BLOCKED PLYWOOD DIAPHRAGM WITH 3/8" WOOD STRUCTURAL PANEL AND 8d COMMON NAILS AT 2" O.C STAGG. AT BOUNDARIES, 3" O.C. AT EDGES AND 10" O.C AT FIELD 545 PLF
- FRAMING MEMBERS DOUGLAS FIR-LARCH AT 16" O.C
- 24. BLOCKED PLYWOOD DIAPHRAGM WITH 19/32" WOOD STRUCTURAL PANEL AND 10d COMMON NAILS AT 6" O.C AT BOUNDARIES, 6" O.C. AT EDGES AND 10" O.C AT FIELD 320 PLF
 - 25. BLOCKED PLYWOOD DIAPHRAGM WITH 19/32" WOOD STRUCTURAL PANEL AND 10d COMMON NAILS AT 4" O.C AT BOUNDARIES, 6" O.C. AT EDGES AND 10" O.C AT FIELD 425 PLF
 - 26. BLOCKED PLYWOOD DIAPHRAGM WITH 19/32" WOOD STRUCTURAL PANEL AND 10d COMMON NAILS AT 2.5" O.C STAGG. AT BOUNDARIES, 4" O.C. AT EDGES AND 10" O.C AT FIELD 640 PLF
 - 27. BLOCKED PLYWOOD DIAPHRAGM WITH 19/32" WOOD STRUCTURAL PANEL AND 10d COMMON NAILS AT 2" O.C STAGG. AT BOUNDARIES, 3" O.C. AT EDGES AND 10" O.C AT FIELD 730 PLF

- NOTES:
- A. WOOD STRUCTURAL PANEL: MATERIAL APPROVED BY APA, PFS/TECO OR PITTSBURGH TESTING LABORATORIES THESE VALUES ARE FOR DOUG-FIR LARCH OR SOUTHERN PINE. OTHER LUMBER SPECIES MAY DIFFER IN SHEAR CAPACITIES.
 - B. PROVIDE 2X BLOCKING AT HORIZONTAL WOOD STRUCTURAL PANEL JOINTS. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3X WHEN NAILING IS 2.5" O.C. OR LESS.
 - C. WHERE WOOD STRUCTURAL PANEL IS APPLIED ON BOTH FACES OF WALL AND NAIL SPACING IS LESS THAN 6" O.C, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3X OR WIDER AND NAILS STAGGERED ON EACH SIDE. FOR SHEAR WALLS USE THE FOLLOWING:
 - 1) USE 3x MEMBER @ PANEL JOINTS & HORIZONTAL BLOCKING
 - 2) EDGE NAILING SHALL BE STAGGERED
 - D. 10d SHORT BOX NAILS MAY BE USED IN LIEU OF 8d COMMON NAILS @ SHEAR WALLS ONLY.
 - E. REQUIRED PLATE WASHERS AT SHEAR WALLS TO BE: 3" x 3" x .229" STEEL PLATE U.N.O. WITH SUB SCRIPT c WHERE STANDARD CUT WASHERS ARE OKAY (SDPWS SECT. 4.3.6.4.3) WASHER MAY BE SLOT CUT PROVIDED A STANDARD CUT WASHER IS PROVIDED BETWEEN THE WASHER AND NUT. WASHER TO BE INSTALLED WITHIN 1/2" OF SHEATHED SIDE OF PLATE.
 - G. A STANDARD CUT WASHER MAY BE USED AT ALL NON-SHEAR WALL LOCATIONS WITH ANCHOR BOLTS.
- HORIZONTAL: ALL ROOF AND FLOOR SHEATHING TO BE EXPOSURE 1 OR EXTERIOR (TABLE 2306.2.1)
- ROOF: JOIST SPACING EQUAL TO OR LESS THAN 24" O.C. 15/32" WOOD STRUCTURAL PANEL PII 32/16, WITH 8d'S AT 6" O.C AT EDGES AND BOUNDARIES, 12" O.C FIELD. HORIZONTAL DIAPHRAGM VALUES FOR 3/8" WOOD STRUCTURAL PANELS MAY BE USED FOR 15/32" WOOD STRUCTURAL PANELS. U.N.O.
- FLOOR: JOIST SPACING EQUAL TO OR LESS THAN 16" O.C. 19/32" WOOD STRUCTURAL PANEL T&G SHTG, PII 32/16, w/10d'S AT 6" O.C AT EDGES AND BOUNDARIES, 12" O.C FIELD. JOIST SPACING EQUAL TO OR LESS THAN 20" O.C. 19/32" WOOD STRUCTURAL PANEL T&G SHTG, PII 40/20, w/10d'S AT 6" O.C AT EDGES AND BOUNDARIES, 12" O.C FIELD. JOIST SPACING EQUAL TO OR LESS THAN 24" O.C. 23/32" WOOD STRUCTURAL PANEL T&G SHTG, PII 46/24, w/10d'S AT 6" O.C AT EDGES AND BOUNDARIES, 12" O.C FIELD.
- * PANEL EDGES SHALL HAVE APPROX. TAG JOINTS OR SHALL BE SUPPORTED WITH BLOCKING NOT REQUIRED WHEN LIGHTWEIGHT CONCRETE IS PLACED OVER SUBFLOOR.

FRAMING LEGEND:



MARK	SPACING	SIZE & MANUFACTURER OPTIONS
D	I-JOIST @ 12" O.C.	1 1/2" 11' 7/8" JJI / 230
R	I-JOIST @ 16" O.C.	1 1/2" 11' 7/8" JJI / 230
S	I-JOIST @ 19.2" O.C.	1 1/2" 11' 7/8" JJI / 230
U	I-JOIST @ 12" O.C.	1 1/2" 11' 7/8" JJI / 230
W	I-JOIST @ 19.2" O.C.	1 1/2" 11' 7/8" JJI / 230
X	I-JOIST @ 12" O.C.	1 1/2" 11' 7/8" JJI / 360
Y	I-JOIST @ 16" O.C.	1 1/2" 11' 7/8" JJI / 360
Z	I-JOIST @ 19.2" O.C.	1 1/2" 11' 7/8" JJI / 360

- M=L INDICATES (1) 1 3/4" x DEPTH OF JOIST MICROLAM LVL 1.9 E
- PSL INDICATES PARALLAM PSL 2.0 E
- TSR INDICATES 1 1/2" BY DEPTH OF JOIST TIMBERSTRAND RIM
- E.N. INDICATES EDGE NAILING @ 6" O.C.
- G.T. GIRDER TRUSS
- C-TM INDICATES CONNECTION BY TRUSS MANUFACTURER
- HEADERS AND BEAMS, REFER TO ENGINEERING CALCS.
- INDICATES INTERIOR BEARING WALL
- NOTE: APPLY SHEAR PRIOR TO FRAMING OF PERPENDICULAR WALL AND/OR BOX-OUTS. (WHERE APPLICABLE)

MARK	DESCRIPTION
SPN12	16d SOLE PLATE NAILING @ 12" O.C.
SPN18	16d SOLE PLATE NAILING @ 18" O.C.
SPN8	16d SOLE PLATE NAILING @ 8" O.C.
SPN6	16d SOLE PLATE NAILING @ 6" O.C.
SPN4	16d SOLE PLATE NAILING @ 4" O.C.
SPN3	16d SOLE PLATE NAILING @ 3" O.C.
SPN2	16d SOLE PLATE NAILING @ 2" O.C.
SCR1	1/4" x 4 1/2" SDS SCREWS @ 3" O.C.

- 1. AT GABLE END WALLS IF PLY SHEAR IS RUN UP TO AND NAILED TO BOT. CHORD OF TRUSS -OK TO OMIT A35'S AND PLATE SPICE NAILING
- 2. AT EXT WALLS IF PLY SHEAR IS RUN UP TO AND NAILED TO T.S.R. -OK TO OMIT A35'S AND PLATE SPICE NAILING AND 2ND FLOOR SPECIAL SILL PLATE NAILING, BUT ADD ST6224 AT EACH RIM SPLICE.

REVISIONS
6-2-17 BDC

ESIFME INC.
STRUCTURAL ENGINEERS
1800 E. 16TH ST. STE. B
SANTA ANA, CA 92701
PHONE: 714-895-2800
FAX: 714-895-2819
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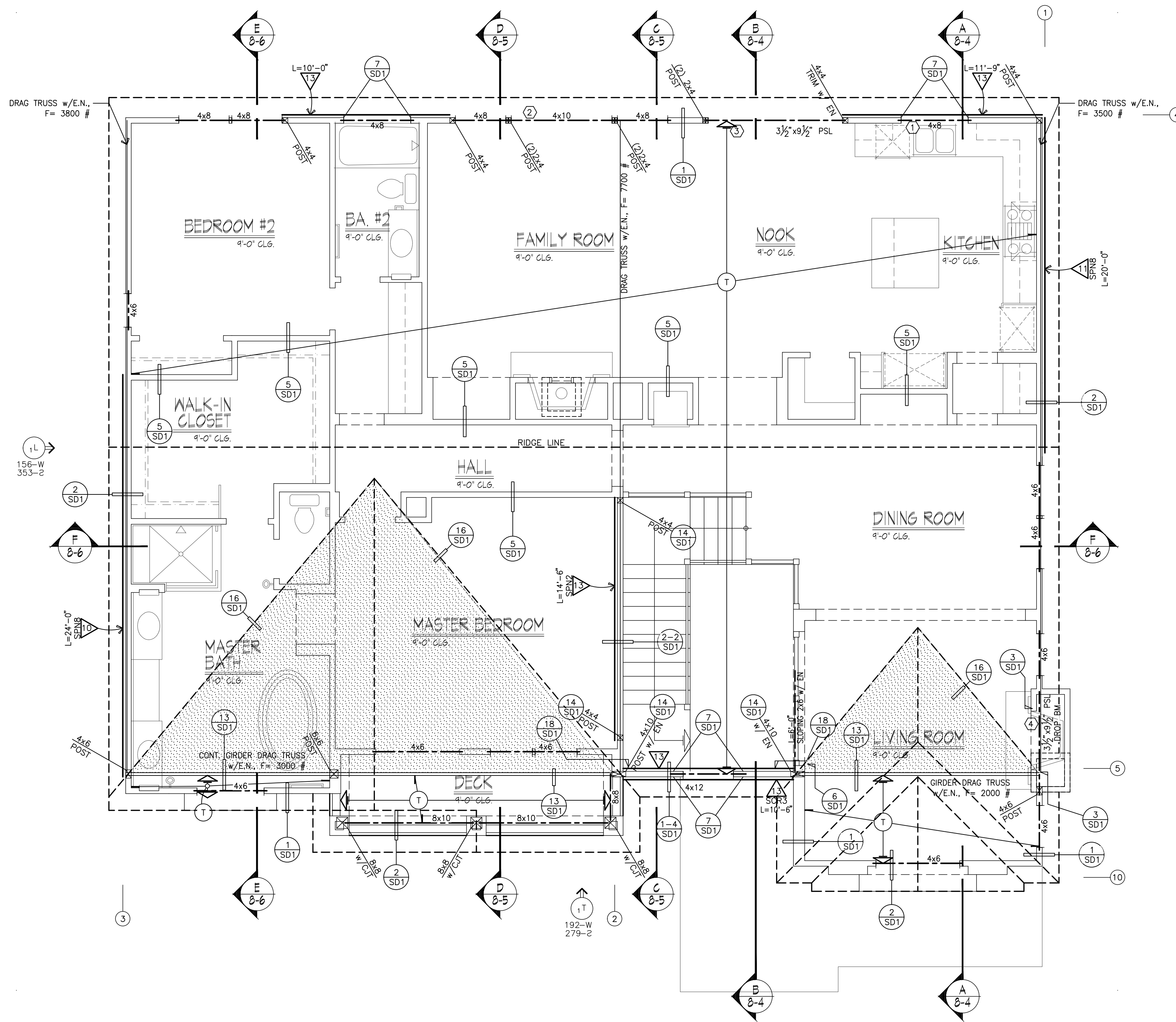
FLOOR FRAMING PLAN

HIGHLAND ESTATES
LOT 8: 2141 TICONDEROGA DR.
SAN MATEO, CA
THE CHAMERLAIN GROUP



DRAWN
CHECKED
PLOT DATE 05/23/2017
JOB NO. E776
SHEET
S8-2
SHEET: 3 OF: 6

FLOOR FRAMING PLAN 8A
SCALE : 1/4" = 1'-0"



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 - 24. HORIZONTAL: (3/8" @ CEILING LIDS, 15/32" @ ROOF SHTG) (3/8" PANEL VALUES AND NAILING BELOW MAY BE USED FOR 15/32" PANELS) BLOCKED PLYWOOD DIAPHRAGM WITH 19/32" WOOD STRUCTURAL PANEL AND 10d COMMON NAILS AT 6" O.C AT BOUNDARIES, 6" O.C. AT EDGES AND 10" O.C AT FIELD 320 PLF
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 B. PROVIDE 2X BLOCKING AT HORIZONTAL WOOD STRUCTURAL PANEL JOINTS. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3X WHEN NAILING IS 2.5" O.C. OR LESS.
 C. WHERE WOOD STRUCTURAL PANEL IS APPLIED ON BOTH FACES OF WALL AND NAIL SPACING IS LESS THAN 6" O.C, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3X OR WIDER AND NAILS STAGGERED ON EACH SIDE. FOR SHEAR WALLS (A) TO (A) USE THE FOLLOWING:
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HORIZONTAL: ALL ROOF AND FLOOR SHEATHING TO BE EXPOSURE 1 OR EXTERIOR (TABLE 2306.2.1)
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FRAMING LEGEND:

INDICATES SPAN AND DIRECTION OF ROOF JOISTS AND RAFTERS
 INDICATES SPAN AND DIRECTION OF TRUSSES
 INDICATES SPAN AND DIRECTION OF FLOOR JOISTS
 INDICATES SPAN AND DIRECTION OF CEILING JOISTS
 INDICATES SPAN AND DIRECTION OF DECK JOISTS (SLOPED AS REQUIRED)

I-JOIST TABLE		
MARK	SPACING	SIZE & MANUFACTURER OPTIONS
Q	I-JOIST @ 12" O.C.	11 7/8" TJI / 230
R	I-JOIST @ 16" O.C.	9" -
S	I-JOIST @ 19.2" O.C.	9" -
U	I-JOIST @ 12" O.C.	14" TJI / 230
V	I-JOIST @ 16" O.C.	9" -
W	I-JOIST @ 19.2" O.C.	9" -
X	I-JOIST @ 12" O.C.	14" TJI / 360
Y	I-JOIST @ 16" O.C.	9" -
Z	I-JOIST @ 19.2" O.C.	9" -

M=L INDICATES (1) 1 3/4" x DEPTH OF JOIST MICROLAM LVL 1.9 E
 PSL INDICATES PARALLAM PSL 2.0 E
 TSR INDICATES 1 1/2" BY DEPTH OF JOIST TIMBERSTRAND RIM
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SPN3	16d SOLE PLATE NAILING @ 3" O.C.	
SPN2	16d SOLE PLATE NAILING @ 2" O.C.	
SCR1	1/4" x 4 1/2" SDS SCREWS @ 3" O.C.	

CEILING JOIST SCHEDULE		
SIZE	SPACING	SPAN GRADE NO 2
2x4	12" O.C.	9'-1"
	16" O.C.	8'-4"
	24" O.C.	7'-2"
2x6	12" O.C.	14'-6"
	16" O.C.	13'-4"
	24" O.C.	11'-6"
2x8	12" O.C.	20'-4"
	16" O.C.	18'-3"
	24" O.C.	16'-1"

- AT GABLE END WALLS IF PLY SHEAR IS RUN UP TO AND NAILED TO BOT. CHORD OF TRUSS -OK TO OMIT A35'S AND PLATE SPICE NAILING
- AT EXT WALLS IF PLY SHEAR IS RUN UP TO AND NAILED TO T.S.R. -OK TO OMIT A35'S AND PLATE SPICE NAILING AND 2ND FLOOR SPECIAL SILL PLATE NAILING, BUT ADD ST6224 AT EACH RIM SPLICE.

REVISIONS	
6-2-17	BC

ESIFME INC.
 STRUCTURAL ENGINEERS
 1800 E. 16TH ST. STE. B
 SANTA ANA, CA 92701
 PHONE: 714-895-2800
 FAX: 714-895-2819
 INC#E776 05/23/2017

ROOF FRAMING PLAN

HIGHLAND ESTATES
 LOT 8: 2141 TICONDEROGA DR.
 SAN MATEO, CA
 THE CHAMERLAIN GROUP

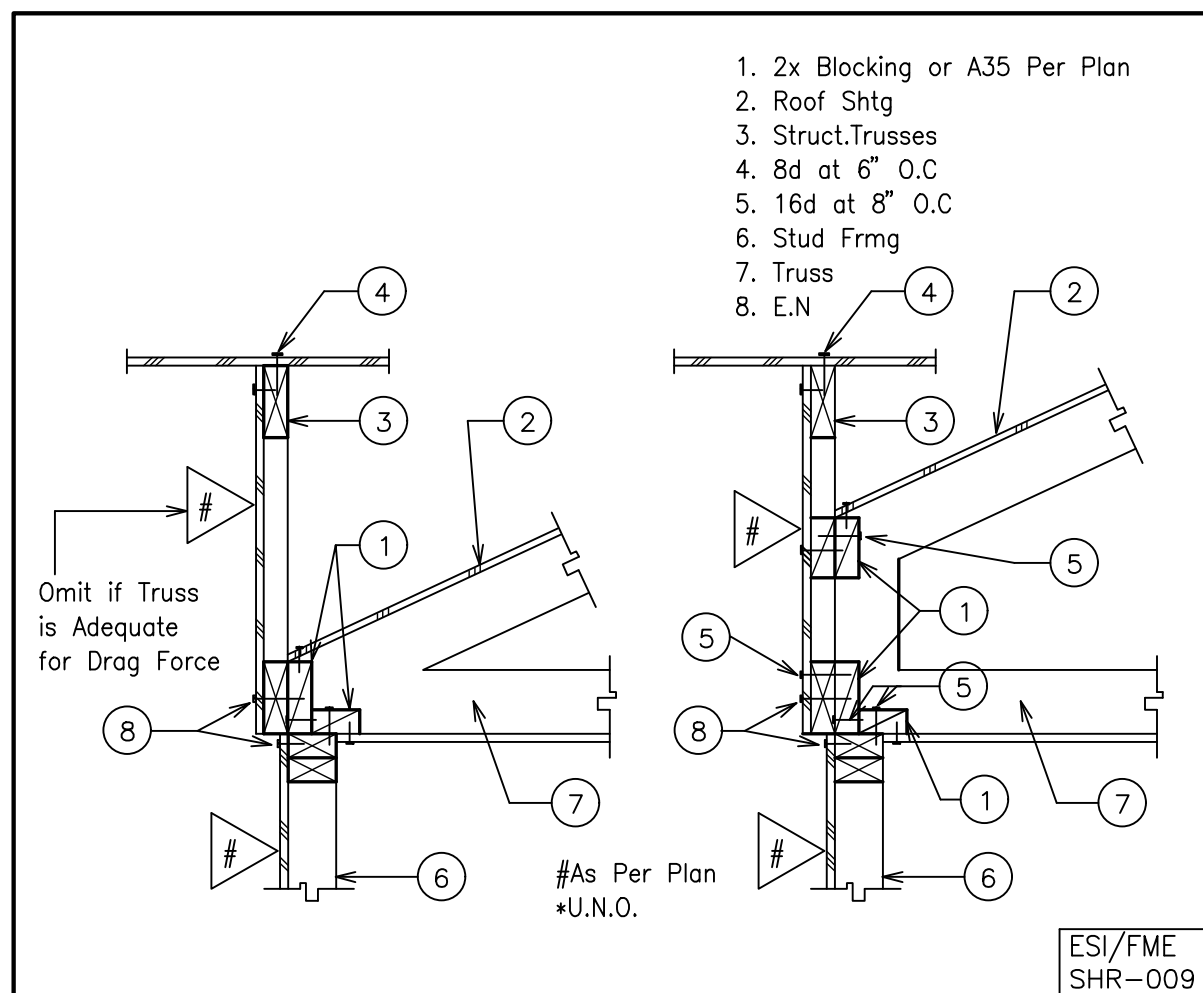


DRAWN	-
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PLOT DATE	05/23/2017
JOB NO.	E776
SHEET	
S8-3	
SHEET: 4	OF: 6

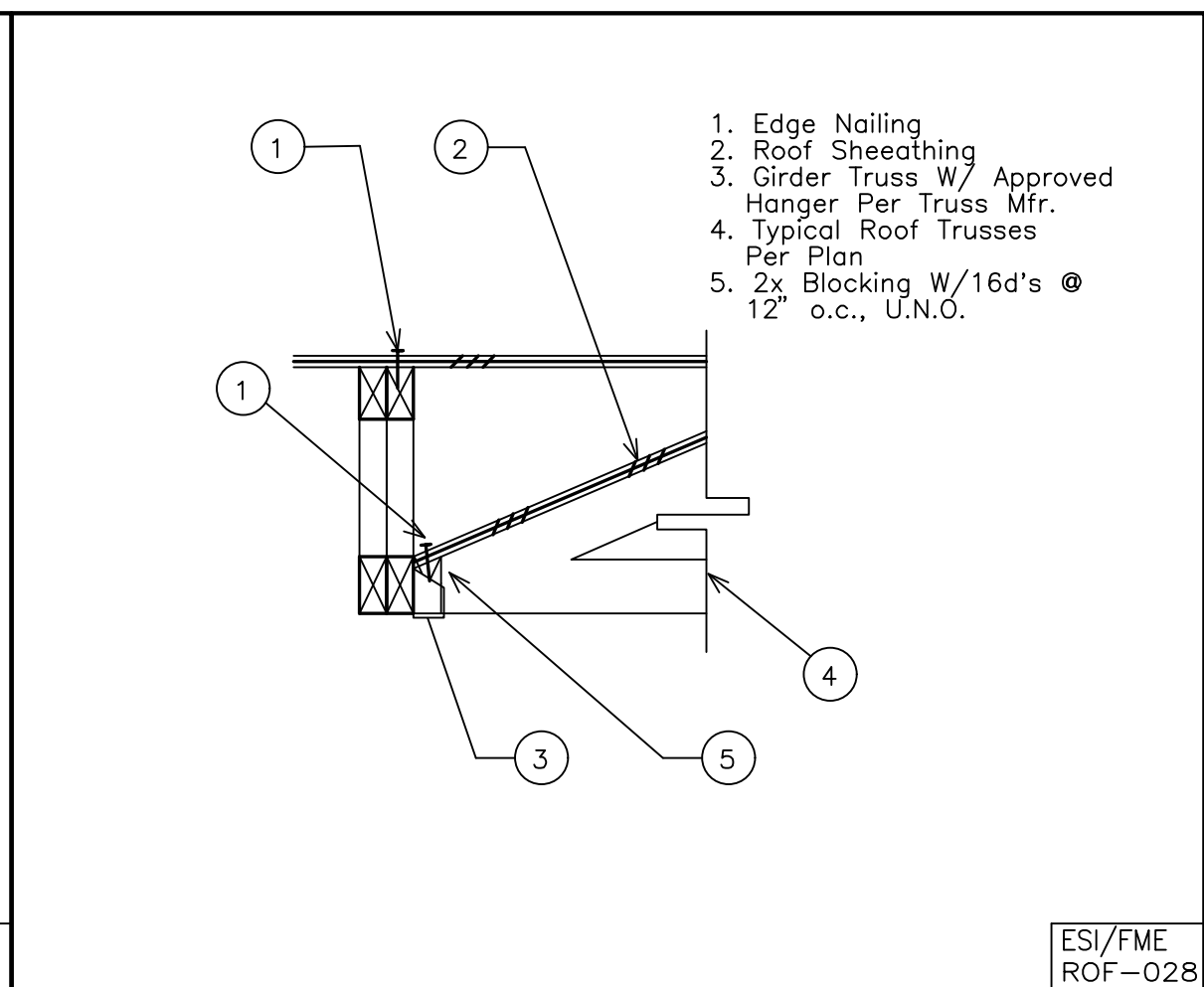
ROOF FRAMING PLAN 8A

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

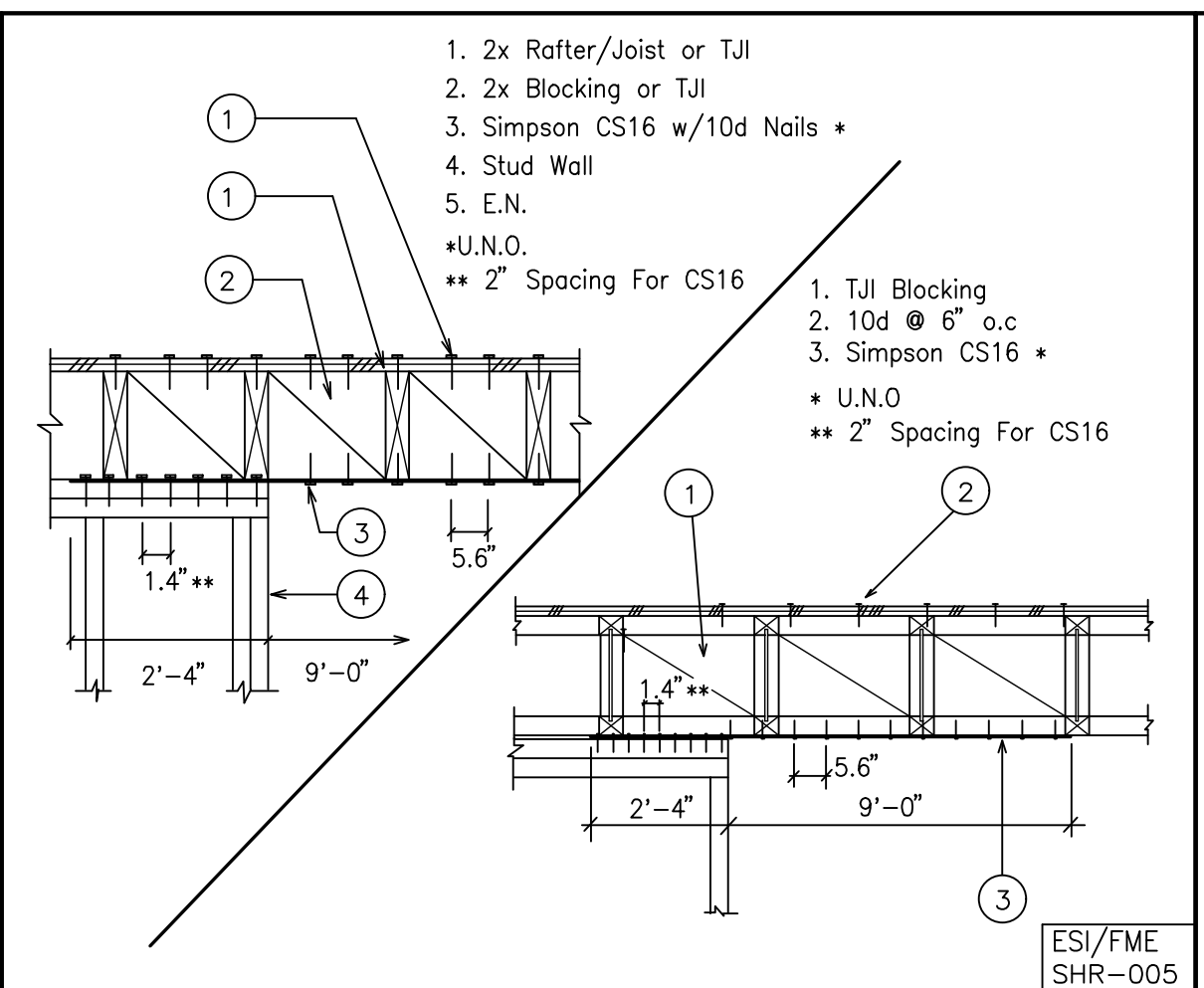
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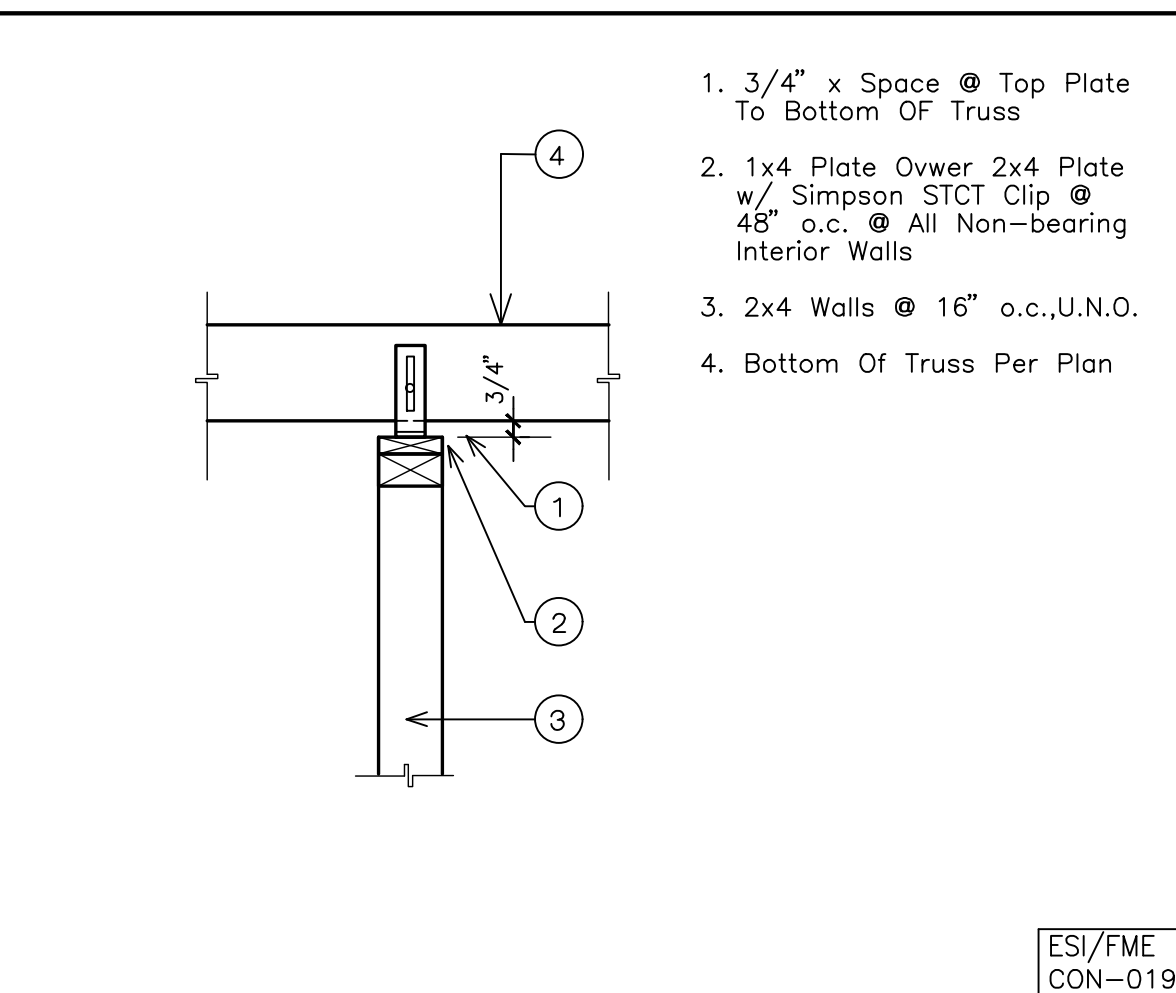
17 SHEAR TRANSFER



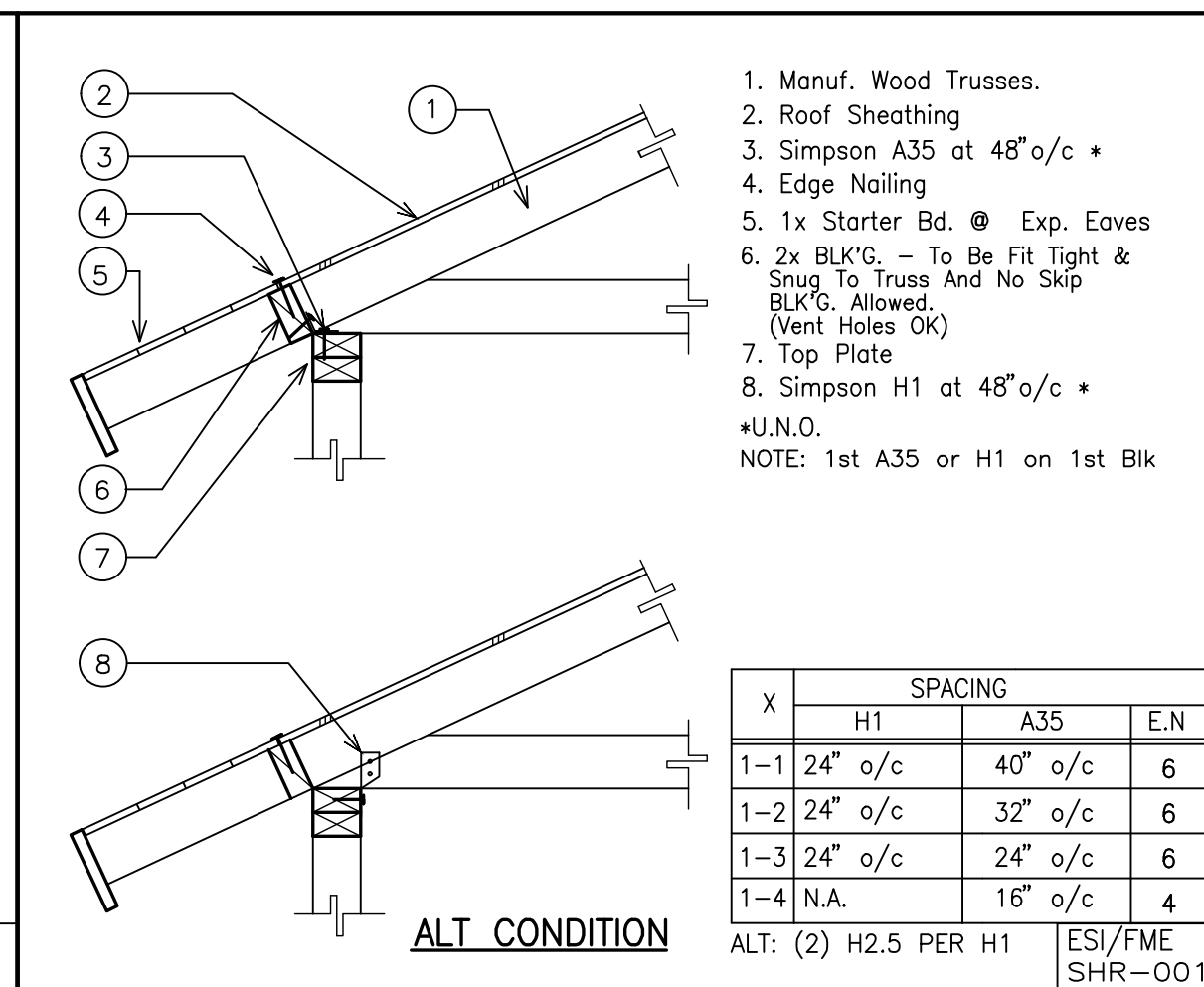
13 ROOF CONNECTION



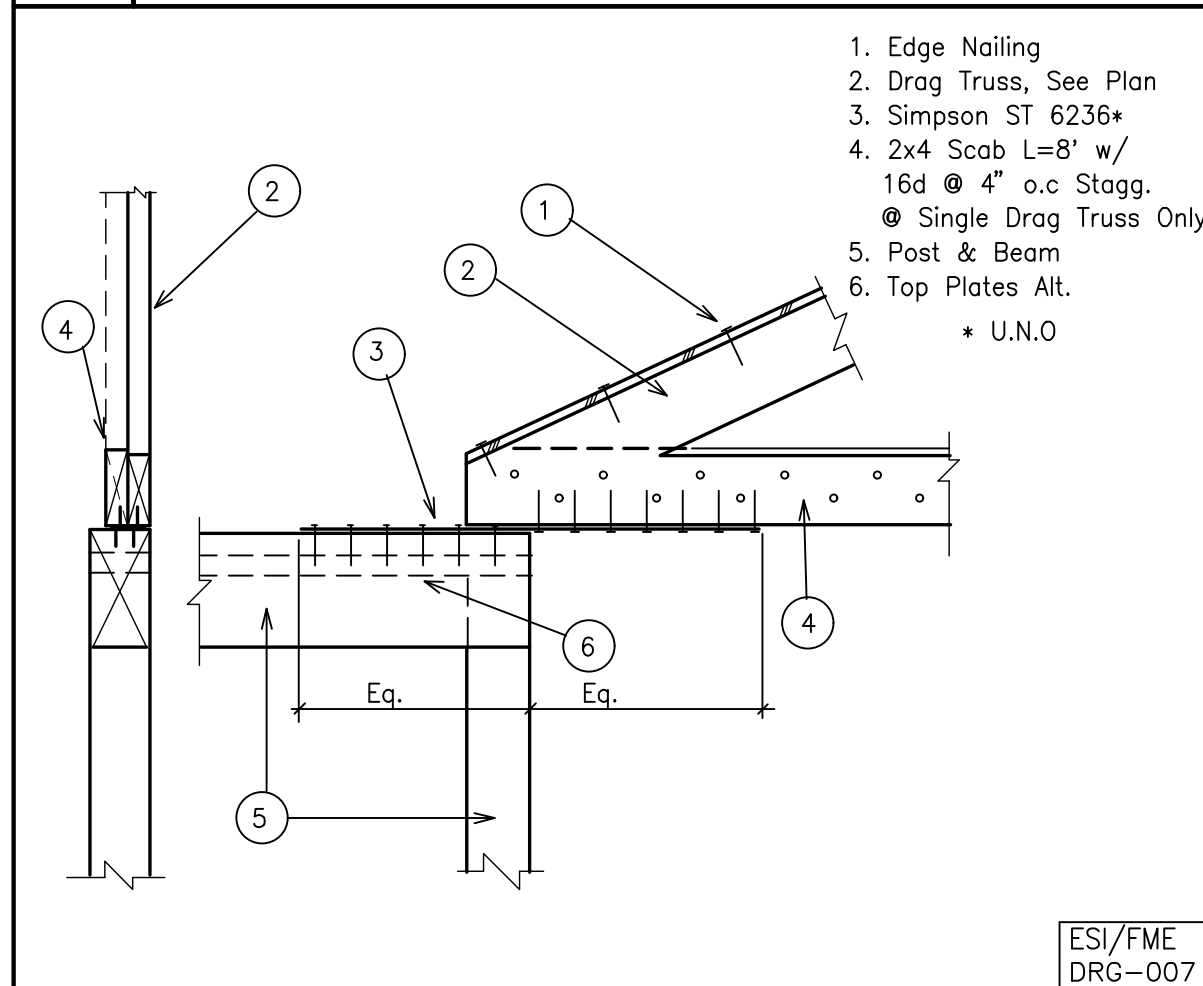
9 PERPENDICULAR DRAG STRUT



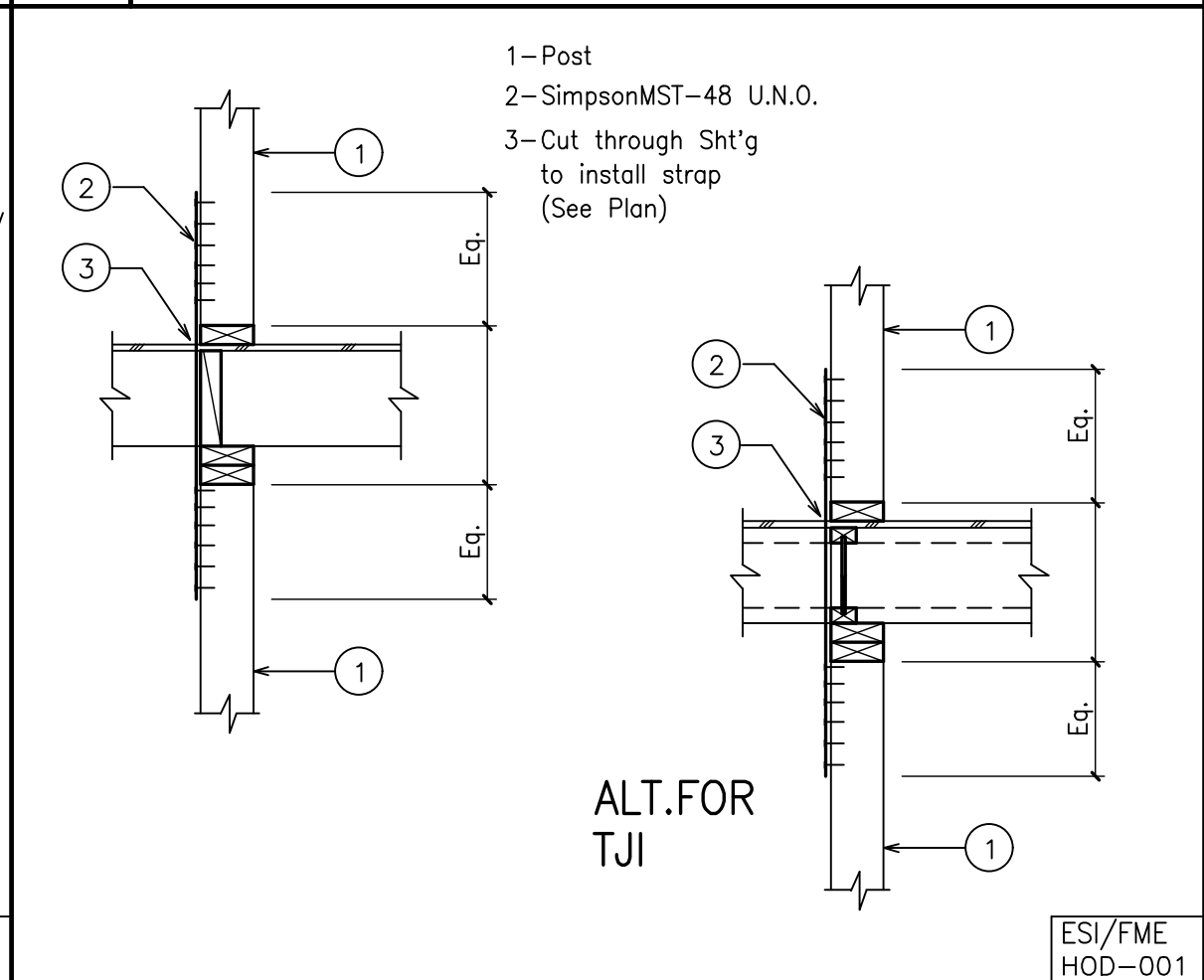
5 NON-BEARING WALL CONNECTION



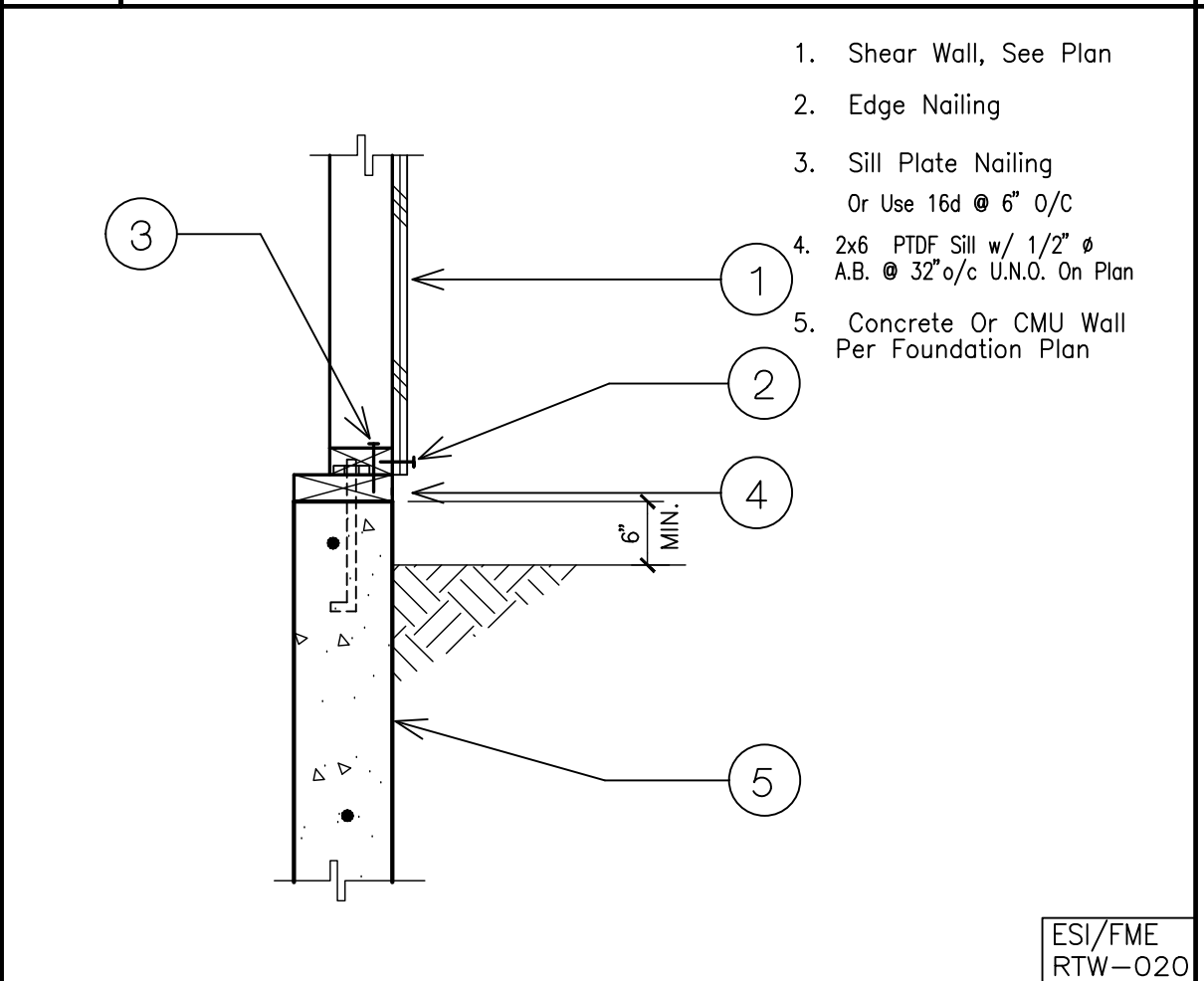
1 EAVE TRUSS SHEAR CONNECTION



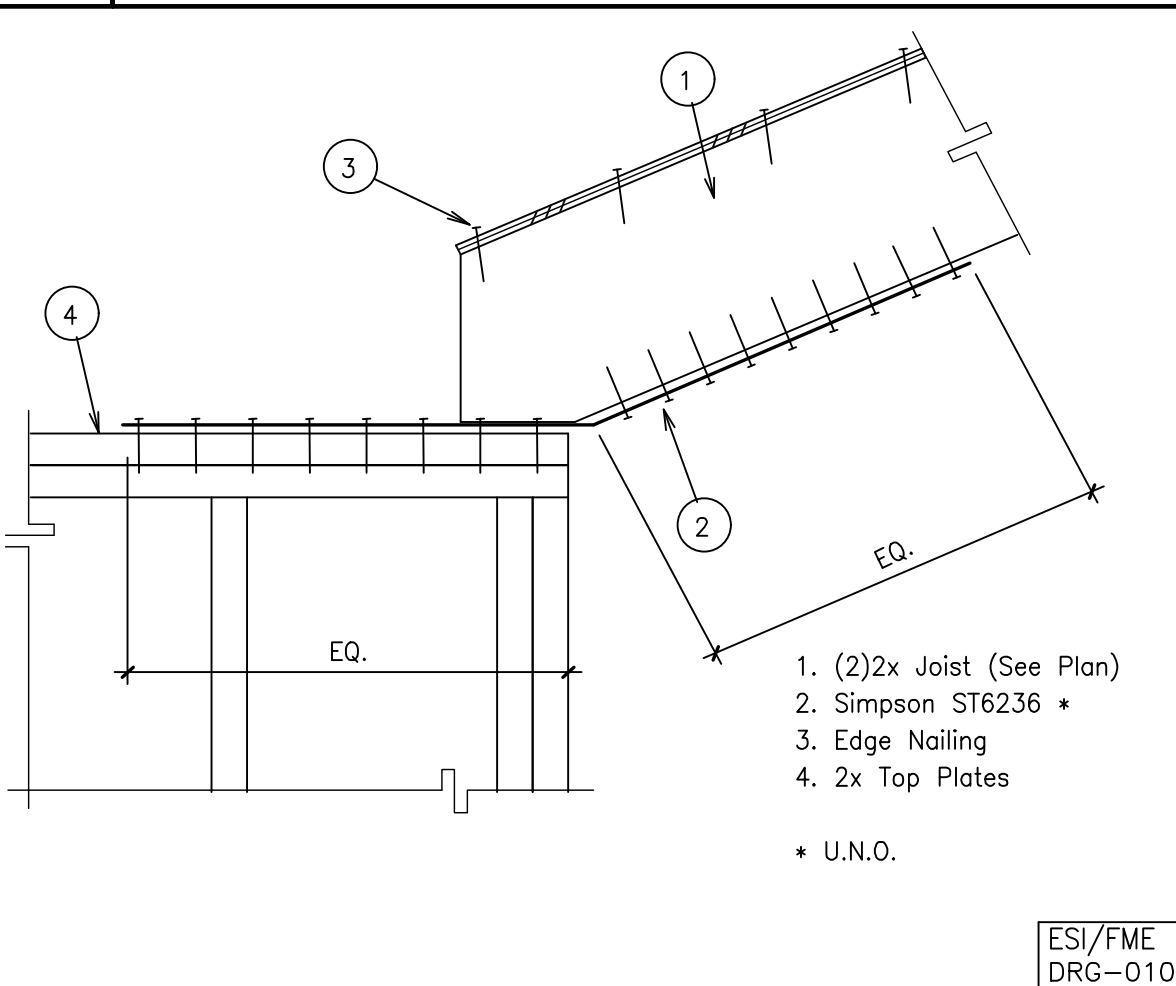
18 DRAG TIE TO TRUSS



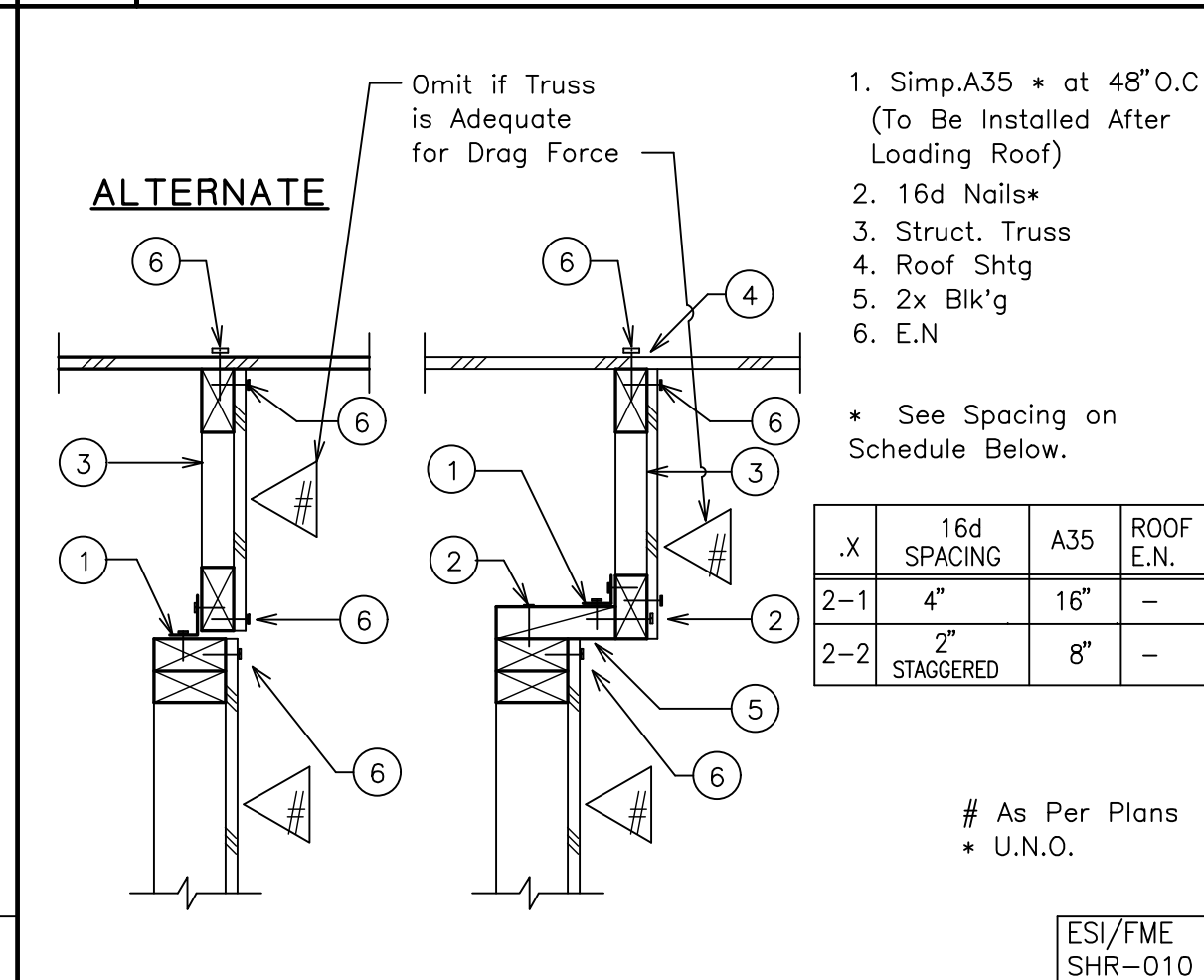
14 POST TO POST HOLDOWN



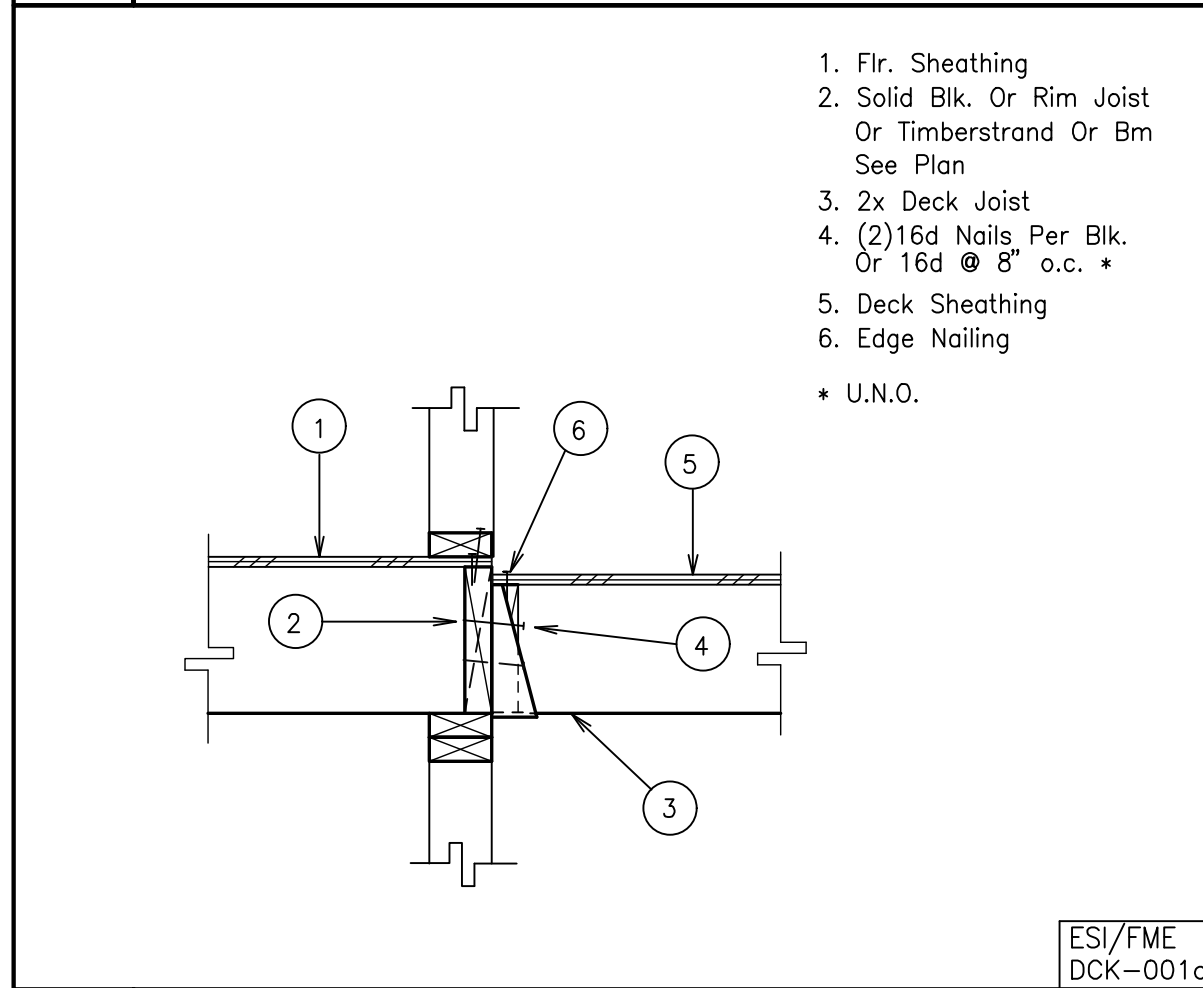
10 WALL @ CONG OR CMU WALL



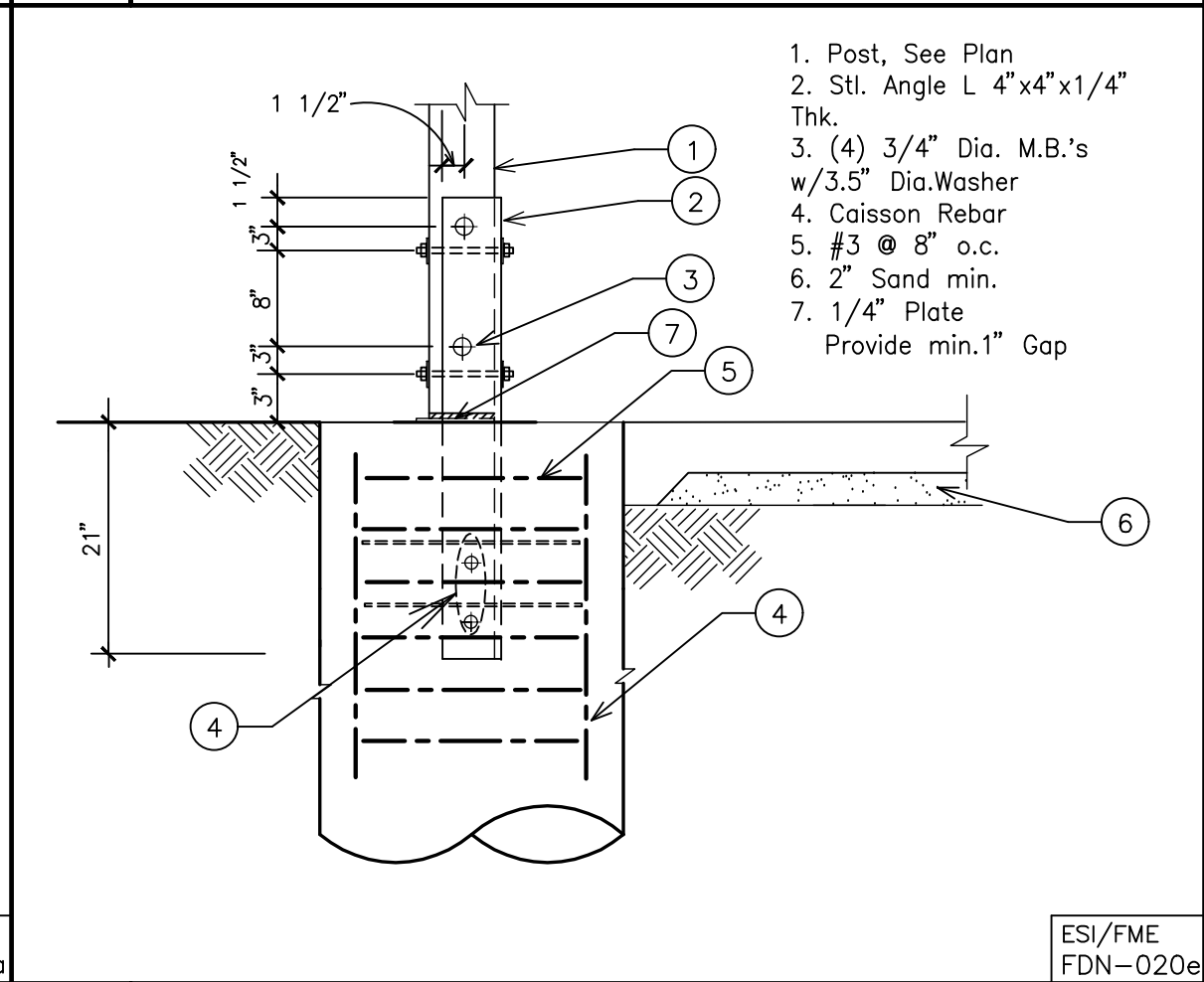
6 DRAG CONNECTION



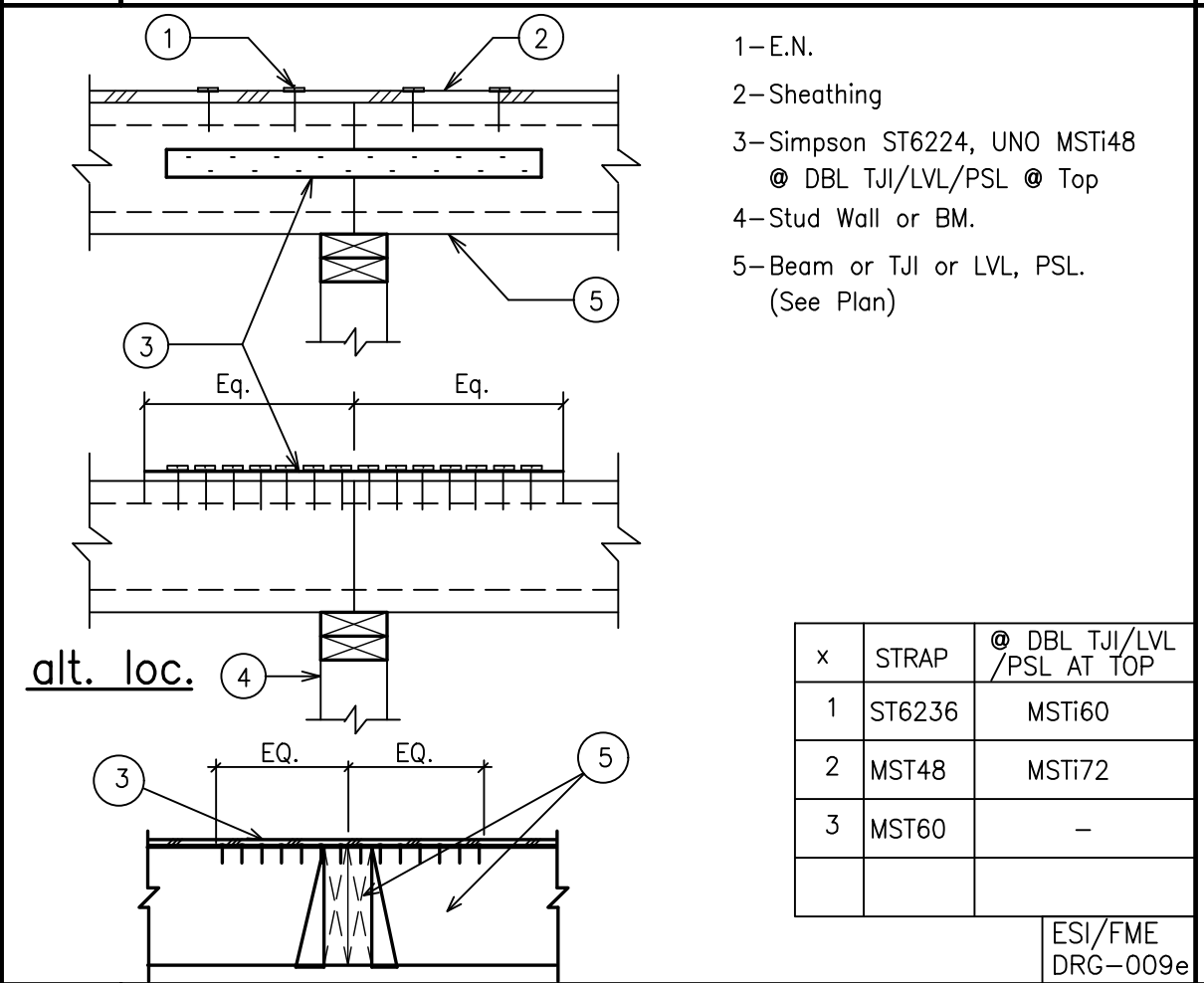
2 DRAG TRUSS SHEAR TRANSFER



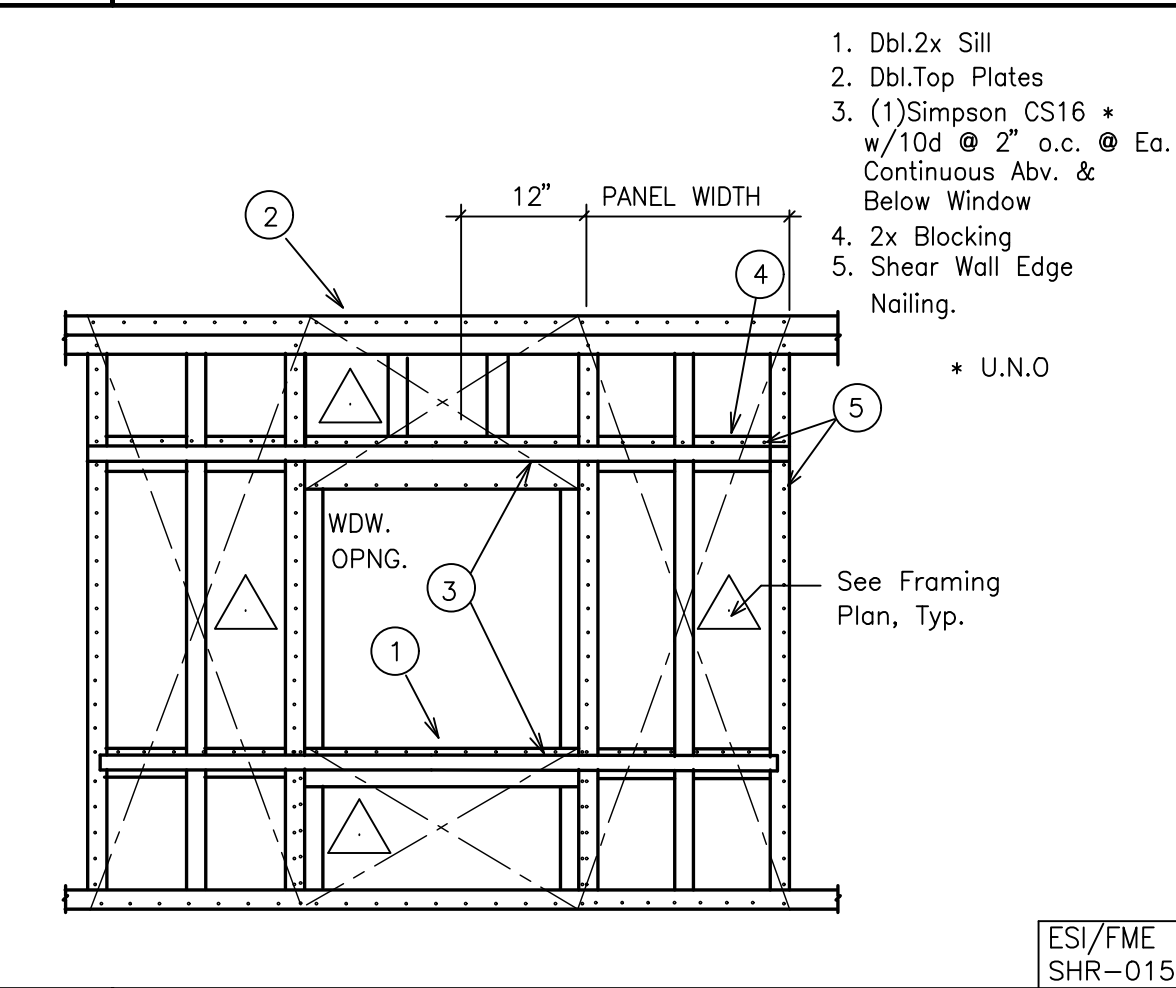
19 DECK JOIST CONNECTION



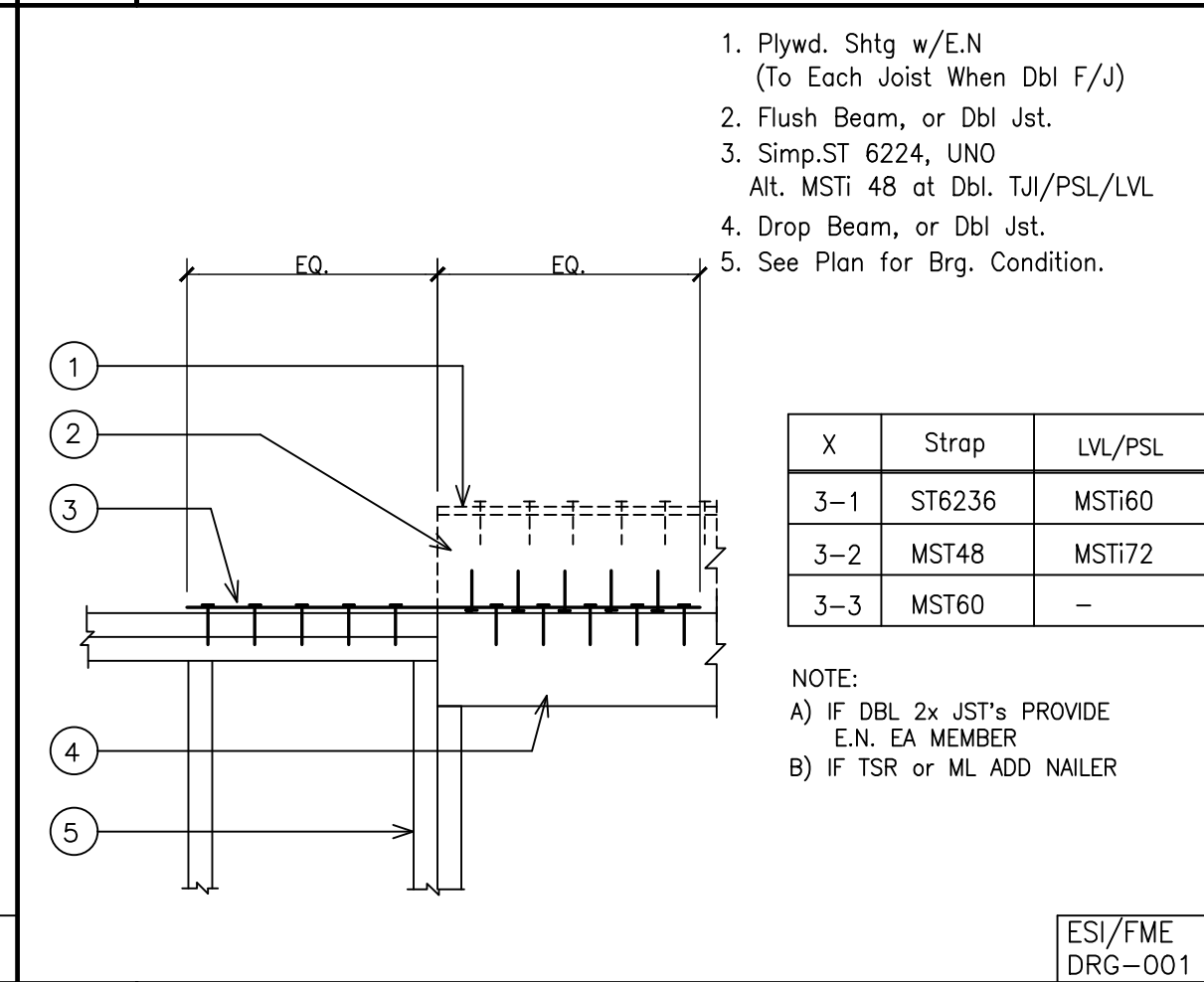
15 PAD DETAIL



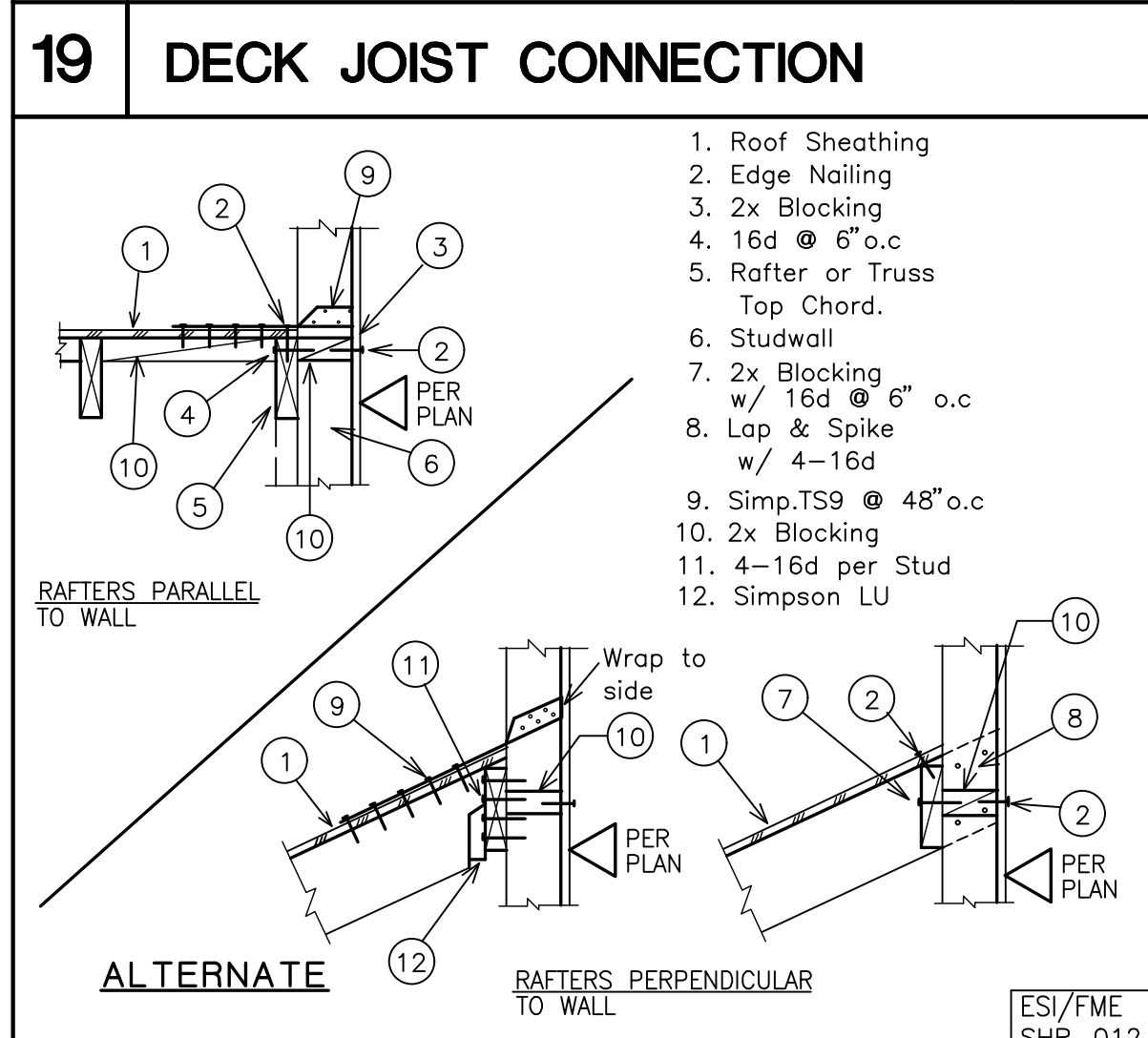
11 JOIST DRAG STRUT



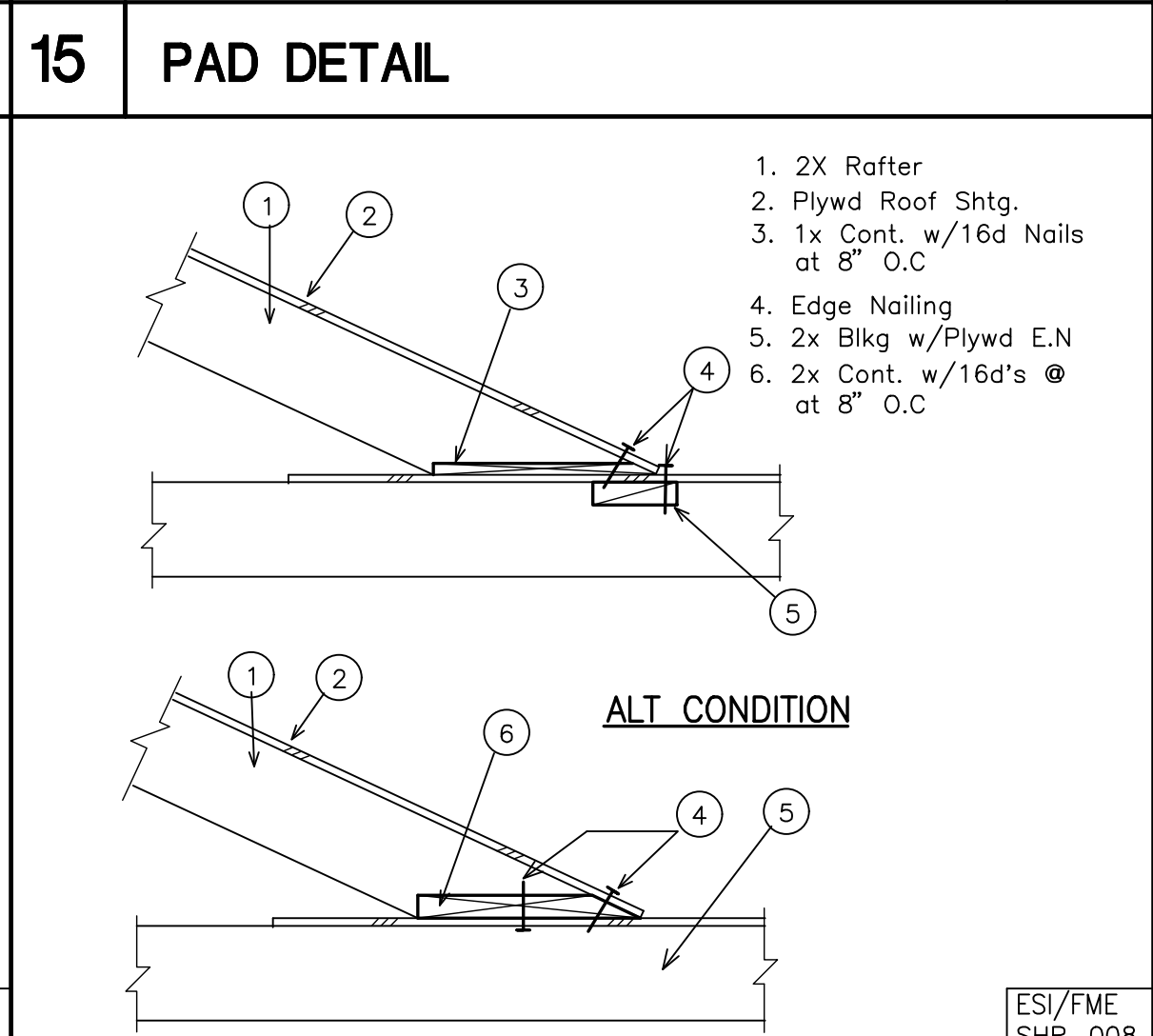
7 SPECIAL SHEAR AT WINDOW OPENING



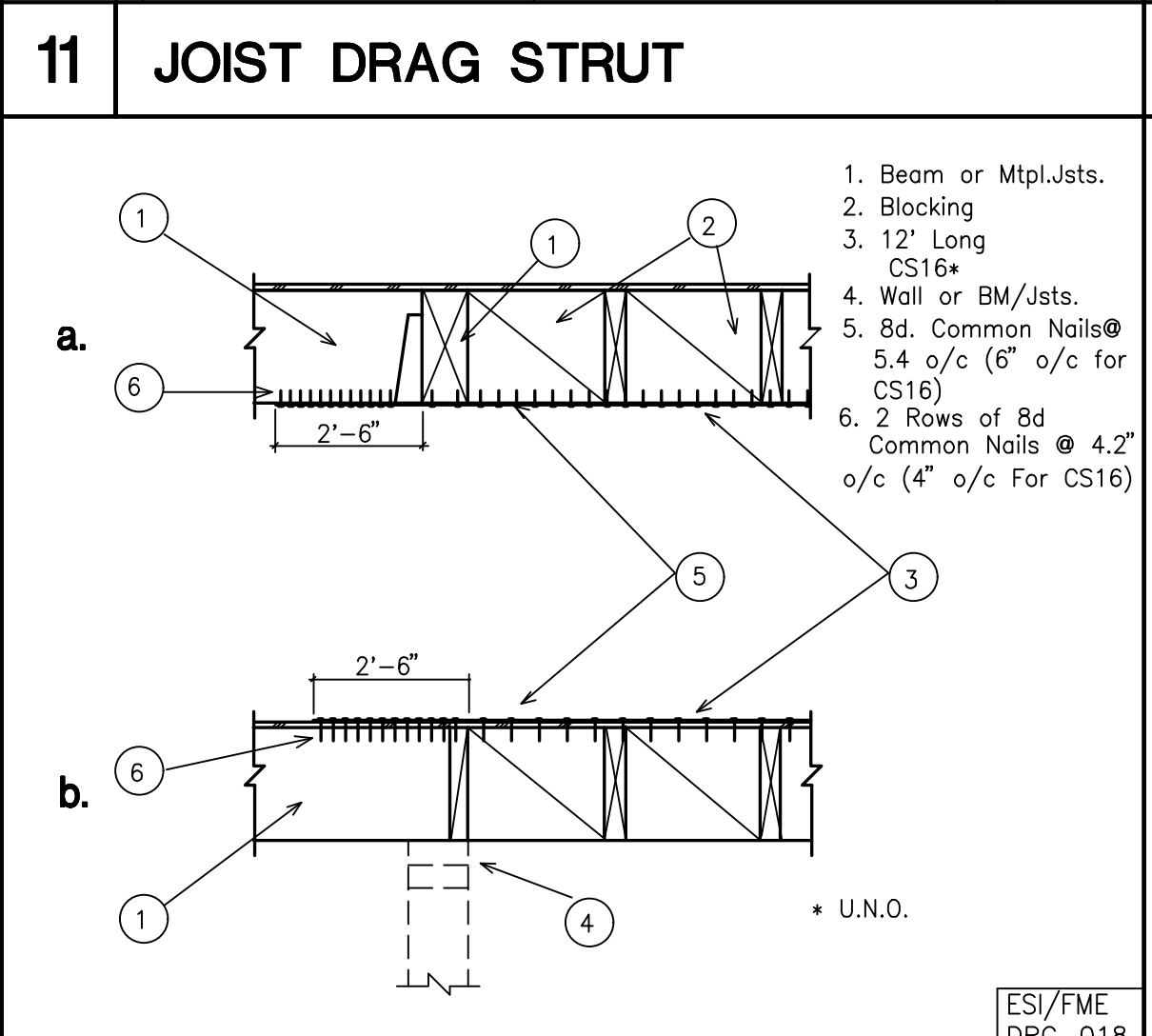
3 DRAG DETAIL



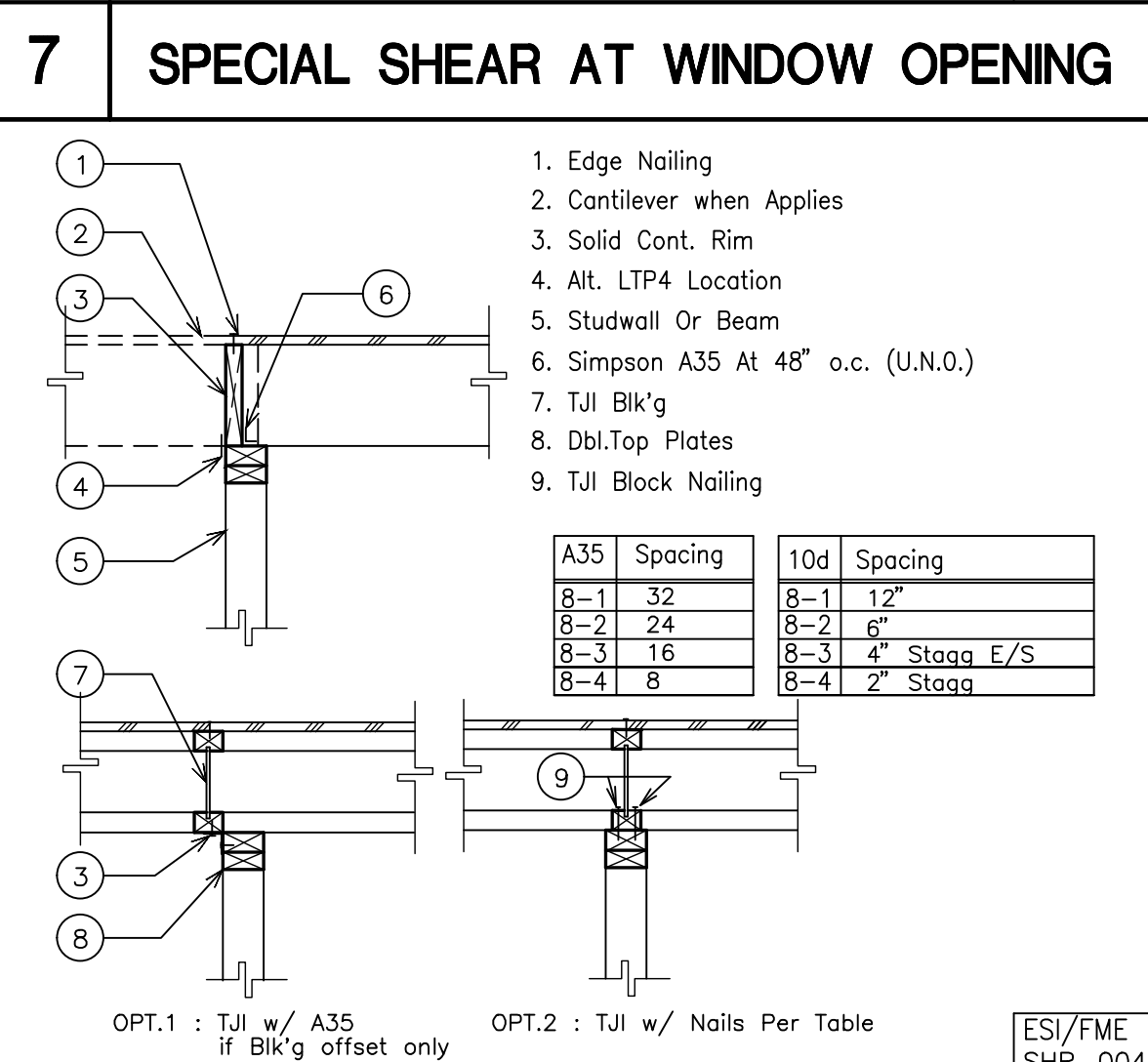
20 ROOF TO WALL SHEAR TRANSFER



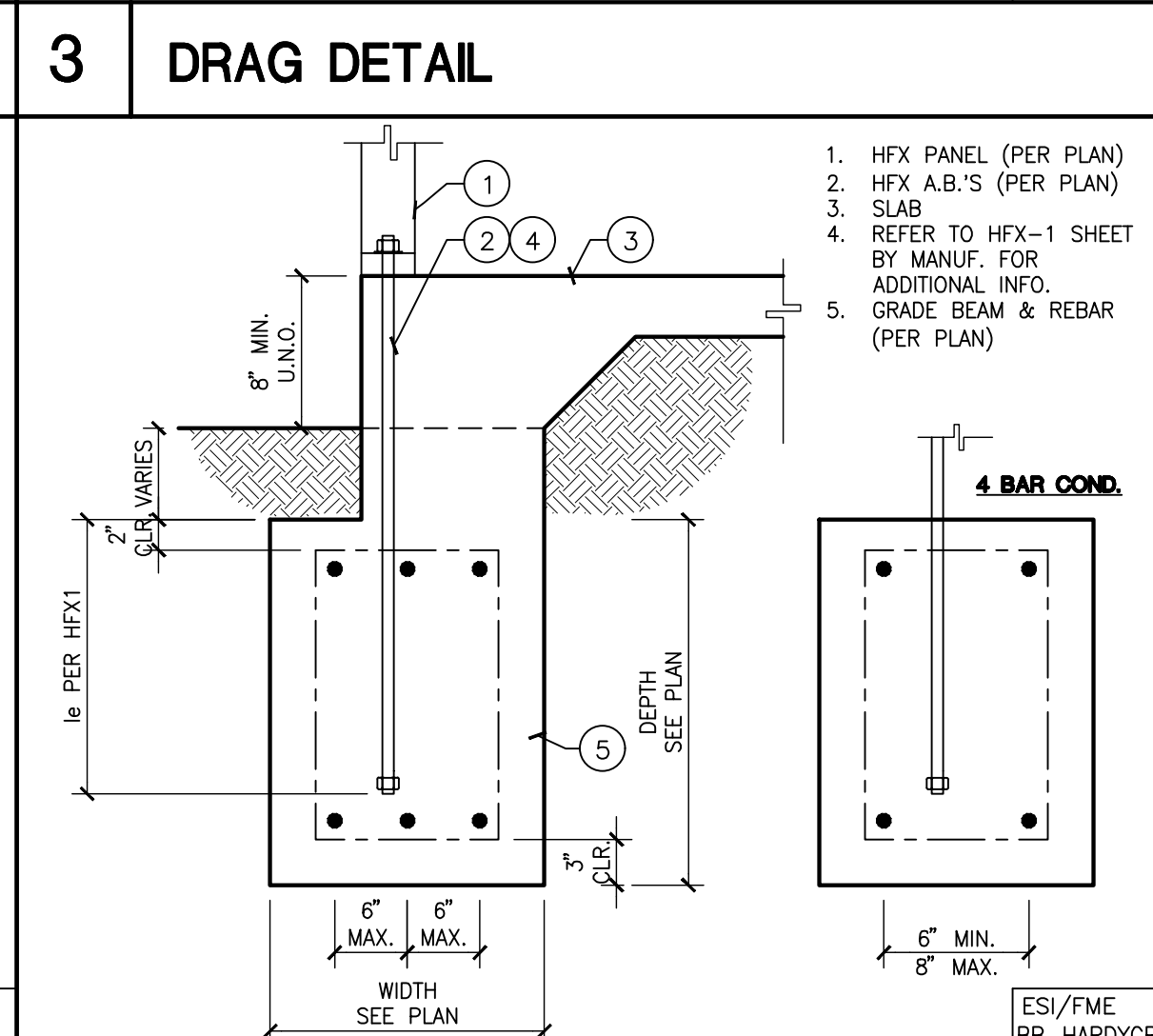
16 SHEAR TRANSFER



12 INTERRUPTED DRAGS



8 JOIST SHEAR CONNECTION



4 EXTERIOR GRADE BEAM FOR HFX

REVISIONS

6-2-17	ES
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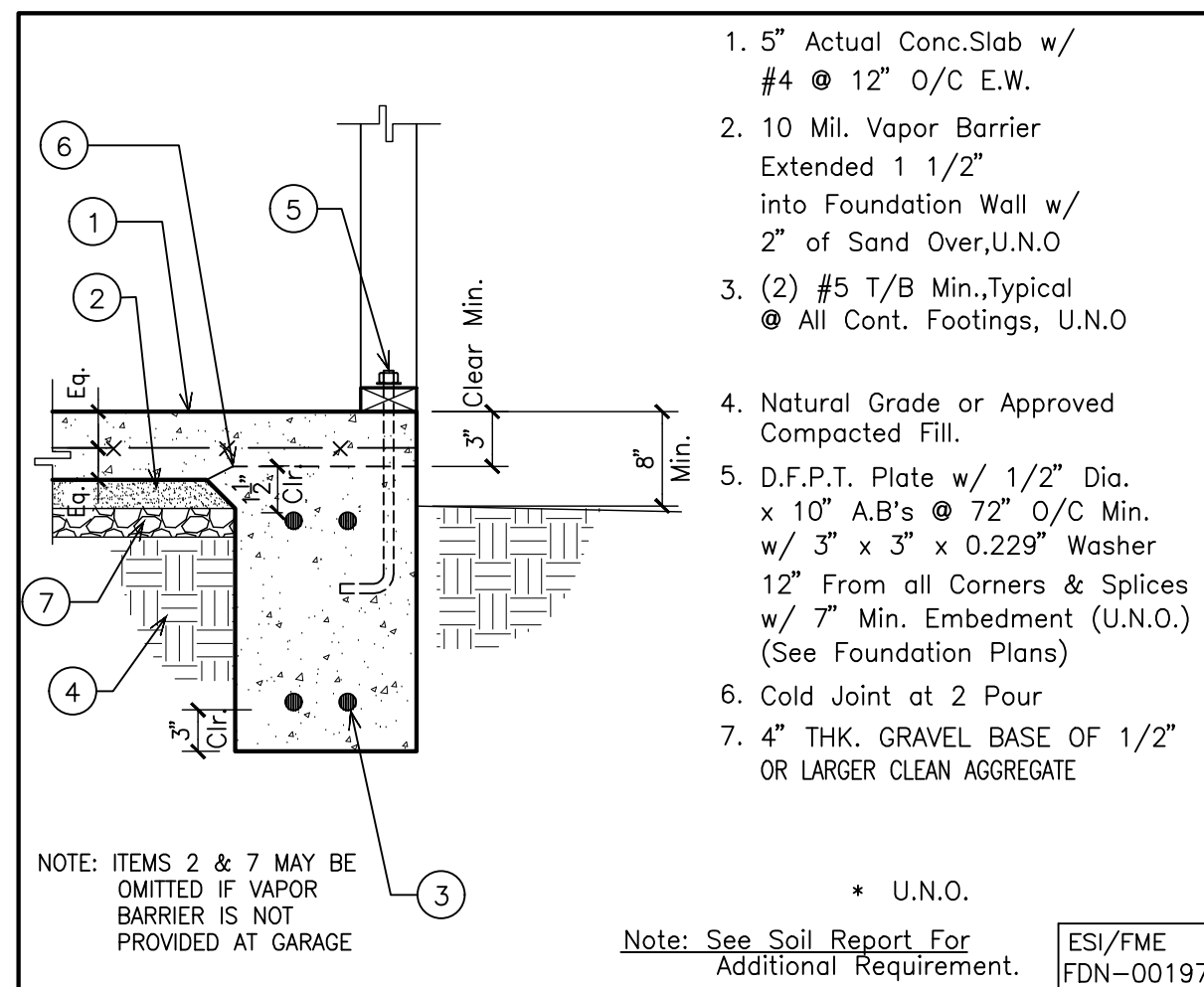
ES/FME INC.
STRUCTURAL ENGINEERS
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SANTA ANA, CA 92701
PHONE: 714-855-2800
FAX: 714-855-2819
JULY 2017

STRUCTURAL DETAILS

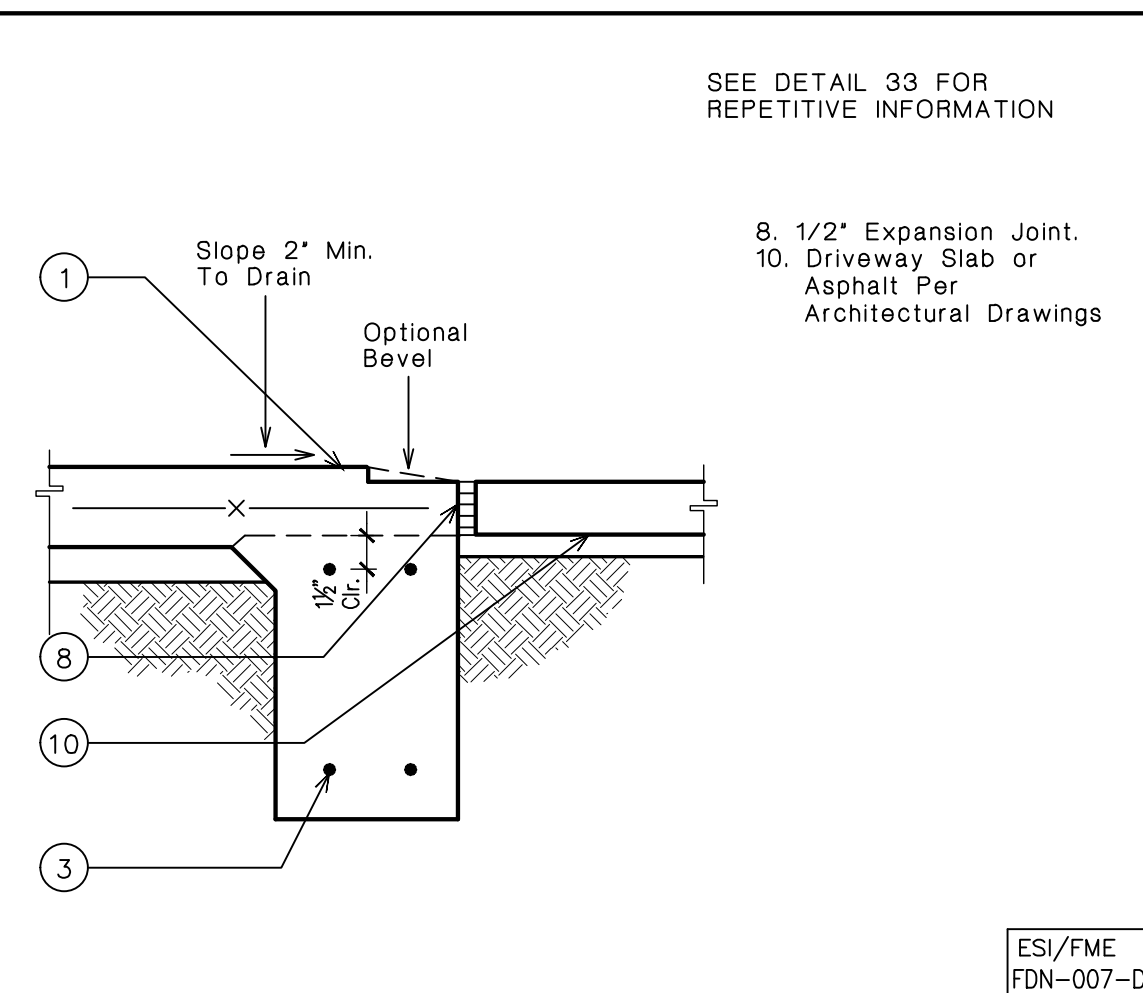
HIGHLAND ESTATES
LOT 8: 2141 TICONDEROGA DR.
SAN MATEO, CA
THE CHAMERLAIN GROUP



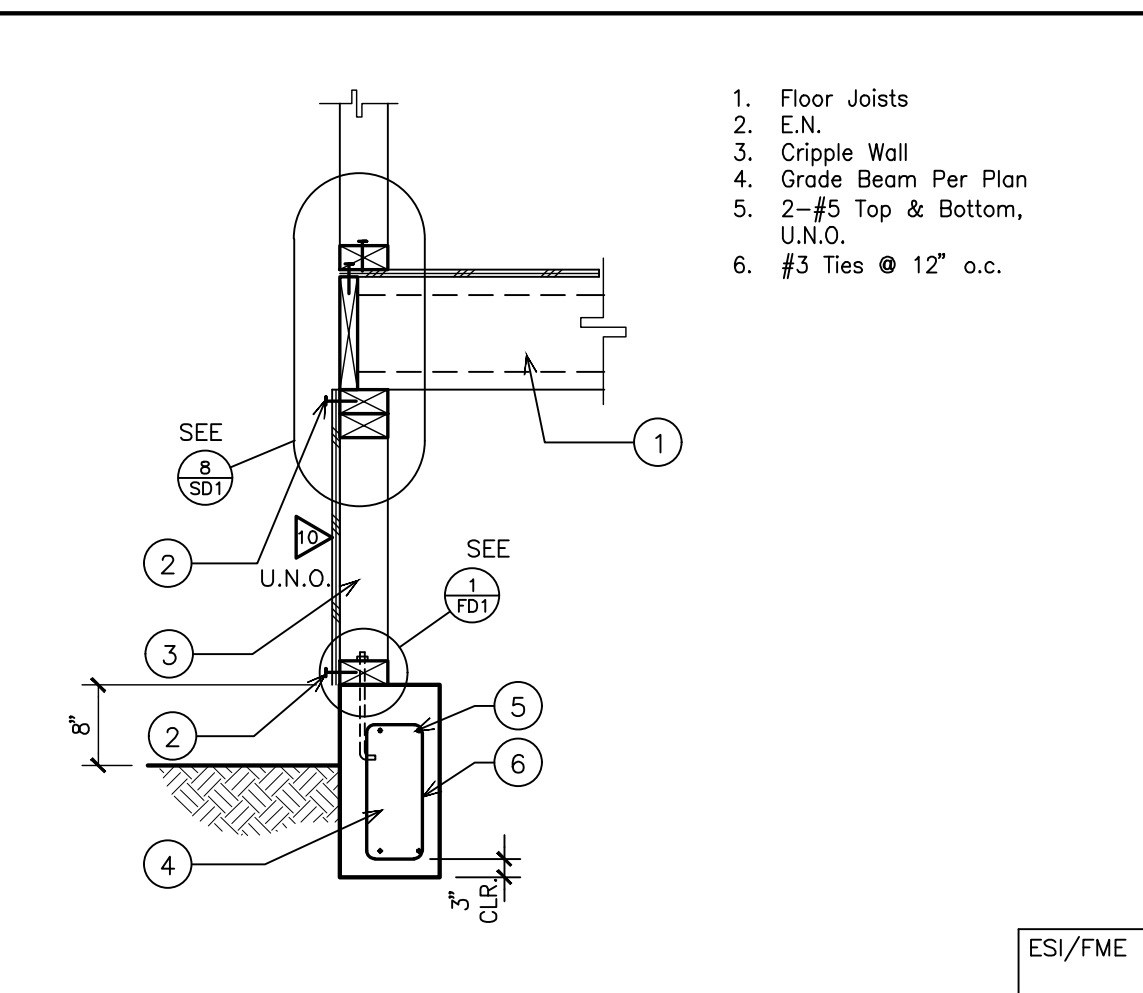
DRAWN	
CHECKED	
PLOT DATE	05/23/2017
JOB NO.	E776
SHEET	
SD1	
SHEET: 5	OF: 6



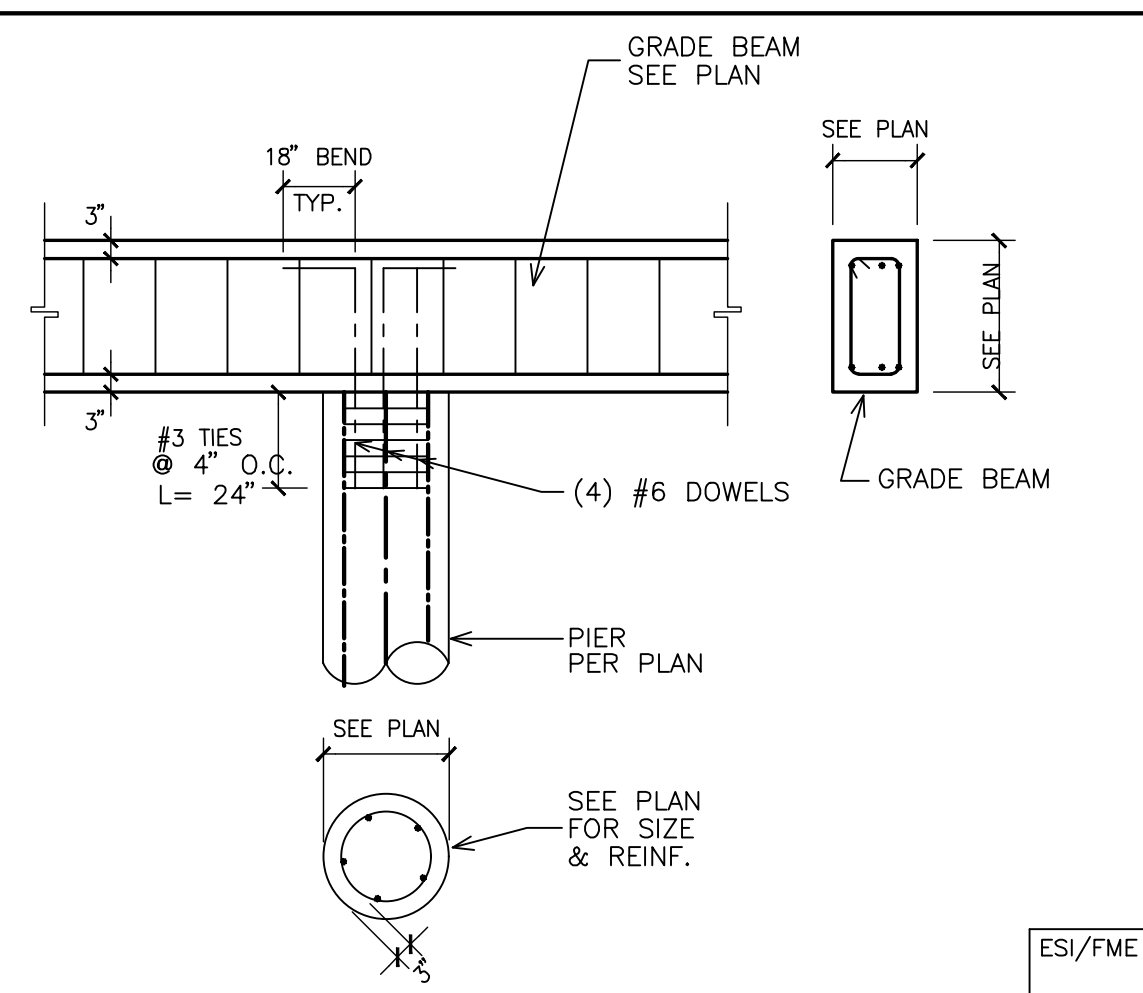
33 EXTERIOR FOOTING



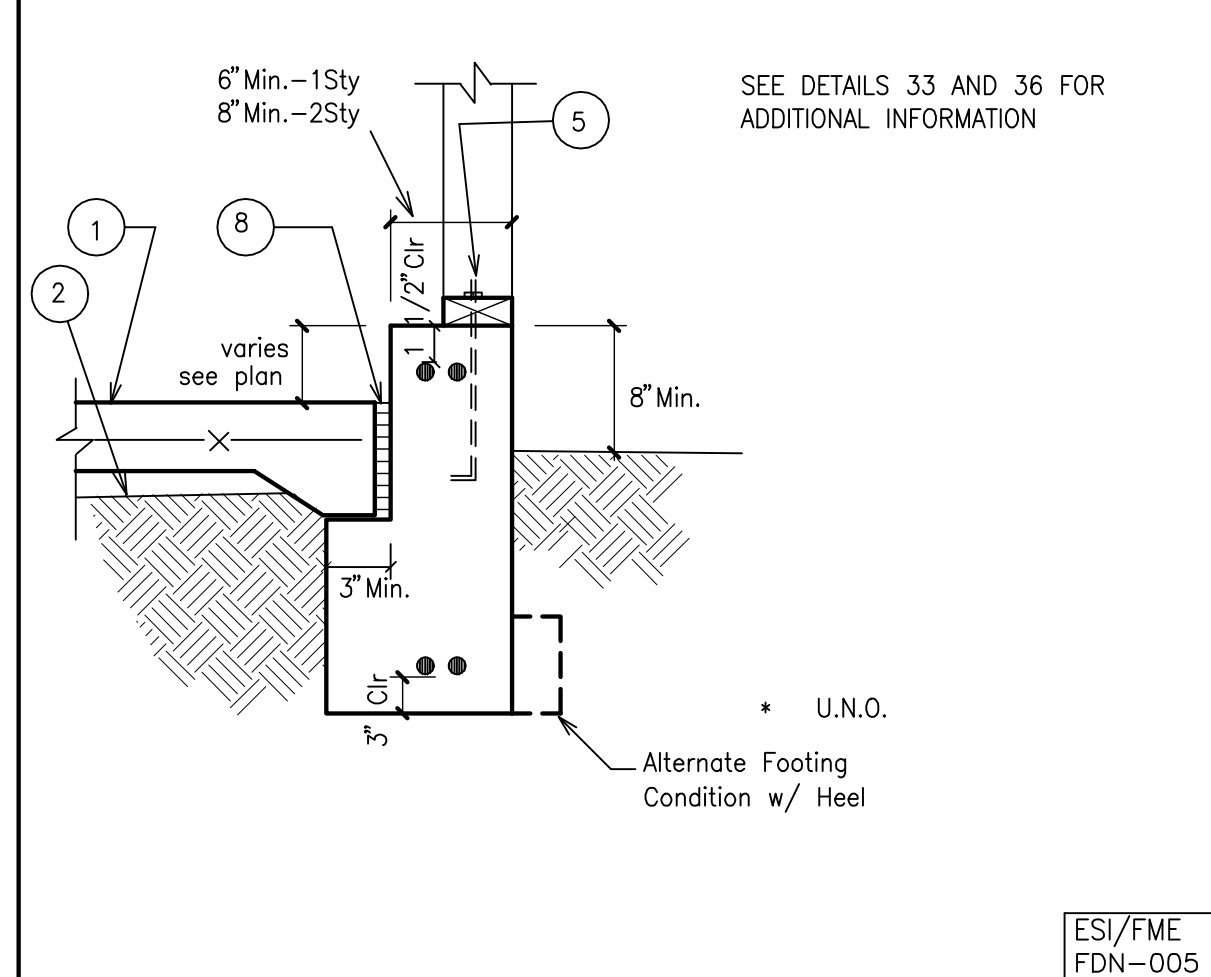
29 SLAB EDGE AT GARAGE



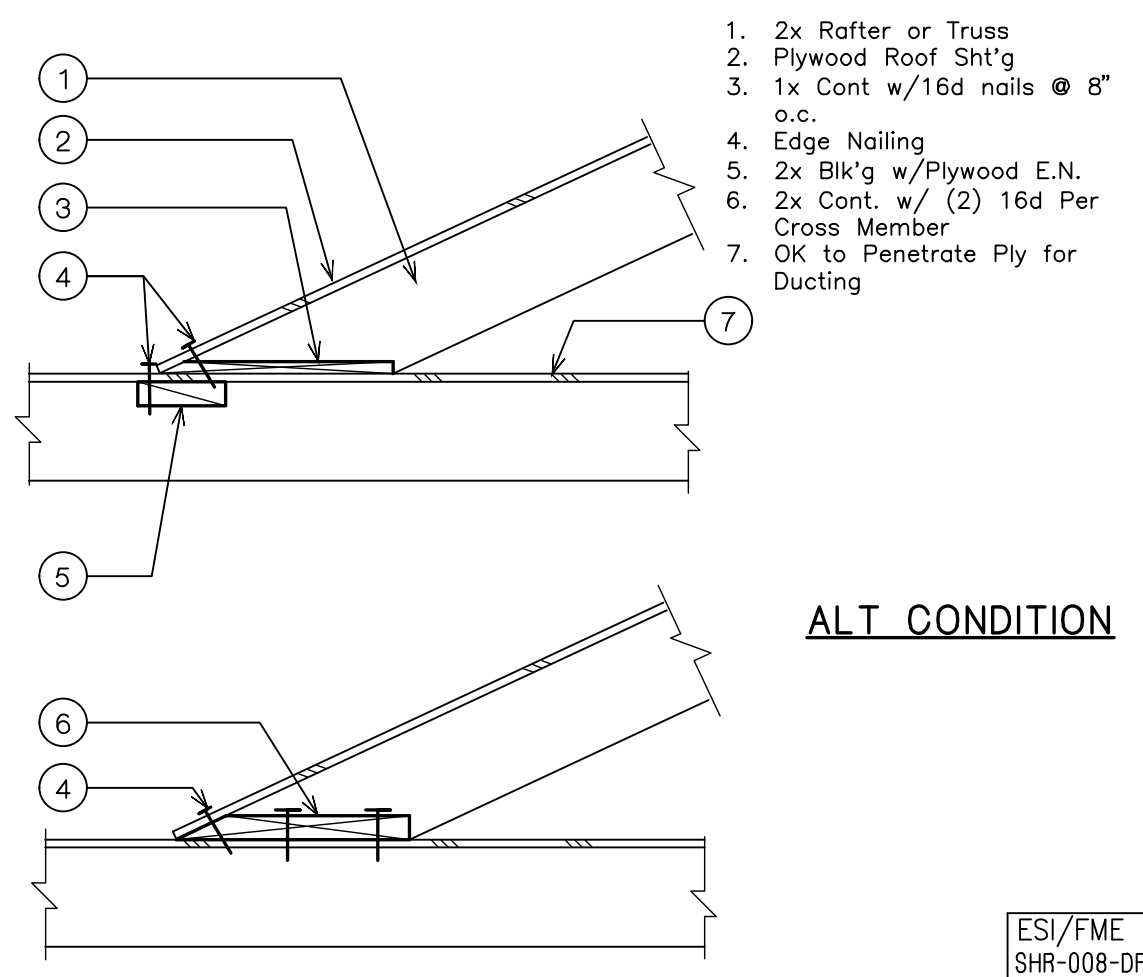
25 GRADE BEAM



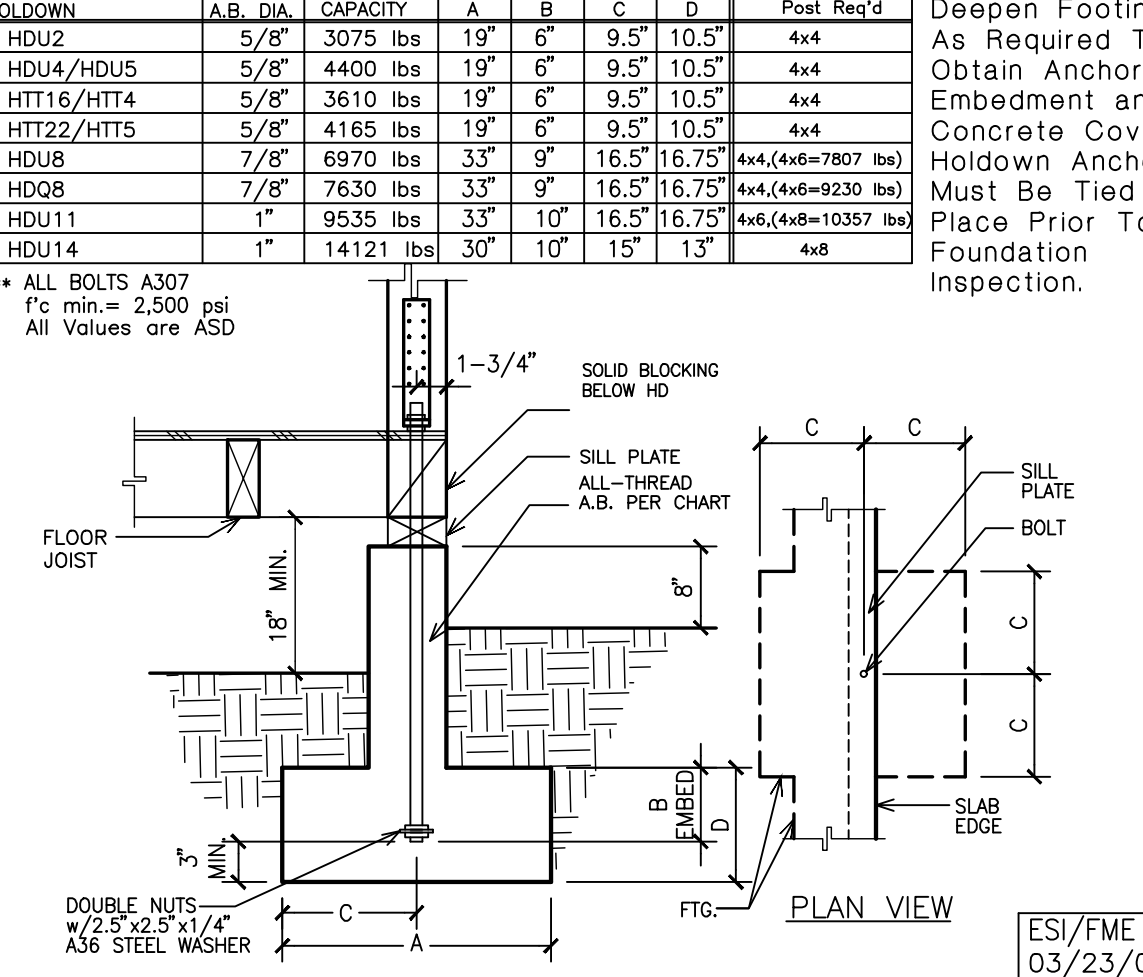
21 CAISSON / G.B. CONN.



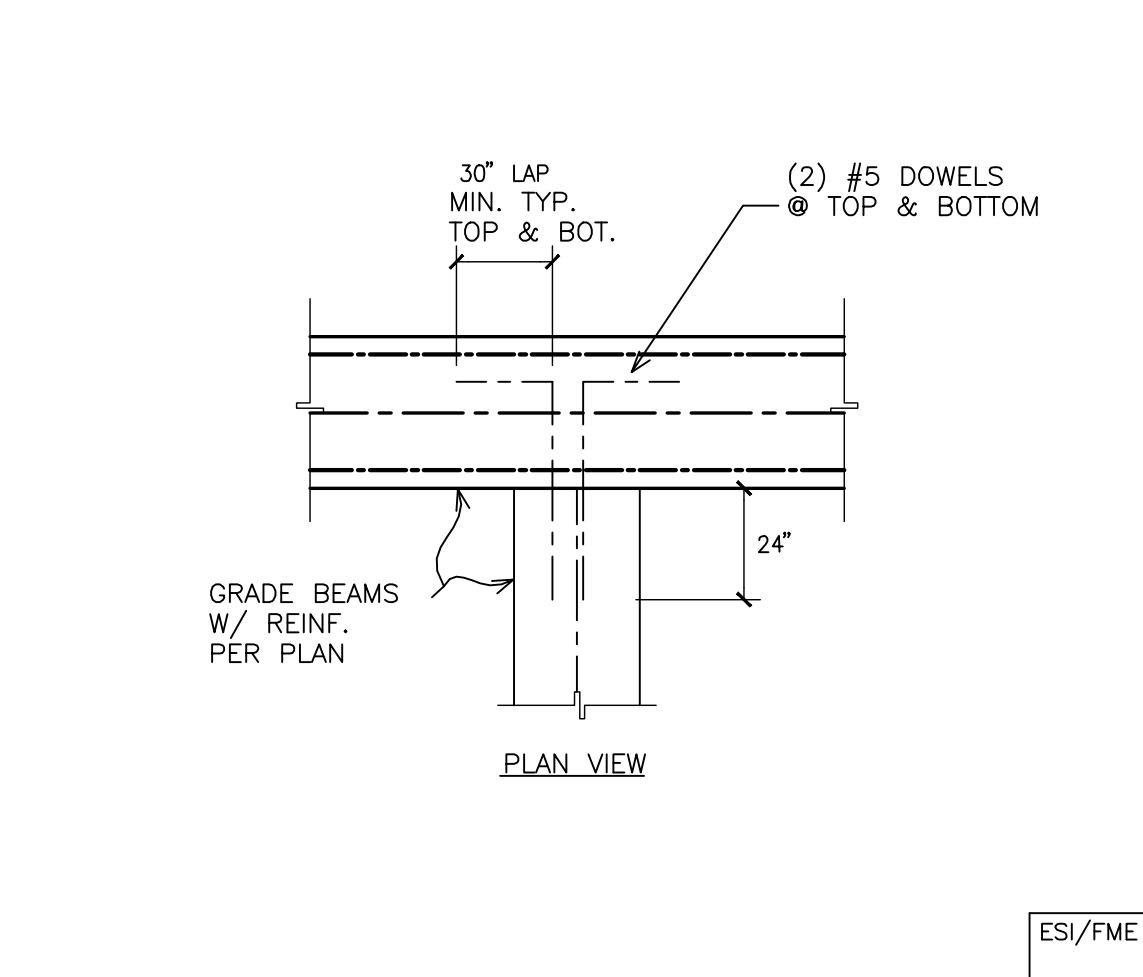
34 EXTERIOR GARAGE FOOTING



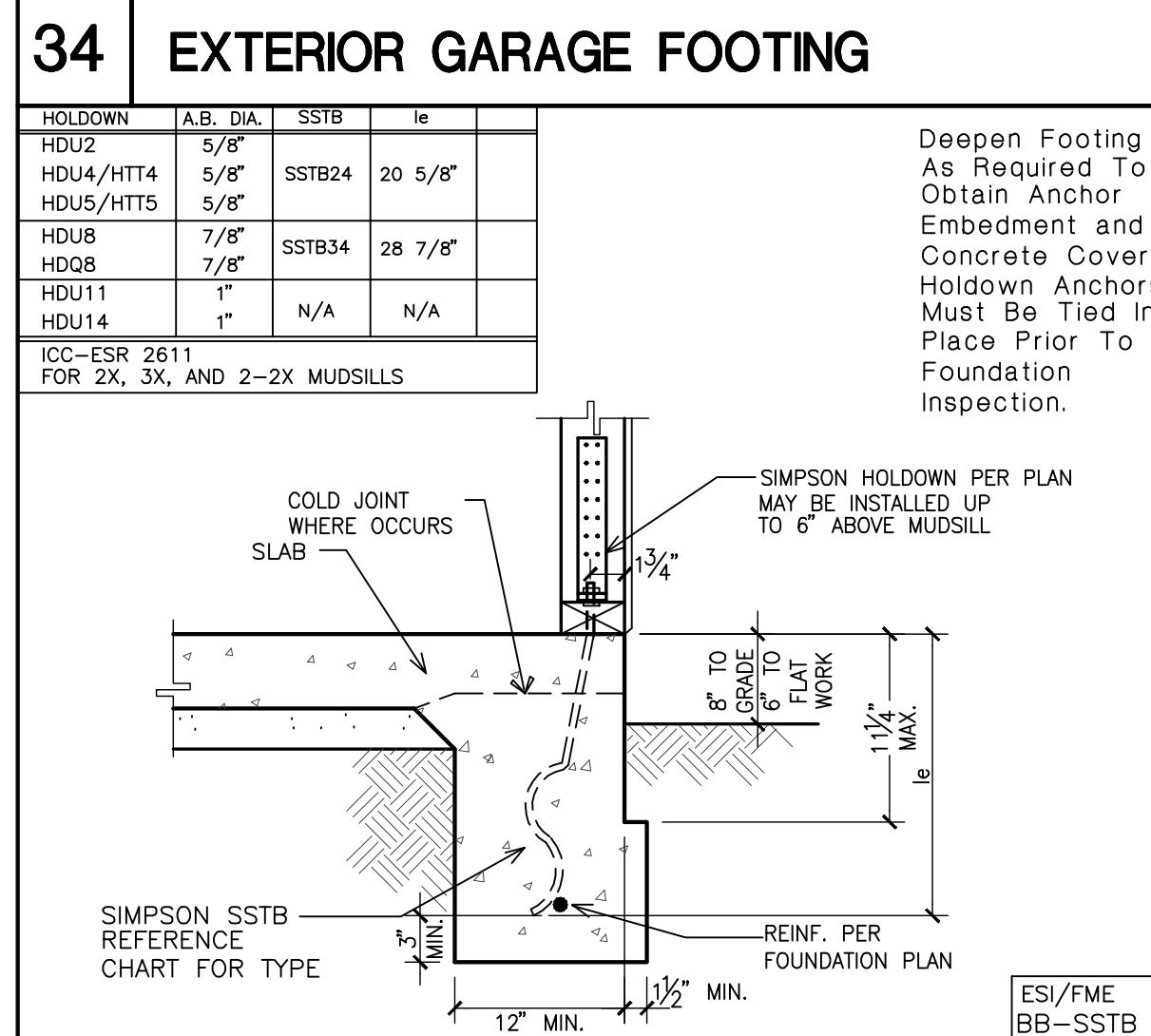
30 SHEAR TRANSFER @ CALIF FRAMING



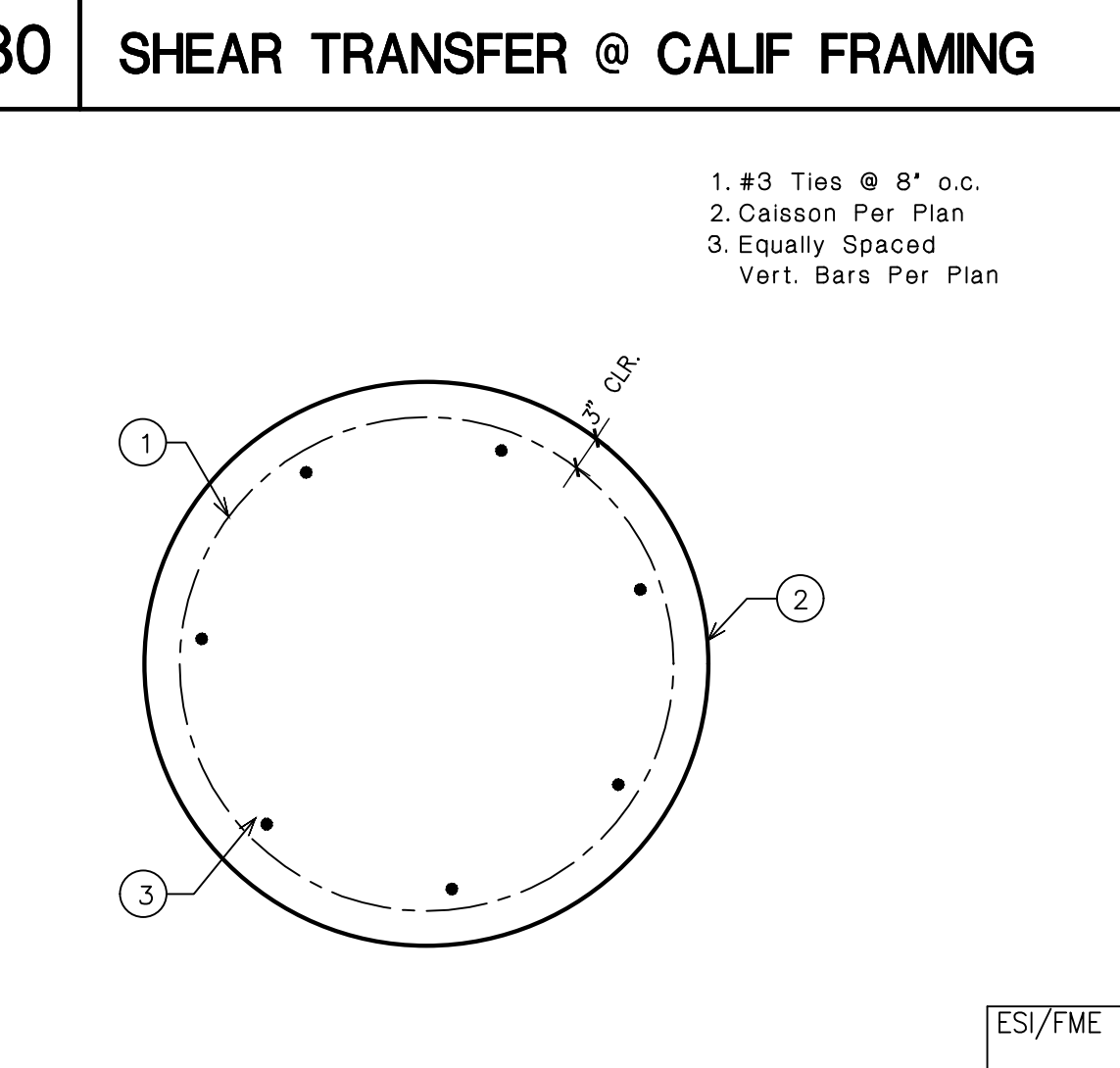
26 HOLDOWN



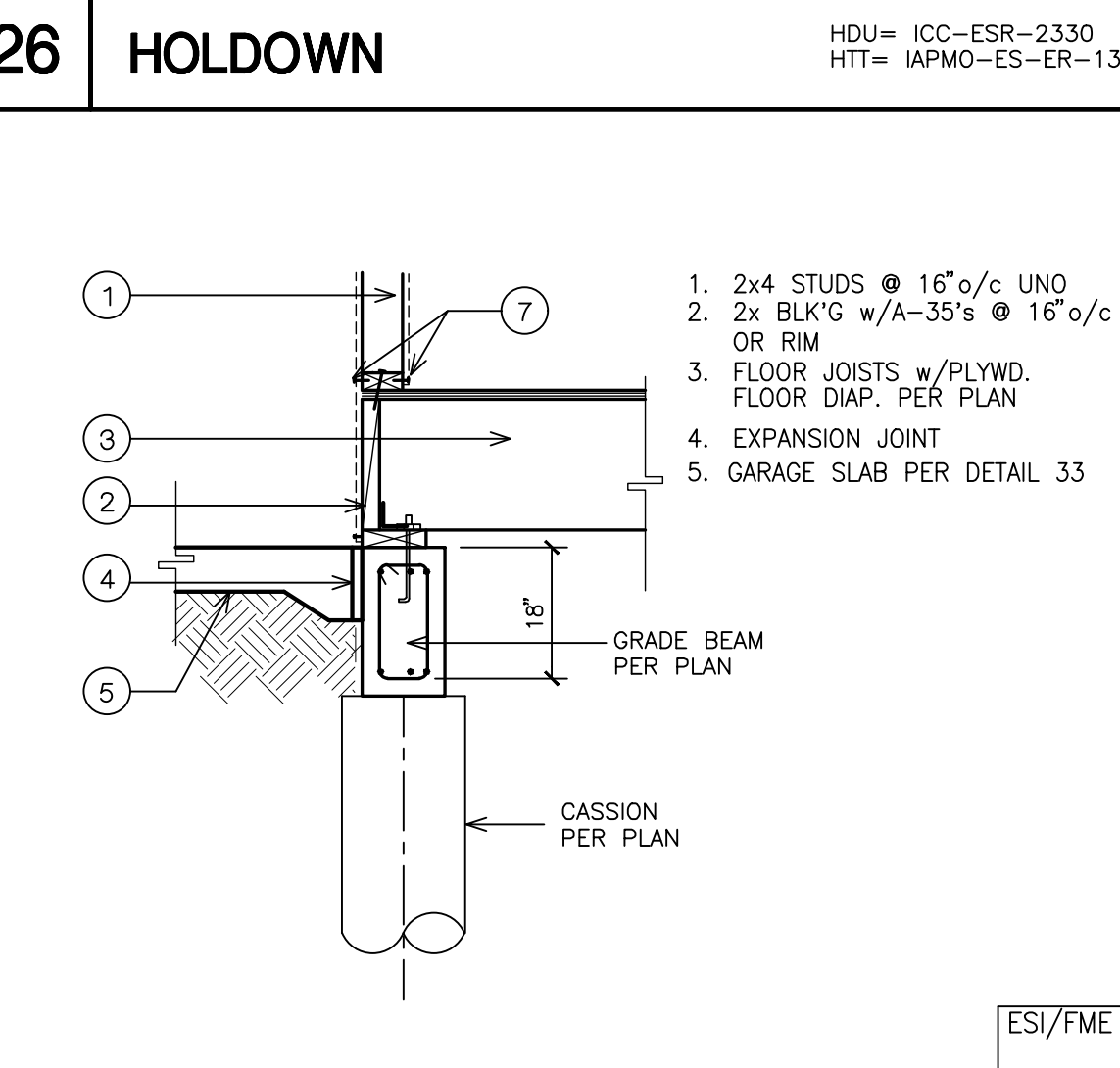
22 G.B. INTERSECTION



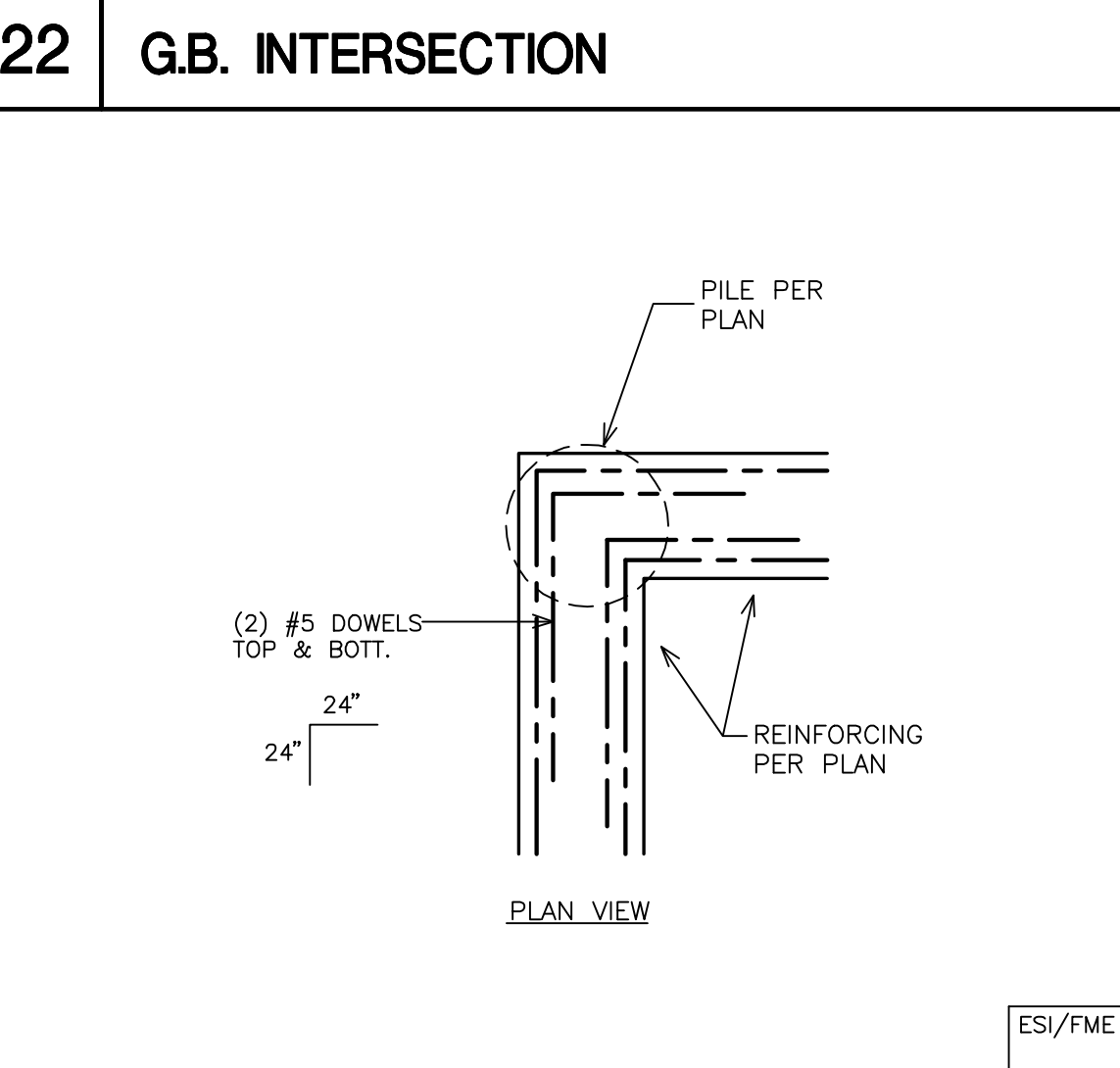
35 HOLDOWN DETAIL SSTB BOLT



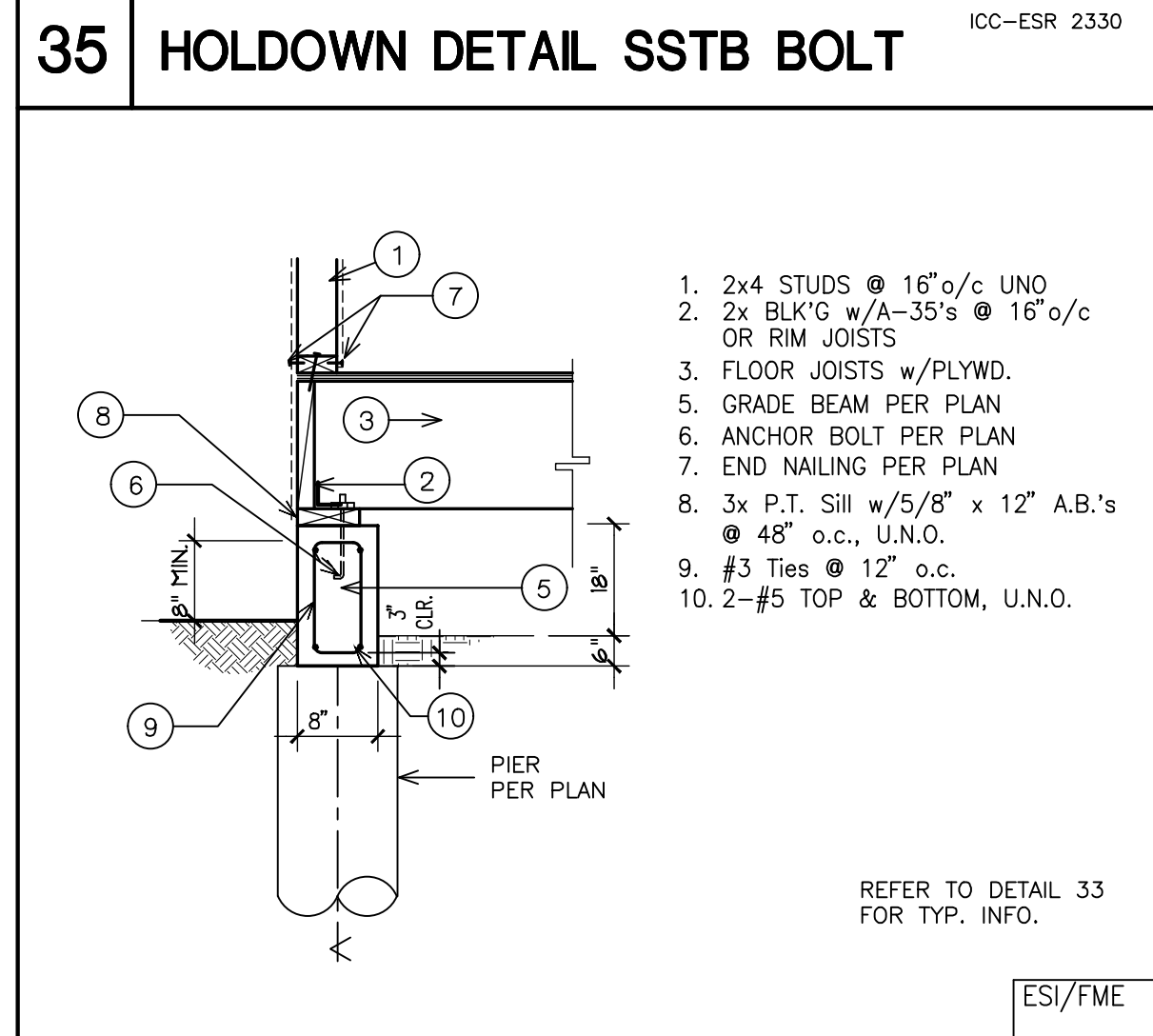
31 CAISSON SECTION



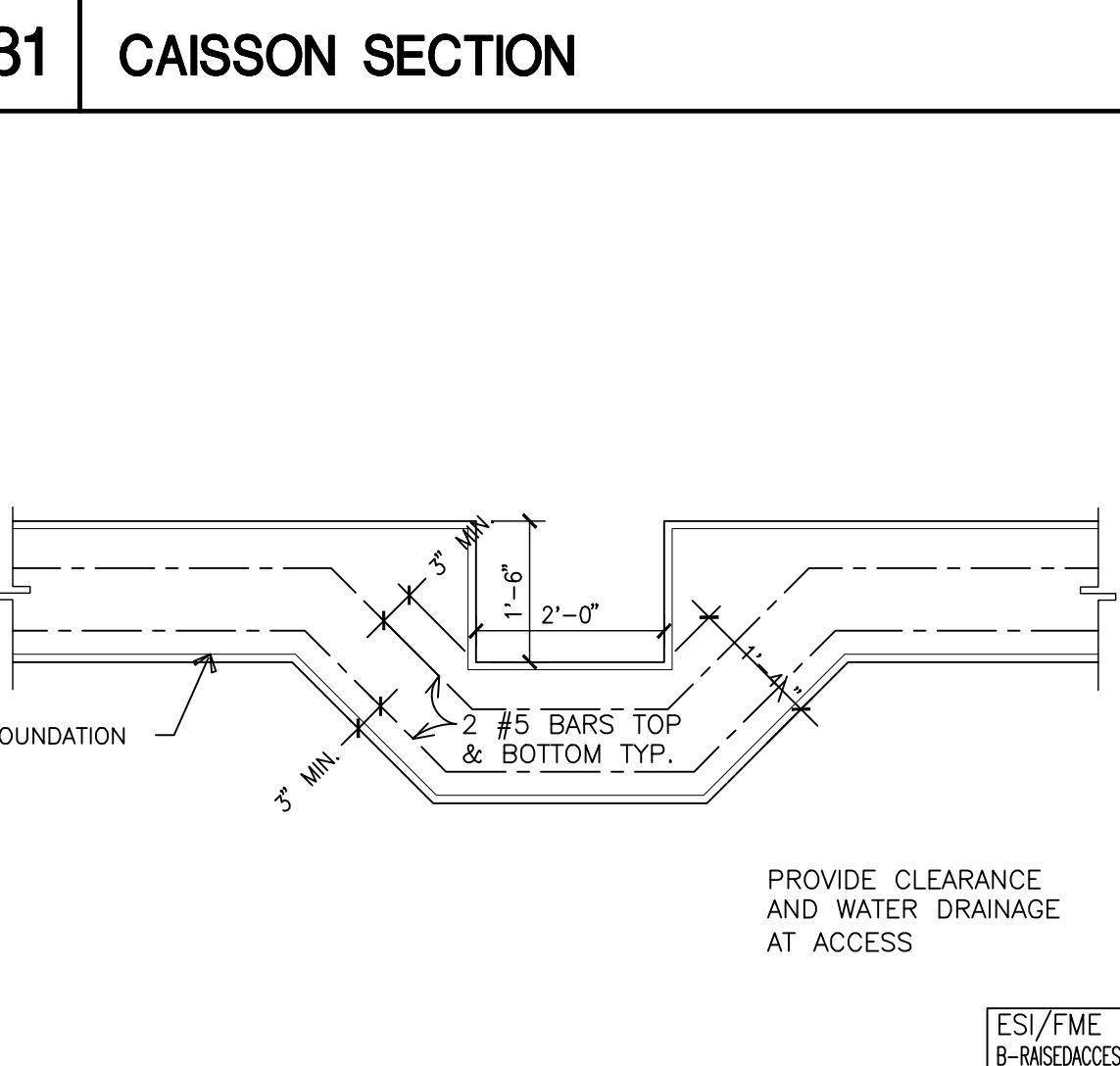
27 HOUSE TO GARAGE



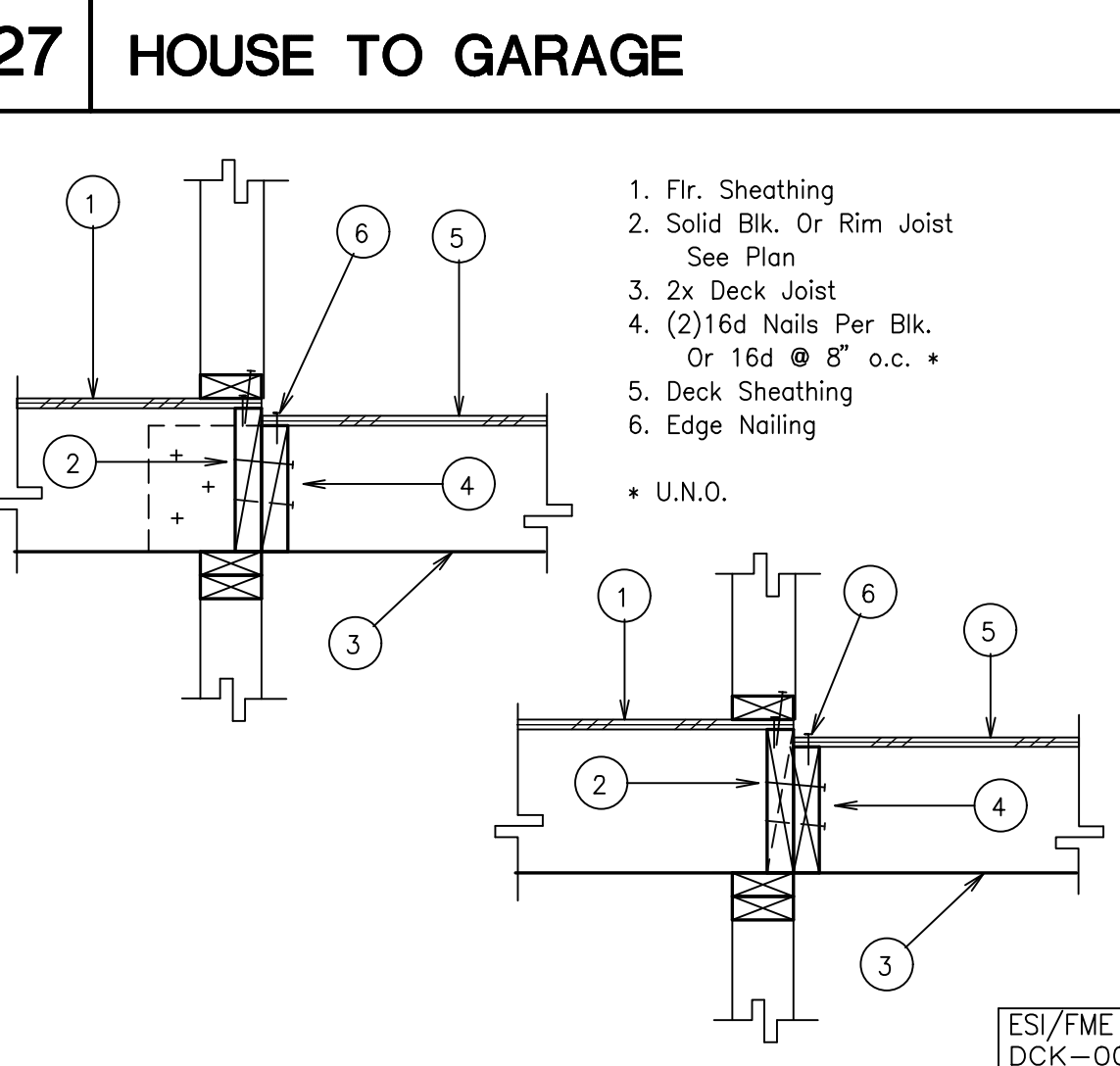
23 GRADE BM @ CORNER



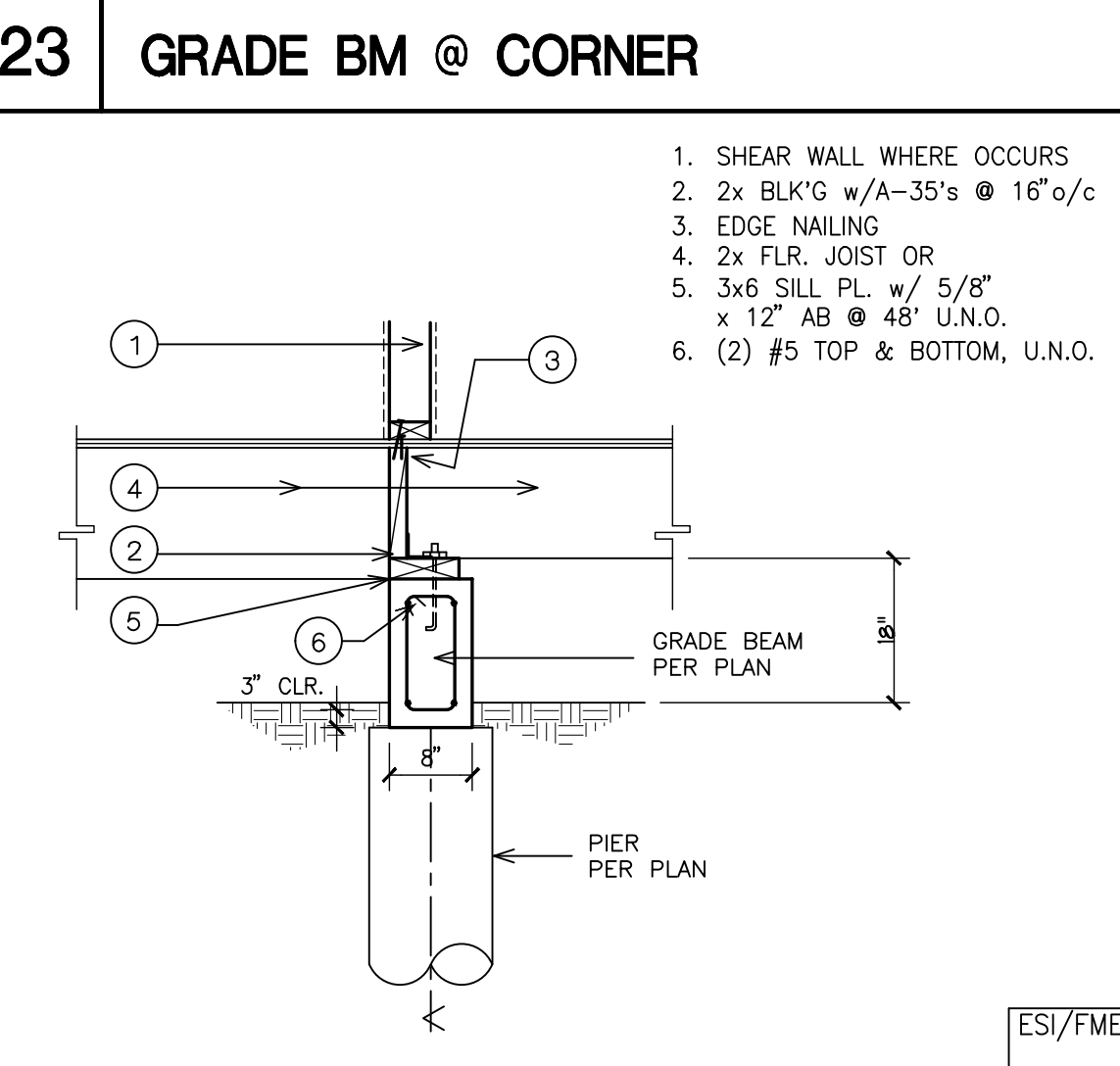
36 EXTERIOR WALL



32 FOUNDATION ACCESS



28 DECK DETAIL



24 INTERIOR GRADE BM

REVISIONS

6-2-17	BC
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ESI/FME INC.
STRUCTURAL ENGINEERS
1800 E. 16TH ST. STE. B
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PHONE: 714-895-2800
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JULY 2017 05/23/2017

F M E S I

STRUCTURAL DETAILS

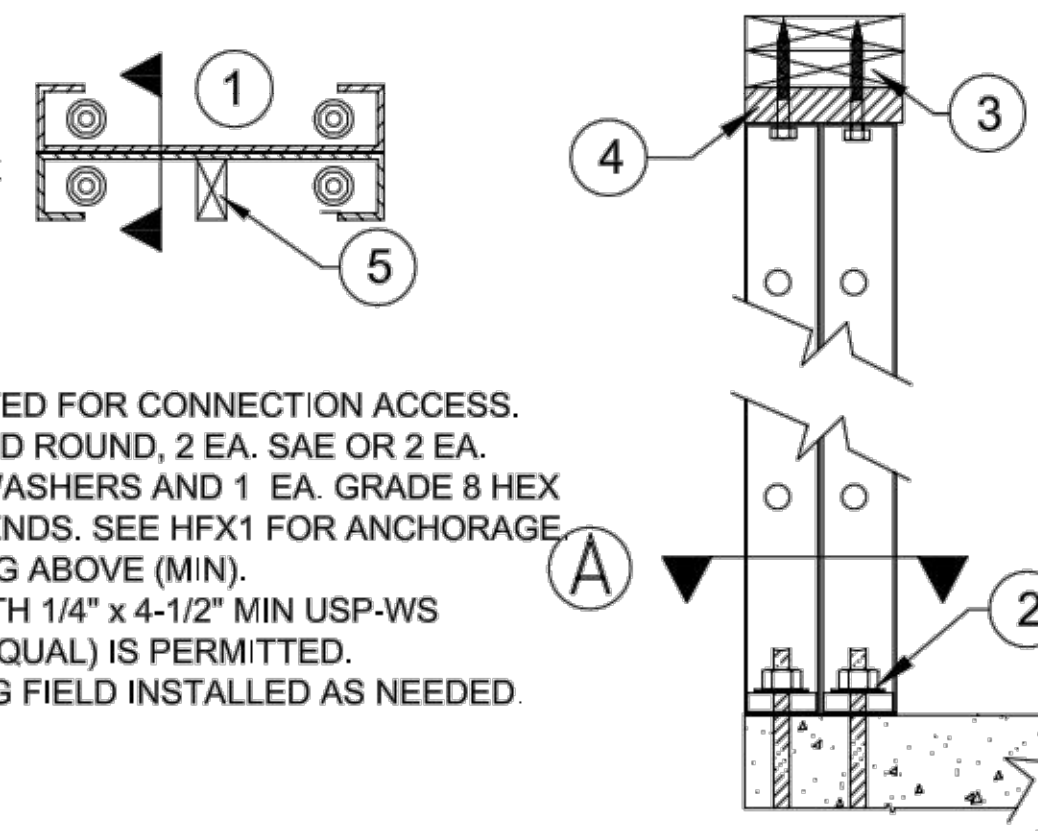
HIGHLAND ESTATES
LOT 8: 2141 TICONDEROGA DR.
SAN MATEO, CA
THE CHAMERLAIN GROUP



DRAWN -
CHECKED -
PLOT DATE 05/23/2017
JOB NO. E776
SHEET

SD2

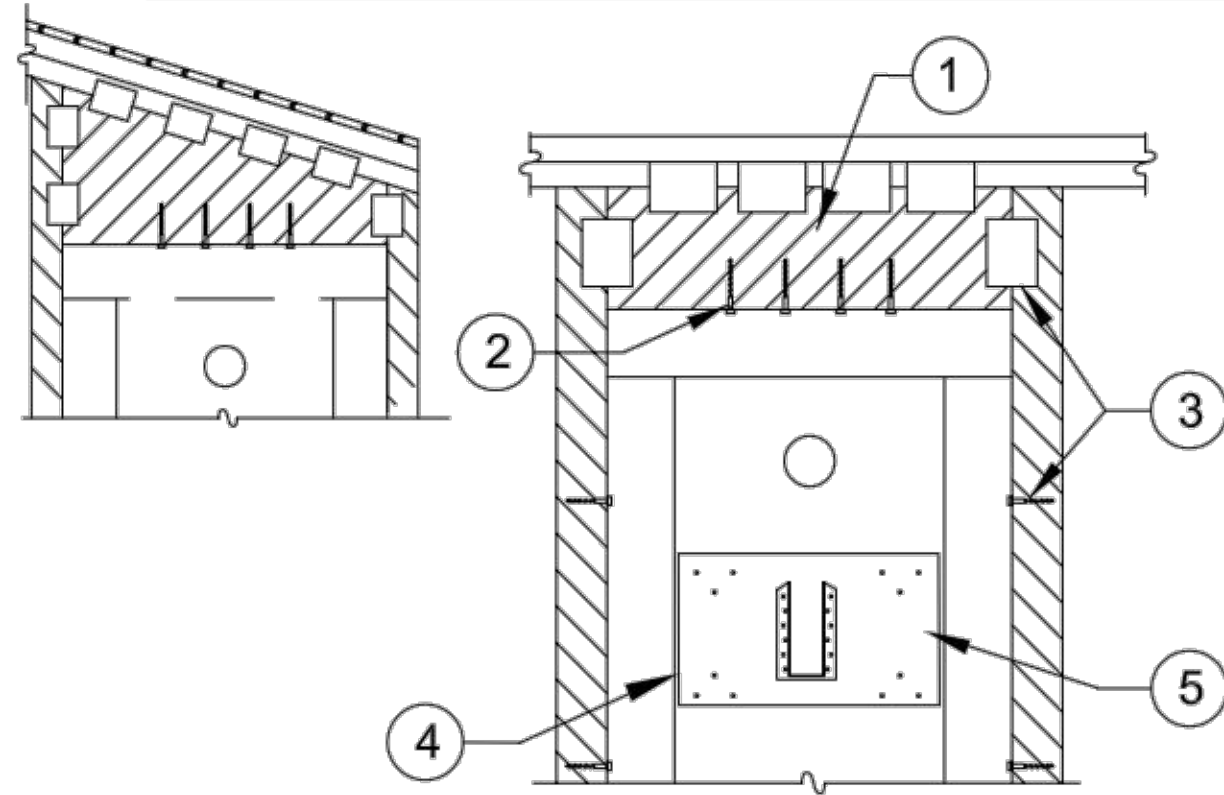
SECTION A



1. CAVITY ORIENTED FOR CONNECTION ACCESS.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
- 8 INCH FRAMING ABOVE (MIN).
- A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
- WOOD BACKING FIELD INSTALLED AS NEEDED.

BACK TO BACK INSTALLATION

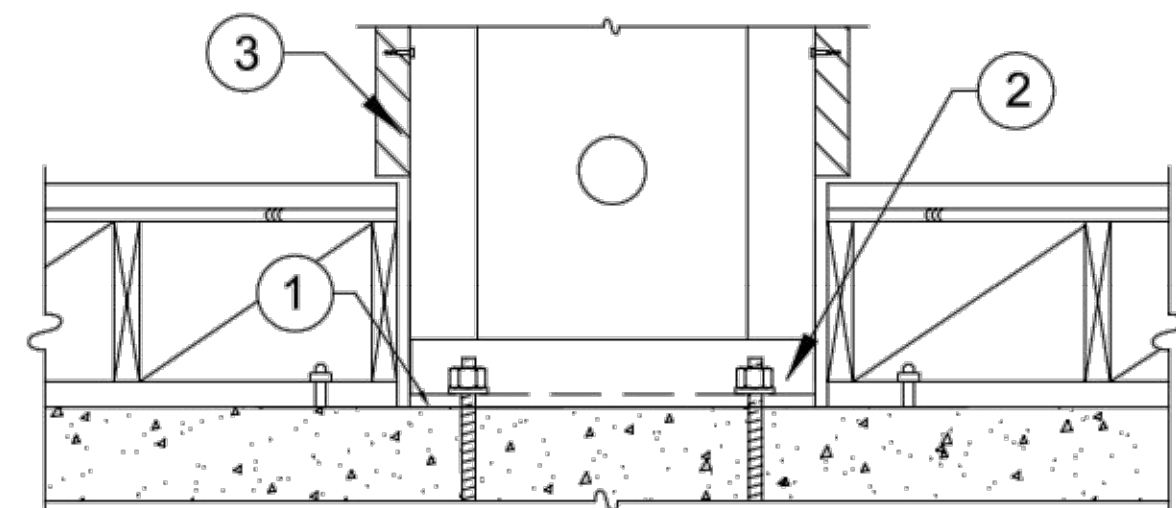
11



1. 4x WOOD FILLER WITH USP MP4-F CONNECTORS (OR EQUAL) BY BUILDING DESIGN PROFESSIONAL.
- 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
- ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.
- OPTIONAL LEDGER PRE-DRILL 3/16" DIA. HOLES, EVENLY SPACED IN FACE OF PANEL AND INSTALL 1/4" DIA. WOOD SCREWS INTO 2x (MIN.) WOOD LEDGER LOCATED IN PANEL CAVITY.
- CONNECTOR AND ATTACHMENT BY BUILDING DESIGN PROFESSIONAL.

TOP CONNECTION W/ 4x FILLER

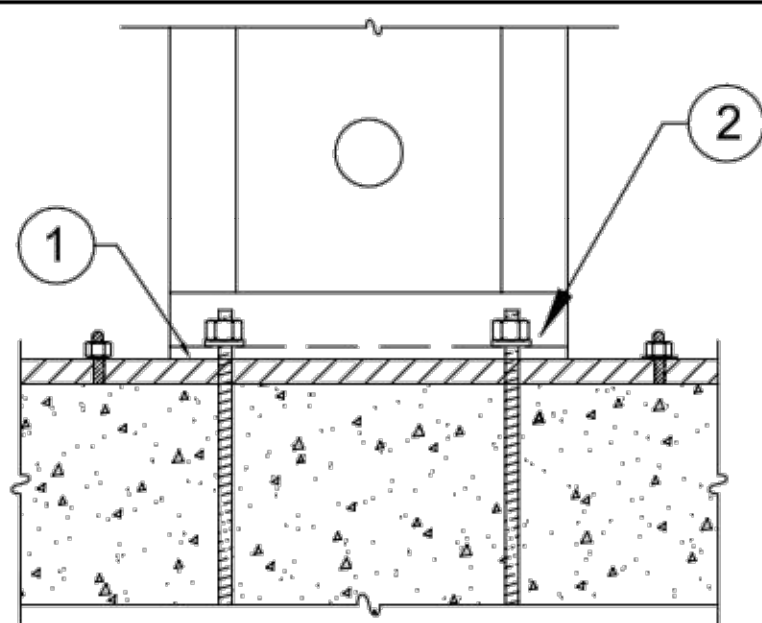
10



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
- ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.

RAISED FLOOR HEAD-OUT

9



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON 2x PLATE

8

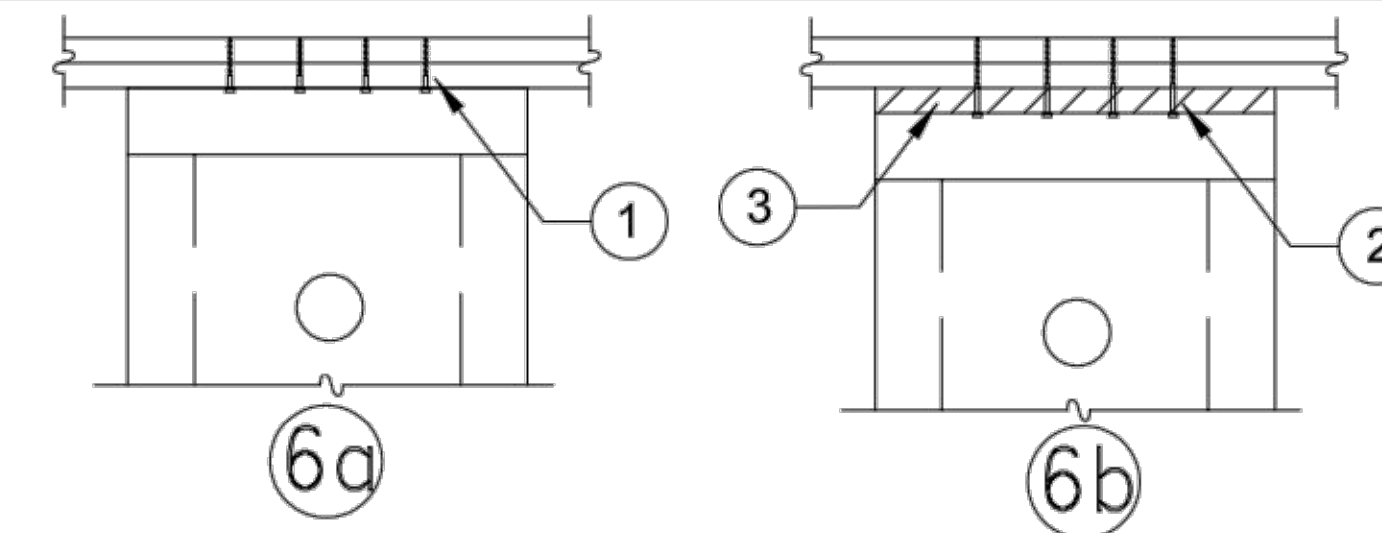
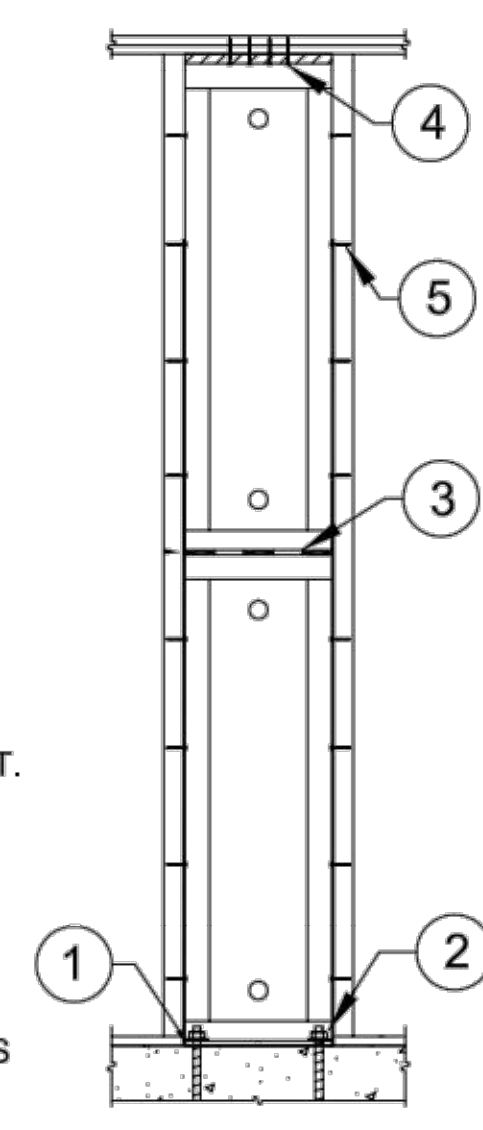
NOTES:

- OUT OF PLANE FORCES TO BE RESISTED BY OTHER FRAMING MEMBERS PER THE BUILDING DESIGN PROFESSIONAL.
- BALLOON WALL APPLICATIONS REQUIRE HIGH STRENGTH ANCHORAGE. SEE FOUNDATION PLAN AND ANCHORAGE TABLES ON SHEET HFX-1

- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
- WELDED CONNECTION BY HARDY FRAMES, INC. (NO FIELD CONNECTION REQUIRED).
- A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
- WHEN REQUIRED BY THE BUILDING DESIGN PROFESSIONAL ATTACH ADJACENT WOOD MEMBERS TO PANEL WITH 1/4" USP-WS SCREWS (OR EQUAL) THROUGH THE PANEL EDGE INTO THE WOOD MEMBER.

BALLOON WALL INSTALLATION

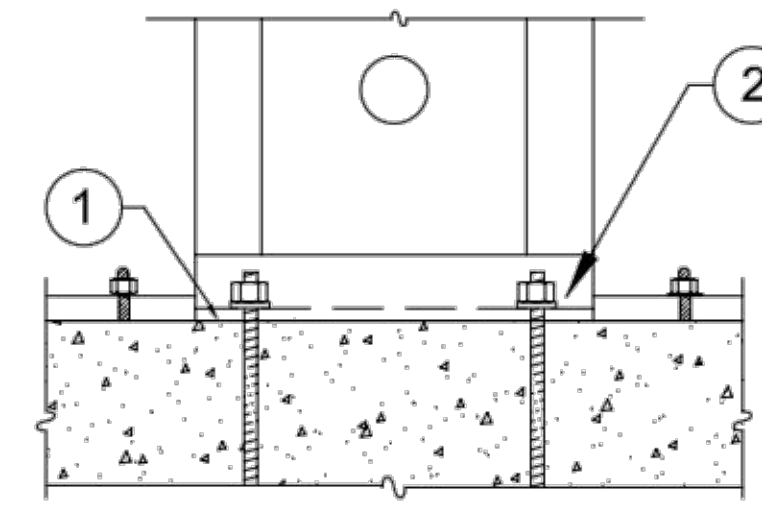
7



- 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
- 1/4" x 4-1/2" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
- 2x WOOD FILLER.

TOP PLATE CONNECTIONS

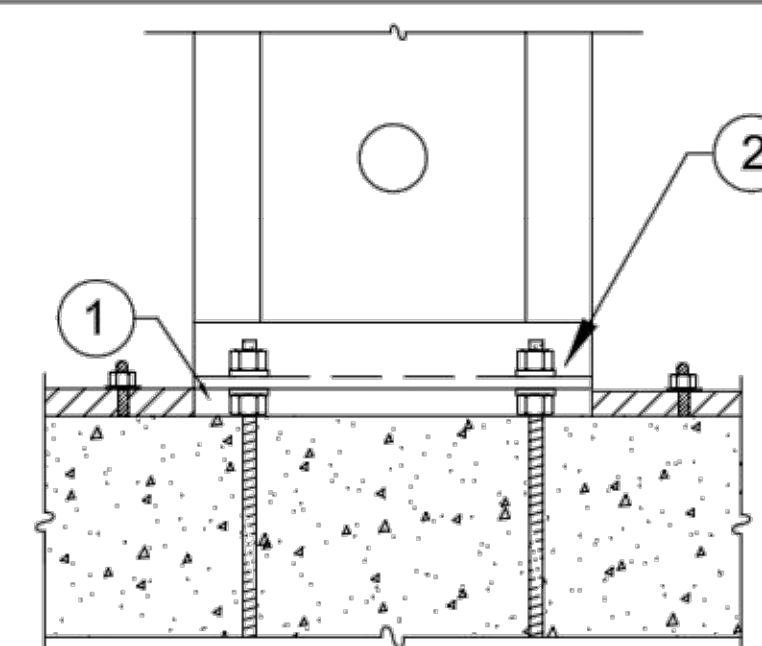
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- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON FOUNDATION

5



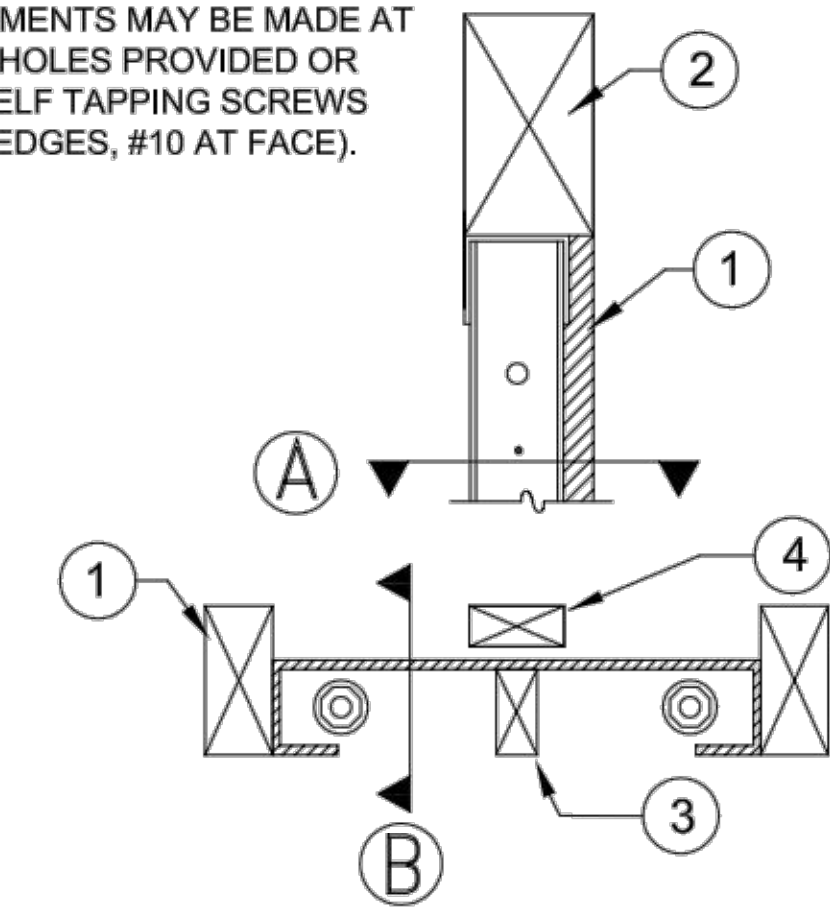
- PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH MIN 5,000 PSI STRENGTH NON-SHRINK GROUT.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

INSTALLATION ON NUTS&WASHERS

4

NOTES:

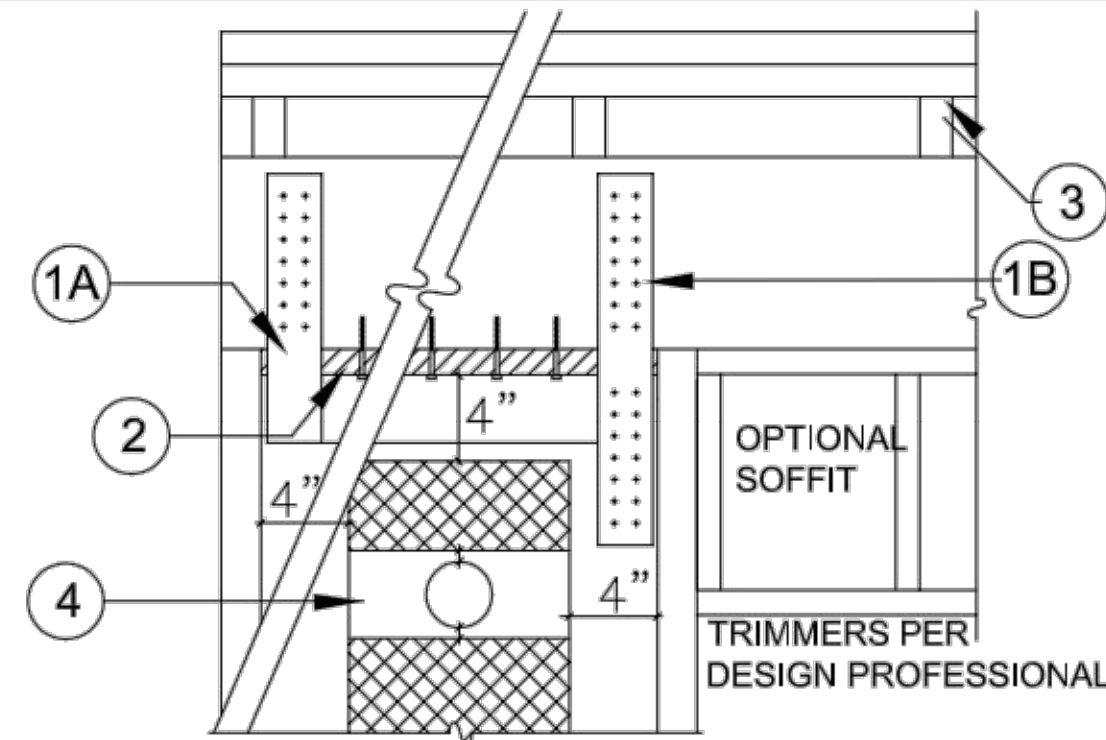
ATTACHMENTS MAY BE MADE AT SCREW HOLES PROVIDED OR WITH SELF TAPPING SCREWS (#12 AT EDGES, #10 AT FACE).



- TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY OTHERS.
- 6x HEADER.
- WOOD MEMBERS MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN CAVITY FOR BACKING AS NEEDED.

6x HEADER ABOVE-SECTION

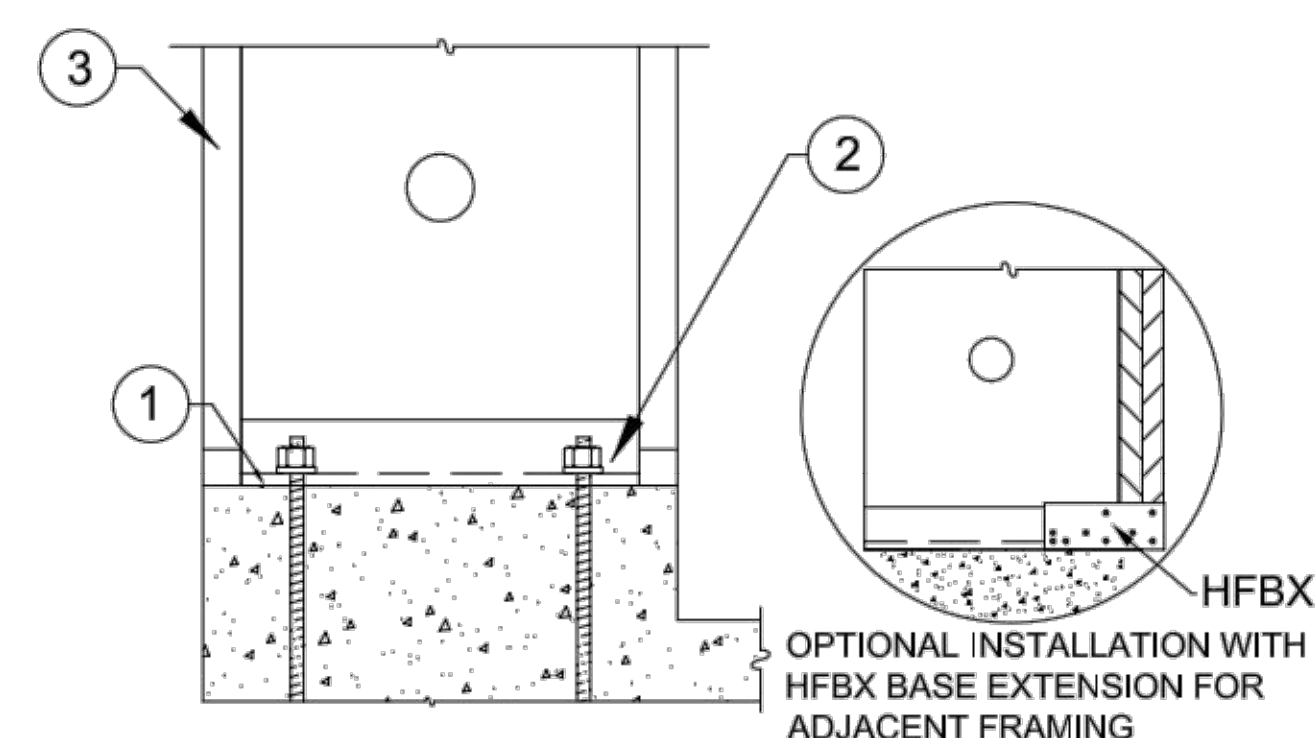
3



- WELDED STRAPS ARE AVAILABLE FROM MANUFACTURER WHEN REQUIRED BY THE DESIGN PROFESSIONAL.
- WHEN STRAPS ARE FIELD INSTALLED THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL. CONNECTION TO PANEL WITH SELF TAPPING SCREWS IS PERMITTED.
- A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) USP "WS" SERIES SCREWS OR EQUAL IS PERMITTED.
- WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE DESIGN PROFESSIONAL.
- THERE IS NO "INSIDE" OR "OUTSIDE" FACE OF PANEL. TO PREVENT THE NEED FOR ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.
- A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MIN. FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST ALSO BE 1" MINIMUM ABOVE AND BELOW THE 3" DIA. HOLE PROVIDED.
- FOR HOLES LARGER THAN 1" DIA. OR TO ADD MORE THAN ONE HOLE CONTACT HARDY FRAMES, INC.

TOP CONNECTION TO HEADER

2



- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
- ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

INSTALLATION ON CURB

1

HFX-SERIES 78 IN. THRU 13 FOOT

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter ¹ (in)	Top Screw Qty ² (ea)	Screw Qty Available at Edges (ea) ³
HFX-12,15,18,21 & 24x78	78	3-1/2	1-1/8	9" Width = 5	4
HFX-9x79.5	79-1/2			12" Width = 6	
HFX-12,15,18,21 & 24x8	92-1/4			15" Width = 8	
HFX-9x8	93-3/4			18" Width = 10	
HFX-12,15,18,21 & 24x9	104-1/4			21" Width = 12	
HFX-12,15,18,21 & 24x10	116-1/4			24" Width = 14	
HFX-15,18,21 & 24x11	128-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x12	140-1/4			18" Width = 10	
HFX-15,18,21 & 24x13	152-1/4			21" Width = 12	
				24" Width = 14	8

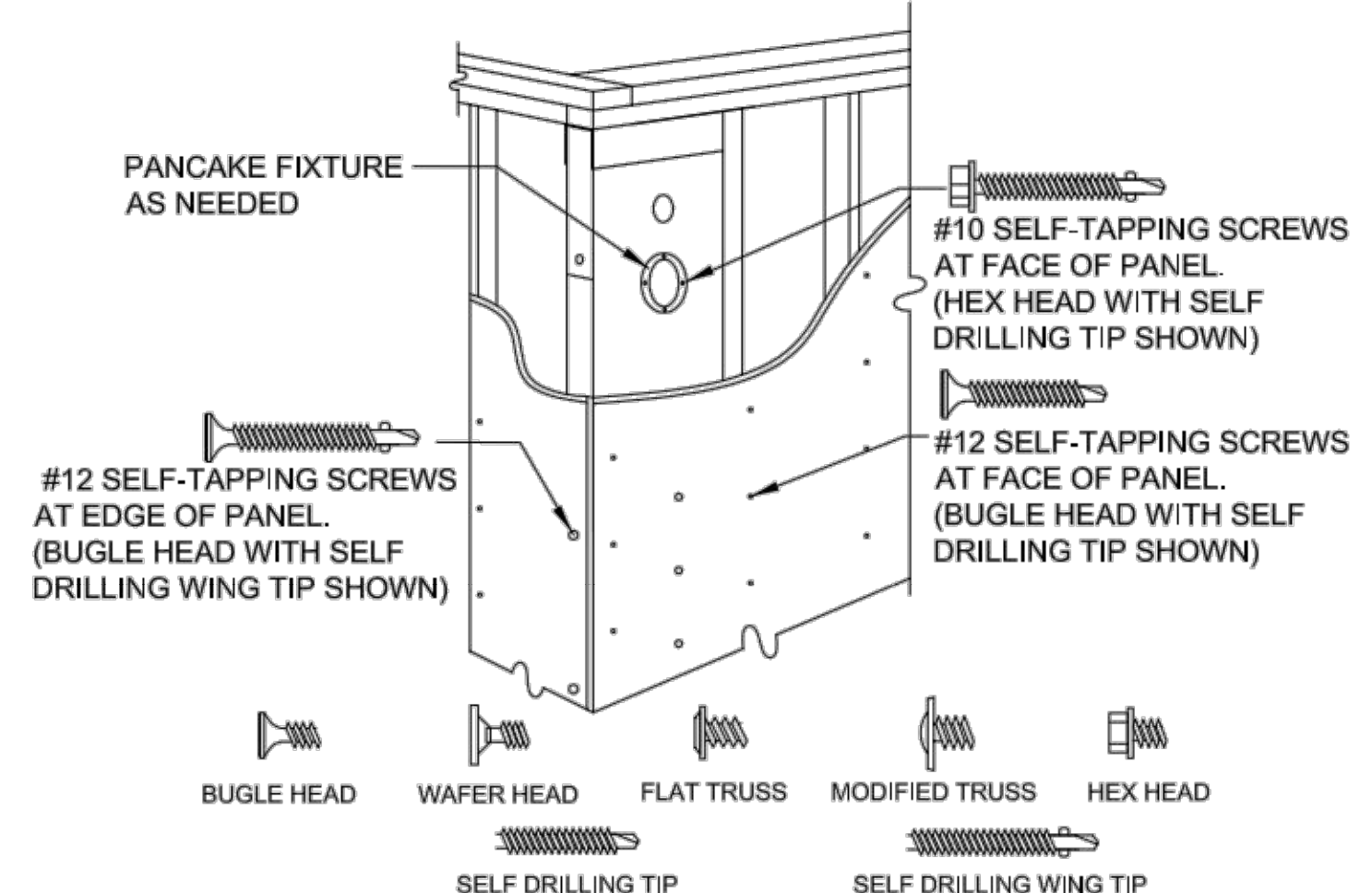
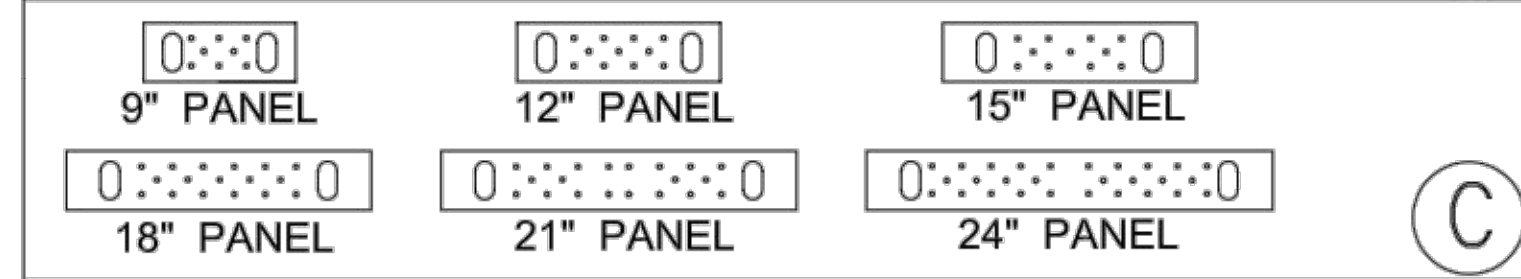
BALLOON PANELS 14 FEET THRU 20 FEET

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter ¹ (in)	Top Screw Qty ² (ea)	Screw Qty Available at Edges (ea) ³
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	
HFX-15,18,21 & 24x16	188-1/4			21" Width = 12	
HFX-15,18,21 & 24x17	200-1/4			24" Width = 14	
HFX-15,18,21 & 24x18	212-1/4				
HFX-15,18,21 & 24x19	224-1/4				
HFX-15,18,21 & 24x20	236-1/4				

- Hold down bolts connect to the Panel base with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 Hex Nut on each rod or as specified by the Building Design Professional.
- 1/4" diameter USP-WS Series screws (or equal). Length is 3" (minimum) when attached directly to the collector and 4-1/2" (minimum) when installing a 2x filler above the Panel.
- Adjacent framing with 1/4" diameter screws is required at the edges when installing a 4X filler above or when specified by the Design Professional.

INSTALLATION INSTRUCTIONS

- When installing directly on concrete, place Panel over bolts and connect with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 or 2H Heavy Hex Nut. Secure with a deep socket (recommended) until "Snug Tight".
- If bottom connection is not detailed on plans, confirm with Design Professional before installing on Nuts & Washers or on a Mudsill.
- Use 1/4"x4-1/2" USP-WS Series screws (or equal) at top connections with a 2x filler. If the top of Panel is in direct contact with the collector above (top plates, header, beam, etc.) use 1/4" x 3" (minimum)
- For installations with a 4x filler above 1/4" diameter screws are required at the Panel edges to brace for the out-of-plane hinge or when they are specified by the Design Professional.



- NOTES:**
- SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH #10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.
 - ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH #12 SELF-TAPPING SCREWS.
 - STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.
 - STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAGE.

REVISIONS DATE

FRAMING DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

HARDY FRAME
SHEAR WALL SYSTEM
1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003
TELEPHONE: 800 754-3030 / www.hardyframe.com



DATE:
1-1-2016

HFX2

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